Nursing Assistant

Nursing Assistant

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Foundational Concepts

Nursing assistants (NAs), also called nursing aides, are important members of the health care team. NAs work under the supervision of licensed practical/vocational nurses (LPNs/VNs) and registered nurses (RNs).

NAs provide basic care and help patients* with activities of daily living. They typically perform the following tasks[1]:

- Clean and bathe patients
- Help patients use the toilet and dress
- Turn, reposition, and transfer patients between beds and wheelchairs
- Listen to and record patients' health concerns and report that information to nurses
- Measure patients' vital signs, such as temperature
- Serve meals and help patients eat

* Note: The terms *patient*, *client*, and *resident* are used interchangeably throughout this book to represent the people cared for by nursing assistants. Definitions of these terms are discussed in Chapter 2.6, "Health Care Settings."

Each state defines the actions and skills that nursing assistants can perform in health care facilities, also referred to as their scope of practice. Job descriptions in health care agencies also list specific expectations and duties for NAs within that facility. Depending on the NA's level of training, the facility, and the state law in which they work, nursing assistants may also dispense medication. These actions and associated skills checkoffs will be discussed throughout this book.

1. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm

View the following YouTube video about Nursing Assistants[2]: Certified Nursing Assistant Career.

In 2020, nursing assistants were employed in 1.4 million jobs in many types of health care facilities. The largest employers of nursing assistants were as follows[3]:

- Skilled nursing facilities: 37%
- Hospitals: 30%
- Assisted-living facilities: 11%
- Home health care agencies: 6%
- Government agencies: 4%

Skilled nursing facilities (commonly referred to as "nursing homes") provide inpatient services to patients who require medical, nursing, or rehabilitative services but do not provide the level of care or treatment available in a hospital. **Assisted-living facilities** are living arrangements where people live on their own in a residential facility but additional personal care services such as meals, housekeeping, transportation, and assistance with activities of daily living are available. Residents in assisted living facilities typically pay monthly rent with additional fees for requested services. **Home health care agencies** provide skilled nursing care, physical therapy, occupational therapy, speech therapy, and personal care in an individual's home.[4] "Health care settings" are further discussed in Chapter 2.

Overall employment of nursing assistants is projected to grow eight percent from 2020 to 2030. As the baby-boom population ages, nursing assistants will

2. WVHCA. (2012, July 27). *Certified nursing assistant career* [Video]. YouTube. All rights reserved. https://youtu.be/fRjNpjxnjYo
3. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies*. https://www.bls.gov/ooh/healthcare/nursing-assistants.htm
4. Centers for Medicare & Medicaid Services. https://www.cms.gov

help care for an increasing number of older adults who have chronic or progressive diseases, such as heart disease and diabetes.

Client preferences and shifts in federal and state funding are also increasing the demand for home and community-based long-term care, which should lead to increased opportunities for nursing assistants in home health and community rehabilitation services.[5].

Nursing assistants may work full time or part time. Because health care facilities provide patient care at all hours, nursing assistants often work nights, weekends, and holidays.[6]

Becoming a Nursing Assistant

To become a nursing assistant, an individual must complete a state-approved education program and pass their state's competency exam. A state-approved education program includes classroom instruction on nursing assistant principles, as well as supervised clinical work. These educational programs are available in high schools, community colleges, vocational and technical schools, hospitals, and nursing homes. Nursing assistants who pass their state's competency exam are placed on a state registry. They must be on this state registry to work in a skilled nursing facility.[7]

Professional Qualities of a Nursing Assistant

As personal caregivers, nursing assistants must demonstrate professional qualities, including communication skills, compassion, patience, and physical stamina[8]:

5. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm
6. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm
7. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm
8. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm

- **Communication skills.** Nursing assistants must listen and respond to patients' concerns. They must appropriately share observed patient information with nurses and other health care workers caring for that patient. Communicating professionally in a health care setting is discussed in Chapter 1.
- **Empathy.** Nursing assistants care for people who are sick, injured, debilitated, cognitively impaired, or need assistance for other reasons. A compassionate attitude is required to do this type of work.
- **Physical stamina.** Nursing assistants spend much of their time on their feet performing tasks such as lifting or moving patients. It is important to be in good physical condition to safely perform these tasks and avoid injury to oneself or others. "Body mechanics and safe equipment use" are discussed in Chapter 3.
- **Professionalism.** Repetitive tasks of cleaning, feeding, and bathing patients can be stressful. Nursing assistants must complete these tasks with professionalism.

Nursing assistants have one of the highest rates of injuries and illnesses of all occupations from lifting and moving patients and other physically demanding tasks. Nursing assistants typically complete a brief period of on-the-job training to learn about their specific employer's equipment, policies, and procedures, as well as training in how to properly lift people to reduce the risk of injuries.[9]

Professionalism

What does professionalism mean? Being professional means delivering patient care in a manner that is ethical, respectful, competent, knowledgeable, and caring. Professional nursing assistants are committed to promoting clients' dignity and well-being, as well as displaying high

9. Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, Nursing Assistants and Orderlies.* https://www.bls.gov/ooh/healthcare/nursing-assistants.htm

standards of professional behavior.[10] Good hygiene principles as a health care professional include the following:

- Wear clean scrubs every shift. Scrubs should be wrinkle-free and the correct size for a professional appearance.
- Keep your hair clean and neatly combed. Long hair should be pulled back for safety and infection control purposes.
- Keep nails clean and trimmed short. Most agencies do not permit nail polish or artificial nails. Long nails and nail polish harbor microorganisms that can spread infection.
- Get plenty of sleep before coming to work so you are alert at work.
- Wear comfortable, closed-toe shoes with nonskid soles.
- Do not wear jewelry for safety and infection control purposes. Some

10. Miller-Hoover, S. (2018). *I said what? Professionalism for the CNA.* RN.com.https://www.rn.com/featured-stories/professionalism-cna/#:~:text=Professional%20CNAs%20are%20resp[/footnote] Professional behavior includes communicating respectfully with clients, their family members, and other health care team members and introducing oneself before beginning care. It also includes being a professional employee, such as performing hand hygiene, exhibiting good personal hygiene and appearance, being dependable and on time for work, and completing one's assigned tasks in an accurate and timely manner. Professionalism includes understanding and working within one's scope of practice and being a lifelong learner to continue to provide excellent care as the health care environment changes. "Demonstrating professionalism in the workplace" is further discussed in Chapter 2.

Initiating and Concluding Personal Cares

When initiating care with a client, it is important to begin by introducing oneself. When initiating care with patients, it is essential to first provide privacy and then introduce yourself and explain what will be occurring. Providing privacy means taking actions such as talking with the patient privately in a room with the door shut. When concluding care, it is also important to ask if the resident needs anything else, as well as ensuring safety measures are in place. These routine actions are further discussed in "Pre- and Post-Procedural Steps" in Chapter 5. Before initiating care and after performing care, it is vital to perform good hand hygiene. Using hand hygiene is a simple but effective way to prevent the spread of infection when performed correctly and at the appropriate times. More details about using effective hand hygiene and preventing the spread of infection are discussed in the "Precautions Used to Prevent the Spread of Infection" in Chapter 4.

Maintaining Good Hygiene and Personal Appearance

Managing your personal hygiene with good grooming habits is a component of professionalism that contributes to patient satisfaction and prevents the spread of infection.[footnote]Miller-Hoover, S. (2018). *I said what? Professionalism for the CNA.* RN.com. https://www.rn.com/featured-stories/professionalism-cna/#:~:text=Professional%20CNAs%20are%20resp

agencies permit wedding rings.

- Do not wear perfume or strong-smelling deodorants or powders. Strong odors can cause nausea, headaches, or allergic reactions in some patients, especially if they are not feeling well.
- Follow agency policies regarding tattoos and piercings.
- Always wear your name badge while at work.
- Wear a watch with a second hand that is easily cleaned.
- Carry a pen and paper in your pocket for taking client care notes to report or document.
- Use effective coping skills to deal with stress at work, home, and school.
- Notify your supervisor if you are not feeling well.

Overview of This Book

The chapters in this book discuss the following competencies that a student must demonstrate to successfully become a certified nursing assistant:

- Chapter 1: Communicate Professionally Within a Health Care Setting
- Chapter 2: Demonstrate Professionalism in the Workplace
- Chapter 3: Maintain a Safe Health Care Environment
- Chapter 4: Adhere to Principles of Infection Control
- Chapter 5: Provide for Personal Care Needs of Clients
- Chapter 6: Provide for Basic Nursing Care Needs
- Chapter 7: Demonstrate Reporting and Documentation of Client Data
- Chapter 8: Utilize Principles of Mobility to Assist Clients
- Chapter 9: Promote Independence Through Rehabilitation/Restorative Care
- Chapter 10: Provide Care for Clients Experiencing Acute and Chronic Health Conditions
- Chapter 11: Apply Knowledge of Body Systems to Client Care

PART I

CHAPTER 1: COMMUNICATE PROFESSIONALLY WITHIN A HEALTH CARE SETTING

1.1 Introduction to Communicate Professionally Within A Health Care Setting

Learning Objectives

- Interact professionally with clients, families, and coworkers
- Display appropriate verbal and nonverbal communication skills in the health care setting
- Establish therapeutic relationships with clients and their family members
- Respond to clients exhibiting disruptive behaviors
- Respond to aggressive behavior
- Establish effective working relationships with supervisors and peers
- Demonstrate effective reporting and documentation
- Assist clients to meet spiritual needs
- Adapt care and communication to meet the psychological needs of the aging client
- Demonstrate empathy for the emotional needs and mental health of diverse clients
- Apply effective coping strategies

Effective communication is a vital skill for nursing assistants. Nursing assistants communicate professionally with patients and other health care team members throughout every shift. This chapter will review the communication process, discuss strategies for adapting communication based on the needs of the client and health care team, and introduce guidelines for documentation and reporting.

1.2 The Communication Process

Communication is a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior.[1] In the health care setting, good communication is the foundation to trusting relationships that improve client outcomes. It is the gateway to providing holistic care. **Holistic care** addresses a client's physical, emotional, social, and spiritual needs.[2] The communication process involves a sender, the message, and a receiver. See Figure 1.1[3] for an illustration of the communication process.

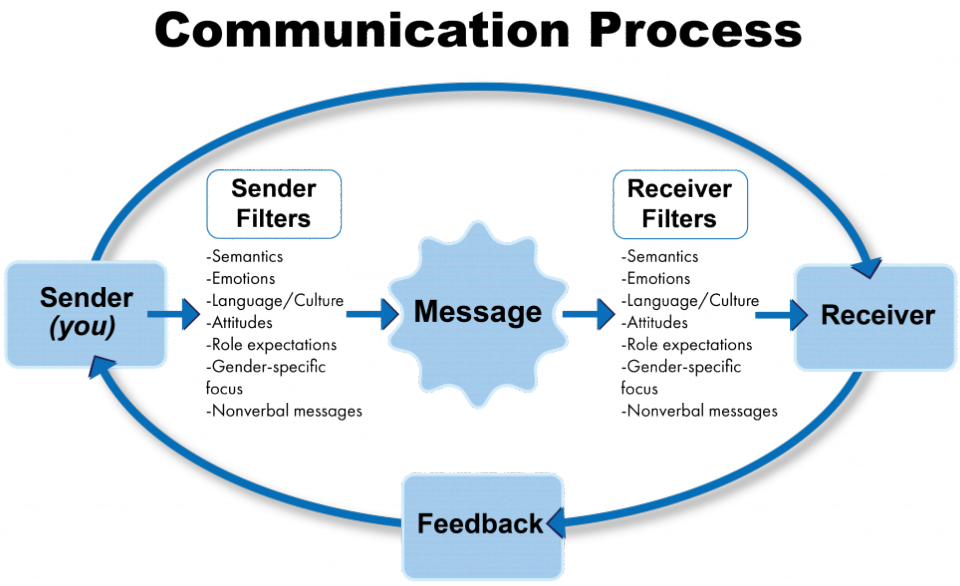

Figure 1.1 The Communication Process

Verbal Messages

There are many aspects of the communication process that can alter the delivery and interpretation of the message. These aspects relate to the language and experience of both the sender and receiver, referred to as semantics. People typically make reference to things they are familiar with, including landmarks, popular culture, and slang. Barriers can occur even

1. Merriam-Webster. *Communication*. https://www.merriam-webster.com/dictionary/communication
2. Jasemi, M., Valizadeh, L., Zamanzadeh, V., & Keogh, B. (2017). A concept analysis of holistic care by hybrid model. *Indian Journal of Palliative Care, 23*(1), 71–80. https://doi.org/10.4103/0973-1075.197960
3. "Communication Process" by Meredith Pomietlo for Chippewa Valley Technical College is licensed under CC BY 4.0

when both parties in the conversation speak the same language. For example, if you asked a person who has never used the Internet to "Google it," they would have no idea what that means.

Nonverbal Messages

Nonverbal messages, also referred to as body language, greatly impact the conversational process. **Nonverbal communication** includes body language and facial expressions, tone of voice, and pace of the conversation. See Figure 1.2[4] for an illustration of body language communicating a message. Nonverbal communication can have a tremendous impact on the communication experience and may be much more powerful than the verbal message itself. You may have previously learned that 80% of communication is nonverbal communication. The importance of nonverbal communication during conversation has been broken down further, estimating that 55% of communication is body language, 38% is tone of voice, and 7% is the actual words spoken.[5] If the sender or receiver appears disinterested or distracted, the message or interpretation may become distorted or missed.

4. "Boulder_Worldcup_Vienna_29-05-2010a_semifinals090_Akiyo_Noguchi,_Anna_Stöhr.jpg" by Manfred Werner - Tsui is licensed under CC BY-SA 3.0
5. Thompson, J. (2011). Is nonverbal communication a numbers game? *Psychology Today*. https://www.psychologytoday.com/us/blog/beyond-words/201109/is-nonverbal-communication-numbers-game

Figure 1.2 Body Language

Health care professionals assess receivers' preferred methods of communication and individual characteristics that might influence communication and then adapt communication to meet the receivers' needs. For example, nursing assistants adapt verbal instructions for adult patients with cognitive disabilities. Although the information provided might be similar to that provided to a patient without disabilities, the way the information is provided is adapted based on the patient's developmental level. A nursing assistant may ask a cognitively intact person, "What do you want for lunch?" but adapt this information for someone with impaired cognitive function by offering a choice, such as "Do you want a sandwich or soup for lunch?" This adaptation allows the cognitively impaired patient to make a choice without being confused or overwhelmed by too many options.[6] Read more about developmental levels in the "Human Needs and Developmental Stages" section of this chapter.

Communication Styles

In addition to using verbal and nonverbal communication, people

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communicate with others using one of three styles. A **passive communicator** puts the rights of others before their own. Passive communicators tend to be apologetic or sound tentative when they speak and often do not speak up if they feel as if they are being wronged. **Aggressive communicators**, on the other hand, come across as advocating for their own rights despite possibly violating the rights of others when communicating. They tend to communicate in a way that tells others their feelings don't matter. **Assertive communicators** respect the rights of others while also standing up for their own ideas and rights when communicating. An assertive person is direct, but not insulting or offensive.[7]

Assertive communication refers to a way of conveying information that describes the facts and the sender's feelings without disrespecting the receiver's feelings. Assertive communication is different from aggressive communication because it uses "I" messages, such as "I feel...," "I understand...," or "Help me to understand...," to address issues instead of using "you" messages that can cause the receiver to feel as though they are being verbally attacked. Using assertive communication is an effective way to solve problems with patients, coworkers, and health care team members. For example, instead of using aggressive communication to say to a coworker, "You always leave your patients' rooms a mess! I dread following you on the next shift," an assertive communicator would use "I" messages. The assertive communicator might say, "I feel frustrated spending the first part of my shift decluttering patients' rooms. Help me understand the reasons why you don't empty the wastebaskets and clean up the rooms by the end of your shift."[8]

Overcoming Communication Barriers

It is important to reflect on personal factors that influence your ability to communicate with others effectively. There are many factors that can distort the message you are trying to communicate, resulting in your message not being perceived by the receiver in the way you intended. When

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communicating, it is important to seek feedback that your message is clearly understood.[9] Nursing assistants must be aware of these potential barriers and try to reduce their impact by continually seeking feedback and checking understanding. Review common communication barriers in the following box.

Common Barriers to Communication in Health Care[10]

- **Jargon:** Avoid using medical terminology, complicated wording, or unfamiliar words. When communicating with patients, explain information in common language that is easy to understand. Consider any generational, geographical, or background information that may change the perception or understanding of your message.
- **Lack of attention:** It is easy to become task-centered rather than person-centered when caring for multiple residents. When entering a patient's room, remember to use preprocedural steps and mindfully focus on the person in front of you to give them your full attention. Patients should feel as if they are the center of your attention when you are with them, no matter how many other things you have going on.
- **Noise and other distractions:** Health care environments can be very noisy with people talking in the room or hallway, the TV blaring, alarms beeping, and pages occurring overhead. Create a calm, quiet environment when communicating with patients by closing doors to the hallway, reducing the volume of the TV, or moving to a

9. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
10. SkillsYouNeed. (n.d.). *Barriers to effective communication*. https://www.skillsyouneed.com/ips/barriers-communication.html

quieter area, if possible.

- **Light:** A room that is too dark or too light can create communication barriers. Ensure the lighting is appropriate according to the patient's preference.
- **Hearing and speech problems:** If your patient has hearing or speech problems, implement strategies to enhance communication, including assistive devices such as eyeglasses, hearing aids, and any communication aids such as whiteboards, photobooks, or microphones.
- **Language differences:** If English is not your patient's primary language, it is important to seek a medical interpreter and provide written handouts in the patient's preferred language when possible. Most agencies have access to an interpreter service available by phone if they are not available on-site.
- **Differences in cultural beliefs:** The norms of social interaction vary greatly in different cultures, as well as the ways that emotions are expressed. For example, the concept of personal space varies among people from different cultural backgrounds. Some people prefer to stand very close to one another when speaking whereas others prefer a distance of a few feet. Additionally, some patients are stoic about pain whereas others are more verbally expressive when in pain.
- **Psychological barriers:** Psychological states of the sender and the receiver affect how the message is sent, received, and perceived. Consider what the receiver may be experiencing in the health care setting and what may change your delivery of your message. Being rushed, distracted, and overwhelmed are just a few things that can affect your message and its understanding.

- **Physiological barriers:** It is important to be aware of patients' potential physiological barriers when communicating. For example, if a patient is in pain, they are less likely to hear and remember what was said. If the patient is receiving pain medication, be aware these medications may alter their comprehension and response.
- **Physical barriers for nonverbal communication:** Providing information via email or text is often less effective than face-to-face communication. The inability to view the nonverbal communication associated with a message, such as tone of voice, facial expressions, and general body language, often causes misinterpretation of the message by the receiver. When possible, it is best to deliver important information to others using face-to-face communication so that nonverbal communication is included with the message.
- **Differences in perceptions and viewpoints:** Everyone has their own beliefs and perspectives and wants to feel "heard." When patients feel their beliefs or perspectives are not valued, they often become disengaged from the conversation or their plan of care. Information should be provided in a nonjudgmental manner, even if the patient's perspectives, viewpoints, and beliefs are different from your own.

Communicating With Staff

The resident is at the center of the health care team. As a nursing assistant, most of your duties will involve interaction regarding nursing services among other CNAs, LPNs, and RNs. It is important to establish a good relationship with coworkers to ensure quality resident care. Improper communication can affect the team's ability to provide holistic care. The health care team will be discussed further in Chapter 2.

Good communication starts by respecting those you work with and using the communication skills previously discussed to grow a trusting relationship. Knowing and fulfilling your duties, documenting and reporting the completion of these duties, and functioning in a consistent and dependable manner are keys to creating strong, professional relationships within your team.

These expectations for good communication may seem challenging as an inexperienced nursing assistant, but they can be achieved by organizing your responsibilities and managing your time. This begins by arriving on time for your shift, being dressed appropriately, being prepared to start working when your shift starts, and reviewing your assigned residents' plans of care at the beginning of the shift. Items to review in the plan of care include the following:

- Resident's name and location
- Activity level and transfer status
- Assistance required for activities of daily living (ADLs)
- Diet and fluid orders (see Chapter 6 for more information)
- Elimination needs

Transfer status refers to the assistance the patient requires to be moved from one location to another, such as from the bed to a chair. **Activities of daily living (ADLs)** are daily basic tasks that are fundamental to everyday functioning (e.g., hygiene, elimination, dressing, eating, ambulating/moving).

Diet and fluid orders refer to what the resident is permitted to eat and drink. **Elimination needs** refer to assistance the resident requires for urinating and passing stool. For example, a resident requires assistance to the toilet and uses incontinence pads.

After reviewing the cares you will be providing to your assigned patients during your shift, discuss a timeline with your coworkers that meets residents' schedules and allows for the coordination of cares that require more than one caregiver. For example, one resident may require a two-person assist when transferring from the bed to the chair. Schedules for activities, treatments, labs, appointments, or other services should also be reviewed so that cares can be organized around these schedules.

As resident cares are completed, they must be documented in a timely manner and reported to nursing staff. Prepare a concise report to share with the nurse for each of your assigned clients. The report should include the time cares were provided and any observations or changes noted in the resident. Read more about documentation and reporting in the "Documenting and Reporting" section at the end of this chapter.

Communicating With the Client, Families, and Loved Ones

Therapeutic communication is a type of professional communication used with patients. It is defined as the purposeful, interpersonal, information-transmitting process through words and behaviors based on both parties' knowledge, attitudes, and skills that leads to patient understanding and participation.[1] Therapeutic communication techniques have been used by nurses since Florence Nightingale, who insisted on the importance of building trusting relationships with patients. She believed in the therapeutic healing that results from nurses' presence with patients.[2] Since then, several

1. Abdolrahimi, M., Ghiyasvandian, S., Zakerimoghadam, M., & Ebadi, A. (2017). Therapeutic communication in nursing students: A Walker & Avant concept analysis. *Electronic Physician, 9*(8), 4968–4977. https://doi.org/10.19082/4968
2. Karimi, H., & Masoudi Alavi, N. (2015). Florence Nightingale: The mother of nursing. *Nursing and Midwifery Studies, 4*(2), e29475. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4557413/

professional nursing associations have highlighted therapeutic communication as one of the most vital elements in nursing.[3] Nursing assistants also implement therapeutic communication with patients. Read an example of a nursing student effectively using therapeutic communication with patients in the following box.

An Example of Nursing Student Using Therapeutic Communication[4,5]

Figure 1.3 Attending Behaviors

Ms. Z. is a nursing student who enjoys interacting with patients. When she goes to patients' rooms, she greets them and

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4. Abdolrahimi, M., Ghiyasvandian, S., Zakerimoghadam, M., & Ebadi, A. (2017). Therapeutic communication in nursing students: A Walker & Avant concept analysis. *Electronic Physician, 9*(8), 4968–4977. https://doi.org/10.19082/4968
5. "beautiful african nurse taking care of senior patient in wheelchair" by agilemktg1 is in the Public Domain

introduces herself and her role in a calm tone. She kindly asks patients about their problems and notices their reactions. She does her best to solve their problems and answer their questions. Patients perceive that she wants to help them. She treats patients professionally by respecting boundaries and listening to them in a nonjudgmental manner. She addresses communication barriers and respects patients' cultural beliefs. She notices patients' health literacy and ensures they understand her messages and patient education. As a result, patients trust her and feel as if she cares about them, so they feel comfortable sharing their health care needs with her.

There are several components included in therapeutic communication. The health care professional uses active listening and attending behaviors to demonstrate they are interested in understanding what the patient is saying. Touch is used to professionally communicate caring, and specific therapeutic techniques are used to encourage the patient to share their thoughts, concerns, and feelings.

Active Listening and Attending Behaviors

Listening is obviously an important part of communication. A well-known phrase from a Greek philosopher named Epictetus is, "We have two ears and one mouth so we can listen twice as much as we speak." It is important to actively listen to patients and not use competitive or passive listening. **Competitive listening** occurs when we are primarily focused on sharing our own point of view instead of listening to someone else. **Passive listening** occurs when we are not interested in listening to the other person or we assume we correctly understand what the person is communicating without verifying their message. During **active listening**, we communicate verbally and nonverbally that we are interested in what the other person is saying and also verify our understanding with the speaker. For example, an active

listening technique is to restate what the person said and verify our understanding is correct, such as, “I hear you saying you are hesitant to go to physical therapy because you are afraid of falling. Is that correct?” This feedback process is the main difference between passive listening and active listening.[6]

Touch

Touch is a powerful way to professionally communicate caring and compassion if done respectfully while being aware of the patient’s cultural beliefs. NAs commonly use professional touch when assessing, expressing concern, or comforting patients. For example, simply holding a patient’s hand during a painful procedure can be very effective in providing comfort. See Figure 1.4[7] for an image of a nurse using touch as a therapeutic technique when caring for a patient.

6. This work is a derivative of Human Relations by LibreTexts and is licensed under CC BY-NC-SA 4.0
7. “Flickr_-_Official_U.S._Navy_Imagery_-_A_nurse_examines_a_newborn_baby..jpg” by Official Navy Page from United States of America MC2 John O'Neill Herrera/U.S. Navy is licensed in the Public Domain

Figure 1.4 Using Touch as a Therapeutic Technique

Therapeutic Communication Techniques

Therapeutic communication techniques are specific methods used to provide patients with support and information while focusing on their concerns. Nursing assistants help patients complete activities of daily living and meet goals in their plan of care based on their needs, values, skills, and abilities. It is important to recognize the autonomy of the patient to make their own decisions, maintain a nonjudgmental attitude, and avoid interrupting. Depending on the developmental stage and educational needs of the patient, appropriate terminology should be used to promote patient understanding and rapport. When using therapeutic communication, health care professionals often ask open-ended questions, repeat information, or use silence to prompt patients to process their concerns. Table 1.3a describes a variety of therapeutic communication techniques.

Table 1.3a Therapeutic Communication Techniques[8]

8. American Nurse. (n.d.). *17 therapeutic communication techniques*. https://www.myamericannurse.com/therapeutic-communication-techniques/

Therapeutic Technique	Description
Active Listening	By using nonverbal and verbal cues such as nodding and saying, "I see," health care professionals can encourage patients to continue talking. Active listening involves showing interest in what patients have to say, acknowledging that you're listening and understanding, and engaging with them throughout the conversation. General leads such as "What happened next?" can be used to guide the conversation or propel it forward.
Using Silence	At times, it's useful to not speak at all. Deliberate silence can give patients an opportunity to think through and process what comes next in the conversation. It may also give them the time and space they need to broach a new topic.
Providing Acceptance	Sometimes it is important to acknowledge a patient's message and affirm they've been heard. Acceptance isn't necessarily the same thing as agreement; it can be enough to simply make eye contact and say, "I hear what you are saying." Patients who feel their health care professionals are listening to them and taking them seriously are more likely to be receptive to care.
Giving Recognition	Recognition acknowledges a patient's behavior and highlights it. For example, saying something such as "I noticed you ate all of your breakfast today" draws attention to the action and encourages it.
Offering Self	Hospital stays can be lonely and stressful at times. When health care professionals make time to be present with their patients, it communicates they value them and are willing to give them time and attention. Offering to simply sit with patients for a few minutes is a powerful way to create a caring connection.
Giving Broad Openings/ Open-Ended Questions	Therapeutic communication is often most effective when patients direct the flow of conversation and decide what to talk about. For example, giving patients a broad opening such as "What's on your mind today?" or "What would you like to talk about?" is a good way to allow patients an opportunity to discuss what's on their mind.
Seeking Clarification	Similar to active listening, asking patients for clarification when they say something confusing or ambiguous is important. Saying something such as "I'm not sure I understand. Can you explain more to me?" helps health care professionals ensure they understand what's actually being said and can help patients process their ideas more thoroughly.
Placing the Event in Time or Sequence	Asking questions about when certain events occurred in relation to other events can help patients (and health care professionals) get a clearer sense of the whole picture. It forces patients to think about the sequence of events and may prompt them to remember something they otherwise wouldn't.

Making Observations	Making observations about the appearance, demeanor, or behavior of patients can help draw attention to areas that may indicate a problem. For example, making an observation that they haven't been eating much may lead to the discovery of a new symptom.
Encouraging Descriptions of Perception	For patients experiencing sensory issues or hallucinations, it can be helpful to ask about these perceptions in an encouraging, nonjudgmental way. Phrases such as "What do you hear now?" or "What do you see?" give patients a prompt to explain what they're perceiving without casting their perceptions in a negative light.
Encouraging Comparisons	Patients often draw upon previous experiences to deal with current problems. By encouraging them to make comparisons to situations they have coped with before, health care professionals can help patients discover solutions to their problems.
Summarizing	It is often useful to summarize what patients have said. This demonstrates you are listening and allows you to verify information. Ending a summary with a phrase such as "Does that sound correct?" gives patients explicit permission to make corrections if they're necessary.
Reflecting	Patients often ask health care professionals for advice about what they should do about particular problems. Instead of offering advice, health care professionals can ask patients to reflect on what they think they should do, which encourages them to be accountable for their own actions and helps them come up with solutions themselves.
Focusing	Sometimes during a conversation, patients mention something particularly important. When this happens, health care professionals can focus on this statement and prompt patients to discuss it further. Patients don't always have an objective perspective on what is relevant to their case, but as impartial observers, health care professionals may be able to pick out the topics on which to focus.
Confronting	Health care professionals should only use this technique after they have established trust and rapport with the client. In some situations, it can be vital to disagree with patients, present them with reality, or challenge their assumptions. Confrontation, when used correctly, can help patients break destructive routines or understand the state of their current situation.
Voicing Doubt	Voicing doubt can be a gentler way to call attention to incorrect or delusional ideas and perceptions of patients when appropriate. For example, when appropriate, a health care worker may say to a patient experiencing visual hallucinations, "I know you said you are seeing spiders on the walls, but I don't see any spiders."

Offering Hope and Humor	Because hospitals can be stressful places for patients, sharing hope that they can persevere through their current situation or lightening the mood with humor can quickly establish rapport. This technique can help move patients in a more positive state of mind. However, it is important to tailor humor to the patient's sense of humor.

In addition to the therapeutic techniques listed in Table 1.3a, health care professionals should genuinely communicate with patients with empathy. Communicating honestly, genuinely, and authentically is powerful. It opens the door to establishing true connections with others.[9] Communicating with empathy can be described as providing "unconditional positive regard." Research has demonstrated that when health care professionals communicate with empathy, there is improved patient healing, reduced symptoms of depression, and decreased medical errors.[10]

Nontherapeutic Responses

Health care professionals must be aware of potential barriers to communication. In addition to the common communication barriers discussed in the "Communication Styles" subsection of this chapter, there are several nontherapeutic responses to avoid. These nontherapeutic responses often block the patient's communication of their feelings or ideas. See Table 1.3b for a description of nontherapeutic responses.[11]

Table 1.3b Nontherapeutic Responses[12]

9. Balchan, M. (2016, February 16). *The magic of genuine communication.* http://michaelbalchan.com/communication/
10. Morrison, E. (2019). *Empathetic communication in healthcare.* EM Consulting. https://work.cibhs.org/sites/main/files/file-attachments/empathic_communication_in_healthcare_workbook.pdf?1594162691
11. Burke, A. *(2021). Therapeutic communication: NCLEX-RN.* RegisteredNursing.org. https://www.registerednursing.org/nclex/therapeutic-communication/
12. Burke, A. *(2021). Therapeutic communication: NCLEX-RN.* RegisteredNursing.org. https://www.registerednursing.org/nclex/therapeutic-communication/

Nontherapeutic Response	Description
Asking Personal Questions	Asking personal questions that are not relevant to the situation is not professional or appropriate. Don't ask questions just to satisfy your curiosity. For example, asking, "Why have you and Mary never married?" is not appropriate. A more therapeutic question would be, "How would you describe your relationship with Mary?"
Giving Personal Opinions	Giving personal opinions takes away the decision-making from the patient. Effective problem-solving must be accomplished by the patient and not the NA. For example, stating, "If I were you, I'd put your father in a nursing home" is not therapeutic. Instead, it is more therapeutic to say, "Let's talk about what options are available to your father."
Changing the Subject	Changing the subject when someone is trying to communicate with you demonstrates lack of empathy and blocks further communication. It seems to say that you don't care about what they are sharing. For example, stating, "Let's not talk about your insurance problems; it's time for your walk now" is not therapeutic. A more therapeutic response would be, "After your walk, let's talk more about your concerns about insurance so I can help find assistance for you."
Stating Generalizations and Stereotypes	Generalizations and stereotypes can threaten relationships with patients. For example, it is not therapeutic to state a stereotype like, "Older adults are always confused." It is better to focus on the patient's concern and ask, "Tell me more about your concerns about your wife's confusion."
Providing False Reassurances	When a patient is seriously ill or distressed, it is tempting to offer false hope with statements such as "You'll be fine," or "Don't worry; everything will be alright." These comments tend to discourage further expressions of feelings by the patient. A more therapeutic response would be, "It must be difficult not to know what the surgeon will find. What can I do to help?"
Showing Sympathy	Sympathy focuses on the health care professional's feelings rather than the patient. Saying "I'm so sorry about your amputation; I can't imagine losing a leg" shows pity rather than trying to help the patient cope with the situation. A more therapeutic response would be, "The loss of your leg is a major change; how do you think this will affect your life?"
Asking "Why" Questions	It can be tempting to ask a patient to explain "why" they believe, feel, or act in a certain way. However, patients and family members can interpret "why" questions as accusations and become defensive. It is best to phrase a question by avoiding the word "why." For example, instead of asking, "Why are you so upset?" it is better to rephrase the statement as, "You seem upset. What's on your mind?"

Approving or Disapproving	Health care professionals should not impose their own attitudes, values, beliefs, and moral standards on patients or family members. Judgmental messages contain terms such as “should,” “shouldn’t,” “ought to,” “good,” “bad,” “right,” or “wrong.” Agreeing or disagreeing sends the subtle message that health care professionals have the right to make value judgments about the patient’s decisions. Approving implies that the behavior being praised is the only acceptable one, and disapproving implies that the patient must meet the listener’s expectations or standards. Instead, health care professionals should help the patient explore their own beliefs and decisions. For example, it is nontherapeutic to state, “You shouldn’t schedule elective surgery; there are too many risks involved.” A more therapeutic response would be, “So you are considering elective surgery. Tell me more about it…” This response gives the patient a chance to express their ideas or feelings without fear of being judged.
Giving Defensive Responses	When patients or family members express criticism, health care professionals should actively listen. Listening does not imply agreement. To discover reasons for the patient’s anger or dissatisfaction, health care professionals should listen without criticism, avoid being defensive or accusatory, and attempt to defuse anger. For example, it is not therapeutic to state, “No one here would intentionally lie to you.” Instead, a more therapeutic response would be, “You believe people have been dishonest with you. Tell me more about what happened.” (After obtaining additional information, the health care worker may decide to follow the chain of command at the agency and report the patient’s concerns to the nurse supervisor for follow-up.)
Providing Passive or Aggressive Responses	Passive responses serve to avoid conflict or sidestep issues, whereas aggressive responses provoke confrontation. Health care workers should use assertive communication.
Arguing	Challenging or arguing against patient perceptions denies that they are real and valid to the other person. They imply that the other person is lying, misinformed, or uneducated. The skillful health care professional can provide alternative information or present reality in a way that avoids argument. For example, it is not therapeutic to state, “How can you say you didn’t sleep a wink when I heard you snoring all night long!” A more therapeutic response would be, “You don’t feel rested this morning? Let’s talk about ways to improve your sleep so you feel more rested.”

Strategies for Effective Communication

In addition to overcoming common communication barriers, using active listening and therapeutic communication techniques, and avoiding

nontherapeutic responses, there are additional strategies for promoting effective communication when providing patient-centered care. Specific questions to ask patients are as follows[13]:

- What concerns do you have about your plan of care?
- What questions do you have about your daily routine?
- Did I answer your question(s) clearly, or is there additional information you would like?

Listen closely for feedback from patients. Feedback provides an opportunity to improve patient understanding, improve the patient-care experience, and provide high-quality care. Other suggestions for effective communication with clients include the following:

- Read the care plan carefully and access any social history available. If family members or friends visit and it seems appropriate, talk with them about the client without intruding or taking up a lot of their time together. This information helps you build trust and care for the client based on their preferences and life history. For example, you might learn the resident lived on a farm most of their life and enjoyed taking care of their horses. Striking up conversations about horses is a way to build rapport with this client.
- Review any changes in routine or in the plan of care for assisting with ADLs with the client to improve understanding and participation.
- If there are questions you can't answer, be sure to report to the nurse so someone can follow up with the client. Check back with the client to ensure they have had their questions answered.
- Observe nonverbal communication from clients. Do they seem to interact during care, or is it something that they are merely tolerating and just trying to get through each day? Find an approach so they are comfortable with receiving care.

13. Smith, L. L. (2018, June 12). Strategies for effective patient communication. *American Nurse*. https://www.myamericannurse.com/strategies-for-effective-patient-communication/

Adapting Your Communication

When communicating with patients, their family members, and other caregivers, note your audience and adapt your message based on characteristics such as age, developmental level, cognitive abilities, and any communication disorders. For patients with language differences, it is vital to provide trained medical interpreters when important information is communicated.

Adapting communication according to an individual's age and developmental level includes the following strategies[14]:

- When communicating with children, speak calmly and gently. It is often helpful to demonstrate what will be done during a procedure on a doll or stuffed animal. To establish trust, try using play or drawing pictures.
- When communicating with adolescents, give freedom to make choices within established limits.
- When communicating with older adults, be aware of potential vision and hearing impairments that commonly occur and address these barriers accordingly. For example, if a patient has glasses and/or hearing aids, be sure these devices are in place before communicating.

Strategies for Communicating With Patients With Impaired Hearing, Vision, and Speech

In addition to adapting your communication to your audience, there are additional strategies to use with individuals who have impaired hearing, vision, or speech.

Impaired Hearing[15]

14. Butcher, H., Bulechek, G., Dochterman, J., & Wagner, C. (2018). *Nursing interventions classification (NIC)*. Elsevier, pp. 115-116.
15. Butcher, H., Bulechek, G., Dochterman, J., & Wagner, C. (2018). *Nursing interventions classification (NIC)*. Elsevier, pp. 115-116.

- Gain the person's attention before speaking (e.g., through touch)
- Minimize background noise
- Position yourself 2-3 feet away from the patient
- Facilitate lip-reading by facing the person directly in a well-lit environment
- Use gestures, when necessary
- Listen attentively, allowing the person adequate time to process communication and respond
- Refrain from shouting at the person
- Ask the person to suggest strategies for improved communication (e.g., speaking toward a better ear, moving to well-lit area, and speaking in a lower-pitched tone)
- Face the person directly, establish eye contact, and avoid turning away mid-sentence
- Simplify language (e.g., do not use slang but do use short, simple sentences), as appropriate
- Read the care plan for information on the preferred method of communicating (whiteboards, pictures, etc.)
- Assist the person using any devices such as hearing aids or voice amplifiers
- Report any changes to the nurse

Impaired Vision[16]

- Identify yourself when entering the person's space
- Ensure the patient's eyeglasses are cleaned and stored properly when not in use, and assist the patient in wearing them during waking hours
- Provide adequate room lighting
- Minimize glare (e.g., offer sunglasses, draw window covering, position with face away from window)
- Provide educational materials in large print as available
- Read pertinent information to the patient

16. Butcher, H., Bulechek, G., Dochterman, J., & Wagner, C. (2018). *Nursing interventions classification (NIC)*. Elsevier, pp. 115-116.

- Provide magnifying devices
- Report any changes to the nurse

Impaired Speech[17]

Some patients may have problems processing what they are hearing or in responding to questions due to dementia, brain injuries, or prior strokes. This difficulty is referred to as **aphasia**. There are different types of aphasia. People with expressive aphasia understand speech and know what they want to say, but frequently speak in short phrases that are produced with great effort. For example, they may intend to say, "I would like to go to the bathroom," but instead the words, "Bathroom, Go," are expressed. People with receptive aphasia often speak in long sentences, but what they say may not make sense. They are unable to understand both verbal and written language. Aphasia often causes the person to become frustrated when they cannot communicate their needs. Review the following evidence-based strategies to enhance communication with a person with impaired speech[18]:

- Modify the environment to minimize excess noise and decrease emotional distress
- Phrase questions so the patient can answer using a simple "Yes" or "No," being aware that patients with expressive aphasia may provide automatic responses that are incorrect
- Monitor the patient for frustration, anger, depression, or other responses to impaired speech capabilities
- Provide alternative methods of speech communication (e.g., writing tablet, flash cards, eye blinking, communication board with pictures and letters, hand signals or gestures, or computer)
- Adjust your communication style to meet the needs of the patient (e.g., stand in front of the patient while speaking, listen attentively, present one idea or thought at a time, speak slowly but avoid shouting, use written

17. Butcher, H., Bulechek, G., Dochterman, J., & Wagner, C. (2018). *Nursing interventions classification (NIC)*. Elsevier, pp. 115-116.
18. Butcher, H., Bulechek, G., Dochterman, J., & Wagner, C. (2018). *Nursing interventions classification (NIC)*. Elsevier, pp. 115-116.

communication, or solicit the family's assistance in understanding the patient's speech)
- Ensure the call light is within reach
- Repeat what the client said to ensure accuracy
- Instruct the client to speak slowly
- Read the care plan for instructions from the speech therapist
- Report any changes to the nurse

Responding to Challenging Situations

Being a care provider is a very rewarding career, but it also includes dealing with challenging situations. Using strong communication techniques can de-escalate situations and put patients, loved ones, and staff at ease. It is impossible to predict what behavior you may encounter as a health care worker, but having a solid basis of communication techniques can prepare you to better handle unique situations.

Memory Impairment and Behavioral Health Issues

As a nursing assistant, you will likely encounter older adults with varying degrees of memory impairment. **Older adults** are defined as adults aged 65 years old or older.[19] Residents with memory issues often become confused and can feel overwhelmed by everyday situations. For those with impaired cognitive functioning like dementia, it may not be possible to reorient them to the current time and place or to move them on from thoughts that are not based in the current situation. Aphasia and confusion can cause frustration that can result in agitation or aggression. **Agitation** refers to behaviors that fall along a continuum ranging from verbal threats and motor restlessness to harmful aggressive and destructive behaviors. Mild agitation includes symptoms such as irritability, oppositional behavior, inappropriate language, and pacing. Severely agitated patients are at immediate risk of harming themselves or others through assaultive or self-injurious behavior, and they

19. HealthyPeople.gov. (n.d.). *Older adults*. Office of Disease Prevention and Health Promotion. https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults

are capable of causing property damage.[20] **Aggression** is an act of attacking without provocation.[21] Agitation and aggression will be discussed in more detail in Chapter 10, but general guidelines to prevent aggression and agitation include the following:

- Keep the environment calm and as quiet as possible.
- Build trusting relationships by learning resident preferences and routines.
- Gather information from family members and loved ones about the patient's background and beliefs.
- Offer choices to allow the patient to communicate preferences, but do not cause them to be overwhelmed with too many decisions.
- Stick to a daily routine for ADLs, meals, and activities.
- Empathize with the resident and understand that challenging behavior is often communication of emotion due to cognitive impairment and not a choice.
- Practice validation therapy. **Validation therapy** is a method of therapeutic communication used to connect with someone who has moderate- to late-stage dementia and avoid agitation. It places more emphasis on the emotional aspect of a conversation and less on the factual content, thereby imparting respect to the person, their feelings, and their beliefs. Validation may require you to agree with a statement that has been made, even though the statement is neither true or real, because to the person with dementia, it feels both true and real.[22] For example, if the resident with dementia believes they are waiting to catch the bus and is intent on doing so, sit with them by the window as if you are waiting for a bus and continue to have interaction with them until they are no longer concerned with the bus.
- Redirect behavior if appropriate. For example, suggest alternative activities such as walking around the facility, looking at photos, listening to music, or other activities the resident enjoys.

20. ScienceDirect. (n.d.). *Agitation.* https://www.sciencedirect.com/topics/immunology-and-microbiology/agitation
21. Merriam-Webster. *Aggression.* https://www.merriam-webster.com/dictionary/aggression
22. Hoyt, J. (Ed.). (2020, January 27). *Validation therapy in dementia care.* SeniorLiving.org. https://www.seniorliving.org/health/validation-therapy/

- Focus on safety for residents experiencing delusions or hallucinations. **Delusions** are unshakable beliefs in something that isn't true or based on reality. For example, a resident may refuse to eat breakfast because they have a delusion that staff are trying to poison them. **Hallucinations** are sensing things such as visions, sounds, or smells that seem real but are not. For example, a resident may refuse to enter a room because they have hallucinations of big spiders crawling on the walls. If a patient is having delusions or hallucinations, never contradict them or tell them what they perceive isn't real. Instead, empathize with them and do whatever is possible to help them feel safe. For example, offer to move to another area or investigate what the resident is concerned about.

Dealing With Stress

The stress response is a common psychological barrier to effective communication. It can affect the message sent by the sender or the reception by the receiver. The stress response is a common reaction to life events, such as a health care worker feeling overwhelmed with tasks to complete for multiple patients or a patient feeling stressed when admitted to a hospital or receiving a new diagnosis. Symptoms of the **stress response** include irritability, sweaty palms, a racing heart, difficulty concentrating, and impaired sleep. It is important to recognize symptoms of the stress response in ourselves and our patients and use strategies to manage the stress response when communicating.

There are several stress management strategies to use to manage the stress response[23]:

- Use **relaxation breathing** to become aware of one's breathing. This technique includes taking deep breaths in through the nose and blowing it out through the mouth. This process is repeated at least three times in succession and then as often as needed throughout the day.

23. American Psychological Association. (2019, November 1). *Healthy ways to handle life's stressors.* https://www.apa.org/topics/stress/tips

- Make healthy diet choices. Avoid caffeine, nicotine, and junk food because these items can increase feelings of anxiety or being on edge.
- Make time for exercise. Exercise stimulates the release of natural endorphins that reduce the body's stress response and also helps to improve sleep.
- Get enough sleep. Set aside at least 30 minutes before going to bed to wind down from the busyness of the day. Avoid using electronic devices like cell phones before bedtime because the backlight can affect sleep.
- Use **progressive relaxation**. There are several types of progressive relaxation techniques that focus on reducing muscle tension and using mental imagery to induce calmness. Progressive relaxation generally includes the following steps:
    - Start by lying down somewhere comfortable and firm, like a rug or mat on the floor. Get yourself comfortable.
    - Relax and try to let your mind go blank. Breathe slowly, deeply, and comfortably, while gradually and consciously relaxing all your muscles, one by one.
    - Work around the body one main muscle area at a time, breathing deeply, calmly, and evenly. For each muscle group, clench the muscles tightly and hold for a few seconds, and then relax them completely. Repeat the process, noticing how it feels. Do this for each of your feet, calves, thighs, buttocks, stomach, arms, hands, shoulders, and face.

Managing Clients' and Family Members' Stress

Being cared for by strangers can feel very challenging to clients. Residents in long-term care settings have frequently experienced major physical and/or cognitive changes that caused a loss of their independence and sometimes some of their autonomy. **Autonomy** is each individual's right to self-determination and decision-making based on their unique values, beliefs, and preferences. It is important for the nursing assistant to empathize with these losses and the new reality that residents must become accustomed to when

moving into a long-term care facility. Reflect on the exercise in the following box to understand a resident's feelings during their transition:

Reflection Activity

When you wake up in the morning, imagine that you cannot get out of bed on your own. Think about putting on your call light as you need to use the restroom and having to wait until someone is available to help. As you look around the room, you see some of your belongings, but many are no longer there. The floor is clean but bare; your recliner is nearby but you can't move into it. You wish you could go to the kitchen to have coffee with your partner, but they are no longer around. You miss your pet that used to sleep with you each night. Finally, an aide arrives, and although they are friendly, it is another new face that will help you to the bathroom and with other care needs.

Clients usually become more comfortable with their new reality as they become familiar with a new routine and their new home. It is important to remember that emotions related to loneliness, feeling like a burden, and loss of independence can arise at any time. The nursing assistant can help residents adjust to their new environment in the following ways:

- Greet clients by their preferred name and introduce yourself.
- Ask clients their preferences for their care. Always communicate what you will be doing next and allow the resident to redirect or refuse care.
- Provide privacy when assisting with cares.
- Use confidentiality when documenting information or reporting to other members of the health care team.
- Treat belongings carefully and with respect and remember the client's room is their home.
- Listen to the resident and address concerns if they arise. If you cannot adequately address the resident's concerns, communicate these

concerns to the nurse or supervisor.

Family members and other loved ones may have questions and concerns about the resident's care. Read more information about managing their concerns in the following "Dealing With Conflict" section.

Dealing With Conflict

Health care professionals provide personal care at integral times in the lives of patients. The demands of caregiving and the associated rapid decision-making process can create stress for health care team members, patients, family members, and other loved ones. Managing care and making decisions can cause conflict among all involved. As a nursing assistant, it is important to be aware of your role and responsibility when managing conflict.

When a patient does not want to participate in care necessary to support their proper hygiene or health maintenance, the nursing assistant can use effective communication to encourage actions and promote desired outcomes. When a resident declines care, here are some actions the nursing assistant may use that respect their choices but allow care standards to be met:

- Re-approach the resident at a later time.
- Offer an alternative method. For example, a resident may not want to shower or take a bath but would be willing to have a full bed bath, allowing them to stay covered and warm throughout care.
- Remind the resident what may occur if care is not provided, such as higher risk of infection, open areas in the skin, odor, etc.
- Encourage as much control and independence as possible. Allow the resident to direct the process if able and offer as many choices as are appropriate.

Family members and other supports may have concerns about the plan of care for a resident. This may be due to lack of medical knowledge, little experience with the procedures of health care facilities, or a feeling of

helplessness in regard to their loved one's situation. The nursing assistant should listen to and acknowledge these concerns. Following confidentiality guidelines, interventions included in the plan of care can be discussed if the resident has permitted disclosure of this information. However, the nursing assistant should only disclose information when they have confirmed the resident has permitted disclosure. It may be beneficial for family members or others involved to discuss concerns with the nurse or unit supervisor and possibly schedule a care conference with the health care team to resolve their concerns. In this instance, the aide should understand that any anger directed at them may be a result of the situation rather than a reflection of anything they have personally done.

Conflicts among coworkers can also be addressed with assertive communication techniques. As discussed in the "Communication Styles" subsection, using assertive communication is the best approach to address workplace conflict and a respectful way to make one's viewpoints known. Communication should start between the two parties that have the conflict before involving other staff. It is best to think about the situation and develop a potential solution before approaching the coworker. Frame the situation from your perspective using "I" messages. If the situation is especially tense, it may be beneficial to allow some time between the experience and the discussion to reduce stress and think more logically about the conflict. A typical time frame is to wait one day to think logically about a conflict before addressing it, often referred to as the "24-hour Rule." If you have discussed your concerns with the coworker and offered a potential solution without any resolution in the situation, it is appropriate to notify your supervisor for additional assistance at that time. See an example of conflict resolution in the following box.

Example of Conflict Resolution

A nursing assistant becomes frustrated with a coworker who works on the previous shift when they continue to neglect to

empty the wastebaskets and tidy up the residents' rooms before the end of their shift. When it became apparent this was a pattern of behavior and not an isolated incident due to an exceedingly busy shift, the nursing assistant approached the coworker and said, "I feel frustrated when I start my shift with full wastebaskets and untidy rooms for the residents you care for. Can you help me understand why these things aren't accomplished by the end of your shift? It works for me to clean up the room when I am finished assisting the resident. That way I don't forget to come back, and the residents seem to appreciate it as well." The coworker apologized for this oversight and committed to completing these tasks before leaving at the end of their shift.

1.4 Human Needs and Developmental Stages

It is important to understand human needs and developmental stages to communicate effectively and provide holistic care.

Maslow's Hierarchy of Needs

Maslow's Hierarchy of Needs was created in 1943 by American psychologist Abraham Maslow. Maslow's theory is based on the ranking of the importance of human needs and the belief that human actions are based on motivation to meet these needs. See an illustration of Maslow's Hierarchy of Needs in Figure 1.5.[1]

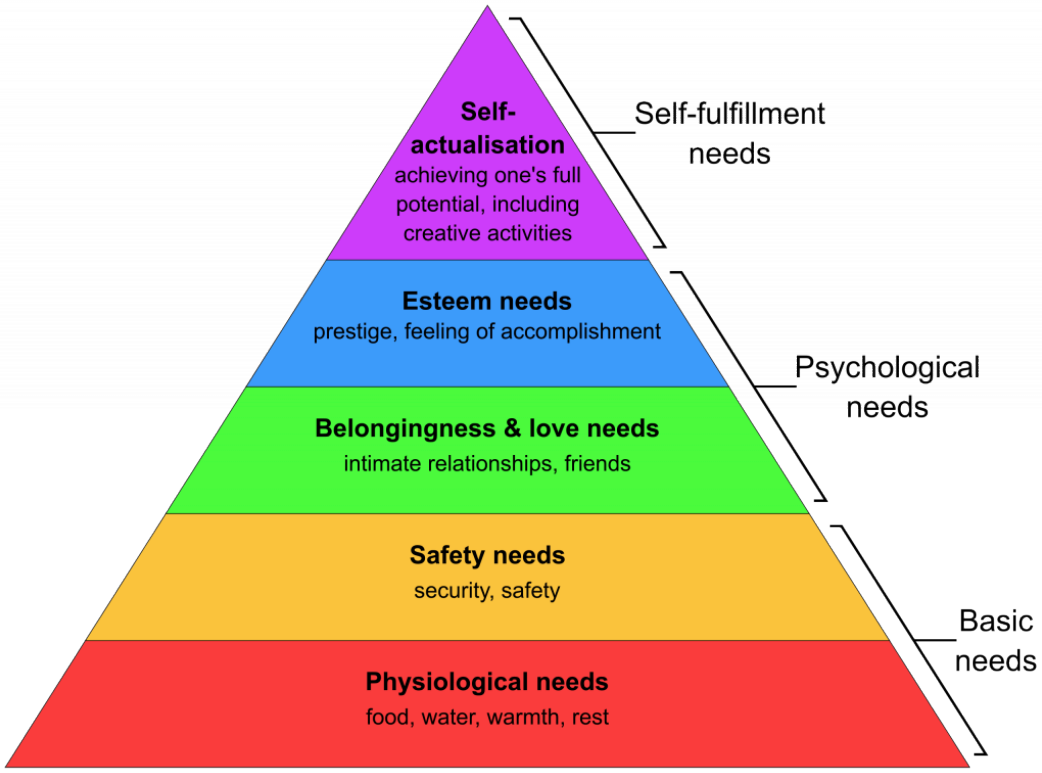

Figure 1.5 Maslow's Hierarchy of Needs

Maslow's theory states that unless the basic needs in the lower levels of the hierarchy are met, humans cannot experience the higher levels of

1. "Maslow%27s_Hierarchy_of_Needs2.svg" by Androidmarsexpress is licensed under CC.BY-SA 4.0

psychological and self-fulfillment needs. The levels of Maslow's Hierarchy of Needs have the following definitions[2]:

1. **Physiological needs:** This is the most important level with basic needs humans must have to stay alive and function, including air, food, drink, shelter, clothing, warmth, sex, and sleep.
2. **Safety needs:** People want to experience order, predictability, and control in their lives. This includes emotional security, freedom from fear, and health and well-being (such as safety against falls and injury). For new residents in a long-term care facility, this level includes becoming comfortable in familiar surroundings as opposed to feeling apprehension when experiencing a new environment.
3. **Love and belongingness:** After physiological and safety needs have been fulfilled, the third level of human needs is social and involves feelings of belongingness. **Belongingness** refers to a human emotional need for interpersonal relationships, connectedness, and being part of a group. A group may mean biological families, friends, or other supporters. It may also include physical intimacy and romantic relationships.
4. **Esteem needs:** Esteem needs include self-worth and feelings of accomplishment and respect. It includes how one views oneself and the feeling of contributing to something of importance.
5. **Self-actualization:** Self-actualization is the highest level and refers to the realization of a person's potential and self-fulfillment. This level refers to the desire to attain life goals and being truly satisfied in being the most one can be.

Maslow theorized that one cannot attain a higher level in any of these categories if the levels below are not met. For example, one is not motivated by a sense of belonging if they are focused on obtaining basic needs such as food, water, and shelter. The hierarchy is subjective because each individual determines what each level means for them. For instance, for one person, safety may mean living in the neighborhood where they grew up, whereas for

2. McLeod, S. (2020, March 20). *Maslow's hierarchy of needs*. Simply Psychology. https://www.simplypsychology.org/maslow.html

another individual it means having a daily routine. Belongingness to one person may mean being a part of a community group whereas to another it may mean having one very close friend. Self-esteem and feelings of accomplishment may be defined by one person as successfully graduating from high school, whereas to another it is defined by being able to run a mile without stopping. Self-actualization is defined by each individual and can mean things such as being a good parent, graduating from college, or achieving one's dream of becoming a nurse.

The levels of belongingness and self-actualization also include a person's spirituality and how they find meaning and purpose in life. Spirituality is often mistakenly equated with religion, but spirituality is a broader concept that includes how people seek meaning and purpose in life, as well as establish relationships with family, their community, nature, and/or a higher power.[3]

Maslow's Hierarchy of Needs is a good basis for providing holistic care and communicating with clients based on their needs and preferences. For example, in nursing, priorities of care are based on physiological needs and safety. Additionally, knowing that a newly admitted resident may have difficulty reaching a higher level of needs if their basic needs are not met is a good starting point for providing care.

Strategies that integrate Maslow's Hierarchy of Needs when providing care to residents include the following:

- Following the nursing plan of care to meet physiological needs.
- Implementing fall precautions to keep residents safe.
- Answering call lights promptly and consistently providing a calm, comfortable environment to make residents feel secure.
- Respecting residents' belongings and asking their preferences for grooming, bathing, and meals to satisfy self-esteem needs.
- Encouraging interaction among residents with similar interests to

3. Puchalski, C. M., Vitillo, R., Hull, S. K., & Reller, N. (2014). Improving the spiritual dimension of whole person care: Reaching national and international consensus. *Journal of Palliative Medicine, 17*(6), 642–656. https://doi.org/10.1089/jpm.2014.9427

promote a feeling of belongingness.
- Offering to bring residents to on-site religious activities or referring them to social services for a chaplain visit to promote self-actualization and a feeling of belongingness.

Maslow's Hierarchy of Needs can also be applied to the work environment to enhance professionalism by doing the following:

- Offering assistance to coworkers when able to promote a feeling of security and belongingness and also maintaining residents' physiological needs and safety as a team.
- Participating fully in the reporting and documentation process of the facility to meet residents' physiological and safety needs.
- Accurately following training and agency policies and procedures to encourage feelings of self-esteem in the health care worker.
- Being accountable for one's actions and job responsibilities to promote a feeling of self-actualization by meeting one's potential.

Erikson's Stages of Development

Another psychologist named Erik Erikson created a theory of psychosocial development that also describes how one's personality is developed. It theorizes there are eight stages of development based on a person's chronological age. Development occurs based on the main conflict or challenge confronted during that period of time. Each stage can create either a virtue/strength or a maladaptive tendency. Erikson proposed that those who have a stronger sense of identity from resolving these conflicts over time have fewer conflicts within themselves and with others and, subsequently, a decreased level of anxiety.[4]

Erikson's stages of development are defined as trust versus mistrust, autonomy versus shame, initiative versus guilt, industry versus inferiority,

4. This work is a derivative of StatPearls by Orenstein and Lewis and is licensed under CC BY 4.0

identity versus identity confusion, intimacy versus isolation, generativity versus stagnation, and integrity versus despair[5]:

- **Trust vs. Mistrust**

The first stage establishes trust (or mistrust) that basic needs, such as nourishment and affection, will be met. Trust is the basis of our development during infancy (birth to 12 months). Infants are dependent on their caregivers, so caregivers who are responsive and sensitive to their infant's needs help their baby to develop a sense of trust; their baby will see the world as a safe, predictable place. Unresponsive caregivers who do not meet their baby's needs can engender feelings of anxiety, fear, and mistrust; their baby may see the world as unpredictable.[6]

- **Autonomy vs. Shame**

Toddlers begin to explore their world and learn that they can control their actions and act on the environment to get results. They begin to show clear preferences for certain elements of the environment, such as food, toys, and clothing. A toddler's main task is to resolve the issue of **autonomy** versus shame and doubt by working to establish independence. For example, we might observe a budding sense of autonomy in a two-year-old child who wants to choose her clothes and dress herself. Although her outfits might not be appropriate for the situation, her input in such basic decisions has an effect on her sense of independence. If denied the opportunity to act on her environment, she may begin to doubt her abilities, which could lead to low self-esteem and feelings of shame.[7]

- **Initiative vs. Guilt**

5. This work is a derivative of Psychology 2e by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/psychology-2e/pages/1-introduction
6. This work is a derivative of Psychology 2e by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/psychology-2e/pages/1-introduction
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Once children reach the preschool stage (ages 3–6 years), they are capable of initiating activities and asserting control over their world through social interactions and play. By learning to plan and achieve goals while interacting with others, preschool children can master this task. Those who do will develop self-confidence and feel a sense of purpose. Those who are unsuccessful at this stage may develop feelings of guilt.[8]

- **Industry vs. Inferiority**

During the elementary school stage (ages 7–11), children begin to compare themselves to their peers to see how they measure up. They either develop a sense of pride and accomplishment in their schoolwork, sports, social activities, and family life, or they feel inferior and inadequate when they don't measure up.[9]

- **Identity vs. Identity Confusion**

In adolescence (ages 12–18), children develop a sense of self. Adolescents struggle with questions such as "Who am I?" and "What do I want to do with my life?" Along the way, most adolescents try on many different selves to see which ones fit. Adolescents who are successful at this stage have a strong sense of identity and are able to remain true to their beliefs and values in the face of problems and other people's perspectives. Teens who do not make a conscious search for identity or those who are pressured to conform to their parents' ideas for the future may have a weak sense of self and experience role confusion as they are unsure of their identity and confused about the future.[10]

- **Intimacy vs. Isolation**

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9. This work is a derivative of Psychology 2e by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/psychology-2e/pages/1-introduction
10. This work is a derivative of Psychology 2e by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/psychology-2e/pages/1-introduction

People in early adulthood (i.e., 20s through early 40s) are ready to share their lives with others after they have developed a sense of self. Adults who do not develop a positive self-concept in adolescence may experience feelings of loneliness and emotional isolation.[11]

- **Generativity vs. Stagnation**

When people reach their 40s, they enter a time period known as middle adulthood that extends to the mid-60s. The social task of middle adulthood is generativity versus stagnation. Generativity involves finding your life's work and contributing to the development of others, through activities such as volunteering, mentoring, and raising children. Those who do not master this task may experience stagnation, having little connection with others and little interest in productivity and self-improvement.[12]

- **Integrity vs. Despair**

The mid-60s to the end of life is a period of development known as late adulthood. People in late adulthood reflect on their lives and feel either a sense of satisfaction or a sense of failure. People who feel proud of their accomplishments feel a sense of integrity and often look back on their lives with few regrets. However, people who are not successful at this stage may feel as if their life has been wasted. They focus on what "would have," "should have," or "could have" been. They face the end of their lives with feelings of bitterness, depression, and despair.[13]

By combining Maslow's and Erickson's theories of development and motivation, we can begin to understand why some patients need more

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12. This work is a derivative of Psychology 2e by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/psychology-2e/pages/1-introduction
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encouragement, space, or time to allow caregivers to provide assistance with their ADLs to maintain physical and emotional health.

View the following YouTube video[14] for more information about Erikson's theory of development: Erikson's Psychosocial Development | Individuals and Society.

Assisting With Spiritual Needs

When clients experience a serious illness or injury, they often grapple with the existential question, "Why is this happening to me?" This question can be a sign of spiritual distress defined as, "A state of suffering related to the inability to experience meaning in life through connections with self, others, the world, or a superior being." Spiritual well-being is a pattern of experiencing meaning and purpose in life through connectedness with self, others, art, music, literature, nature, and/or a power greater than oneself. Spirituality is often mistakenly equated with religion, but spirituality is a broader concept. Elements of spirituality include faith, meaning, love, belonging, forgiveness, and connectedness.[15] Spirituality and religion can change over a person's lifetime and vary greatly between people. Some people who are very spiritual may not belong to a specific religion.

Religion is frequently defined as an institutionalized set of beliefs and practices. Many religions have specific rules about food, religious rituals, clothing, and touching. Supporting these rules when they are meaningful part of a resident's spirituality is an effective way to support the resident and maintain a caring, professional relationship. The nursing assistant should discuss these aspects with the nurse to assure they support the plan of care

14. Desai, S. (2014, February 25). *Erikson's psychosocial development | Individuals and society | MCAT | Khan Academy* [Video]. YouTube. Licensed under CC BY-NC-SA. https://youtu.be/SIoKwUcmivk
15. Herdman, T. H., & Kamitsuru, S. (Eds.). (2018). *Nursing diagnoses: Definitions and classification, 2018-2020*. Thieme Publishers New York, pp. 365, 372-377.

for the resident and encourage other staff members to provide support. Many nursing homes and assisted living facilities offer religious or spiritual opportunities through their Activities departments.

Many hospitals, nursing homes, assisted living facilities, and hospices employ professionally trained chaplains to assist with the spiritual, religious, and emotional needs of clients, family members, and staff. In these settings, chaplains support and encourage people of all religious faiths and cultures and customize their approach to each individual's background, age, and medical condition. Chaplains can meet with any individual regardless of their belief, or lack of belief, in a higher power and can be very helpful in reducing anxiety and distress.[16] NAs may suggest chaplain services for their clients.

An important way to assist a client with their spiritual well-being is to ask them what they need to feel supported in their faith and then try to accommodate their requests, if possible. Explain that spiritual health helps the healing process. For example, perhaps they would like to speak to their clergy, spend some quiet time in meditation or prayer without interruption, or go to the on-site chapel. Many agencies have chaplains onsite that can be offered to patients as a spiritual resource.[17]

If the client or family member requests a nursing assistant to pray with them, it is acceptable to pray with them or find someone who will. Some nursing assistants may feel reluctant to pray with patients when they are asked for various reasons; they may feel underprepared, uncomfortable, or unsure if they are "allowed to." Nursing assistants, nurses, and other health care team members are encouraged to pray with their patients to support their spiritual health, as long as the focus is on the patient's preferences and beliefs, not their own preferences. Having a short, simple prayer ready that is appropriate for any faith may help a health care professional feel prepared for this situation. However, if the nursing assistant does not feel comfortable praying

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with the patient as requested, the nurse should be notified so the chaplain can be requested to participate in prayer with the patient.[18]

It is important to support clients within their own faith tradition, but it is not appropriate for the nursing assistant to take this opportunity to attempt to persuade a patient towards a preferred religion or belief system. The role of the nursing assistant is to respect and support the client's values and beliefs, not promote the nursing assistant's values and beliefs.[19]

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Guidelines for Documentation

Accurate documentation and reporting are vital to proper client care. **Reporting** is oral communication between care providers that follows a structured format and typically occurs at the start and end of every shift or whenever there is a significant change in the resident. **Documentation** is a legal record of patient care completed in a paper chart or electronic health record (EHR). It is also referred to as charting. Checklists and flowcharts completed in the resident's room may also become part of the paper chart. Documentation is used in a court of law to prove patient care was completed if a lawsuit is filed, with the rule of thumb being, "If it wasn't documented, it wasn't done." Documentation is also reviewed by other health care team members to provide holistic care.

Accurate documentation should follow these guidelines:

- The client's chart is confidential and should only be shared with those directly involved in care. If using paper, cover information with a blank sheet. When using technology, be sure screens are visible only to you and log out after each use. Never share security measures like passwords or PIN with anyone else.
- Document as soon as any care is completed.
- Include date, time, and signature per facility policy.
- Use facts, not opinions. An opinion is, "The resident doesn't like their food." Instead, a fact should be charted, such as, "The resident refused their meal and stated they were not hungry."
- Use measuring tools, such as a graduated cylinder or a tape measure, whenever possible to provide accurate data. If you do have to estimate, provide a comparison such as, "Drainage noted on the bandage was the size of a quarter."
- If you chart on paper, always use a black pen. If you make a mistake, draw only one line through the entry, write the word "mistaken entry," and add your initials. Do not use correction fluid or completely black out the entry.

Long-term care facilities are required to complete additional documentation called a **Minimum Data Set (MDS).** The MDS is a standardized assessment tool for all residents of long-term care facilities certified to receive reimbursement by Medicare or Medicaid. The MDS is completed by a registered nurse who reviews documentation by nursing assistants to complete some parts of the MDS. Accurate documentation is vital so that facilities are appropriately reimbursed for the services provided to clients.

The MDS nurse will review the nursing assistant's documentation pertaining to a resident's sensory abilities, specifically their communication skills, hearing, and vision. For this reason, documentation must be accurate and thorough regarding assistive devices, the amount of assistance required, and skin observations. For example, devices for communication, such as whiteboards, photo books, charts, hearing aids, or glasses, must be appropriately documented, as well as the amount of assistance required for dressing, bathing, eating, toileting, repositioning in bed, transferring, and ambulating. Skin observations made during cares should also be thoroughly documented so they can be included in MDS reporting.

View the MDS PDF from the Centers for Medicaid and Medicare Services.

Guidelines for Reporting

Reporting client information to other nursing assistants or to a nurse for follow-up is an important part of meeting client needs and providing competent care. When providing an oral report, be mindful of confidentiality and where the report is given so no one overhears private information. Appropriate places for reporting include a closed room, a nurse's station away from resident rooms and common areas, or in a private resident's room with the door closed.

Throughout this textbook, specific information that should be documented

and reported will be noted. Generally, a nursing assistant should report any physical changes in a client that seem unusual or behavior that is out of the ordinary for that person. Examples that require immediate notification to the nurse may include the following:

- Strong odors from urine, oral care, or wounds
- Reddened, warm, or open skin areas
- Difficulty breathing or chest pain

Objective information includes information about a client that can be observed through the four senses of sight, touch, hearing, or smell. This information is referred to as **signs**. Objective information can be verified by another individual and often includes measuring tools such as a scale, thermometer, specimen cup, or graduated cylinder. An example of objective information is the client's temperature was 98.6 degrees Fahrenheit.

Subjective information is information reported to you by clients or their family members. This information is referred to as **symptoms**. It is documented by using the exact wording reported with quotation marks. An example of subjective information is the resident stating, "I have a headache."

Military Time

Military time is used to record the time care is provided and any other pertinent information for the resident. It avoids confusion between daytime and nighttime hours because it does not require a.m. or p.m. Each hour of the day has its own number from 1 to 24 and no colons are used. Beginning at 1:00 p.m., simply add 12 to the hour. For example, 1:46 p.m. is written as 1346. For morning hours up to 9:59 p.m., add a zero in front of the hour. For example, 9:24 a.m. is written as 0924. Midnight is documented as either 2400 or 0000.

When reporting in military time, morning hours are pronounced beginning with "zero" or "O." For example, 7:00 a.m. is pronounced "zero seven hundred"

or “oh seven hundred.” The time of 2:43 p.m. is pronounced “fourteen forty-three.” See Figure 1.6[1] below for conversion from civilian to military time.

Figure 1.6 Military Time

1. “Military Time Clock 3I3A0711.jpg” by Deanna Hoyord for Chippewa Valley Technical College is licensed under CC BY 4.0

1.6 Learning Activities

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https://wtcs.pressbooks.pub/nurseassist/?p=145#h5p-4

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=145#h5p-72

I Glossary

Active listening: Listening while communicating verbally and nonverbally that we are interested in what the other person is saying and also verifying our understanding with the speaker.

Activities of daily living (ADLs): Daily basic tasks that are fundamental to everyday functioning (e.g., hygiene, elimination, dressing, eating, ambulating/moving).

Aggression: The act of attacking without provocation.

Aggressive communicators: Individuals who come across as advocating for their own rights when communicating despite possibly violating the rights of others.

Agitation: Behaviors that fall along a continuum ranging from verbal threats and motor restlessness to harmful aggressive and destructive behaviors.

Aphasia: A condition with difficulty processing what one is hearing or responding to questions due to dementia, brain injuries, or strokes.

Assertive communication: A way of conveying information that describes the facts and the sender's feelings without disrespecting the receiver's feelings.

Assertive communicators: Individuals who respect the rights of others while also standing up for their own ideas and rights when communicating.

Autonomy: Each individual's right to self-determination and decision-making based on their unique values, beliefs, and preferences.

Belongingness: A human emotional need for interpersonal relationships, connectedness, and being part of a group.

Communication: A process by which information is exchanged between individuals through a common system of symbols, signs, or behavior.

Competitive listening: Listening that occurs when we are primarily focused on sharing our own point of view instead of listening to someone else.

Delusions: Unshakable beliefs in something that isn't true or based on reality.

Diet and fluid orders: Orders regarding what the resident is permitted to eat and drink.

Documentation: A legal record of patient care completed in a paper chart or electronic health record (EHR).

Elimination needs: Assistance the resident requires for urinating and passing stool.

Hallucinations: A condition where a person senses things such as visions, sounds, or smells that seem real but are not.

Holistic care: Health care that addresses a patient's physical, emotional, social, and spiritual needs.

Maslow's Hierarchy of Needs: A theory stating that unless basic human needs within a hierarchy are met, humans cannot experience higher levels of psychological and self-fulfillment needs.

Military time: A standard for recording time that avoids confusion between daytime and nighttime hours because each hour of the day is represented by a number ranging from 00:00 to 24:59.

Minimum Data Set (MDS): A standardized assessment tool for all residents of long-term care facilities certified to receive reimbursement by Medicare or Medicaid.

Nonverbal communication: Communication that includes body language and facial expressions, tone of voice, and pace of the conversation.

Objective information: Anything that can be observed through sight, touch, hearing, or smell, referred to as "signs." An example of objective information is the client's temperature was 98.6 degrees Fahrenheit.

Older adults: Adults aged 65 years old or older.

Passive communicator: Individuals who put the rights of others before their own when communicating.

Passive listening: Listening that occurs when we are not interested in listening to the other person or we assume we correctly understand what the person is communicating without verifying their message.

Progressive relaxation: Stress management techniques that focus on reducing muscle tension and using mental imagery to induce calmness.

Relaxation breathing: A stress management technique focused on becoming aware of one's breathing.

Reporting: Oral communication between care providers that follows a structured format and typically occurs at the start and end of every shift.

Signs: Objective information obtained through the senses of sight, hearing, smell, or touch.

Stress response: The body's response to stress that can include irritability, sweaty palms, a racing heart, difficulty concentrating, and impaired sleep.

Subjective information: Information reported by clients or their family members referred to as "symptoms." An example of subjective information is the resident stating, "I have a headache."

Symptoms: Subjective information reported by clients or their family members. Symptoms are documented by using quotes around the exact words expressed by the client or their family member. For example, the client reported, "I have a headache."

Therapeutic communication: A type of professional communication used with patients defined as the purposeful, interpersonal, information-transmitting process through words and behaviors based on both parties' knowledge, attitudes, and skills that leads to patient understanding and participation.

Transfer status: Assistance the patient requires to be moved from one location to another, such as from the bed to a chair.

Validation therapy: A method of therapeutic communication used to connect with someone who has moderate to late-stage dementia and avoid agitation.

PART II

CHAPTER 2: DEMONSTRATE PROFESSIONALISM IN THE WORKPLACE

2.1 Introduction to Demonstrate Professionalism in the Workplace

Learning Objectives

- Function within and uphold the ethical and legal responsibilities of the nursing assistant
- Carry out assignments
- Develop job-seeking and keeping skills
- Protect rights of clients
- Treat all clients respectfully regardless of social, ethnic, or religious background
- Apply strategies to cope with caregiver stress
- Differentiate the nursing assistant role in a variety of health care settings

In this chapter you will learn about professional responsibilities associated with becoming a licensed nursing assistant. Resident rights are at the forefront of providing care to ensure quality of life for dependent individuals. You will become familiar with the agencies involved in regulation of long-term care, legislative acts that uphold resident rights, and the nursing assistant scope of practice. You will gain awareness about your role within the health care team, the facility, and the nursing process, as well as the variety of health care settings in which you may work as a nursing assistant.

Ethical Responsibilities of the Nursing Assistant

Nursing assistants should treat all clients equally and with compassion and respect for their inherent dignity, worth, and unique attributes. They should promote clients' rights and safety to assist in achieving the best possible health and functioning. Read more about resident rights in the box later in this section.

As a student or a newly employed nursing assistant, you may find yourself in circumstances where you observe unethical behaviors exhibited by other agency staff. Examples of unethical behavior to avoid are as follows[1]:

- Using a personal cell phone in patient care areas
- Not responding to call lights promptly when you are available to do so
- Ignoring the phone(s) assigned to you
- Using agency computers for personal use
- Avoiding clients because of their ethnicity, beliefs, demeanors, or other individual characteristics
- Avoiding work by sitting in empty patient rooms or the break room during on-time work hours
- Accepting gifts or gratuities from clients or their family members
- Sharing clients' personal information with others who are not providing direct care
- Stealing items from clients or the health care agency

Governing Agencies

When you work as a nursing assistant, you are helping vulnerable populations. **Vulnerable populations** include patients who are children, older adults, minorities, socially disadvantaged, underinsured, or those with certain

1. Miller-Hoover, S. (2018). *I said what? Professionalism for the CNA.* RN.com. https://www.rn.com/featured-stories/professionalism-cna/#:~:text=Professional%20CNAs%20are%20responsible%2C%20trustworthy,and%20being%20a%20team%20player

medical conditions. Members of vulnerable populations often have health conditions that are exacerbated by inadequate health care.[2] As a result, there are many governing agencies involved in the care of these clients to ensure their needs are met.

Federal agencies that regulate and provide guidelines for health care include the following:

- **Centers for Medicare and Medicaid (CMS):** The CMS provides health care funding for qualifying members. Medicare is health care funding available to anyone over the age of 65, as well as those who have a permanent disability or kidney failure. There are four types of coverage that Medicare provides: care in hospitals and nursing homes (Part A); medical appointments, services, and equipment (Part B); additional services provided by private companies (Part C); and prescription drug coverage (Part D). Medicaid is health care funding available for individuals with low incomes and is provided at both the federal and state level. Both Medicare and Medicaid may cover services for resident care based on each individual's needs.[3,4]
- **Centers for Disease Control (CDC):** The CDC provides guidance for facilities related to infection and disease control.[5]
- **Food and Drug Administration (FDA):** The FDA protects public health by ensuring the safety of medications, biological products, medical devices, cosmetics, products that emit radiation, and the food supply. It also regulates tobacco products and helps the public get the accurate, science-based information they need to use medical products and foods to maintain and improve their health.[6]
- **Occupational Safety and Health Administration (OSHA):** OSHA ensures

2. Waisel, D. B. (2013). Vulnerable populations. *Current Opinion in Anaesthesiology, 26*(2), 186-192. https://doi.org/10.1097/aco.0b013e32835e8c17
3. Medicare.gov. U.S. Centers for Medicare and Medicaid Services. https://www.medicare.gov/
4. Medicaid.gov. U.S. Centers for Medicare and Medicaid Services. https://www.medicaid.gov/
5. Centers for Disease Control and Prevention. (2021, September 24). *About CDC 24-7.* https://www.cdc.gov/about/default.htm
6. U.S. Food & Drug Administration. (2018, March 28). *What we do.* https://www.fda.gov/about-fda/what-we-do

safe and healthy working conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance.[7]

Every state has a Department of Health Services (DHS) that works with local counties, health care providers, and community partners. The DHS provides services that aid and protect the state's citizens, such as alcohol and drug abuse prevention programs, mental health programs, public health services, disability determination, implementation of long-term care, and regulation of state nursing homes, along with numerous other services.

> Read more about Wisconsin's Department of Health Services at the About the Department of Health Services (DHS) web page.

Federal Health Care Acts

In addition to government agencies, there are federal laws that directly affect health care. The **Health Insurance Portability and Accountability Act of 1996 (HIPAA)** required the creation of national standards to protect sensitive patient health information from being disclosed without the patient's consent or knowledge. The HIPAA security rule requires the following:

- Ensure the confidentiality, integrity, and availability of all protected health information (PHI)
- Detect and safeguard against anticipated threats to the security of the information
- Protect against anticipated impermissible uses or disclosures
- Certify compliance by their workforce

As a nursing assistant, this means that you must legally keep any information

7. Occupational Safety & Health Administration. (n.d.). *About OSHA*. United States Department of Labor. https://www.osha.gov/aboutosha

regarding the care of your clients confidential, including documentation, care plans, and shift reports. Refer to the "Guidelines for Reporting" subsection in Chapter 1 for more details about confidential reports.

> Read more about HIPAA at the CDC's Health Insurance Portability and Accountability Act of 1996 (HIPAA) web page.

The **Omnibus Reconciliation Act of 1987 (OBRA)** set forth new provisions for Medicare and Medicaid related to new standards for care in the nursing home setting. One major provision was a requirement for nurse aide training. It required that new nurse aides train for a minimum of 75 hours and pass a competency evaluation and that each state records a registry for nurse aides who have passed the competency evaluation. It also focused on improving quality of life for residents in long-term care (LTC), focusing on **patient-centered care** and meeting the preferences of each individual in making decisions regarding their care.[8] Read more about long-term care settings in the "Health Care Settings" section of this chapter. During patient-centered care, an individual's specific health needs and desired health outcomes are the driving forces behind all health care decisions. Patients are partners with the health care team members, and health care professionals treat patients not only from a clinical perspective, but also from an emotional, mental, spiritual, social, and financial perspective.[9]

The **Older Americans Act (OAA)** was passed in 1965 in response to concern by policymakers about a lack of community social services for older persons. The original legislation established authority for grants to states for community planning and social services, research and development projects, and personnel training in the field of aging. It also includes states' Long-Term Care

8. Kelly, M. (1989). The omnibus budget reconciliation act of 1987. A policy analysis. *The Nursing Clinics of North America, 24*(3), 791-794. https://pubmed.ncbi.nlm.nih.gov/2671955/
9. NEJM Catalyst. (2017, January 1). *What is patient-centered care?* Massachusetts Medical Society. https://catalyst.nejm.org/doi/full/10.1056/CAT.17.0559

(LTC) Ombudsman programs that work to resolve problems related to the health, safety, welfare, and rights of individuals who live in LTC facilities, such as nursing homes, assisted living facilities, and other residential care communities. The OAA act requires the following of ombudsman programs[10]:

- Identify, investigate, and resolve complaints made by or on behalf of residents
- Provide information to residents about long-term services and supports
- Ensure that residents have regular and timely access to ombudsman services
- Represent the interests of residents to governmental agencies and seek administrative, legal, and other remedies to protect residents
- Analyze, comment on, and recommend changes in laws and regulations pertaining to the health, safety, welfare, and rights of residents

Resident Rights

As a health care regulator, the CMS ensures residents know and understand their rights and these rights are upheld. Resident rights are the most important aspect of providing care. It is essential for health care workers to protect the dignity of residents and enhance their quality of life. A concise list of resident rights that are protected in long-term care and other settings is described in the following box.

Resident Rights in Long-Term Care and Other Settings[11]

- Be treated with respect
- Participate in activities

10. Administration for Community Living. (2021, November 24). *Long-term care ombudsman program.* https://acl.gov/programs/Protecting-Rights-and-Preventing-Abuse/Long-term-Care-Ombudsman-Program
11. Centers for Medicare & Medicaid Services. (n.d.). *Residents' rights & quality of care.* https://www.cms.gov/nursing-homes/patients-caregivers/residents-rights-quality-care

- Be free from discrimination, restraints, abuse, and neglect
- Make complaints
- Receive proper medical care
- Make decisions regarding one's care with the involvement of family and loved ones if desired
- Have one's representative notified of care and complications
- Receive information about services and fees
- Manage one's money
- Receive privacy and proper living arrangements
- Spend time with visitors
- Receive social services
- Be protected against unfair transfers or discharges
- Have the ability to leave the facility when health status allows, either temporarily or permanently
- Create or participate in groups

These guidelines should be at the forefront of your mind with any resident interaction. It is important for NAs to remember that it can be difficult for residents to accept being dependent on a caregiver for completing their ADLs. This feeling of dependency can cause them to lose self-esteem or even lead to depression. Refer back to the exercise in the "Managing Clients' and Family Members' Stress" subsection in Chapter 1 to recall how to empathize with residents. If a resident has a request, you should make accommodations to meet their needs as appropriate. If you are unsure how to meet their request, consult with your supervising nurse. The only reason a resident preference should not be granted would be due to safety or infection control concern. For example, if a resident wants to have a candle in their room, the risk of fire would not allow this request, but an alternative would be an electric candle. If a resident wanted to use a hair dryer but their roommate could possibly burn themselves due to altered safety awareness, the facility

should work to find a secure place where the resident could use the hair dryer.

- For more information, read the Your Rights and Protections as a Nursing Home Resident PDF.

Learning Activity

- Resident rights quiz: Resident Rights Quizlet

Elder Abuse and Neglect

As discussed in the "Resident Rights" section, clients are to be free from abuse and neglect. **Elder abuse** is an intentional act, or failure to act, that causes or creates a risk of harm to someone age 60 or older. The abuse occurs at the hands of a caregiver or a person the older adult trusts. **Neglect** refers to a failure to provide care for oneself or to someone for whom you are enlisted to care. Review Table 2.2 for types of abuse and neglect and signs or symptoms that you should report to the nurse.

Table 2.2 Types of Abuse and Signs or Symptoms to Report[12,13]

12. Centers for Disease Control and Prevention. (2021, June 2). *Preventing elder abuse.* https://www.cdc.gov/violenceprevention/elderabuse/fastfact.html
13. Washington State Department of Social and Health Services. (n.d.). *Self-neglect*. https://www.dshs.wa.gov/node/2444/#signs

Type of Abuse	Definition	Signs or Symptoms
Physical	Illness, pain, injury, functional impairment, distress, or death as a result of the intentional use of physical force. This includes acts such as hitting, kicking, pushing, slapping, and burning.	Bruising, fractures, burns, or any other unexplainable injury. The abused person may isolate themselves, withdraw from conversation, or change behavior when the abuser is present.
Sexual	Forced or unwanted sexual interaction of any kind. This may include unwanted sexual contact, penetration, or noncontact acts such as sexual harassment.	Injury to genital areas, rashes, infections, bleeding or discharge from genitals, torn clothing, and behavioral changes listed under "Physical" abuse "Signs or Symptoms."
Emotional or Psychological	Verbal or nonverbal behaviors that inflict anguish, mental pain, fear, or distress on an older adult. Examples include humiliation or disrespect, verbal and nonverbal threats, control of one's actions, harassment, or isolation from other loved ones.	Depression, anxiety, loss of self-confidence or motivation, or feelings of failure.
Financial	Illegal, unauthorized, or improper use of an older adult's money, benefits, belongings, property, or assets for the benefit of someone other than the older adult.	Missing items; going without food, medications, or other necessities; or excessive use of cash if they cannot account for the spending.
Neglect	Failure to meet an older adult's basic needs, including food, water, shelter, clothing, hygiene, and essential medical care.	Weight loss, skin breakdown, infection, confusion, hallucinations, dehydration, soiled linens and clothing, odors, or poor oral care.
Self-Neglect	Lack of self-care that threatens personal health and safety, including a failure to seek help for care.	See "Signs or Symptoms" listed under "Neglect."

Nursing assistants and other health care professionals are referred to as **mandated reporters** because they are required by state law to report suspected neglect or abuse of the elderly, vulnerable adults, and children. As a caregiver, you are required to report any signs or symptoms that are suspicious for abuse or neglect to the nurse. At the time of the finding, you must stay with the resident until you can ensure that no further abuse or

neglect occurs, even if you are in a facility. If a resident reports any abuse, you are obligated to inform the nurse, charge nurse, or an administrator, regardless of the cognitive function of the person reporting so that an investigation can be performed.

The Survey Process

Each state's Department of Health Services (DHS) conducts surveys of long-term care (LTC) facilities under the guidelines provided by the CMS. Standard surveys typically occur at least one time per year. During a **survey**, DHS employees observe care provided to residents, watch preparation and serving of food, review resident care plans and facility documentation, interview residents and families, and look at every aspect of the facility. The surveyors are ensuring that all aspects of residents' physical, emotional, social, and spiritual needs are met. If you are a nurse aide being observed or interviewed, it is important to only provide facts. If you do not know the answer to a question, respond that you do not know the answer and explain that you will find an answer as soon as possible. You can offer things like, "I need to check my care plan for that information," or "I would ask the nurse for clarification," as appropriate to the question.[14]

If a problem or discrepancy is discovered during a survey, the facility receives a **citation** from the surveyors. At the end of the survey process, DHS will conduct an exit interview with the Administrator, Director of Nursing (DON), and other facility leadership. When residents are found to be at a high risk for adverse events, the surveyors will ask the facility to create a plan to correct the issues. DHS will make a return visit in a few weeks to follow up on the implementation.

DHS may also conduct a survey if they have received several complaints from residents or family members or if certain events occur such as elopement of a resident or an accident with a major injury. **Elopement** is defined as an event

14. Institute of Medicine (US), Committee on Nursing Home Regulation. (1986). *Improving the quality of care in nursing homes.* National Academies Press (US); 1986. 4, Monitoring nursing home performance. https://www.ncbi.nlm.nih.gov/books/NBK217555/

when a resident who is incapable of protecting themselves from harm is able to successfully leave the facility unsupervised and unnoticed and possibly enter into harm's way.[15]

The results of a survey must be made available to the public. They must be posted at the entrance to the facility, along with information on how to contact the ombudsmen. They are also available electronically at medicare.gov.

- Read ratings of nursing homes and survey results: Medicare.gov Provider Comparison Tool.

15. Institute of Medicine (US), Committee on Nursing Home Regulation. (1986). *Improving the quality of care in nursing homes.* National Academies Press (US); 1986. 4, Monitoring nursing home performance. https://www.ncbi.nlm.nih.gov/books/NBK217555/

2.3 Members of the Health Care Team and Nursing Home Structure

As illustrated in Figure 2.1[1] below, the resident and their family members are at the center of holistic care. We know from Chapter 1 that holistic care includes physical, emotional, social, and spiritual well-being. A holistic approach focuses on a person's wellness and not just their physical illness or condition. Each member of the health care team provides holistic care to achieve the best possible health outcomes for clients and improve their quality of life. Responsibilities of the health care team members are as follows:

- Physicians and health care providers diagnose conditions and prescribe medications and treatments.
- Nursing service members include registered nurses (RNs), licensed practical nurses/vocational nurses (LPNs/VNs), certified medical technicians (CMTs), and nursing assistants (RNAs, LNAs, CNAs). The nursing team implements nursing care plans based on the nursing process and provider orders. The nursing supervisor/charge nurse/unit manager supports the nursing staff and may assist in providing resident care or treatments. Staff/Floor nurses provide nursing care to residents. Nursing assistants perform assigned or delegated nursing tasks such as assisting with ADLs and reporting any changes in a resident's condition.
- Social Services, such as social workers and case managers, assist with emotional and personal problems, benefit coordination, and any discharge or transfer needs to other facilities.
- Therapists, such as physical therapy (PT), occupational therapy (OT), and speech therapy (ST), assist residents in recovering from an illness to return to and maintain function. Therapy roles are further outlined in Chapter 9.

1. This image is a derivative of "img4.jpg" by Branden Morton. This image is included on the basis of Fair Use.

Figure 2.1 Members of the Health Care Team

Each department and member of the health care team is essential for quality resident care. Although there are a variety of certifications, skills, and abilities present within the health care team, each component is a valued resource. Your part in the team as a nursing assistant is to understand team member roles and responsibilities, coordinate with the appropriate team members when needed, and respect and support each team member's efforts. You should expect the same treatment from other health care team members regardless of their educational background, title, or job duties.

While the health care team provides care for residents in the nursing home, other departments and individuals oversee business and non-health care operations for the facility. A nursing assistant should have an understanding of the non-medical aspects necessary to meet resident needs.

Non-health care responsibilities of team members in a nursing home include the following:

- **Administrator:** Oversees federal and state regulation compliance and manages non-medical aspects of the facility, such as finance.
- **Medical Director:** Consults on medical aspects of care, such as infection control and quality of care.
- **Director of Nursing (DON):** Manages all aspects of nursing staffing,

policies, and procedures.

- **Assistant DON:** Assists with managing nursing staff and implementing policies and procedures.
- **Staff Development Coordinator (SDC):** Trains nursing employees and provides continuing education.
- **Minimum Data Set (MDS) Coordinator:** Assesses resident needs and reports to CMS for reimbursement.
- **Business Office:** Oversees billing and other financial aspects.
- **Housekeeping and Maintenance:** Maintains the facility and equipment and keeps the environment clean and safe.
- **Activities Director:** Oversees any activities staff members provide and plans events for resident enjoyment related to hobbies or interests.
- **Dietary Director:** Oversees dietary staff to deliver nutritional and fluid needs of residents.

See Figure 2.2[2] for an illustration of the general structure of a LTC facility.

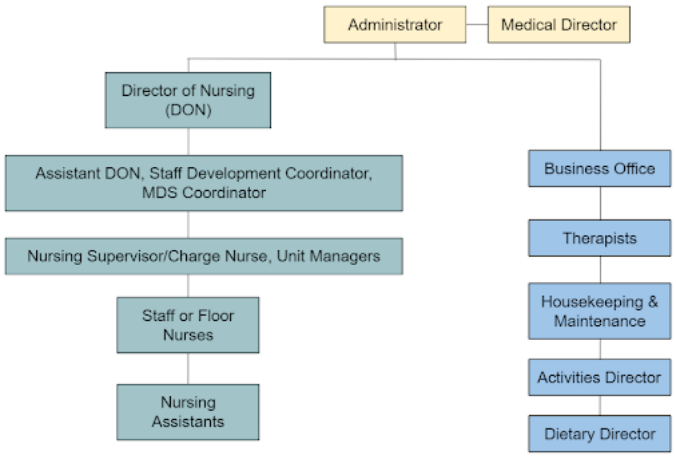

Figure 2.2 General Structure of a LTC Facility

2. "General Structure of a LTC Facility" by Myra Sandquist-Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

2.4 The Nursing Process

The **nursing process** is a critical thinking model based on a systematic approach to patient-centered care that nurses use to perform clinical reasoning and make clinical judgments when providing patient care. The nursing process is based on the Standards of Professional Nursing Practice established by the American Nurses Association (ANA). These standards are authoritative statements of the actions and behaviors that all registered nurses, regardless of role, population, specialty, and setting, are expected to perform competently.[1] The mnemonic **ADOPIE** is an easy way to remember the ANA Standards and the nursing process, with each letter referring to the six components of the nursing process: Assessment, Diagnosis, Outcomes Identification, Planning, Implementation, and Evaluation. See an illustration of the cyclical nursing process in Figure 2.3.[2]

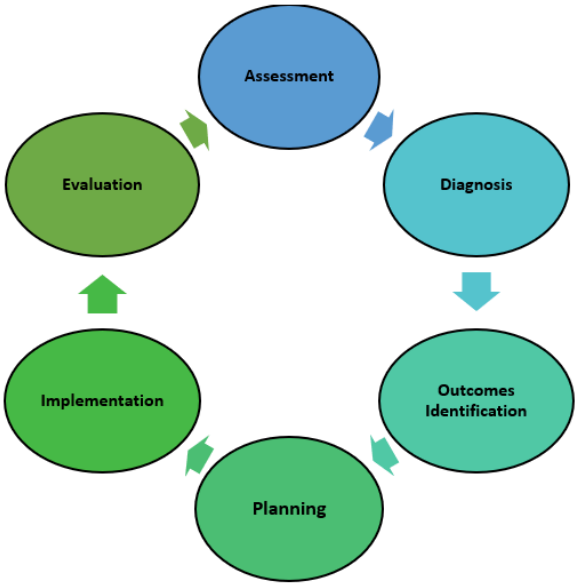

Figure 2.3 The Nursing Process

Assessment

The Assessment component of the nursing process is defined as, "The registered nurse collects pertinent data and information relative to the health

1. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
2. "The Nursing Process" by Kim Ernstmeyer at Chippewa Valley Technical College is licensed under CC BY 4.0

care consumer's health or the situation."[3] A nursing assessment includes physiological data, as well as psychological, sociocultural, spiritual, economic, and lifestyle data. Nursing assistants should observe and report things to the nurse that they notice when providing care, such as reddened or open skin, confusion, increased swelling, or reports of pain.[4]

Diagnosis

The Diagnosis phase of the nursing process is defined as, "The registered nurse analyzes the assessment data to determine actual or potential diagnoses, problems, and issues."[5] A nursing diagnosis is the nurse's clinical judgment about the client's response to actual or potential health conditions or needs. Nursing diagnoses are the basis for the nursing care plans and are different than medical diagnoses.[6]

Outcomes Identification

The Outcomes Identification phase of the nursing process is defined as, "The registered nurse identifies expected outcomes for a plan individualized to the health care consumer or the situation."[7] The nurse sets measurable and achievable short- and long-term goals and specific outcomes in collaboration with the patient based on their assessment data and nursing diagnoses.[8] Nurses may communicate expected outcomes to nursing assistants, such as, "The client will walk at least 100 feet today."

3. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
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5. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
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7. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
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Planning

The Planning phase of the nursing process is defined as, "The registered nurse develops a collaborative plan encompassing strategies to achieve expected outcomes." Assessment data, nursing diagnoses, and goals are used to select evidence-based nursing interventions customized to each patient's needs and concerns. Goals and nursing interventions are documented in the patient's nursing care plan so that nurses, as well as other health professionals, have access to it for continuity of care.[9]

Nursing Care Plans

Nursing care plans are part of the Planning step of the nursing process. A nursing care plan is a type of documentation created by registered nurses (RNs) that describes the individualized planning and delivery of nursing care for each specific patient using the nursing process. **Nursing care plans** guide the care provided to each patient across shifts so care is consistent among health care personnel. Some nursing interventions can be assigned or delegated to licensed practical nurses (LPNs) or nursing assistants with the RN's supervision.[10] Although nursing assistants do not create or edit care plans, they review this document to know what care should be provided to each client within their scope of practice.

Implementation

The Implementation phase of the nursing process is defined as, "The nurse implements the identified plan."[11] Nursing interventions are implemented or delegated with supervision according to the care plan to assure continuity of care across multiple nurses and health professionals caring for the patient. Interventions are also documented in the patient's medical record as they are

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11. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.

completed.[12] The nursing assistant's largest responsibility during the nursing process is safely implementing their delegated interventions in the nursing care plan.

Evaluation

The Evaluation phase of the nursing process is defined as, "The registered nurse evaluates progress toward attainment of goals and outcomes."[13] During evaluation, nurses assess the patient and compare the findings against the initial assessment to determine the effectiveness of the interventions and overall nursing care plan. Both the patient's status and the effectiveness of the nursing care must be continuously evaluated and modified as needed. To assist the nurse in evaluation, nursing assistants must report any changes in patient condition or new observations related to new interventions. Because nursing assistants spend the most time with the residents, it is important to communicate with the nurse if asked to implement an intervention that is known to be ineffective with a resident so a different, more effective alternative can be identified.

Benefits of Using the Nursing Process

Using the nursing process has many benefits for all members of the health care team. The benefits of using the nursing process include the following[14]:

- Promotes quality patient care
- Decreases omissions and duplications
- Provides a guide for all staff involved to provide consistent and responsive care
- Encourages collaborative management of a patient's health care problems

12. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
13. American Nurses Association. (2021). *Nursing: Scope and standards of practice* (4th ed.). American Nurses Association.
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- Improves patient safety
- Improves patient satisfaction
- Identifies a patient's goals and strategies to attain them
- Increases the likelihood of achieving positive patient outcomes
- Saves time, energy, and frustration by creating a care plan or path to follow

2.5 Scope of Practice

Scope of practice is defined as services that a trained health professional is deemed competent to perform and permitted to undertake according to the terms of their state professional license.[1] Different states have some variability in what nursing assistants can legally perform based on their licensure. It is important to check state DHS regulations to know exactly what skills and care you are able to legally provide as a nurse aide.

The CMS defines acceptable scope of practice for nursing aides at the federal level. Federal regulation 42 CFR § 483 lists nine tasks that are allowable by each state. These tasks are as follows[2]:

- Personal care skills
- Safety/emergency procedures
- Basic nursing skills
- Infection control
- Communication and interpersonal skills
- Care of cognitively impaired residents
- Basic restorative care
- Mental health and social service needs
- Residents' rights

As you learned in the "Nursing Process" section of this chapter, many tasks in the Implementation phase can be assigned or delegated by the registered nurse (RN) to the nurse aide. To keep you and your residents safe, use the **4 S's** to verify that you are performing within your scope of practice when accepting delegated or assigned tasks: **S**cope, **S**upervision, **S**afety, and **S**upplies. It is important that you ask yourself these questions before performing any cares for a resident:

1. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
2. McMullen, T. L., Resnick, B., Chin-Hansen, J., Geiger-Brown, J. M., Miller, N., & Rubenstein, R. (2015). Certified nurse aide scope of practice: State-by-state differences in allowable delegated activities. *Journal of the American Medical Directors Association, 16*(1), 20-24. https://doi.org/10.1016/j.jamda.2014.07.003

- **Scope:** Is this task within my scope of practice as defined by my state licensure? If it is a skill or task that you did not perform for evaluation by your instructor during your nursing assistant course, it may not be legal for you to carry out under your licensure. However, some states allow facilities to provide additional training on skills to improve resident care.
- **Supervision:** Do I have supervision available? Each task delegated to you must be clear and supervised. If you are unsure of exactly what you need to perform, you should have an RN supervisor to whom you can direct questions. Supervision can be in person or via telephone.
- **Safety:** Am I safe to perform the task? Patient safety is vital. Even though you may have competently demonstrated a skill when you took your certification course, there may be tasks that you do not perform consistently depending on your care setting. For example, if you haven't recently used a mechanical lift, you may need additional training before you can safely perform this transfer technique with a resident.
- **Supplies:** Do I have the supplies I need? If you do not have the proper equipment needed for the task, it is unsafe to perform it. Supplies may include personal protective equipment (PPE) for infection control, transfer equipment and mobility aids, or personal items needed for resident grooming and hygiene.

2.6 Health Care Settings

Caregivers who provide assistance in activities of daily living (ADLs) work in a variety of settings. When an individual is no longer able to independently care for oneself, the level of care needed is what determines where they reside. For example, an individual who is able to perform most of their ADLs but needs assistance with meals and laundry may live in an assisted living facility, but someone who needs more assistance with daily ADLs may live in a nursing home. As you become more familiar with health care delivery, you will discover what type of setting will be the best fit for you. Some settings require licensure for nurse aides while others will provide training at the agency level. Table 2.6 outlines the different types of settings where health care can be delivered. Terms such as *patients*, *clients*, *residents*, and *members* are used interchangeably for people for whom nursing assistants provide care. In general, people receiving care in hospitals are referred to as “patients,” people who live long-term care facilities are referred to as “residents,” and people receiving outpatient care are often referred to as a “clients” or “members.”

Table 2.6 Health Care Settings

Care Setting	Type of Care Provided	Typical Patient	Room Environment	What are Users Called?	Who Provides ADLs?
Hospital	24-hour care is provided with access to physicians and other providers, RNs, speech therapists, physical therapists, occupational therapists, respiratory therapists, social workers, registered dietitians, and chaplains for spiritual care. Hospitals provide acute and specialty care for patients, as well as emergency and urgent care. Some hospitals provide home health and hospice services. Larger hospitals provide various types of labs and diagnostic tests on site.	Anyone with emergent or urgent health care concerns is appropriate to be served in the hospital setting.	Designed for short stays with sterile and clean environments. Rooms are typically made for one patient and contain multiple pieces of medical equipment to avoid HIPAA and infection control concerns. Many disposable or one-time use items are used to avoid cross-contamination.	Patients	Patient Care Assistants (PCAs) or Certified Nursing Assistants (CNAs); licensure is required.

Long-term Care (LTC) or Nursing Home (NH)	24-hour skilled care is provided for people who are no longer eligible for hospital care but are unable to care for themselves at home. An RN is always on site. Residents may be admitted due to physical limitations in mobility, management of chronic conditions or medication, or both.	Typically, older adults with chronic conditions such as physical disabilities, heart disease, prior strokes, diabetes, history of major fractures, or are otherwise unsafe at home.	A long-term care facility, commonly referred to as nursing home or rehabilitation center, is where a person lives. The facility typically has both private and shared rooms, and residents are encouraged to have their own belongings. Rooms are accessible for various mobility needs but are more homelike than a hospital setting.	Residents	Certified Nursing Assistants (CNAs); licensure is required at facilities that are funded by Medicare and Medicaid.
Assisted Living	Care is provided that can be scheduled, such as medication assistance, grooming, showering, meal preparation, cleaning, and laundry. On-demand care, such as assistance with toileting or getting from one place to another, is not included.	Typically, residents are 65 years or older and are more independent than in other LTC facilities. They are medically stable but need some oversight for safety and home maintenance. As their assistance needs change, they can be moved to a different area if necessary.	Each room is like an apartment with a small kitchen and entry doors that lock.	Residents	Daily Living Assistants (DLAs) or CNAs; licensure is not required.

Group Home/ Adult Family Home	Provides daily care and maintenance with mostly an oversight on safety.	Typically, adults with developmental disabilities or moderate dementia, or those recovering from substance use disorders.	Residents have a bedroom and access to the whole house. Each state provides a maximum capacity per house, but group homes typically have 4-6 residents.	Residents or clients	Daily Living Assistants (DLAs) or CNAs; licensure is not required.
Home Health	Any assistance (nursing or ADLs) provided in someone's home.	Can be short-term assistance for things like wound care or IV therapy or long-term assistance with medication management, cleaning, shopping, etc.	Care is provided in the client's home.	Patient, client, or member	Daily Living Assistants (DLAs) or CNAs; licensure is not required.
Hospice	Assistance provided for palliative or end-of-life care.	Those who are terminally ill and/or have a life expectancy of six months or less.	Care is available 24 hours, 7 days a week in a resident's home, LTC facility, or hospital unit.	Patient, client, or member	Daily Living Assistants (DLAs) or CNAs; licensure is not required.

2.7 Job-Seeking and Keeping Skills

After completing your coursework, the next step to becoming an employed nursing assistant is to find employment opportunities. You can use local resources, such as newspapers or workforce entities, websites, or social media pages of local health care facilities, or conduct your own search online. After you have completed your clinical experiences, keep in mind the type of facility you prefer to work in and seek out those opportunities for greater job satisfaction. As discussed in "The Survey Process" subsection of this chapter, you can review the survey data of nursing homes to determine their current quality ratings. It is also important to consider staffing ratios when applying for a job. **Staffing ratios** refer to the number of patients assigned each shift to nurses and nursing aides. Working for a facility with good staffing ratios can positively impact your stress level and work-life balance, making this an important characteristic to consider.

You should create a resume to submit with your job application. A **resume** is a factual presentation of yourself that lists your various skills and accomplishments. The goal of your resume is to make an employer want to interview you. Your resume should include your contact information, education, licenses or certifications, and your work experience. You can include skills attained during your nursing assistant training that will pertain directly to the position for which you are applying. You may want to add any honors, awards, or volunteer experiences that would be helpful in highlighting your skills for the position you are seeking. You should also have 2-3 professional references available. References are people who have supervised you in previous jobs or instructors who have observed your skills. Be sure to ask individuals if you can use them as a reference before giving their contact information to your prospective employer.[1]

When you receive a request from a potential employer for an interview, there are many things you can do to prepare yourself. Look at the job description

1. Chippewa Valley Technical College. (n.d.). *Career planning*. https://www.cvtc.edu/experience-cvtc/student-services/career-planning

and be able to specifically state how you can meet the requirements of the job. It is helpful to have someone ask you practice questions. During an interview you are also considering if the facility is a good fit for you. You may want to consider asking for a tour of the facility to observe the environment. Think of questions you want to know about the job such as the following:

- How long is the orientation period?
- What hours will I be expected to work?
- How will I be evaluated?

On the day of the interview, be sure to arrive 10-15 minutes early and have your cell phone silenced. When you meet the person with whom you will interview, make good eye contact and shake hands if appropriate. Speak confidently and truthfully about your abilities. Additionally, you should follow these grooming guidelines:

- Shower, brush your teeth, groom your hair, and trim your nails.
- Wear clean, professional attire without wrinkles, words, or logos.
- If you wear a skirt or dress, make sure it is knee-length or below.
- Do not wear shorts or jeans.
- Wear closed-toed shoes that are in good condition.
- Keep makeup and jewelry to a minimum.
- Use deodorant but no cologne or perfume.

These are all grooming expectations of health care professionals, and it is important to display these qualities the first time you meet your prospective employer.

After you are hired, refer to the areas discussed in "Communication Within the Health Care Team" to meet the needs of your residents and build professional relationships with other staff. Based on the facility's policies, you will have periodic evaluations with your supervisor to discuss your job performance. It is good to reflect on your own performance before the evaluation and be open to any opportunities discussed to improve your care. Be sure to keep your certification and any other training requirements

current so you do not have a lapse in your availability to your residents and peers.

Being a caregiver and helping others can be extremely rewarding, but at times it can also be challenging. Be sure to take care of yourself by getting proper rest, exercise, and nutritional intake. If you don't feel well, you can't take care of others. Refer to information on "Dealing With Stress" in Chapter 1 as to how you can keep yourself mentally healthy to meet the demands of your job.

2.8 Learning Activities

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https://wtcs.pressbooks.pub/nurseassist/?p=189#h5p-5

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=189#h5p-6

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https://wtcs.pressbooks.pub/nurseassist/?p=189#h5p-7

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=189#h5p-8

II Glossary

Citation: A problem or discrepancy found during a survey of a facility by the Department of Health Services.

Elder abuse: An intentional act, or failure to act, that causes or creates a risk of harm to someone 60 or older. The abuse occurs at the hands of a caregiver or a person the older adult trusts.

Elopement: An event when a resident who is incapable of protecting themselves from harm is able to successfully leave the facility unsupervised and unnoticed and possibly enter into harm's way.

Health Insurance Portability and Accountability Act of 1996 (HIPAA): Legislation that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient's consent or knowledge.

Mandated reporter: Nursing assistants and other health care professionals are referred to as mandated reporters because they are required by state law to report suspected neglect or abuse of the elderly, vulnerable adults, and children. As a caregiver, you are required to report any signs or symptoms that are suspicious for abuse or neglect to the nurse.

Neglect: Failure to provide care to oneself or to someone for whom you are enlisted to care.

Nursing care plan: A type of documentation created by registered nurses (RNs) that describes the individualized planning and delivery of nursing care for each specific patient using the nursing process.

Nursing process: A critical thinking model based on a systematic approach to patient-centered care that nurses use to perform clinical reasoning and make clinical judgments when providing patient care. The nursing process is based on the Standards of Professional Nursing Practice established by the American Nurses Association (ANA). The mnemonic ADOPIE is an easy way to remember the ANA Standards and the six components of the nursing

process: Assessment, Diagnosis, Outcomes Identification, Planning, Implementation, and Evaluation.[1]

Patient-centered care: A model of health care where an individual's specific health needs and desired health outcomes are the driving force behind all health care decisions. Patients are partners with the health care team members, and health care professionals treat patients not only from a clinical perspective, but also from an emotional, mental, spiritual, social, and financial perspective.

Resume: A factual presentation of yourself that lists your various skills and accomplishments.

Scope of practice: Services that a trained health professional is deemed competent to perform and permitted to undertake according to the terms of their professional license.[2]

Staffing ratios: The number of patients assigned each shift to nurses and nursing aides.

Survey: An evaluative visit by state Department of Health Services (DHS) employees to observe care provided to residents, watch preparation and serving of food, review resident care plans and facility documentation, interview residents and families, and look at every aspect of the facility. The surveyors are ensuring that each aspect of residents' physical, emotional, social, and spiritual needs are met.

Vulnerable populations: Patients who are children, older adults, minorities, socially disadvantaged, underinsured, or those with certain medical conditions. Members of vulnerable populations often have health conditions that are exacerbated by unnecessarily inadequate health care.[3]

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2. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
3. Waisel, D. B. (2013). Vulnerable populations. *Current Opinion in Anesthesiology, 26*(2), 186-192. https://doi.org/10.1097/aco.0b013e32835e8c17

PART III

CHAPTER 3: MAINTAIN A SAFE HEALTH CARE ENVIRONMENT

3.1 Introduction to Maintain a Safe Health Care Environment

Learning Objectives

- Maintain a safe, clean, comfortable, therapeutic environment
- Respond appropriately in emergency situations
- Perform airway clearance maneuver
- Apply principles of body mechanics
- Demonstrate safe use and maintenance of equipment and supplies
- Make an occupied and unoccupied bed

Nursing assistants must provide safe, clean, comfortable environments and safely use equipment and supplies. This chapter will review common emergency situations and provide guidelines on how a nursing aide should respond. A typical nursing home environment will be described, and strategies for helping residents transition from living independently to residing in a facility will also be discussed. Proper equipment and body mechanics for lifting residents will also be described to help keep you and those you care for safe.

3.2 Emergency Situations

Nursing assistants must be prepared to respond to emergency situations when providing patient care. Common situations requiring immediate emergency response include heart attacks (myocardial infarctions), strokes (cerebrovascular accidents), seizures, falls, fires, and choking.

Heart Attack or Myocardial Infarction (MI)

Myocardial infarction (MI) is the medical term for what is commonly referred to as a "heart attack." It is caused by a lack of blood flow and oxygen to a region of the heart, resulting in the death of cardiac muscle cells. An MI is typically caused by a blocked coronary artery that occurs when the buildup of plaque creates a clot or when a piece of the plaque breaks off and travels to a smaller vessel, creating a blockage.

When the cardiac muscle cells are starved of oxygen and begin to die during an MI, there is typically a sudden onset of severe pain called **angina** beneath the sternum. This pain often radiates down the left arm or into the jaw. However, some patients (especially female patients) may not experience severe pain but instead experience symptoms that feel like indigestion. Patients may also have associated symptoms like difficulty catching their breath referred to as **shortness of breath (SOB)**, sweating, anxiety, irregular heartbeats, nausea, vomiting, or fainting. Symptoms should be immediately reported to the nurse for emergency assessment and treatment to preserve as much of the heart as possible.[1] See Figure 3.1[2] for an illustration of a male experiencing a myocardial infarction.

1. This work is a derivative of Nursing Pharmacology by Chippewa Valley Technical College and is licensed under CC BY 4.0
2. "A man having a Heart Attack.png" by https://www.myupchar.com/en is licensed under CC BY-SA 4.0.

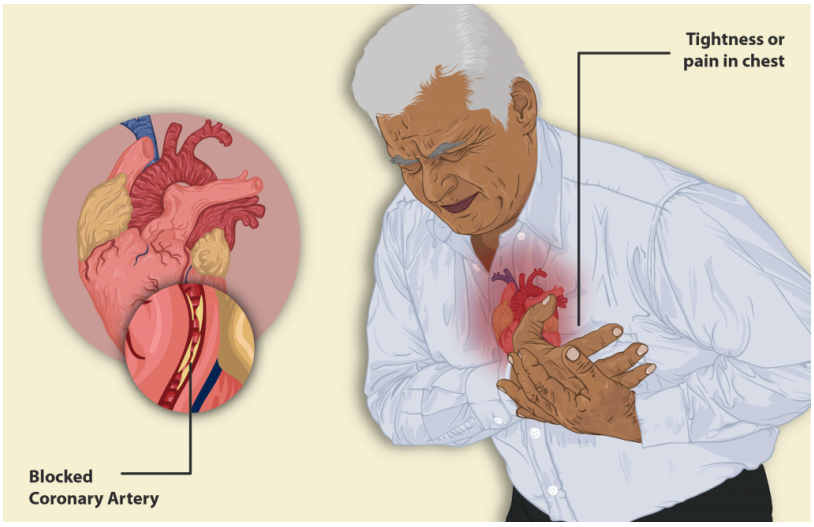


Figure 3.1 Myocardial Infarction

View the following supplementary TED-Ed video[3] with additional information on heart attacks:
What Happens During a Heart Attack? – Krishna Sudhir.

Stroke or Cerebrovascular Attack (CVA)

A **cerebrovascular attack (CVA)**, often referred to as a "stroke" or "brain attack," is caused by a lack of blood flow and oxygen to the brain, resulting in the death of brain cells within a few minutes. Similar to the cause of a heart attack, the lack of blood flow is often caused by a blockage in an artery, but in the case of a stroke, the artery is located in the brain. Strokes can also be caused by a blood vessel in the brain rupturing and bleeding, called a hemorrhagic stroke. Risk factors for strokes include smoking, high blood pressure, and **cardiac arrhythmias** (i.e., irregularities in heart rate and/or rhythm).

Lack of blood flow to the brain for more than a few minutes causes irreversible brain damage. The longer a person goes without treatment for a

3. TED-Ed. (2017, February 14). *What happens during a heart attack? - Krishna Sudhir* [Video]. YouTube. All rights reserved. https://youtu.be/3_PYnWVoUzM

stroke, the more damage that occurs to their brain cells. Damaged brain cells can result in paralysis, cognitive impairment, difficulty speaking and understanding words, and mood swings. For this reason, it is important to recognize early signs of a stroke and obtain rapid emergency treatment.

The treatment for a stroke depends on the cause. Eighty percent of strokes occur due to a blockage of an artery in the brain. Strokes caused by a blockage are treated with **thrombolytic medication** (such as tPA) to dissolve the clot. See Figure 3.2[4] for an image of a stroke caused by a blockage. Hemorrhagic strokes occur due to a ruptured vessel in the brain. These types of strokes often require surgery to stop the bleeding. Stroke treatments work best if the symptoms of a stroke are recognized early and emergency treatment occurs within three hours of the onset of symptoms.[5]

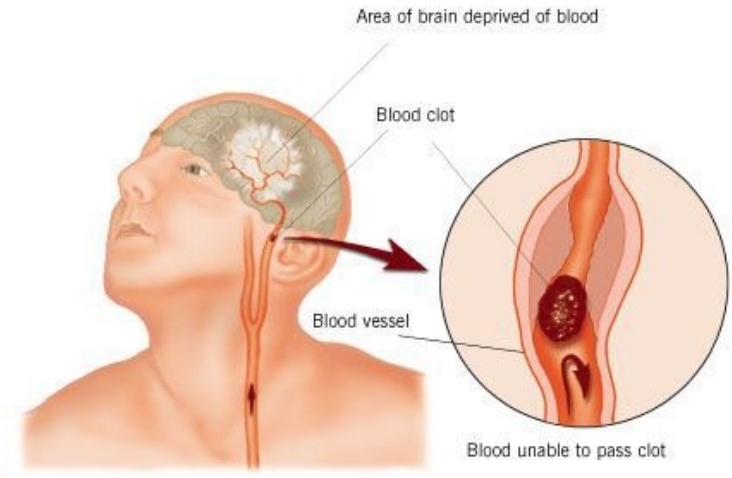


Figure 3.2 Stroke

Strokes typically affect one side of the brain based on where the blood flow was disrupted. Because of the brain's anatomy, the symptoms of a stroke occur on the opposite side of the body as the affected side of the brain. For example, if a stroke occurs in the left side of the brain, the right side of the body will be affected, resulting in signs and symptoms occurring only on the

4. "Stroke Diagram" by ConstructionDealMkting is licensed under CC BY 2.0
5. Centers for Disease Control and Prevention. (2020, August 28). *Stroke*. https://www.cdc.gov/stroke/signs_symptoms.htm

right side of the body. This unilaterality (i.e., one-sidedness) of symptoms is important to recognize and report to the nurse.

The **FAST** acronym is used to remember early signs of a stroke:

- **F:** Facial drooping
- **A:** Arm weakness (unilateral)
- **S:** Slurred speech
- **T:** Time, meaning the quicker the response, the better the outcome

Given the central role and vital importance the brain is to life, it is critical that its blood supply remains uninterrupted. If blood flow is interrupted, even for just a few seconds, a **transient ischemic attack (TIA)**, also called ministroke, may occur. A TIA is a temporary period of symptoms similar to those of a stroke, but they usually last only a few minutes, and they don't cause permanent brain damage. However, TIAs can be a warning sign for a future stroke and should be reported to the nurse.

View a YouTube video[6] from the Centers for Disease Control and Prevention (CDC): Recognizing the Signs and Symptoms of Stroke

Seizure

A **seizure** is a transient occurrence of signs and/or symptoms due to abnormal activity in neurons in the brain. During a seizure, large numbers of brain cells are abnormally activated at the same time, like an electrical storm in the brain. This abnormal neuronal activity often affects a person's consciousness and causes abnormal muscle movements.

6. Centers for Disease Control and Prevention (CDC). (2015, October, 26). Recognize the Signs and Symptoms of Stroke. [Video]. YouTube. All rights reserved. https://youtu.be/cx5G1VdC9UA

Seizures are generally described in two major groups: generalized seizures and focal seizures. The difference between the types of seizures is in how and where they begin in the brain.[7]

Many symptoms can occur during a seizure. They are classified as motor or nonmotor symptoms. Motor symptoms include the following[8]:

- Sustained rhythmic jerking movements (clonic)
- Muscles becoming limp or weak (atonic)
- Body, arms, or legs becoming stiff or tense (tonic)
- Brief twitching (myoclonus)

Nonmotor symptoms are as follows[9]:

- Staring spells (absence seizures)
- Changes in sensation, emotions, thinking, or autonomic functions (nonmotor symptoms)
- Lack of movement (behavioral arrest)

When reporting a seizure to the nurse, include the following three descriptions[10]:

- The time the seizure started
- The person's level of awareness during the seizure
- The movements that occurred during the seizure

If a resident has seizure disorder, it is typically noted in the nursing care plan. If you witness the beginning of a seizure, prepare to take quick action to reduce the chance of injury. For example, if the person is standing, the seizure can cause them to fall. You may not be able to stop the fall but try to guide them to the floor if possible. After they are on the floor, protect their head

7. Epilepsy Foundation. (2020). *Types of seizures.* https://www.epilepsy.com/learn/types-seizures
8. Epilepsy Foundation. (2020). *Types of seizures.* https://www.epilepsy.com/learn/types-seizures
9. Epilepsy Foundation. (2020). *Types of seizures.* https://www.epilepsy.com/learn/types-seizures
10. Epilepsy Foundation. (2020). *Types of seizures.* https://www.epilepsy.com/learn/types-seizures

from directly hitting the floor by placing a pillow or your leg underneath their head. During the seizure, the person may bite their tongue or gag. However, do not place anything in their mouth because this will increase the risk of choking.

Immediately notify the nurse if you observe the start of a seizure and note the time it started. When the seizure has ended, carefully assist the person into bed. Due to the trauma experienced during the seizure, it is typical for the person to sleep for several hours. Some individuals with seizure disorders may also receive antianxiety medication to prevent another seizure from occurring.

- View the Epilepsy Foundation's YouTube video[11] of a person experiencing a seizure: Wendy says #ShareMySeizure.
- View the Epilepsy Foundation's YouTube video to learn more about seizure first aid[12]: Responding to Seizures: Care and Comfort First Aid.

Falls and Fall Prevention

Falls are common in adults aged 65 years and older. In the United States, about a third of older adults who live at home and about half of people living in nursing homes fall at least once a year. There are many factors that increase the risk of falling in older adults. These risk factors include mobility problems, balance disorders, chronic illnesses, and impaired vision. Many falls cause injury, ranging from mild bruising to broken bones, head injuries, and even death. In fact, falls are a leading cause of death in older adults.

11. Epilepsy Foundation. (2016, November 16). *Wendy says* #ShareMySeizure (30 sec) [Video]. YouTube. All rights reserved. https://youtu.be/KYQXSam1kww
12. Epilepsy Foundation. (2015, November 17). *Responding to seizures: Care and comfort first aid* [Video]. YouTube. All rights reserved. https://youtu.be/PAl9LDq9yas

If you enter a room and discover a resident has fallen, do not move them unless they are in immediate danger of further injury. Notify the nurse as soon as you observe the situation so the resident can be assessed and treated. Typically, a mechanical lift will be used to raise the resident from the floor to prevent injury to themselves and staff.

As a nursing assistant, there are several actions you can take to prevent falls. Keep the environment clean and free of clutter that can cause imbalance while a resident is **ambulating** (i.e., walking). If a spill is noted on the floor, it should be cleaned up immediately. Whenever residents are standing or walking, be sure they are wearing **nonskid footwear** (i.e., shoes or socks with rubberized soles). Use ordered **assistive devices**, such as gait belts and walkers, when moving a resident. If a resident wears glasses or hearing aids, make sure they are functioning, clean, and properly fitted for the resident so the resident can safely assess their surroundings when moving.[13] Additional information on fall risk and preventing falls can be found in Chapter 9.

Fire

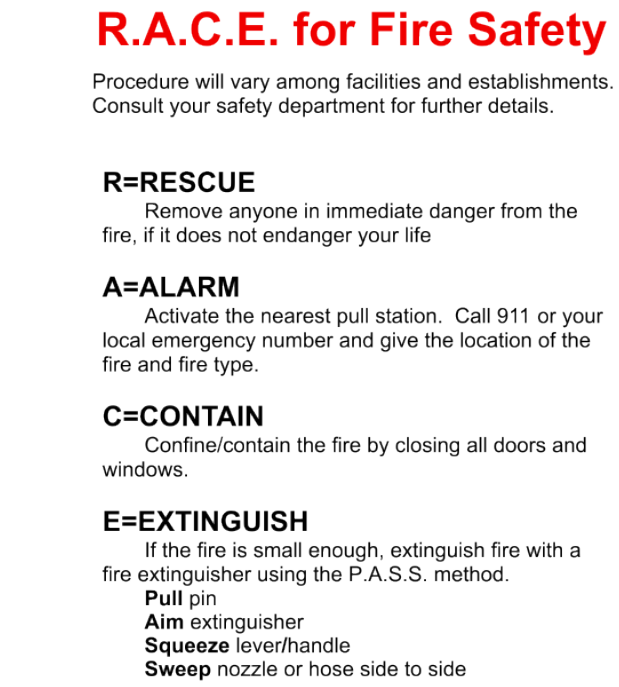
In Chapter 2 you learned about agencies that govern health care, such as the Occupational Safety and Health Administration (OSHA). OSHA provides fire regulations and guidelines for every place of employment. This knowledge is essential for keeping residents safe in health care settings due to their limited mobility. Compliance to these regulations when responding to fires is commonly reviewed during the survey process.

The response to a fire can be remembered by the **RACE** and **PASS** acronyms. See Figure 3.3[14] for using the PASS method with a fire extinguisher.

- **R: Rescue** anyone in immediate danger from the fire if it doesn't endanger your life.
- **A: Activate** the alarm by pulling the nearest fire alarm or calling 911.

13. MedlinePlus [Internet]. Bethesda (MD): National Library of Medicine (US). Stroke signs and symptoms; [reviewed 2020, Aug 28; cited 2021, Dec 3]. https://medlineplus.gov/lab-tests/fall-risk-assessment/
14. "RACE-Safety--Arvin61r58.png" by unknown at Freesvg.org is licensed under CC0 1.0

- **C: Contain** the fire by closing all doors and windows.
- **E: Extinguish** the fire if it is small enough using a fire extinguisher and the PASS method. If the fire cannot be extinguished, then **evacuate** patients and oneself from the area. The PASS method includes the following actions:
    - **P: Pull** the pin on the fire extinguisher.
    - **A: Aim** the extinguisher nozzle at the base of the fire.
    - **S: Squeeze** or press the handle.
    - **S: Sweep** from side to side at the base of the flame until the fire appears to be out.



R.A.C.E. for Fire Safety

Procedure will vary among facilities and establishments. Consult your safety department for further details.

R=RESCUE
Remove anyone in immediate danger from the fire, if it does not endanger your life

A=ALARM
Activate the nearest pull station. Call 911 or your local emergency number and give the location of the fire and fire type.

C=CONTAIN
Confine/contain the fire by closing all doors and windows.

E=EXTINGUISH
If the fire is small enough, extinguish fire with a fire extinguisher using the P.A.S.S. method.
Pull pin
Aim extinguisher
Squeeze lever/handle
Sweep nozzle or hose side to side

Figure 3.3 RACE for Fire Safety

View the UC San Diego Health's YouTube video[15] on using RACE + PASS: RACE + PASS Training.

15. UCSD Visual Media Group. (2019, January 18). *RACE + PASS training* [Video]. YouTube. All rights reserved. https://youtu.be/pVHFdEivyNE

Choking and Airway Clearance

Choking is a common cause of unintentional injury and death. Over half of the people who die from choking are over the age of 70.[16] Food is often responsible for choking incidents in the elderly, especially those who have difficulty swallowing or have dentures. Many people who have dementia or who have had a previous stroke have difficulty swallowing. If you see any signs of choking, immediately notify the nurse and take action to clear the person's airway.

If you are in a setting without a nurse present, it is important for you to know what to do and how to rescue someone who is choking. If a person is continuing to cough forcefully, encourage continued coughing to clear the object. However, a person who can't cough, speak, or breathe needs immediate help. Ask the person if they are choking and let them know you will use abdominal thrusts, known as the **Heimlich maneuver**, to help them clear their airway and breathe. (Keep in mind the Heimlich maneuver is not recommended for children younger than 1.) See Figure 3.4[17] for an image of the Heimlich maneuver.

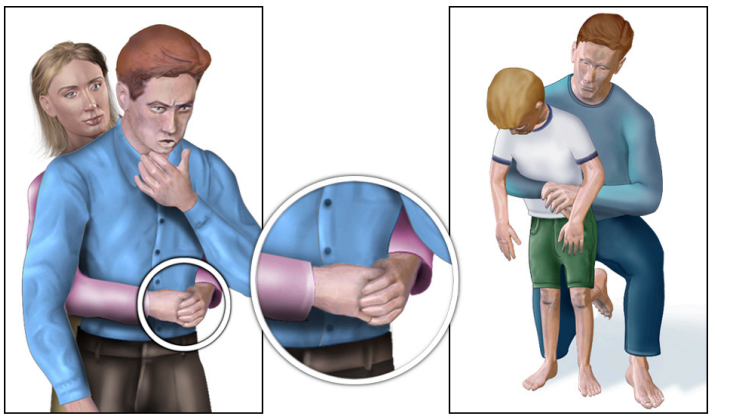


Figure 3.4 Heimlich Maneuver

16. National Safety Council. (n.d.). *Choking prevention and rescue tips*. https://www.nsc.org/home-safety/safety-topics/choking-suffocation
17. "Heimlich_Adult_%26_Child.png" by BruceBlaus is licensed under CC BY-SA 4.0

To perform the Heimlich maneuver, perform the following steps[18]:

- Stand behind the victim with one leg forward between the victim's legs. If the person is sitting in a wheelchair or not able to stand, lean them forward in the chair and stand behind them.
- For a child, move down to their level and keep your head to one side.
- Reach around the abdomen and locate the navel.
- Place the thumb side of your fist against the abdomen just above the navel.
- Grasp your fist with your other hand and thrust inward and upward into the victim's abdomen with quick jerks.
- For a responsive pregnant victim, any victim you cannot get your arms around, or for anyone in whom abdominal thrusts are not effective, give chest thrusts while standing behind them. Avoid squeezing the ribs with your arms.
- Continue thrusts until the victim expels the object or becomes unresponsive.
- If the person becomes unconscious, perform standard cardiopulmonary resuscitation (CPR) with chest compressions and rescue breaths.
- After choking stops, seek medical attention for the client.

View the "Skills Checklist: Choking Maneuver" with an associated video of performing the Heimlich maneuver.

18. National Safety Council. (n.d.). *Choking prevention and rescue tips*. https://www.nsc.org/home-safety/safety-topics/choking-suffocation

3.3 Resident Environment

When an individual moves into a nursing home, it can be a complicated, stressful, and sometimes confusing time for them and their loved ones. Because nurse aides spend more time with residents than any other staff member, your actions are critical to help ease their worries associated with a change in their environment.

Reflective Activity

Reflect about a time when you moved, changed schools, started a new job, or went to a new place on your own. What things made you feel more comfortable during those transitions? Applying how you felt during those experiences can help you empathize with and provide peace of mind for anyone experiencing a transition.

In addition to experiencing a new environment, newly admitted residents have also typically had a recent major change in cognitive or physical functioning. They are adjusting to not only a new environment but also to how they feel, think, and move. Actions that were previously taken for granted, such as walking, eating, and performing self-care, now require assistance from others. Review the activity in the Chapter 1 subsection "Managing Clients' and Family Members' Stress" to increase your awareness of factors that may affect a resident's outlook and the ways you can improve their quality of life.

As a nurse aide, you can be a major factor in promoting better outcomes for residents by making observations related to their nutritional intake, physical activity, and psychosocial well-being and communicating these observations to the nurse. The Fulmer SPICES tool is a good framework for promoting health in the older adult population. **SPICES** is an acronym that stands for observing the following aspects that can affect well-being for older adults:

Sleep, **P**roblems eating, **I**ncontinence, **C**onfusion, **E**vidence of falls, and **S**kin Breakdown[1]:

- **Sleep:** Older adults need 7-9 hours of sleep per day. To promote good sleep, control environmental factors such as noise, lighting, and temperature. Report sleep disturbances such as excessive snoring or gasping for air or if the resident states they don't feel rested on awakening.[2]
- **Problems Eating:** Report issues with chewing and swallowing during meals, as well as residents' food preferences. Insufficient nutritional intake can lead to skin breakdown issues, infection, and an overall decline in function. More information about eating problems can be found in Chapter 5.
- **Incontinence: Incontinence** is a lack of voluntary control over urination or defecation. Offer toileting to your residents at least every two hours and on their request. Check incontinence products at least every two hours, especially for those residents with communication problems. More information about incontinence can be found in Chapter 5.
- **Confusion:** Report any new onset of confusion because it can be a sign of infection. An example of a resident with new confusion would be not knowing the day of the week or where they are when normally they are aware and oriented.
- **Evidence of Falls:** Report any new weakness or difficulty in transferring from bed to wheelchair or a change in the ability to walk. Read more about fall prevention in the "Emergency Situations" section of this chapter and in Chapter 9.
- **Skin Breakdown:** Damage to the skin is called **skin breakdown**. Common preventable causes of skin breakdown are immobility and incontinence. For residents who are unable to independently move, reposition them at least every two hours. For residents with incontinence, provide proper

1. Aronow, H. U., Borenstein, J., Haus, F., Braunstein, G. D., & Bolton, L. B. (2014). Validating SPICES as a screening tool for frailty risks among hospitalized older adults. *Nursing Research and Practice, 2014*, 846759. https://doi.org/10.1155/2014/846759
2. Centers for Disease Control and Prevention. (2017, March 2). *How much sleep do I need?* https://www.cdc.gov/sleep/about_sleep/how_much_sleep.html

hygiene to keep their skin clean and dry. More information about skin breakdown can be found in Chapter 5.

Transitioning to a New Environment

Transitioning to a nursing home environment involves an abrupt change to an individual's living environment in terms of privacy, size, and personal belongings. See an image of a typical shared room in a nursing home in Figure 3.5.[3] In addition to this change in environment, residents often cannot follow their typical schedule they had at home, although accommodations should be made to meet their preferences as much as possible.

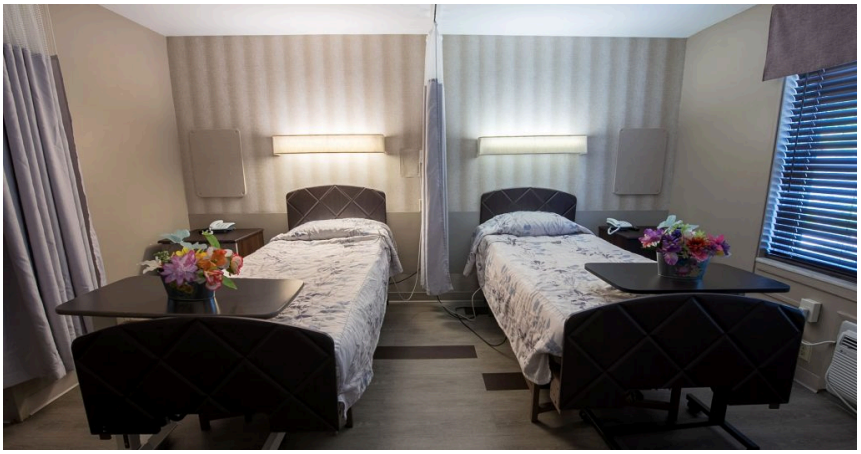


Figure 3.5 Typical Resident Environment in a Nursing Home

Nurse aids help residents transition to a new environment. When a new admission is expected, a staff member should be at the entry area to greet the individual and their loved ones. The room should be prepared before arrival, which includes sanitization procedures and making the bed. Read more about how to make a hospital bed in the "Skills Checklist" section of this chapter.

Actions to help residents transition to their new environment include the following:

3. "residentroom.jpg" by unknown for Stratford Manor. Image used under Fair Use. Access for free at https://stratfordrehab.com/

- Introduce the resident to the staff and identify who is responsible for which resident care needs, such as CNAs, dietary aides, activities personnel, nurses, etc.
- Provide a tour of the facility.
- Show the resident where they can find the daily schedule of events and activities.
- Assist the resident in organizing their belongings and arranging their room to fit their needs and preferences.
- Introduce their roommate if they are sharing a room.
- If possible, arrange to have a resident mentor. A **resident mentor** is another resident who can answer questions and encourage interaction.

Every facility has their own admission procedures, but a common requirement is the completion of a written inventory of the resident's belongings. This inventory is typically done by the nurse aide depending upon the care setting. See an example of a Resident Personal Belongings Inventory used in an adult family home in Figure 3.6.[4]

4. "Adult Family Home Resident Personal Belongings Inventory (Residential Care Services)" by Washington State Department of Social and Health Services is in the Public Domain. Access for free at https://www.dshs.wa.gov/office-of-the-secretary/forms

AGING AND LONG-TERM SUPPORT ADMINISTRATION (ALTSA)

Adult Family Home Resident Personal Belongings Inventory

WAC 388-76-10320

Instructions: Provider or Resident Manager completes upon admission. The Provider/Resident Manager and the resident or the resident's guardian or agent sign. File in the resident's record. Records and information concerning each person in care shall be maintained in such a manner as to preserve confidentiality.

RESIDENT'S NAME	NAME OF RESIDENT'S GUARDIAN	DATE OF ADMISSION

CONTACT LENSES	DENTURES
EYE GLASSES	HEARING AID
JEWELRY	WATCH
MONEY/CHECKBOOK/CREDIT CARDS	OTHER

CLOTHING LIST		
NUMBER	ITEM	DESCRIPTION
	Bathrobe	
	Belt	
	Blouse	
	Brassiere	
	Coat	
	Dress	
	Girdle	
	Gloves	
	Handkerchief	
	Hat	
	House coat	
	Necktie	
	Nightgown	
	Pajamas	
	Pants	
	Shirts	
	Shoes	
	Skirts	
	Slippers	
	Slips	
	Socks	
	Stockings	
	Suit	
	Suspenders	
	Sweater	
	Undershirt	
	Underpants	
	Underwear - long	
	Vests	
	Other:	

MISCELLANEOUS		
NUMBER	ITEM	DESCRIPTION
	Brush	
	Cane or crutches	
	Clock	
	Luggage	
	Radio	
	Television (model and serial number)	
	Walker	
	Wheelchair (model and serial number)	
	Other:	

Statement: I have read and agree that this is an accurate list of my belongings.

PROVIDER'S/RESIDENT MANAGER'S SIGNATURE	DATE	RESIDENT'S OR GUARDIAN'S SIGNATURE	DATE

DSHS 02-516 (REV. 07/2017)

Figure 3.6 Sample Resident Belonging Inventory

3.4 Body Mechanics and Safe Equipment Use

In addition to promoting safety for patients and their families, it is important for health care workers to be aware of safety risks in the environment and to take measures to protect themselves. Common safety risks to health care workers include sharps injuries, exposure to blood-borne pathogens, lack of personal protective equipment, and lifting injuries. A **sharps injury** is a penetrating wound from a needle, scalpel, or other sharp object that may result in exposure to blood-borne pathogens. **Blood-borne pathogens** are pathogenic microorganisms present in blood and body fluids that can cause disease such as hepatitis B (HBV) and human immunodeficiency virus (HIV). **Personal protective equipment (PPE)** is used to prevent transmission of blood-borne pathogens and infection and includes gloves, masks, goggles, gowns, and other types of protective equipment. This section will focus on lifting injuries related to moving clients, and the other safety risks will be discussed in Chapter 4.

The health and well-being of nurse aides is directly related to the quality of care residents receive. When a health care worker is injured, they may be unable to provide care to the extent required by residents. With this in mind, it is vital for nursing assistants to know how to prevent injury in the workplace. An article published in the 2018 *International Journal of Environmental Research and Public Health* noted that 88% of nurse aides reported at least one of their body parts having a **work-related musculoskeletal symptoms (WRMS)**.[1] The lower back was the most commonly affected WRMS area, followed by the arms and shoulders. According to this study, nursing assistants ranked first for occupational-related back sprains and strains, above construction workers, garbage collectors, and other health care workers. WRMS reported by nurse aides account for over 50% of all musculoskeletal injuries reported in the United States. These injuries are attributed to manual

1. Cheung, K., Szeto, G., Lai, G., & Ching, S. (2018). Prevalence of and factors associated with work-related musculoskeletal symptoms in nursing assistants working in nursing homes. *International Journal of Environmental Research and Public Health, 15*(2), 265. https://doi.org/10.3390/ijerph15020265

handling of clients, lifting heavy physical loads, assuming frequent awkward positions, and performing repetitive movements.[2]

Using gait belts and mechanical lifts for transferring residents from one location to another, such as from the bed to a wheelchair or a wheelchair to the toilet, has greatly reduced the risk of lifting injuries to both residents and aides. These transferring techniques will be discussed in Chapter 8.

Lifting injuries can also occur when repositioning residents while they are in bed. Repositioning is frequently performed for residents to provide hygiene, alleviate pain, or prevent skin breakdown. The ABC mnemonic for using proper body mechanics when transferring or repositioning residents stands for **A**lignment, **B**ase of support, and **C**enter of gravity[3]:

- **Alignment:** Correct body alignment is also referred to as good posture. When standing up straight, an imaginary line should be able to be drawn straight down through the center of the body so that both sides of the body are mirror images of each other. Body parts should be lined up naturally, with arms at one's side, palms directed forward, and feet pointed forward and slightly apart. Follow these guidelines to use proper alignment to prevent lifting injuries:
    - Maintain correct body alignment when lifting or carrying an object.
    - Keep the object close to your body, unless close proximity could transmit pathogens.
    - Point your feet and body in the direction you are moving.
    - Do not twist at the waist.
- **Base of support:** Creating a good base of support improves your balance, whereas imbalance creates awkward positioning that can lead to injury. To create a strong base of support, place your feet about shoulder width apart or just slightly wider than your hips.

2. Cheung, K., Szeto, G., Lai, G., & Ching, S. (2018). Prevalence of and factors associated with work-related musculoskeletal symptoms in nursing assistants working in nursing homes. *International Journal of Environmental Research and Public Health, 15*(2), 265. https://doi.org/10.3390/ijerph15020265
3. North Carolina Department of Health and Human Services. (2019). *State-approved curriculum: Nurse aide I Training program.* https://info.ncdhhs.gov/dhsr/hcpr/curriculum/pdf/moduleI.pdf

- **Center of gravity:** A person's center of gravity is where most of one's weight is concentrated. When standing, the pelvis is the center of gravity. Maintaining a low center of gravity provides a stable base of support and improves balance.

For example, when lifting objects or people, keep your center of gravity low with a good base of support by bending at the knees with the feet shoulder width apart. Keep in mind that your center of gravity also includes the resident or the object, so keep them as close to your body as possible. To maintain good alignment, face the person or object you are moving and use both sides of your body equally. Figure 3.7[4] illustrates safer body mechanics in Option "C" by maintaining good alignment, establishing a base of support, and keeping the load close and near to one's center of gravity while bending the knees.

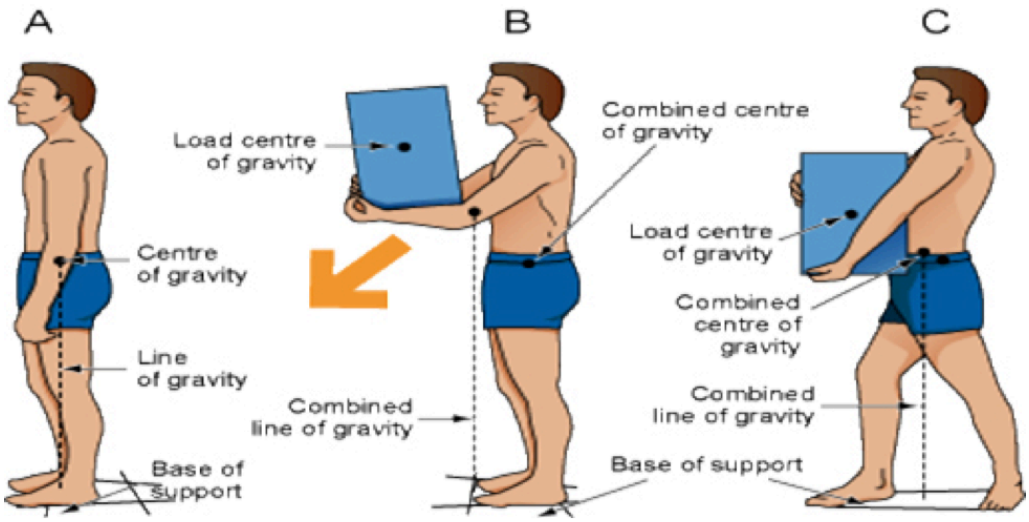


Figure 3.7 Center of Gravity

Facilities have specialized equipment used to assist in lifting and transferring clients that significantly reduces the risk of lifting injuries. Manufacturers provide specific instructions for the safe use and maintenance of their equipment. Be certain that you receive extensive training on safely using this

4. "Centre_of_Gravity.png" by Glynda Rees Doyle and Jodie Anita McCutcheon is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-2-body-mechanics/

equipment during your orientation to the facility. Orientation to lifting equipment should include becoming familiar with all parts of the device, the requirements for the mobility status of residents who will use that device, and potential risks to residents and caregivers while using the device. See Figure 3.8[5] for an image of lifting equipment.

Figure 3.8 Lifting Equipment

> For additional information on OSHA regulations for using lifting equipment and preventing lifting injuries, refer to this document: Guidelines for Nursing Homes PDF.

5. "User-Integra-lifter1.jpg" by Integracp is licensed under CC BY-SA 3.0

3.5 Skills Checklist: Making an Unoccupied Bed Checklist

Bed making is a necessary skill for nursing assistants to keep the environment clean, prevent skin breakdown and the spread of infection, and respect the resident's dignity by providing an orderly environment. Linens should be changed at least weekly or whenever they become soiled.

Follow these infection control guidelines when making beds:

- Never allow linens to touch your uniform.
- Do not transfer linens from one room to another.
- Do not place soiled linens on the floor.
- If linens touch the floor, they should be placed in the soiled laundry for cleaning and not used.
- Do not shake linens because it can spread airborne pathogens.
- Store clean linens in a closed closet or a covered cart.

Making an Unoccupied Bed Checklist

1. Gather Supplies: Linens

2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Place a clean barrier on a flat surface. Flip the linens over and place them on the barrier so the fitted sheet is on top.
    - Don gloves.

- Look for any personal belongings that may have been left in the bed and return them to their proper place.
- Untuck the corners and roll all linens together to the middle of the bed.
- Place soiled linens in a linen bag or other appropriate container according to facility policy.
- Remove gloves.
- Perform hand hygiene.
- If the bed is soiled, sanitize it or notify environmental services to sanitize it.
- After the bed has dried from sanitization, place the fitted sheet on the bed. Seams should be against the mattress and away from the resident. Smooth the sheet to prevent wrinkles that can cause injury to fragile skin. (Note: If a flat sheet is used as the bottom sheet, refer to sub-bullets below for details on making mitered corners.)
- Place the lift sheet where it is estimated the resident's shoulders to hips will be when they are in bed.
- Place a soaker pad or other waterproof barrier on top of the lift sheet.
- Place the flat sheet on top and smooth it out. Make mitered corners at the foot of the bed by doing the following:
    - Tuck the entire end of the sheet under the foot of the bed.
    - While facing the foot of the bed, create a 45-degree angle from the corner of the bed with the sheet.
    - Place the angled edge of the sheet on top of the bed and tuck in anything hanging below the bed frame.
    - Lower the angled sheet back over the edge of the bed.

- Place a bedspread or blanket on top of the sheet per the resident's preference. Make a mitered corner in the bedspread or blanket by performing the steps above.
- Lay a pillow on the bed and slide the pillowcase over the pillow.
- Put the pillow at the head of the bed with the open end of the pillowcase faced away from the door. Repeat for multiple pillows.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Report abnormal findings to the nurse.

View a YouTube video[1] of a nursing instructor demonstrating making an unoccupied bed:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=230#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Making an Unoccupied Bed. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/K0c9fSd46JA

3.6 Skills Checklist: Making an Occupied Bed

Bed making is a necessary skill for nursing assistants to keep the environment clean, prevent skin breakdown and the spread of infection, and respect the resident's dignity by providing an orderly environment. Linens should be changed at least weekly or whenever they become soiled.

Follow these infection control guidelines when making beds:

- Never allow linens to touch your uniform.
- Do not transfer linens from one room to another.
- Do not place soiled linens on the floor.
- If clean linens touch the floor, they should be placed in the soiled laundry for cleaning and not used.
- Do not shake linens because it can spread airborne pathogens.
- Store clean linens in a closed closet or a covered cart.

Making an Occupied Bed Checklist

1. Gather Supplies: Linens
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Place a clean barrier on a flat surface, flip linens over, and place them on the barrier so the fitted sheet is on top.
    - Don gloves.

- Look for any personal belongings that may have been left in the bed and return them to their proper place.
- Put the side rail up.
- Move to the opposite side of the bed.
- Using the lift sheet, roll the resident towards the side rail.
- Begin rolling soiled linens to the middle of the bed and under the resident.
- Remove gloves.
- Perform hand hygiene.
- Place a fitted sheet on the half of the bed you are working on.
- Place the lift sheet and soaker pad in the same manner, fan folding them under the resident.
- Raise the side rail.
- Move to the opposite side of the bed.
- Put on gloves.
- Lower side rail on working side of the bed.
- Roll the resident to the opposite side.
- Remove the soiled linens and place them in a linen bag.
- Remove gloves.
- Perform hand hygiene.
- Pull through the fitted sheet, lift sheet, and soaker pad, ensuring there are no wrinkles.
- Assist the resident to a supine position.
- Keeping the resident covered, place a new flat sheet on top of them.
- Make mitered corners at the foot of the bed by doing the following:

    - Tuck the entire end of the sheet under the foot of the bed.
    - Facing the foot of the bed, create a 45-degree angle from the corner of the bed with the sheet.
    - Place the angled sheet on top of the bed and tuck in anything hanging below the bed frame.
    - Lower the angled sheet over the edge of the bed.

- Put a clean pillowcase on a new pillow and exchange it for the soiled pillow. Put the pillow at the head of the bed with the open end of the

pillowcase faced away from the door. Repeat for multiple pillows.
- Repeat steps for any blankets or bedspreads.
- Make a toe pleat (i.e., a pleat in the sheet which allows an individual to move feet) to prevent pressure.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Report abnormal findings to the nurse.

View a YouTube video[1] of a nursing instructor demonstrating making an occupied bed:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1920#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Making an Occupied Bed. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/AN9pvC499P4

3.7 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=232#h5p-9

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=232#h5p-10

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=232#h5p-70

III Glossary

Ambulating: Walking.

Angina: Sudden chest pain beneath the sternum (breastbone) associated with a heart attack (myocardial infarction), often radiating down the left arm in male patients.

Assistive devices: Devices such as gait belts and walkers that are used when moving a patient.

Blood-borne pathogens: Pathogenic microorganisms present in blood and body fluids that can cause disease such as hepatitis B (HBV) and human immunodeficiency virus (HIV).

Cardiac arrhythmias: Irregularities in a person's heart rate and/or rhythm.

Cerebrovascular attack (CVA): The medical term for what is commonly referred to as a "stroke," caused by a lack of blood flow and oxygen to the brain.

FAST: An acronym used to remember the early signs of a stroke: Facial drooping, Arm weakness, Slurred speech, and Time (meaning the quicker the response, the better the outcome).

Heimlich maneuver: A procedure used for someone who is choking that uses abdominal thrusts to clear the airway so they can breathe.

Incontinence: A lack of voluntary control over urination or defecation.

Myocardial infarction (MI): The medical term for what is commonly referred to as a "heart attack," caused by a lack of blood flow and oxygen to the heart.

Nonskid footwear: Shoes or socks with rubberized soles used to prevent falls.

PASS: An acronym for using a fire extinguisher that stands for the following:

- P: Pull the pin on the fire extinguisher.

- A: Aim the extinguisher nozzle at the base of the fire.
- S: Squeeze or press the handle.
- S: Sweep from side to side at the base of the flame until the fire appears to be out.

Personal protective equipment (PPE): Equipment used to prevent transmission of blood-borne pathogens and infection, including gloves, masks, goggles, gowns, and other types of protective equipment.

RACE: An acronym for responding to a fire that stands for the following:

- R: Rescue anyone in immediate danger from the fire if it doesn't endanger your life.
- A: Activate the alarm by pulling the nearest fire alarm or calling 911.
- C: Contain the fire by closing all doors and windows.
- E: Extinguish the fire if it is small enough using a fire extinguisher and the PASS method. Evacuate patients and oneself if the fire cannot be extinguished.

Resident mentor: A resident who can answer questions and encourage interaction for a new resident recently admitted to a long-term care facility.

Seizure: A transient occurrence of signs and/or symptoms due to abnormal neuronal activity in the brain.

Sharps injury: A penetrating wound from a needle, scalpel, or other sharp object that may result in exposure to blood-borne pathogens.

Shortness of breath (SOB): Difficulty breathing or a feeling of not being able to catch one's breath.

Skin breakdown: Damage to the skin due to common preventable causes like immobility and incontinence.

SPICES: An acronym that stands for observing the following aspects of well-being for older adults: Sleep, Problems eating, Incontinence, Confusion, Evidence of falls, and Skin breakdown.

Thrombolytic medication: Medication (such as tPA) used to dissolve clots in arteries.

Transient ischemic attack (TIA): A medical term for what is commonly referred to as a ministroke. A TIA is a temporary period of symptoms similar to those of a stroke that usually last only a few minutes and don't cause permanent brain damage.

Work-related musculoskeletal symptoms (WRMS): Symptoms from musculoskeletal injuries experienced at work, such as lower back pain, that are attributed to manual handling of clients, heavy physical loads, frequent awkward positions, and repetitive movements.

PART IV

CHAPTER 4: ADHERE TO PRINCIPLES OF INFECTION CONTROL

4.1 Introduction to Adhere to Principles of Infection Control

Learning Objectives

- Discuss principles of medical asepsis for client and personal safety
- Describe methods to prevent blood-borne pathogen transmission
- Apply principles of standard and transmission-based precautions and infection prevention

Infection control, also called infection prevention, prevents or stops the spread of infections in health care settings.[1] Facilities hire licensed health professionals who are in charge of infection prevention, but everyone is responsible for reducing the spread of infection. This chapter will discuss the manner in which infections spread, common signs and symptoms of infection, and infection control basics, including methods to protect you and those you care for from infection.

1. Centers for Disease Control and Prevention. (2020, April 29). *Infection control*. https://www.cdc.gov/infectioncontrol/index.html

4.2 Chain of Infection

The **chain of infection**, also referred to as the chain of transmission, describes how an infection spreads based on these six links of transmission:

- Infectious Agent
- Reservoirs
- Portal of Exit
- Modes of Transmission
- Portal of Entry
- Susceptible Host

See Figure 4.1[1] for an illustration of the chain of infection. If any "link" in the chain of infection is removed or neutralized, transmission of infection will not occur. Health care workers must understand how an infectious agent spreads via the chain of transmission so they can break the chain and prevent the transmission of infectious disease. Routine hygienic practices, standard precautions, and transmission-based precautions are used to break the chain of transmission.

1. "Chain-of-Transmission" by unknown author is licensed under CC BY-NC 4.0. Access for free at https://ecampusontario.pressbooks.pub/introductiontoipcp/chapter/40/

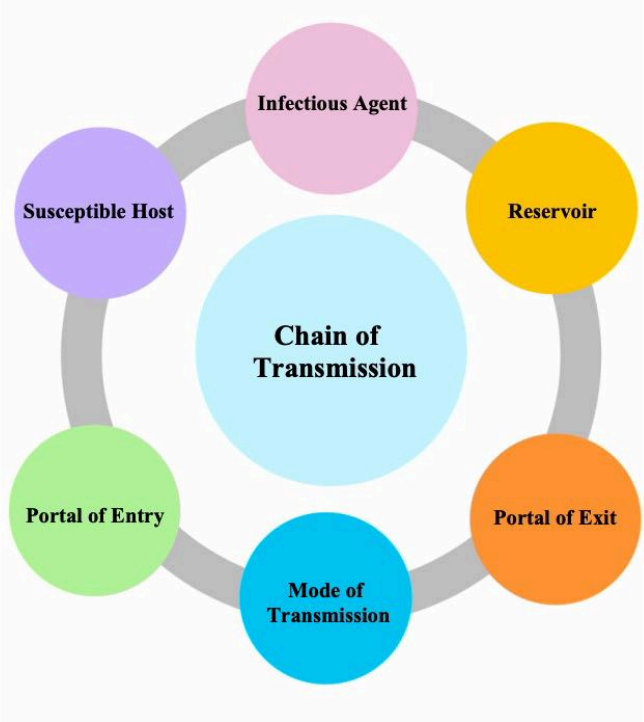


Figure 4.1 Chain of Infection

The links in the chain of infection include Infectious Agent, Reservoir, Portal of Exit, Mode of Transmission, Portal of Entry, and Susceptible Host[2]:

- **Infectious Agent:** Microorganisms, such as bacteria, viruses, fungi, or parasites, that can cause infectious disease.
- **Reservoir:** The host in which infectious agents live, grow, and multiply. Humans, animals, and the environment can be reservoirs. Examples of reservoirs are a person with a common cold, a dog with rabies, or standing water with bacteria. Sometimes a person may carry an infectious agent but is not symptomatic or ill. This is referred to as being **colonized**, and the person is referred to as a **carrier**. For example, many health care workers carry *methicillin-resistant Staphylococcus aureus* (MRSA) bacteria in their noses but are not symptomatic.
- **Portal of Exit:** The route by which an infectious agent escapes or leaves the reservoir. In humans, the portal of exit is typically a mucous membrane or other opening in the skin. For example, pathogens that

2. Department of Health. (n.d.). *Chain of infection in infection prevention and control (IPAC)*. The Government of Nunavut. https://www.gov.nu.ca/health/information/infection-prevention-and-control

cause respiratory diseases usually escape through a person's nose or mouth.

- **Mode of Transmission:** The way in which an infectious agent travels to other people and places because they cannot travel on their own. Modes of transmission include contact, droplet, or airborne transmission. For example, touching sheets with drainage from one person's infected wound and then touching another person without washing one's hands is an example of contact transmission of an infectious agent. Examples of droplet or airborne transmission are coughing and sneezing, depending on the size of the microorganism.
- **Portal of Entry:** The route by which an infectious agent enters a new host (i.e., the reverse of the portal of exit). For example, mucous membranes, skin breakdown, and artificial openings in the skin created for the insertion of medical equipment (such as intravenous lines) are at high risk for infection because they provide an open path for microorganisms to enter the body. Tubes inserted into mucous membranes, such as a urinary catheter, also facilitate the entrance of microorganisms into the body. A person's immune system fights against infectious organisms that have entered the body through the use of nonspecific and specific defenses. Read more about defenses against microorganisms in the "Defenses Against Transmission of Infection" section of this chapter.
- **Susceptible Host:** A person at elevated risk for developing an infection when exposed to an infectious agent due to changes in their immune system defenses. For example, infants (up to 2 years old) and older adults (aged 65 or older) are at higher risk for developing infections due to underdeveloped or weakened immune systems. Additionally, anyone with chronic medical conditions (such as diabetes) are also at higher risk of developing an infection. In health care settings, almost every patient is considered a "susceptible host" because of preexisting illnesses, medical treatments, medical devices, or medications that increase their vulnerability to developing an infection when exposed to infectious agents in the health care environment. As caregivers, it is the NA's responsibility to protect susceptible patients by breaking the chain of infection.

After a susceptible host becomes infected, they become a reservoir that can then transmit the infectious agent to another person. If an individual's immune system successfully fights off the infectious agent, they may not develop an infection, but instead the person may become an asymptomatic "carrier" who can spread the infectious agent to another susceptible host. For example, individuals exposed to COVID-19 may not develop an active respiratory infection but can spread the virus to other susceptible hosts via sneezing.

Learn more about the chain of infection by clicking on the following activities.

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PUTTING IT ALL TOGETHER

Note: To enlarge the print, you can expand the activity by clicking the arrows in the right upper corner of the text box. Please drag and drop the descriptors and actions into the appropriate boxes to demonstrate the various steps in the chain of infection.

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https://wtcs.pressbooks.pub/nurseassist/?p=351#h5p-16

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Healthcare-Acquired Infections

An infection that develops in an individual after being admitted to a health care facility or undergoing a medical procedure is a **healthcare-associated infection (HAI)**, formerly referred to as a nosocomial infection. About 1 in 31 hospital patients develops at least one healthcare-associated infection every

day. HAIs increase the cost of care and delay recovery. They are associated with permanent disability, loss of wages, and even death. An example of an HAI is a skin infection that develops in a patient's incision after they had surgery due to improper hand hygiene of health care workers.[3,4] It is important to understand the dangers of Healthcare-Acquired Infections and actions that can be taken to prevent them.

Read more details about healthcare-acquired infections in the "Infection" chapter of Open RN *Nursing Fundamentals*.

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https://wtcs.pressbooks.pub/nurseassist/?p=351#h5p-42

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3. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
4. Office of Infectious Disease and HIV/AIDS Policy. (n.d.). *Health care-associated infections*. U.S. Department of Health & Human Services. https://www.hhs.gov/oidp/topics/health-care-associated-infections/index.html

4.3 Defenses Against Transmission of Infection

The body tries to protect itself from infectious agents by using specific and nonspecific defenses. **Specific defenses** are immune system processes that include white blood cells attacking particular pathogens. **Nonspecific defenses** are generic barriers that prevent pathogens from entering the body, including physical, mechanical, or chemical barriers.

Physical Defenses

Physical defenses are the body's most basic form of defenses against infection. Physical defenses include barriers such as skin and mucous membranes, as well as mechanical defenses, that physically remove microbes from areas of the body.[1]

SKIN

One of the body's most important physical barriers is the skin barrier that is composed of three layers of closely packed cells. See Figure 4.2[2] for an illustration of layers of the skin. The topmost layer of skin, called the epidermis, consists of cells that are packed with keratin. Keratin makes the skin's surface mechanically tough and resists degradation by bacteria. When the skin barrier becomes broken, such as becoming cracked from dryness, microorganisms can enter and cause infection.[3]

1. This work is a derivative of Microbiology by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/microbiology/pages/1-introduction
2. "OSC_Microbio_17_02_Skin.jpg" by OpenStax is licensed under CC BY 4.0. Access for free at https://openstax.org/books/microbiology/pages/17-1-physical-defenses
3. This work is a derivative of Microbiology by OpenStax and is licensed under CC BY 4.0. Access for free at https://openstax.org/books/microbiology/pages/1-introduction

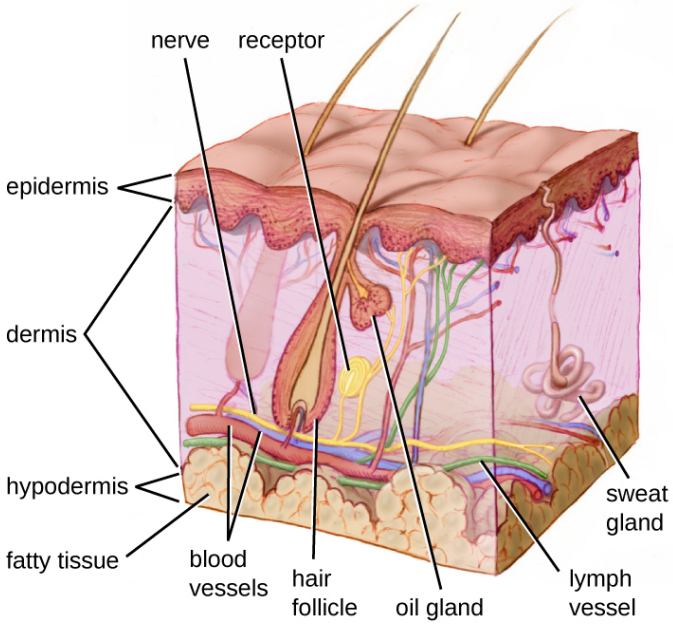

Figure 4.2 Skin Layers

MUCOUS MEMBRANES

Mucous membranes lining the nose, mouth, lungs, and urinary and digestive tracts provide another nonspecific barrier against pathogens. Mucous is a moist, sticky substance that covers and protects the layers beneath it and also traps debris, including microbes. Mucus secretions also contain antimicrobial agents.[4]

In many regions of the body, mechanical actions flush mucus (along with trapped microbes) out of the body or away from potential sites of infection. For example, in the respiratory system, inhalation can bring microbes, dust, mold spores, and other small airborne debris into the body. This debris becomes trapped in the mucus lining the respiratory tract. The cells lining the upper parts of the respiratory tract have hair-like appendages known as cilia. Movement of the cilia propels debris-laden mucus out and away from the lungs. The expelled mucus is then swallowed (and destroyed in the stomach) or coughed out. However, smoking limits the efficiency of this system, making smokers more susceptible to developing respiratory infections. Additionally, as people age, their chest muscles weaken, and coughing

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becomes less productive, which also increases the risk of developing a respiratory infection.

Mechanical Defenses

In addition to physical barriers, the body has several mechanical defenses that physically remove pathogens from the body and prevent infection. For example, the flushing action of urine carries microbes away from the body and is responsible for maintaining a sterile environment of the urinary tract.

The eyes have additional physical barriers and mechanical mechanisms for preventing infections. Eyelashes and eyelids are physical barriers that prevent dust and airborne microorganisms from reaching the surface of the eye. Any microbes or debris that make it past these physical barriers are flushed out by the mechanical action of blinking. Blinking bathes the eye in tears and washes debris away.[5] See Figure 4.3[6] for an example of eyelashes as a mechanical defense.

Figure 4.3 Eyelashes Are a Mechanical Defense Against Pathogens

Chemical Defenses

In addition to physical and mechanical defenses, our immune system uses

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6. "Eyelashes_of_a_2-month-old_baby_boy.png" by Karthik.yerramilly is licensed under CC BY-SA 4.0

several chemical defenses that inhibit microbial invaders. The term chemical mediators refers to a wide array of substances found in various fluids and tissues throughout the body. For example, sebaceous glands in the dermis secrete an oil called sebum that is released onto the skin surface through hair follicles. Sebum provides an additional layer of defense by helping seal off the pore of the hair follicle and preventing bacteria on the skin's surface from invading sweat glands and surrounding tissue. However, environmental factors can affect these chemical defenses of the skin. For example, low humidity in the winter dries the skin and makes it more susceptible to pathogens that are normally inhibited by the skin's low pH. Application of skin moisturizer restores moisture and essential oils to the skin and helps prevent dry skin from becoming infected.[7]

Other types of chemical defenses are pH levels, chemical mediators, and enzymes. For example, in the urinary tract, the slight acidity of urine inhibits the growth of potential pathogens in the urinary tract. The respiratory tract has various chemical mediators in the nasal passages, trachea, and lungs that have antibacterial properties. Enzymes in the digestive tract eliminate most microorganisms that survive the acidic environment of the stomach. However, feces, the end product of the digestive system, can still contain some microorganisms. For this reason, hand hygiene is vital after using the restroom or assisting a client with perineal care to prevent the spread of infection.[8]

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4.4 Precautions Used to Prevent the Spread of Infection

Health care agencies use several methods to prevent the spread of infection: standard precautions and transmission-based precautions.

Standard Precautions

Standard precautions are used by health care workers during client care when contact or potential contact with blood or body fluids may occur. Standard precautions should also be used when assisting a client with activities of daily living (ADLs) and using water, soap, or lotion. Standard precautions are based on the principle that all blood, body fluids (except sweat), nonintact skin, and mucous membranes may contain transmissible infectious agents. These precautions reduce the risk of exposure for the health care worker and protect patients from potential transmission of infectious organisms.[1]

According to the Centers for Disease Control and Prevention (CDC), standard precautions include the following[2]:

- Using proper hand hygiene at the appropriate times
- Using personal protective equipment (e.g., gloves, gowns, masks, eyewear) whenever exposure to infectious agents may occur
- Implementing respiratory hygiene for staff, patients, and visitors
- Proper cleaning and sanitizing of the environment, equipment, and devices
- Handling laundry safely
- Using transmission-based precautions when indicated

1. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care*. https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html
2. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care*. https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

Hand Hygiene

The easiest and most effective way to break the chain of infection is by using proper hand hygiene at appropriate times during patient care. Knowing when to wash your hands, how to properly wash your hands, and when to use soap and water or hand sanitizer are vital for reducing the spread of infection and keeping yourself healthy. **Hand hygiene** is the process of removing, killing, or destroying microorganisms or visible contaminants from the hands. There are two hand-hygiene techniques: handwashing with soap and water and the use of alcohol-based hand rub (ABHR), also referred to as hand hygiene gel or hand sanitizer.[3]

Health care providers' hands are the most common mode of transmission of microorganisms. As a nursing assistant, your hands will touch many people and objects when providing care. When you touch a client, their personal items, medical equipment, or their surrounding environment, you can indirectly transmit microorganisms to the client, another client, yourself, equipment, or a new environment. Microorganisms can easily be transferred from your hands to others or objects in the health care setting if proper hand hygiene practices are not followed. Consistent and effective hand hygiene is vital for breaking the chain of transmission.[4]

It is essential for all health care workers to use proper hand hygiene during specific moments of patient care[5]:

- Immediately before touching a patient
- Before performing an aseptic task, such as emptying urine from a Foley catheter bag
- Before moving from a soiled body site to a clean body site
- After touching a patient or their immediate environment

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4. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
5. Centers for Disease Control and Prevention. (2019, April 29). *Hand hygiene in healthcare settings*. https://www.cdc.gov/handhygiene/

- After contact with blood, body fluids, or contaminated surfaces (with or without gloves)
- Immediately after glove removal

See Figure 4.4[6] for an illustration of the five moments of hand hygiene.

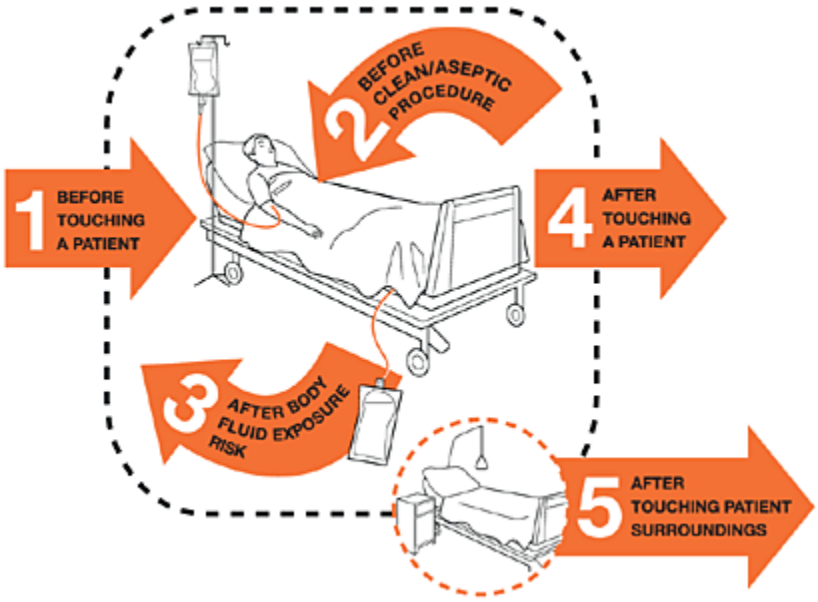

Figure 4.4 Moments of Hand Hygiene

Hand hygiene also includes health care workers keeping their nails short with tips less than 0.5 inches and no nail polish. Nails should be natural, and artificial nails or tips should not be worn. Artificial nails and chipped nail polish have been associated with a higher level of pathogens carried on the hands of health care workers despite using proper hand hygiene.[7]

Review the Moments of Hand Hygiene by clicking on the interactive activity below.

6. "5Moments_Image.gif" by World Health Organization is licensed under CC BY-NC-SA 3.0 IGO. Access for free at https://www.who.int/infection-prevention/campaigns/clean-hands/5moments/en/
7. Blackburn, L., Acree, K., Bartley, J., DiGiannantoni, E., Renner, E., & Sinnott, L. T. (2020). Microbial growth on the nails of direct patient care nurses wearing nail polish. *Oncology Nursing Forum, 47*(2), 155-164. https://doi.org/10.1188/20.onf.155-164

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=380#h5p-37

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Proper hand hygiene includes handwashing with soap and water or the use of alcohol-based hand rub. Both procedures are described in the following sections.

HANDWASHING WITH SOAP AND WATER

Handwashing involves the use of soap and water to physically remove microorganisms from one's hands. Certain health care situations require handwashing with soap and water instead of using alcohol-based hand rub (ABHR). For example, hands must be washed with soap and water if they are visibly soiled, have been exposed to blood or body fluids, or have been exposed to *norovirus*, *C. difficile*, or *Bacillus anthracis*. The mechanical action of lathering and scrubbing with soap for a minimum of 20 seconds is vital for removing these types of microorganisms.[8]

Soap is required during handwashing to dissolve fatty materials and facilitate their subsequent flushing and rinsing with water. Soap must be rubbed on all surfaces of both hands followed by thorough rinsing and drying. Water alone is not suitable for cleaning soiled hands. The entire procedure should last 40 to 60 seconds, and soap approved by the health agency should be used.[9]

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When washing with soap and water, the Centers for Disease Control and Prevention (CDC) recommends the following steps[10]:

- Wet hands with warm or cold running water and apply facility-approved soap.
- Lather hands by rubbing them together with the soap. Use the same technique as the hand rub process to clean the palms and fingers, between the fingers, the backs of the hands and fingers, the fingertips, and the thumbs.
- Scrub thoroughly for at least 20 seconds.
- Rinse hands well under clean, running water.
- Dry the hands, using a clean towel or disposable toweling, from fingers to wrists.
- Use a clean paper towel to shut off the faucet.

See Figure 4.5[11] for an illustration of handwashing with soap and water.

10. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care*. https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html
11. "How_To_HandWash_Poster.pdf" by World Health Organization is licensed under CC BY-NC-SA 3.0 IGO. Access for free at https://www.who.int/infection-prevention/campaigns/clean-hands/5moments/en/

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds

0

Wet hands with water;

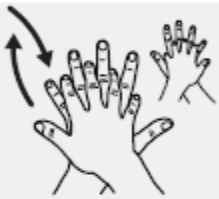
1

Apply enough soap to cover all hand surfaces;

2

Rub hands palm to palm;

3



Right palm over left dorsum with interlaced fingers and vice versa;

4

Palm to palm with fingers interlaced;

5

Backs of fingers to opposing palms with fingers interlocked;

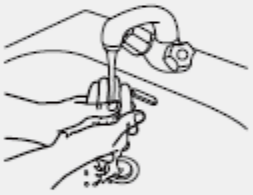
6

Rotational rubbing of left thumb clasped in right palm and vice versa;

7

Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

8

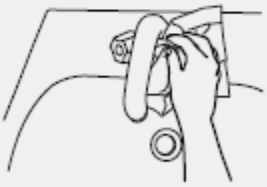


Rinse hands with water;

9

Dry hands thoroughly with a single use towel;

10



Use towel to turn off faucet;

11

Your hands are now safe.

World Health Organization | Patient Safety — A World Alliance for Safer Health Care | SAVE LIVES Clean Your Hands

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WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

May 2009

Figure 4.5 How to Handwash with Soap and Water

See the "Skills Checklist: Hand Hygiene With Soap and Water" section later in this chapter for a checklist of steps and an associated demonstration video of this procedure. Common safety considerations and errors when washing hands are described in the following box.

Safety Considerations[12]

- Always wash hands with soap and water if hands are visibly soiled.
- When working with clients where *C. difficile*, *norovirus*, or *Bacillus anthracis* is suspected or confirmed, soap and water must be used. It is more effective in physically removing the *C. difficile* spores compared to ABHR, which is not as effective at penetrating the spores.
- Friction and rubbing are required to remove transient bacteria, oil, and debris from hands.
- Always use soap and water if hands are exposed to blood, body fluids, or other body substances.
- Multistep rubbing techniques using soap and water are required to promote coverage of all surfaces on hands.

Common Errors When Washing Hands With Soap and Water[13]

- Not using enough soap to cover all surfaces of the hands and wrists.
- Not using friction when washing hands.
- Not washing hands long enough. The mechanical action of

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lathering and scrubbing should be a minimum of 20 seconds, and the entire procedure should last 40 to 60 seconds.
- Missing areas such as the fingernails, wrists, backs of hands, and thumbs.
- Not removing all soap from hands and wrists.
- Shaking water off hands.
- Not thoroughly drying the hands.
- Drying hands from wrists to fingers or in both directions.

Practice your knowledge by clicking on this interactive learning activity.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=380#h5p-38

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ALCOHOL-BASED HAND RUB

When performing hand hygiene using the alcohol-based hand rub (ABHR) technique, a liquid, gel, or foam alcohol-based solution is used. ABHR is the preferred method for hand hygiene when soap and water handwashing is not required. It reduces the number of transient microorganisms on hands and is more effective for preventing healthcare-acquired infections (HAIs) caused by

Methicillin-resistant Staphylococcus aureus (MRSA) and *Vancomycin-resistant enterococcus* (VRE). Hand hygiene with ABHR should be performed in front of the client prior to the beginning of care and at the end of the interaction. ABHR provided by the agency should be used with a 70–90% alcohol concentration.[14]

The benefits of ABHR include the following[15]:

- It kills the majority of microorganisms (including viruses) from hands.
- It requires less time than soap and water handwashing.
- It provides better skin tolerability and reduces skin irritation because it contains emollients.
- It is easy to use and available at the point of care (i.e., where three elements of the client, the health care provider, and care involving the client occur together).

Read safety considerations and common errors when using ABHR in the following box. See the "Skills Checklist: Hand Hygiene With Alcohol-Based Hand Sanitizer" section later in this chapter for a checklist of steps and an associated demonstration video of this procedure.

Safety Considerations[16]

- Do not use ABHR in combination with soap and water because it may increase skin irritation.
- Use ABHR that contains emollients (oils) to help reduce skin irritation and overdrying.

14. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care.* https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html
15. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care.* https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html
16. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care.* https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

- Allow hands to dry completely before initiating tasks (e.g., touching the client or the environment or applying clean gloves).
- Use ABHR for all moments of hand hygiene if soap and water are not required.
- DO NOT use ABHR if hands are visibly soiled, have been exposed to blood or body fluids, or the client is suspected to have *C. difficile*, *norovirus*, or *Bacillus anthracis*.
- Only use ABHR supplied by the facility.

Common Errors When Performing an ABHR[17]

- Not letting hands air dry (for example, rubbing one's hands on pants to dry it off).
- Shaking hands to dry.
- Applying too much alcohol-based solution.
- Not applying enough alcohol-based solution.
- Not rubbing hands long enough (a minimum of 20 seconds) and until hands are dry.
- Missing areas such as the fingernails, wrists, backs of the hands, and thumbs.

Practice your knowledge by clicking on this interactive learning activity.

17. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care*. https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

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https://wtcs.pressbooks.pub/nurseassist/?p=380#h5p-21

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Respiratory Hygiene and Other Hygienic Practices

Respiratory hygiene should be used by any person with signs of illness, including cough, congestion, or increased production of respiratory secretions to prevent the spread of infection. Respiratory hygiene refers to coughing or sneezing into the inside of one's elbow or covering one's mouth/nose with a tissue when coughing and promptly disposing of used tissues. Hand hygiene should be immediately performed after contact with one's respiratory secretions. A coughing person should also wear a surgical mask to contain secretions.[18]

Additional hygiene measures are also used to prevent the spread of infection. For example, regularly changing bed linens, towels, and hospital gowns

18. Centers for Disease Control and Prevention. (2016, January 26). *Standard precautions for all patient care.* https://www.cdc.gov/infectioncontrol/basics/standard-precautions.html

eliminates potential reservoirs of bacteria. Gripper socks should be removed before patients get into bed to prevent pathogens from the floor from being transferred to the patient's bed linens.

Mobile devices should be cleaned regularly. Research has shown that cell phones and mobile devices carry many pathogens and are dirtier than a toilet seat or the bottom of a shoe. Patients, staff, and visitors routinely bring mobile devices into health care facilities that can cause the spread of infection. Mobile devices should be frequently wiped with disinfectant.

Disinfection and Sterilization

Disinfection and sterilization are procedures used to remove harmful pathogens from equipment and the environment to decrease the risk of spreading infection. **Disinfection** is the removal of microorganisms, but it does not destroy all spores and viruses. **Sterilization** destroys all pathogens on equipment or in the environment, including spores and viruses, and includes methods such as steam, boiling water, dry heat, radiation, and chemicals. Because of the harshness of sterilization methods, skin can only be disinfected and not sterilized.[19]

Asepsis refers to the absence of infectious material or infection. **Surgical asepsis** is the absence of all microorganisms during any type of invasive procedure, such as during surgery or heart catheterizations. Sterilization is performed on equipment used during invasive procedures. As a nursing assistant, you may assist a registered nurse during a procedure requiring sterile technique; however, performing sterile procedures independently is not in the scope of practice for nursing assistants.

In long-term care and other health care settings other than surgery, medical asepsis is used. **Medical asepsis** refers to techniques used to prevent the transfer of microorganisms from one person or object to another but do not

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eliminate all microorganisms. Nursing assistants implement medical asepsis in the following ways:

- Performing hand hygiene at the appropriate moments of patient care. (See previous Figure 4.4.)
- Using a barrier when placing clean linens, wash basins, and other items on a shared surface such as the countertop in a resident's room.
- Pulling the privacy curtain when one resident has a droplet-transmitted infection to protect transmission to the other resident in a shared room.
- Cleaning equipment (such as blood pressure cuffs) between use on residents.
- Starting with "cleaner" areas of the body when assisting with care and then moving to areas with higher levels of microorganisms. For example, when bathing a client, the face is washed first, followed by the upper body and then finishing with perineal care. (**Perineal care** involves washing the genital and rectal areas of the body.)

Laundry

When handling dirty linens, textiles, and patients' clothing, follow agency policy regarding transport to prevent the potential spread of infection. The Centers for Disease Control and Prevention (CDC) states that contaminated textiles and fabrics should be handled with minimal agitation to avoid contamination of air, surfaces, and other individuals. They should be bagged at the point of use, and leak-resistant bags should be used for textiles and fabrics contaminated with blood or body substances.[20]

Transmission-Based Precautions

When providing care for individuals with known or suspected infections, additional precautions are used in addition to the previously discussed standard precautions. Certain types of pathogens and communicable

20. Centers for Disease Control and Prevention. (2020, April 29). *Infection control*. https://www.cdc.gov/infectioncontrol/index.html

diseases are easily transmitted to others and require additional precautions to interrupt the spread of infectious agents to health care workers and other clients. For example, *Coronavirus* disease (COVID-19), *C. difficile* (C-diff), *Methicillin-resistant Staphylococcus aureus (*MRSA), *Vancomycin-resistant enterococci* (VRE), *Respiratory Syncytial Virus* (RSV), measles, and tuberculosis (TB) require transmission-based precautions.

Transmission-based precautions (commonly referred to as isolation precautions) use specific types of personal protective equipment (PPE) and practices based on the pathogen's mode of transmission. It is vital for nursing assistants to understand what PPE should be used in specific client care situations, which is determined by the pathogen's mode of transmission and their possible risk of exposure.[21] Transmission-based precautions include three categories: contact, droplet, and airborne precautions. Read more about each type of transmission-based precaution in Table 4.1.

Table 4.1 Categories of Transmission-Based Precautions[22,23,24]

21. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
22. Office of Infectious Disease and HIV/AIDS Policy. (n.d.). *Health care-associated infections*. U.S. Department of Health & Human Services. https://www.hhs.gov/oidp/topics/health-care-associated-infections/index.html
23. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
24. Siegel, J. D., Rhinehart, E., Jackson, M., Chiarello, L., & Healthcare Infection Control Practices Advisory Committee. (2019, July 22). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings.* Centers for Disease Control and Prevention. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

Transmission-Based Precaution	PPE Required	Special Considerations
Contact	Gloves and gown, possibly face shield	Used for clients with known or suspected infections such as *C-difficile* (C-diff), *methicillin-resistant staphylococcus aureus* (MRSA), *vancomycin resistant enterococcus* (VRE), or *norovirus* transmitted by touch (e.g., drainage from wounds or fecal incontinence). Contact precautions should be used when there is expected contact with the source of the pathogen or any surfaces within the resident's room. For example, MRSA in a client's wound transmits with direct contact with the wound, so wearing gloves and a gown when entering the room with a meal tray is typically sufficient. However, MRSA in a client's urine could be accidentally splashed onto one's mucous membrane when emptying the bag of an indwelling urinary catheter, so a face shield is also necessary for this task, in addition to wearing gloves and a gown.
Droplet	Gloves and a mask	Used for clients with a diagnosed or suspected pathogen that is spread in small droplets from sneezing or other oral and nasal secretions, such as influenza or pertussis. Droplets can travel six feet, so using barriers such as privacy curtains and closing doors can also prevent the spread of infection to others.
Airborne	Gloves and respirator	Used for clients with diagnosed or suspected pathogens spread by very small airborne particles from nasal and oral secretions that can float long distances through the air, such as measles and tuberculosis. Respirators are specially designed masks that fit closely on the face and filter out small particles, including the virus that causes COVID. Clients must be placed in a room with specialized air handling equipment found in doctors' offices and hospitals. Residents in long-term care settings suspected of having an airborne illness should be transferred immediately to prevent the spread of infection to other residents.

Signage for Transmission-Based Precautions

When a resident has an infectious illness requiring transmission-based precautions, a sign is placed on their door and a cart of PPE supplies is placed

nearby. Signs vary by facility but look similar to the image in Figure 4.6.[25] Due to HIPAA regulations, the type of the pathogen and the source cannot be displayed publicly, so the sign instructs anyone wishing to enter the room to ask the nurse first. Additional information regarding the type and source of the infection can be found in the client's nursing care plan. After you become aware of the pathogen, the source, and the required PPE, you can safely enter the room. If you are unsure about any aspect of PPE required or your risk of exposure, talk to the nurse before entering the room or providing care.

25. "contact-precautions-sign-P.pdf" by U.S. Department of Health and Human Services and Centers for Disease Control and Prevention is licensed in the Public Domain. Access for free at https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html#anchor_1564058318

Figure 4.6 Example of Isolation Precautions Sign

View the following YouTube video from the University of Iowa about isolation precautions in a health care setting: Standard and Isolation Precautions.

4.5 Personal Protective Equipment (PPE)

In health care settings, **personal protective equipment (PPE)** refers to specialized clothing or equipment used to prevent the spread of infection, including gloves, gowns, facial protection (masks and eye protection), and respirators. PPE is a barrier that protects the health care worker from exposure to infectious agents and also prevents the transmission of microorganisms to other individuals including staff, patients, and visitors.

Gloves

Gloves are disposable, one-time-use coverings that protect the hands of health care providers. See Figure 4.7[1] for an image of nonsterile medical gloves in various sizes in a health care setting. Gloves are used to protect the hands of a health care worker from coming into contact with a client's potentially infected body fluids and to protect patients from coming into contact with potential contaminants on health care workers' hands during certain procedures and treatments. Gloves should also be worn by a health care worker when there is a risk of transmitting their own body fluids from nonintact skin on their hands to other individuals. However, gloves should not be worn for routine activities such as taking vital signs or transferring a client in a wheelchair unless indicated due to transmission-based precautions.

1. "Surgery Centre Accriditation.jpg" by Accredia is licensed under CC BY-SA 4.0

Figure 4.7 Gloves

Gloves are typically made from latex, nitrile, and vinyl. Many people are allergic to latex, so be sure to check for latex allergies for the patient and other members of the health care team. Most gloves are not hand-specific and can be worn on either the left or right hand. Gloves come in a variety of sizes such as small, medium, large, and extra large and should have a snug fit, not too tight or too loose, to provide better protection to the health care provider.[2]

Gloves should always be used in combination with proper hand hygiene that is performed prior to applying gloves and repeated again after gloves are removed. Gloves are task-specific and should not be worn for more than one task or procedure on the same client because some tasks may have a greater concentration of microorganisms than others. For example, gloves are worn to assist a client with incontinent care, but gloves should be removed, hand hygiene performed, and new gloves applied before assisting with oral care. Gloves should never be reused or washed to be reused. Reusing gloves has been linked with the transmission of infectious microorganisms.

Gloves should never replace hand hygiene for several reasons[3]:

2. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
3. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0

- Gloves may have imperfections such as holes or cracks that are not visible.
- Hands may have become contaminated while removing the gloves.
- Gloves may have become damaged while wearing.

Fingernails should be short prior to applying gloves so they do not puncture the gloves. Put on (don) gloves after hands are completely dry after performing hand hygiene. There is no specific method for putting on gloves, but care should be taken when donning gloves to avoid tearing. Gloves should be applied so they completely cover the wrists. Gloves must be removed carefully, followed by proper hand hygiene, to prevent the spread of infection.[4]

REMOVING GLOVES

See Figure 4.8[5] for an illustration of properly removing gloves. Hand hygiene should be performed following glove removal to ensure the hands will not carry potentially infectious agents that might have penetrated through unrecognized tears or contaminated the hands during glove removal.

Properly removing gloves includes the following steps[6]:

- Grasp the outside of one glove near the wrist. Do not touch your skin.
- Peel the glove away from your body, pulling it inside out.
- Hold the removed glove in your gloved hand.
- Put your fingers inside the glove at the top of your wrist and peel off the second glove.
- Turn the second glove inside out while pulling it away from your body, leaving the first glove inside the second.

4. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
5. "poster-how-to-remove-gloves.pdf" by Centers for Disease Control and Prevention is in the Public Domain. Access for free at https://www.cdc.gov/vhf/ebola/resources/posters.html
6. Siegel, J. D., Rhinehart, E., Jackson, M., Chiarello, L., & Healthcare Infection Control Practices Advisory Committee. (2019, July 22). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings.* Centers for Disease Control and Prevention. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

- Dispose of the gloves safely. Do not reuse.
- Perform hand hygiene immediately after removing the gloves.

Figure 4.8 How to Remove Gloves to Prevent Contamination

Review infection prevention and control practices related to glove usage in the following interactive activity.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=397#h5p-23

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Isolation Gowns

Isolation gowns are protective garments worn to protect clothing from the splashing or spraying of body fluids and reduce the transmission of microorganisms. Isolation gowns can be disposable or reusable. The gowns should have long sleeves with a snug fit at the wrist, cover both the front and the back of the body from the neck to the thighs, and overlap at the back.

Gloves should fit over the cuffs of the gown. Gowns should fasten at the neck and waist using ties, snaps, or Velcro.[7]

Disposable gowns are made from materials that make them resistant to fluids. Reusable gowns are made of tightly woven cotton or polyester and are chemically finished to improve their ability to be fluid resistant; they are laundered after each use. Gowns are considered task-specific and should be changed if they become heavily soiled or damaged. Isolation gowns should be put on immediately prior to providing client care and should be removed immediately after care is completed before leaving the room. After use, gowns should be discarded into an appropriate receptacle for disposal or to

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be laundered if the gown is reusable. See Figure 4.9[8] for an image of an isolation gown.

Figure 4.9 Isolation Gown

Special care should be taken when removing the gown to prevent contamination of clothing and skin. The front of the gown is always considered to be contaminated. Ties at the front are considered contaminated, but ties at the side and the back are considered uncontaminated.[9]

See the "Donning/Doffing PPE" checklists later in this chapter for steps for proper removal of gowns. Review information related to using isolation gowns in the following interactive activity.

8. "U.S. Navy Doctors, Nurses and Corpsmen Treat COVID Patients in the ICU Aboard USNS Comfort (49825651378).jpg" by Navy Medicine is in the Public Domain
9. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=397#h5p-24

This work is a derivative of Important Considerations When Wearing Gowns by Audrey Kenmir and is licensed under CC BY 4.0.

Eye Protection

Eye protection in health care settings includes face shields, visors attached to masks, and goggles that are used to protect the eyes from blood or body fluids. Eye protection should be worn by health care workers during patient care when there may be splashing or spraying of body fluids or within six feet of a coughing client. For example, eye protection is worn when emptying a urinary catheter or assisting a nurse in irrigating a wound or suctioning a client's airway.

Eye protection can be disposable, like face shields, or reusable, like eye goggles. If eye protection is reusable, it should be cleaned before reuse. Face shields and visors attached to masks offer better visibility than goggles. Eye protection should fit comfortably and securely while allowing for visual acuity. Eyeglasses can be worn under face shields or goggles.[10] See Figure 4.10[11] for an image of eye goggles with and without a face shield.

10. This work is a derivative of Introduction to Infection Prevention and Control Practices for the Interprofessional Learner by Hughes, Kenmir, St-Amant, Cosgrove, & Sharpe and is licensed under CC BY-NC 4.0
11. "IMG_2021-scaled" and "IMG_2026-scaled" by unknown author are licensed under CC BY-NC-4.0. Access for free at https://ecampusontario.pressbooks.pub/introductiontoipcp/chapter/eye-protection/

Figure 4.10 Eye Goggles With and Without a Face Shield

Review information related to the use of eye protection in the following learning activity.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=397#h5p-25

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Masks

Masks are protective coverings worn by health care providers to protect the mucous membranes of their nose and mouth. In long-term care settings, masks are typically secured by elastic loops around the ears. The top edge of the mask has a bendable strip to secure the seal of the mask over the bridge of the nose. Some situations require masks to be combined with a face shield

or a visor that covers the eyes. See Figure 4.11[12] for an image of masks used with eyeglasses and an eyeshield.

Figure 4.11. Medical Mask With and Without an Eye Shield

Medical masks should be worn when providing care that may cause splashing or spraying of blood or body fluids or within six feet of a client who is coughing or has been placed in droplet precautions. Medical masks should also be worn by health care providers who are coughing to prevent transmission of exhaled respiratory droplets to clients.

Medical masks can differ in their filtration effectiveness and the way in which they fit. Single-use disposable medical masks are effective when providing care to most clients and should be changed when damp or soiled. When medical masks become moist, they may not provide an effective barrier to microorganisms. A medical mask, when properly worn, should fit snugly over the nose, mouth, and under the chin so that microorganisms and body fluids cannot enter or exit through the sides of the mask. If the health care worker wears glasses, the glasses should be placed over the top edge of the mask. This will help prevent the glasses from becoming foggy as the person wearing the mask exhales.

12. "Screen-Shot-2021-05-05-at-3.57.19-PM" and "Screen-Shot-2021-05-05-at-3.57.41-PM" by unknown author are licensed under CC BY-NC 4.0. Access for free at https://ecampusontario.pressbooks.pub/introductiontoipcp/chapter/masks/

REMOVING FACEMASKS

Like the isolation gown, the front of the mask is considered contaminated. The mask should be removed by taking the ear loop off and placing it in the appropriate disposal area. It is important to properly remove masks to avoid contamination. See Figure 4.12[13] for an illustration of how to remove a facemask according to the CDC. See the "Donning/Doffing PPE With a Mask and Face Shield or Goggles" checklist for more details.

13. "fs-facemask-dos-donts.pdf" by Centers for Disease Control and Prevention is in the Public Domain. Access for free at https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

Facemask Do's and Don'ts

For Healthcare Personnel

When putting on a facemask

Clean your hands and put on your facemask so it fully covers your mouth and nose.

DO secure the elastic bands around your ears.

DO secure the ties at the middle of your head and the base of your head.

When wearing a facemask, don't do the following:

DON'T wear your facemask under your nose or mouth.

DON'T allow a strap to hang down. DON'T cross the straps.

DON'T touch or adjust your facemask without cleaning your hands before and after.

DON'T wear your facemask on your head.

DON'T wear your facemask around your neck.

DON'T wear your facemask around your arm.

When removing a facemask

Clean your hands and remove your facemask touching only the straps or ties.

DO leave the patient care area, then clean your hands with alcohol-based hand sanitizer or soap and water.

DO remove your facemask touching ONLY the straps or ties, throw it away*, and clean your hands again.

*If implementing limited-reuse: Facemasks should be carefully folded so that the outer surface is held inward and against itself to reduce contact with the outer surface during storage. Folded facemasks can be stored between uses in a clean, sealable paper bag or breathable container.

Additional information is available about how to safely put on and remove personal protective equipment, including facemasks:
https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html.

cdc.gov/coronavirus

CS 316488A June 2, 2020 11:30 AM

Figure 4.12 Removing Facemasks

Review information on wearing medical masks in the following interactive learning activities.

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=397#h5p-26

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An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=397#h5p-27

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Respirators and PAPRs

Residents requiring airborne transmission precautions are transferred to a hospital immediately upon suspicion or confirmation of an airborne illness as respiratory protection used with airborne transmission precautions requires special equipment. Respirator masks with N95 or higher filtration are worn by health care professionals to prevent inhalation of infectious small airborne particles. It is important to apply, wear, and remove respirators appropriately to avoid contamination. A user-seal check should be performed by the wearer each time a respirator is donned to minimize air leakage around the

facepiece. See Figure 4.13[14] for CDC recommendations when wearing disposable respirators.

14. "fs-respirator-on-off.pdf" by Centers for Disease Control and Prevention is in the Public Domain. Access for free at https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

Respirator On / Respirator Off

When you put on a disposable respirator

Position your respirator correctly and check the seal to protect yourself from COVID-19.

Cup the respirator in your hand. Hold the respirator under your chin with the nose piece up. The top strap (on single or double strap respirators) goes over and rests at the top back of your head. The bottom strap is positioned around the neck and below the ears.

Place your fingertips from both hands at the top of the metal nose clip (if present). Slide fingertips down both sides of the metal strip to mold the nose area to the shape of your nose.

Place both hands over the respirator, take a quick breath in to check the seal. Breathe out. If you feel a leak when breathing in or breathing out, there is not a proper seal.

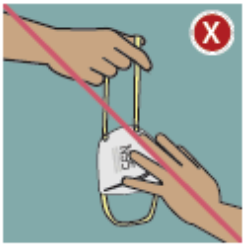
Select other PPE items that do not interfere with the fit or performance of your respirator.

Do not use a respirator that appears damaged or deformed, no longer forms an effective seal to the face, becomes wet or visibly dirty, or if breathing becomes difficult.

Do not allow facial hair, jewelry, glasses, clothing, or anything else to prevent proper placement or to come between your face and the respirator.

Do not crisscross the straps.

Do not wear a respirator that does not have a proper seal. If air leaks in or out, ask for help or try a different size or model.



Do not touch the front of the respirator during or after use! It may be contaminated.

When you take off a disposable respirator

Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator.

Discard in a waste container.

Clean your hands with alcohol-based hand sanitizer or soap and water.

Employers must comply with the OSHA Respiratory Protection Standard, 29 CFR 1910.134, which includes medical evaluations, training, and fit testing.

Additional information is available about how to safely put on and remove personal protective equipment, including respirators:
https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

CDC

cdc.gov/coronavirus

CS 317033A June 9, 2020 3:07 PM

Figure 4.13 How to Put On and Take Off a Respirator Mask

A newer piece of equipment used for respiratory protection is the powered air-purifying respirator (PAPR). A **PAPR** is an air-purifying respirator that uses a blower to force air through filter cartridges or canisters into the breathing zone of the wearer. This process creates an air flow inside either a tight-fitting facepiece or loose-fitting hood or helmet, providing a higher level of protection against aerosolized pathogens, such as COVID-19, during respiratory suctioning. See Figure 4.14[15] for an example of PAPR in use.

Figure 4.14 PAPR

Resident Considerations During Isolation Precautions

There are a lot of things to consider when preventing the spread of infection among residents, staff, equipment, and surfaces. It is important to think about the tasks you will be performing for residents and determine ahead of time what you might be exposed to in order to select the appropriate PPE. The perspective and needs of clients placed in isolation precautions should also be considered. PPE makes communication more difficult by hiding facial expressions and making hearing more difficult, and therapeutic touch is less personal when wearing gloves. Caregivers often spend less time interacting with clients in transmission-based precautions due to the labor intensiveness of putting on and taking off PPE, resulting in clients often developing feelings of loneliness and social isolation due to less frequent interactions. Try to keep

15. "PAPRs_in_use_01.jpg" by Ca.garcia.s is licensed under CC BY-SA 4.0

the resident's routine as normal as possible and apply extra effort to interact with the client.

When transporting a client with transmission-based precautions within a facility, keep these principles in mind[16]:

- Limit transport for essential purposes only, such as diagnostic and therapeutic procedures that cannot be performed in the patient's room.
- When transporting, use appropriate barriers on the patient consistent with the route and risk of transmission. For example, for a resident with a skin infection with MRSA, be sure the area is covered.
- Notify health care personnel in the receiving area of the impending arrival of the patient and of the precautions necessary to prevent transmission.

16. Siegel, J. D., Rhinehart, E., Jackson, M., Chiarello, L., & Healthcare Infection Control Practices Advisory Committee. (2019, July 22). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings.* Centers for Disease Control and Prevention. https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

4.6 Blood-borne Pathogen Standard

Blood-borne pathogens are infectious microorganisms in blood and body fluids that can cause disease. These pathogens include, but are not limited to, hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV). Workers in many health-related occupations, including nursing assistants and other health care personnel, are at risk for exposure to blood-borne pathogens.

Needlesticks and other sharps-related injuries may expose workers to blood-borne pathogens. As a nursing assistant, your highest risk for blood-borne exposure is during shaving and any related disposal of the razor. Typically, residents use electric razors that have low risk of causing any open cuts, but you should always wear gloves when shaving a resident. Any disposable razor or objects that can cause a break in the skin, such as broken glass or needles, should be disposed of in a sharps container.[1] See Figure 4.15[2] for an image of a sharps container.

Figure 4.15 Sharps Container

Health care employers must follow OSHA's guidelines for handling blood

1. Occupational Safety and Health Administration. (n.d.). *Bloodborne pathogens and needlestick prevention.* United States Department of Labor. https://www.osha.gov/bloodborne-pathogens
2. "Sharps Container" by Landon Cerny is licensed under CC BY 4.0

called the “Blood-borne Pathogens Standard.” If you handle a spill of blood or body fluids, you should wear a face shield, gown, and gloves. You should receive training during your orientation at an agency on how to properly handle a blood spill and the PPE and cleaning solutions available. See Figure 4.16[3] for an image of a typical blood spill kit.

Figure 4.16 Blood Spill Kit

If you do experience an exposure to a patient’s blood or body fluids, follow agency policy and wash/flush the area and notify the nurse supervisor. Part of OSHA’s “Blood-borne Pathogens Standard” is to complete a postexposure assessment to determine if additional medical treatment is required. It is extremely important that this assessment occurs immediately after your exposure. The standard also requires your employer to offer the vaccine series for hepatitis B and hepatitis C at no cost to you if you have not previously received them.

> To read more information on OSHA’s Blood-borne Pathogens Standard, visit OSHA’s FactSheet PDF.

3. "Blood Spill Kit" by Landon Cerny is licensed under CC BY 4.0

4.7 Signs and Symptoms of Infection

Nursing assistants spend a great deal of time with clients, so it is important to recognize early signs and symptoms of infection and report them to the nurse. While there are specific symptoms associated with specific types of infection, there are some general symptoms that can occur with all infections. These general symptoms include a feeling of **malaise** (i.e., a feeling of discomfort, illness, or lack of well-being), headache, fever, and lack of appetite.

A **fever** is a common sign of inflammation and infection. A temperature of 38 degrees Celsius (100.4 degrees F) is generally considered a low-grade fever, and a temperature of 38.3 degrees Celsius (101 degrees F) is considered a fever. Fever is part of the body's nonspecific immune response and can be beneficial in destroying pathogens. However, extremely elevated temperatures can cause cell and organ damage, and prolonged fever can cause dehydration.

Infection raises the metabolic rate, which causes an increased heart rate. The respiratory rate may also increase as the body rids itself of carbon dioxide created during increased metabolism. If either of these conditions are noted, they should be reported to the nurse right away.

As an infection develops, the lymph nodes that drain that area often become enlarged and tender. The swelling indicates the lymph nodes are fighting the infection.

If a skin infection is developing, general signs of inflammation, such as redness, warmth, swelling, and tenderness, will occur at the site. As white blood cells migrate to the site of infection, yellow or green drainage (i.e., purulent drainage) may occur.

Some viruses, bacteria, and toxins cause gastrointestinal inflammation, resulting in loss of appetite, nausea, vomiting, and diarrhea.

See Table 4.7 for a comparison of expected findings in body systems versus unexpected findings that can indicate an infection and require notification of the nurse and/or health care provider.

Table 4.7 Expected Versus Unexpected Findings Related to Infection[1]

Assessment	Expected Findings	Unexpected Findings to Report to the Nurse
Vital Signs	Within normal range	New temperature over 100.4 F or 38 C or lower than the patient's normal.
Neurological	Within baseline level of consciousness	New confusion and/or worsening level of consciousness.
Wound or Incision	Progressive healing of a wound with no signs of infection	New redness, warmth, tenderness, or purulent drainage from a wound.
Respiratory	No cough or production of sputum	New cough and/or productive cough of purulent sputum. New shortness of breath.
Genitourinary	Urine clear and light yellow without odor	Malodorous, cloudy, or bloody urine, with increased frequency, urgency, or pain with urination.
Gastrointestinal	Good appetite and food intake; feces formed and brown	Loss of appetite. Nausea, vomiting, or diarrhea. Discolored or unusually malodorous feces.
		*CRITICAL CONDITIONS indicating a possible life-threatening infection (called sepsis) requiring immediate notification of the nurse: Two or more of the following criteria in a patient with an existing infection: • Body temperature over 38 or under 36 degrees Celsius • Heart rate greater than 90 beats/ minute • Respiratory rate greater than 20

1. Office of Infectious Disease and HIV/AIDS Policy. (n.d.). *Health care-associated infections*. U.S. Department of Health & Human Services. https://www.hhs.gov/oidp/topics/health-care-associated-infections/index.html

Other Considerations

The effectiveness of the immune system gradually decreases with age, making older adults more vulnerable to infection. Early detection of infection can be challenging in older adults because they may not have a fever, but instead develop subtle changes like new confusion or weakness that may result in a fall. The most common infections in older adults are urinary tract infections (UTI), pneumonia, influenza, and skin infections.[2]

2. Office of Infectious Disease and HIV/AIDS Policy. (n.d.). *Health care-associated infections*. U.S. Department of Health & Human Services. https://www.hhs.gov/oidp/topics/health-care-associated-infections/index.html

4.8 Skills Checklist: Hand Hygiene With Soap and Water

1. Gather/Ensure Adequate Supplies: Soap and paper towels
2. Procedure Steps:

    - Remove jewelry according to agency policy; push your sleeves above your wrists.
    - Turn on the water and adjust the flow so that the water is warm. Wet your hands thoroughly, keeping your hands and forearms lower than your elbows. Avoid splashing water on your uniform.
    - Apply a palm-sized amount of hand soap.
    - Perform hand hygiene using plenty of lather and friction for at least 15 seconds:
        - Rub hands palm to palm
        - Rub back of right and left hand (fingers interlaced)
        - Rub palm to palm with fingers interlaced
        - Perform rotational rubbing of left and right thumbs
        - Rub your fingertips against the palm of your opposite hand
        - Rub wrists
        - Repeat sequence at least two times
        - Keep fingertips pointing downward throughout
    - Clean under your fingernails with disposable nail cleaner (if applicable).
    - Wash for a minimum of 20 seconds.
    - Keep your hands and forearms lower than your elbows during the entire washing.
    - Rinse your hands with water, keeping your fingertips pointing down so water runs off your fingertips. Do not shake water from your hands.
    - Do not lean against the sink or touch the inside of the sink during the hand-washing process.
    - Dry your hands thoroughly from your fingers to wrists with a paper towel or air dryer.
    - Dispose of the paper towel(s).
    - Use a new paper towel to turn off the water.

- Dispose of the paper towel.

View a YouTube video[1] of an instructor demonstrating hand hygiene with soap and water:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=410#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Hand Hygiene With Soap and Water. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/w29Ad7Cmsxo

4.9 Skills Checklist: Hand Hygiene With Alcohol-Based Hand Sanitizer

1. Gather Supplies: Antiseptic hand rub
2. Procedure Steps:

    - Remove jewelry according to agency policy; push your sleeves above your wrists.
    - Apply enough product into the palm of one hand and enough to cover your hands thoroughly per product directions.
    - Rub your hands together, covering all surfaces of your hands and fingers with antiseptic until the alcohol is dry (a minimum of 30 seconds):
        - Rub hands palm to palm
        - Rub back of right and left hand (fingers interlaced)
        - Rub palm to palm with fingers interlaced
        - Perform rotational rubbing of left and right thumbs
        - Rub your fingertips against the palm of your opposite hand
        - Rub your wrists
    - Repeat hand sanitizing sequence a minimum of two times.
    - Repeat hand sanitizing sequence until the product is dry.

View a YouTube video[1] of an instructor demonstrating hand hygiene with alcohol-based hand sanitizer:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=412#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Hand Hygiene With Alcohol-Based Hand Sanitizer. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/rTuO8SYYfNo

4.10 Skills Checklist: Removing Gloves

1. Procedure Steps:

    - Using either hand, grasp the glove at the palm of the other hand.
    - Remove the glove.
    - Grasp the empty glove within the palm of the gloved hand.
    - Using the index and middle fingers of the bare hand, slide fingers underneath the remaining glove at the wrist.
    - Turn the remaining glove inside out while containing the first glove inside.
    - Discard in an appropriate receptacle.
    - Perform hand hygiene.

View a YouTube video[1] of an instructor demonstrating removing gloves:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=414#oembed-1

Figure 4.17[2] Glove Removal

1. Chippewa Valley Technical College. (2022, December 3). Removing Gloves. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/nYDB6b3K-MY
2. "Ch.5-Taking-off-PPE-–-Step-8," Ch.5-Taking-off-PPE-Step-1a-.png," "Ch.5-Taking-off-PPE-Step-1c.png," "Ch.5-Taking-off-PPE-Step-1d," "Ch.5-Taking-off-PPE-Step-1e.png," and "Ch.5-Taking-off-PPE-Step-2.png" by unknown author are licensed under CC BY-NC 4.0. Access for free at https://ecampusontario.pressbooks.pub/introductiontoipcp/chapter/putting-it-all-together-putting-on-and-taking-off-full-ppe/

Figure 4.17 Glove Removal

4.11 Skills Checklist: Donning/Doffing PPE Without a Mask

1. Gather Supplies: Gown, gloves, and alcohol-based sanitizer
2. Procedure Steps:

    - Perform hand hygiene.
    - Face the back opening of the gown.
    - Unfold the gown.
    - Put your arms into the sleeves.
    - Secure the neck opening behind your head.
    - Secure the waist, making sure that the back flaps overlap each other and cover your clothing as completely as possible.
    - Put on gloves.
    - Ensure the gloves overlap the gown sleeves at the wrist.
    - When care has been completed and before leaving the room, remove the gloves BEFORE removing the gown.
    - Remove the gloves, turning them inside out.
    - Dispose of the gloves in the appropriate container.
    - Perform hand hygiene.
    - Unfasten the gown at the neck.
    - Unfasten the gown at the waist.
    - Remove the gown starting at the top of the shoulders, turning it inside out and folding soiled area to soiled area.
    - Dispose of the gown in an appropriate container.
    - Perform hand hygiene.

View a YouTube video[1] of an instructor demonstrating donning/doffing PPE without a mask:

1. Chippewa Valley Technical College. (2022, December 3). Donning/Doffing PPE Without a Mask. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/yP1eIqGJSS8

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=418#oembed-1

4.12 Skills Checklist: Donning/Doffing PPE With a Mask and Face Shield or Goggles

1. Gather Supplies: Gown, mask, face shield, goggles, and alcohol-based sanitizer
2. Procedure Steps:

    - Face the back opening of the gown.
    - Unfold the gown.
    - Put your arms into the sleeves.
    - Secure the neck opening at the back of your neck.
    - Secure the waist, making sure that the back flaps overlap each other and covering your clothing as completely as possible.
    - Put on a mask and, if needed, goggles or face shield.
    - Put on gloves.
    - Ensure the gloves overlap the gown sleeves at the wrist.
    - When care is complete and before leaving the room, remove the gloves BEFORE removing the gown.
    - Remove the gloves, turning them inside out.
    - Dispose of the gloves in the appropriate container.
    - Perform hand hygiene.
    - Remove any goggles or face shield and place in the appropriate receptacle.
    - Unfasten the gown at the neck.
    - Unfasten the gown at the waist.
    - Remove the gown starting at the top of the shoulders, turning it inside out and folding soiled area to soiled area.
    - Dispose of the gown in an appropriate container.
    - Remove the mask by grasping loop behind ear or untying at back of head.
    - Perform hand hygiene.

- Review the *Sequence for putting on personal protective equipment* PDF handout[1] from the Centers for Disease Control and Prevention (CDC) with current recommendations for putting on and removing PPE.

- View a YouTube video[2] of an instructor demonstrating donning/doffing PPE with a mask and face shield or goggles:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=420#oembed-1

1. Centers for Disease Control and Prevention. (n.d.). *Sequence for putting on personal protective equipment* [Handout]. https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf
2. Chippewa Valley Technical College. (2022, December 3). Donning/Doffing PPE With a Mask and Face Shield or Goggles. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/H-rXxFkmWBY

4.13 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=422#h5p-11

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=422#h5p-17

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=422#h5p-19

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=422#h5p-71

IV Glossary

Airborne precautions: Transmission-based precautions used for clients with diagnosed or suspected pathogens spread by very small airborne particles from nasal and oral secretions that can float long distances through the air, such as measles and tuberculosis.

Blood-borne pathogens: Infectious microorganisms in blood and body fluids that can cause disease, including hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV).

Carrier: An individual who is colonized with an infectious agent.

Chain of infection: The process of how an infection spreads based on six links of transmission: Infectious Agent, Reservoir, Portal of Exit, Modes of Transmission, Portal of Entry, and Susceptible Host.

Colonization: A condition when a person carries an infectious agent but is not symptomatic or ill.

Contact precautions: Transmission-based precautions used for clients with known or suspected infections transmitted by touch such as *C-difficile* (C-diff), *methicillin-resistant staphylococcus aureus* (MRSA), *vancomycin resistant enterococcus* (VRE), or *norovirus*.

Disinfection: The removal of microorganisms. However, disinfection does not destroy all spores and viruses.

Doff: Take off personal protective equipment (PPE).

Don: Put on personal protective equipment (PPE).

Droplet precautions: Transmission-based precautions used for clients with a diagnosed or suspected pathogen that is spread in small droplets from sneezing or in oral and nasal secretions, such as influenza or pertussis.

Eye protection: Face shields, visors attached to masks, and goggles that are used to protect the eyes from blood or body fluids.

Fever: A temperature of 38 degrees Celsius (100.4 degrees F).

Hand hygiene: The process of removing, killing, or destroying microorganisms or visible contaminants from the hands. There are two hand-hygiene techniques: handwashing with soap and water and the use of alcohol-based hand rub (ABHR).

Healthcare-associated infection (HAI): An infection that develops in an individual after admission to a health care facility or undergoing a medical procedure.

Infection control: Methods to prevent or stop the spread of infections in health care settings.

Infectious agent: Microorganisms, such as bacteria, viruses, fungi, or parasites that can cause infectious disease.

Inflammation: Redness, warmth, swelling, and tenderness associated with early signs of infection.

Isolation gowns: Protective garments worn to protect clothing from the splashing or spraying of body fluids and reduce the transmission of microorganisms.

Malaise: A feeling of discomfort, illness, or lack of well-being that is often associated with infection.

Masks: Protective coverings worn by health care providers to protect the mucous membranes of their nose and mouth.

Medical asepsis: Techniques used to prevent the transfer of microorganisms from one person or object to another but do not completely eliminate microorganisms.

Mode of transmission: The way an infectious agent travels to other people and places.

Moments of hand hygiene: Appropriate times during patient care to perform

hand hygiene, including immediately before touching a patient; before performing an aseptic task; before moving from a soiled body site to a clean body site; after touching a patient or their immediate environment; after contact with blood, body fluids, or contaminated surfaces (with or without glove use); and immediately after glove removal.

Nonspecific defenses: Generic barriers that prevent pathogens from entering the body, including physical, mechanical, or chemical barriers.

PAPR: An air-purifying respirator that uses a blower to force air through filter cartridges or canisters into the breathing zone of the wearer. This process creates an air flow inside either a tight-fitting facepiece or loose-fitting hood or helmet, providing a higher level of protection against aerosolized pathogens.

Perineal care: Cleansing the genital and rectal areas of the body.

Personal protective equipment (PPE): Specialized clothing or equipment used to prevent the spread of infection, including gloves, gowns, facial protection (masks and eye protection), and respirators.

Portal of entry: The route by which an infectious agent enters a new host.

Portal of exit: The route by which an infectious agent escapes or leaves the reservoir.

Purulent drainage: Yellow, green, or brown drainage associated with signs of infection.

Reservoir: The host in which infectious agents live, grow, and multiply.

Respirator masks: Masks with N95 or higher filtration worn by health care professionals to prevent inhalation of infectious small airborne particles.

Respiratory hygiene: Methods to prevent the spread of respiratory infections, including coughing/sneezing into the inside of one's elbow or covering one's mouth/nose with a tissue when coughing and promptly disposing of used tissues. Hand hygiene should be immediately performed after contact with

one's respiratory secretions. A coughing person should also wear a surgical mask to contain secretions.

Specific defenses: Immune system processes like white blood cells attacking particular pathogens.

Standard precautions: Precautions used by health care workers during client care when contact or potential contact with blood or body fluids may occur based on the principle that all blood, body fluids (except sweat), nonintact skin, and mucous membranes may contain transmissible infectious agents. These precautions reduce the risk of exposure for the health care worker and protect patients from potential transmission of infectious organisms.

Sterilization: A process used on equipment and the environment that destroys all pathogens, including spores and viruses. Sterilization methods include steam, boiling water, dry heat, radiation, and chemicals.

Surgical asepsis: The absence of all microorganisms during any type of invasive procedure; used for equipment used during invasive procedures, as well as the environment.

Susceptible host: A person at elevated risk of developing an infection when exposed to an infectious agent.

Transmission-based precautions: Specific types of personal protective equipment (PPE) and practices used with clients with specific types of infectious agents based on the pathogen's mode of transmission.

PART V

CHAPTER 5: PROVIDE FOR PERSONAL CARE NEEDS OF CLIENTS

5.1 Introduction to Provide for Personal Care Needs of Clients

Learning Objectives

- Provide for personal grooming and hygiene
- Assist with nutrition and fluid needs
- Assist client with bowel and bladder elimination
- Maintain a urinary catheter
- Assist client with bowel and bladder retraining

Providing personal care for clients is the primary responsibility of the nursing assistant. Often referred to as Activities of Daily Living (ADLs), **personal care** includes anything that a client needs to maintain hygiene, well-being, self-esteem, and dignity. ADLs are the foundation of health and wellness and a part of providing holistic care. The manner in which personal care is provided has a large impact on the quality of life for those unable to care for themselves. A professional nursing assistant provides these services proficiently while also respecting the preferences of residents.

5.2 Activities of Daily Living (ADLs)

The main function of a nursing assistant is to provide assistance to clients with activities of daily living. **Activities of daily living (ADLs)** include hygiene, grooming, dressing, fluid and nutritional intake, mobility, and elimination needs. See Figure 5.1[1] for an illustration of ADLs. **Hygiene** refers to keeping the body clean and reducing pathogens by performing tasks such as bathing and oral care. **Grooming** also keeps the body clean but refers to maintaining a resident's appearance through shaving, hair, and nail care.

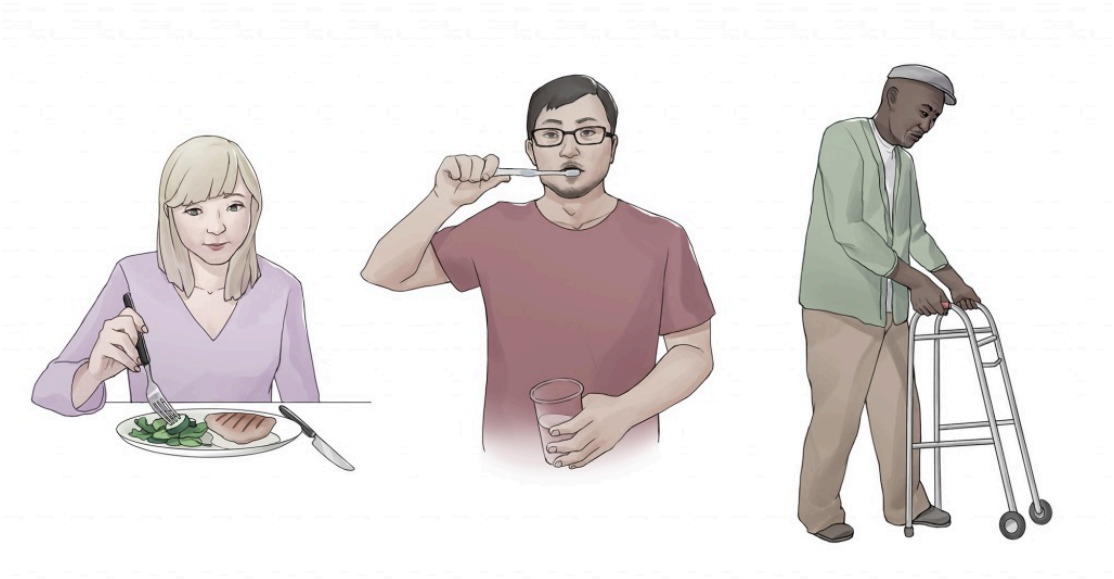


Figure 5.1 Activities of Daily Living

Specific ADLs are provided based on the time of day and the needs of the resident. Personal care performed in the morning is referred to as **A.M. care**, and personal care performed in the evening is referred to as **P.M. care**. Full baths or showers may be provided with either A.M. or P.M. care, depending on resident preferences, but a partial bath should be provided each morning.

A.M. care includes tasks such as the following activities:

- Toileting, changing incontinence brief (if used), and providing perineal care

1. "ADL-1024x534.jpg" by unknown is licensed under CC BY-SA 4.0. Access for free at https://ecampusontario.pressbooks.pub/healthassessment/chapter/functional-health

- Performing oral and/or denture care (before or after breakfast based on resident's preference)
- Assisting with a partial bath, full bath, or shower depending on the resident's personal schedule
- Changing the client's hospital gown or assisting with dressing
- Assisting with grooming, such as shaving or hair care, and applying makeup, accessories, or jewelry per resident preference
- Assisting with eating breakfast
- Providing hand hygiene to the resident as needed
- Assisting with attending activities, physical therapy (PT), and occupational therapy (OT)
- Making the bed and tidying the resident's room

P.M. care includes tasks such as the following activities:

- Toileting
- Assisting with lunch and dinner
- Assisting with a partial bath, full bath, or shower depending on the resident's personal schedule
- Assisting with oral and denture care before bed
- Helping with oral care after meals if resident prefers
- Washing face and removing makeup if worn
- Changing into gown or pajamas
- Providing hand hygiene to resident as needed
- Tidying the resident's room

5.3 Person-Centered Care

Person-centered care is a care approach that considers the whole person, not just their physical and medical needs. It also refers to a person's autonomy to make decisions about their care, as well as participate in their own care. This approach improves health outcomes of individuals and their families as care is provided according to the resident's preferences, choices, and habits held before they required assistance to care for themselves.[1]

The term "person" acknowledges a human being has rights, especially in relation to decisions and choices as previously discussed in Chapter 2. It also recognizes that a person is a human being who is made of several human dimensions. These dimensions include intellectual, environmental, spiritual, sociocultural, emotional, and physical, all of which operate together to form the whole person. In providing person-centered care, health care professionals consider all these elements while meeting health care needs.[2]

A nurse aide can focus on an individual's personhood by spending time communicating with them and finding out what interests them, what is important to them, what concerns them, and what causes them to feel unsafe. It also includes asking each person how they would like to be addressed, as well as avoiding demeaning terms like "honey," "sweetie," or "sweetheart." Promote their dignity by using age-appropriate words and avoiding words like "diaper," "bib," "potty," or "feeders." The vital element of person-centered care is effective communication between the health care provider, the client, and the client's family members or significant others. Effective communication facilitates information sharing and trust.[3]

When a nursing assistant helps clients with their ADLs, person-centered care means learning clients' personal preferences and routines. Examples of using

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the person-centered care approach are knowing the time the resident prefers to wake up and go to bed; their preference for showers, tubs, or bed baths; their preferred arrangement of their belongings; and their mobility issues. Cares are individualized based on these preferences. Respecting residents' dignity and privacy is demonstrated by keeping them covered and warm when bathing, explaining procedures prior to doing them, and protecting their health information. It also means respecting personal beliefs, being aware of cultural differences, and offering choices and options when available.

It is important to remember that it is often difficult for clients to feel dependent on others to provide their personal care. Nursing assistants must demonstrate empathy with clients, especially with those who are experiencing the loss of their independence. Caregivers should allow residents to do as much as possible for themselves, under appropriate supervision, while providing assistance as needed. Allow them to make decisions about their care and encourage them to perform as much self-care as possible to promote their independence, self-esteem, and sense of control over their care. An added physical benefit of encouraging residents to perform self-care is it maintains their strength and mobility, thereby preventing a decline in physical function for as long as possible.

5.4 Pre- and Post-Procedural Steps

Each time a nursing assistant provides personal cares, there are routine steps that should be performed before and after the interaction, regardless of the skills provided. Having a list of routine steps ensures the following:

- Important aspects of care won't be overlooked.
- Dignity for the client and respect for their preferences are provided.
- Risk for transmission of pathogens is reduced.
- Safety is provided.
- Necessary equipment and supplies are present.

Before providing care to a resident, follow the **SKWIPE** acronym:

- **S**upplies: Many supplies are kept in the resident's room, but ask yourself if anything is needed that is not available in the room. Being prepared prevents disruption of the procedure and possible delays that can result in discomfort for the resident.
- **K**nock: Always knock before entering a room, even if the door is open. Knocking maintains dignity for the client and shows respect for their privacy.
- **W**ash: Always perform hand hygiene when entering the resident's room to reduce the risk of transmitting pathogens from other residents, equipment, or environmental surfaces.
- **I**ntroduce and Identify: Introduce yourself to the resident with your name and your title or position at the facility. Identify the client following facility policy. For example, properly identifying a client in a hospital setting may include asking them their name and date or birth and checking their medical ID band. However, in a long-term care setting, some residents may have cognitive or sensory deficits and may not correctly state their own name, so asking their name is not always a safe manner to identify them. Instead, identification in long-term care settings is typically performed by using a photograph in the medical record or by asking another experienced staff member to confirm identification.
- **P**rivacy: Provide privacy by closing the door and pulling the privacy

curtain to ensure dignity when providing personal care.
- **E**xplain: Explain what care you will be providing so the resident can ask questions or decline care if it is not desired at that time.

After providing care to a resident, but before leaving the room, follow the **CLOWD** acronym:

- **C**omfort: Ask if the resident is comfortable and if they need anything else such as tissues, water, TV remote, etc.
- **L**ight, Lock, and Low: Place the resident's call light within reach so they can call for staff when they need assistance. Check the brakes on the bed to ensure they are locked, and the bed won't move. Place the bed in the lowest position. These and other measures such as ensuring bed and/or chair alarms are in place and turned on are vital for ensuring patient safety. If a resident decides to self-transfer out of bed instead of requesting assistance, locking and lowering the bed will reduce the risk of injury because it is lower to the floor and won't move suddenly out from underneath them.
- **O**pen: Open the door and privacy curtain. For safety reasons, residents must be within staff eyesight when they are alone in their rooms, unless they are physically able to move independently.
- **W**ash: Perform hand hygiene before leaving the room to reduce the risk of transmitting pathogens to another resident, equipment, or environmental surfaces.
- **D**ocument: Ask yourself if you provided any cares that should be documented in the medical record or if you need to report anything to the nurse or other staff member. **Routine cares** (i.e., those cares provided to every resident every day) are not necessarily documented unless they are declined or something out of the ordinary occurred or was observed. Follow agency policy regarding documentation.

5.5 Skin Care

Skin is made up of three layers: epidermis, dermis, and hypodermis. See Figure 5.2[1] for an illustration of skin layers. The epidermis is the thin, topmost layer of the skin. It contains sweat gland duct openings and the visible part of hair known as the hair shaft. Underneath the epidermis lies the dermis where many essential components of skin function are located. The dermis contains hair follicles (the roots of hair shafts), sebaceous oil glands, blood vessels, endocrine sweat glands, and nerve endings. The bottommost layer of skin is the hypodermis (also referred to as the subcutaneous layer). It mostly consists of adipose tissue (fat), along with some blood vessels and nerve endings. Beneath the hypodermis layer lie bone, muscle, ligaments, and tendons.[2]

1. "501 Structure of the skin.jpg" by OpenStax is licensed under CC BY 3.0. Access for free at https://openstax.org/books/anatomy-and-physiology/pages/5-1-layers-of-the-skin
2. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0

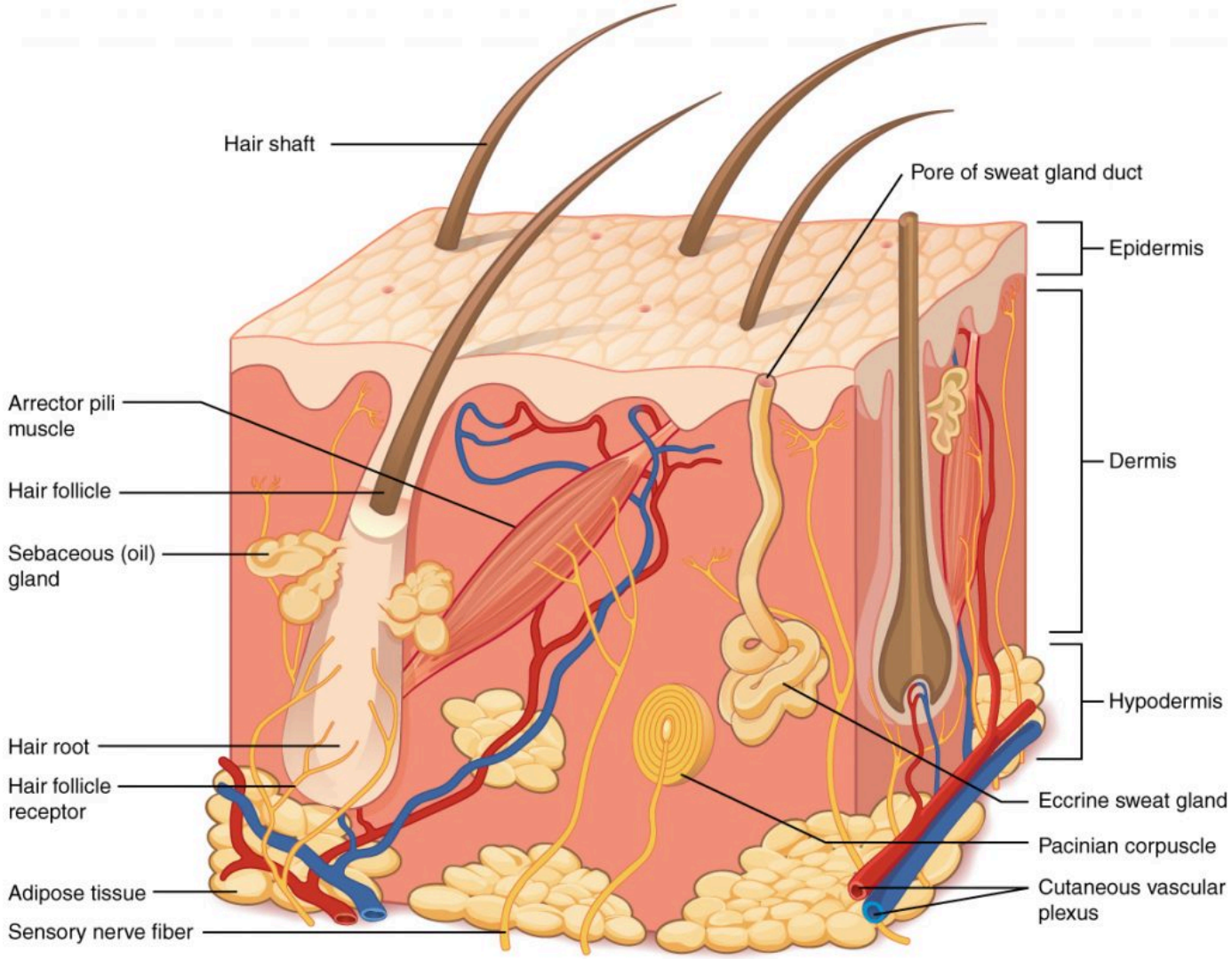

Figure 5.2 Layers of the Skin

As discussed in Chapter 4, the skin is the body's first layer of defense against pathogens entering the body. Maintaining healthy skin is an integral responsibility of the nursing assistant. Nursing assistants provide the vast majority of bathing and are able to observe and report any changes to skin integrity while performing ADLs on a daily basis. **Impaired skin integrity** refers to skin that is damaged or not healing normally. An example of impaired skin integrity is a pressure injury (also called a bedsore or pressure ulcer) with damage to the skin and surrounding tissue. See Figure 5.3[3] for an image of a pressure injury on a client's lower back above their buttocks.

3. "Decubitus 01.jpg" by AfroBrazilian is licensed under CC BY-SA 3.0

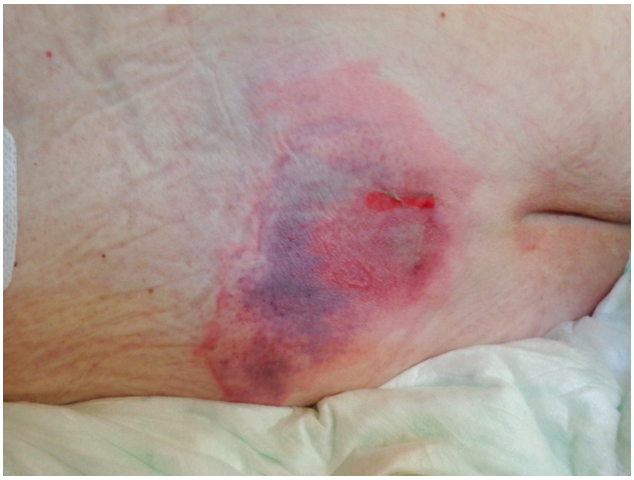

Figure 5.3 Pressure Injury

Age-Related Changes in the Skin

Several changes occur in the skin as one ages. As people age, the amount of adipose tissue decreases. Adipose tissue (i.e., body fat) provides insulation to keep one warm, as well as protection against injury by cushioning underlying structures. See Figure 5.4[4] for an image of age-related changes in the skin on the hand of an older adult.

Figure 5.4 Age-Related Changes in Skin

Oil glands are less productive, making skin drier and more susceptible to

4. "hands-578918_1280.jpg" by Gaertringen on Pixabay.com is licensed under CC0

cracking. Dry skin and cracked skin make older adults more susceptible to injuries, like skin tears and pressure injuries, that create openings for pathogens and increase the risk of infection. NAs can encourage good nutrition and hydration to help maintain good skin integrity.

Older residents also have reduced production of sweat, which affects the ability of their body to regulate their temperature. This makes them more susceptible to heat-related illness such as exhaustion and heat stroke, especially when being physically active in the heat.[5]

Skin Care Needs of Older Adults

Due to less oil and sweat production as one ages, daily showering or full body bathing is not necessary and can even be damaging to skin. Additionally, residents in long-term care settings don't typically venture out into the community regularly, thus reducing their exposure to pathogens. Due to these factors, daily partial baths are provided to maintain hygiene, but full body bathing is typically performed only weekly.

It is important to adequately dry skin folds and moisturize the skin regularly to maintain skin integrity and prevent dryness, cracking, and infection. Additionally, clients who are immobile should be repositioned at least every two hours to reduce the risk of pressure injuries. Repositioning techniques can be found in Chapter 8.

Chronic Conditions Affecting Skin Integrity

Skin needs oxygen and nutrients carried in blood to stay healthy. Any condition that impairs blood flow will increase the risk of skin conditions. As a person ages, a general decline in cardiac function decreases blood flow and oxygen to the skin, putting all older adults at increased risk for skin breakdown. Common medical disorders affecting skin health include high

5. Balmain, B. N., Sabapathy, S., Louis, M., & Morris, N. R. (2018). Aging and thermoregulatory control: The clinical implications of exercising under heat stress in older individuals. *BioMed Research International, 2018,* 8306154. https://doi.org/10.1155/2018/8306154

cholesterol that causes blockages of blood flow in the arteries, heart failure, high blood pressure, and diabetes.

Clients with diabetes are prone to developing wounds on their feet that can quickly become infected and require amputation. See Figure 5.5[6] for an image of wounds on the foot of a client with diabetes. Nursing assistants should carefully observe the client's feet and in between their toes daily and report any concerns to the nurse to preserve skin integrity. Nail care for diabetics should be performed by the Registered Nurse (RN) due to the increased risk of infection.

Figure 5.5 Wounds on the Foot of a Client With Diabetes

Skin care is important for all clients, but additional moisturizing and frequent repositioning should be performed for clients with increased risk for skin

6. "Two_ischaemic_ulcers_on_the_foot_of_an_individual_with_type_2_diabetes.jpg" by Bondegezou is licensed under CC BY-SA 4.0

breakdown. See Chapter 8 and 11 for more specific information on risks for skin breakdown and maintaining skin integrity.

5.6 Types of Baths and Techniques

There are four basic types of baths that are provided based on the needs, preferences, and mobility of clients: a partial bath, shower, tub bath, or full bed bath.

A **partial bath** includes washing the face, underarms, arms, hands, and **perineal** (genital and anal) area. Partial baths are given daily to maintain hygiene. They preserve skin integrity by not drying out skin with excessive soap and water use. A shower is provided for those who can safely sit in a shower chair or stand with supervision in the shower. See Figure 5.6[1] for an image of a shower chair with a transfer bench. A tub bath can be performed in a regular tub or whirlpool. A tub bath may be used for a fully independent resident or if there is a provider order for a bath treatment such as Epsom salts or oatmeal. A **complete bed bath** is a bath provided for clients who have difficulty getting out of bed, are experiencing excessive pain, or have other physical or cognitive issues that make other types of bathing less tolerable.

Figure 5.6 Shower Chair With Transfer Bench

1. "Transfer_bench.jpg" by Roger Mommaerts is licensed under CC BY-SA 2.0

A resident has the right to choose any type of bath as long as it is safe to do so. A whirlpool bath can be relaxing and enjoyable for any resident, whereas a bed bath can maintain warmth while keeping the majority of the body covered.

If a resident is hesitant about bathing, different types of baths should be offered based on their preference. It is also possible to delay a scheduled bath to a different time of day or an alternate day, as long as their hygiene needs are being met. If a resident continues to be resistant to bathing, different approaches should be attempted until the person is comfortable and hygiene is maintained. Keep in mind that resistance to bathing can be common during the aging process, especially in clients with dementia as the disease progresses.

> Visit the following site to read additional bathing techniques and products for unique situations: Bathing Without a Battle.

Considerations During Bathing

Nursing assistants should maintain privacy and comfort for those receiving assistance with bathing. Residents can become uncomfortable due to many factors during bathing. For example, if they require transportation to the shower area in the hallway on a shower chair, the chair can be uncomfortable or cold, or they may be concerned about being exposed. Bath blankets should be placed over the resident, paying attention to tucking the blanket behind the resident's back and underneath their legs to keep any skin from showing. Residents should also wear shoes or socks to prevent any skin injuries to feet. A towel over the top of their head can assist in keeping them warm, and the shower chair can be padded around the seat with towels or washcloths. Often the seat back is made of mesh to aid in water drainage, which can be covered with a towel to prevent irritation to the resident's back and shoulders. If the resident's feet don't reach the support bar of the chair, a wash basin can be

turned upside down and placed under their feet to give them a more secure feeling during transport. There is an increased risk for patient falls during bathing, and NAs must take appropriate measures to prevent falls due to unsteadiness or wet floors or equipment.

During the bath, the aide should work from head to toe to prevent spreading pathogens from the perineal area to other parts of the body. Start with the face and neck, then proceed to the front and back of the upper body, then the front and back of the legs, and finish with the perineal area. The aide must ensure gloves are changed and hand hygiene is performed immediately after performing perineal care. See Skills Checklists 5.18 and 5.19 regarding performing perineal care for more information.

Because much of the body's heat is lost through the head, it may be preferable to wash the resident's hair last. Provide the resident with a dry washcloth or towel to cover their face and prevent shampoo from getting in their eyes. Gently tipping the head back will keep the majority of the water from falling onto their face.

When assisting a client with bathing, there are several things to observe, consider, and report to the nurse:

- Report any open or reddened areas; dry, flaky skin; bruises; rashes; or irritation. Check all areas of the skin, especially where moisture can be trapped, such as underneath breasts, in abdominal and groin folds, in armpits, and between the toes. If a client has an existing wound or skin breakdown, the nurse should be notified prior to the bath so that an assessment can be completed.
- Report any foul odors that remain after bathing.
- Report subjective or objective signs of pain. For example, the client may pull away when a painful area on their body is touched with a washcloth.
- Report changes in behavior, such as withdrawal or agitation during bathing.
- Report any discharge from any mucous membranes.

See Skills Checklists 5.9-5.13 for performing specific steps for each type of bath and shampooing a client's hair.

5.7 Assisting With Nutrition and Fluid Needs

Mealtime should be as enjoyable as possible, especially for those clients requiring assistance. As with any other aspect of providing personal care, nursing assistants should use empathy. Think about what it would feel like if you had cognitive or sensory deficits and could not ask for what you want to eat even though it is on the plate in front of you. Recognize how the presentation of the food and the table influence one's appetite. Consider with whom you like to share your meal. All these factors should be considered when feeding a resident.

Avoid using feeding techniques that are used with young children, such as making noises, moving utensils like airplanes, etc. Residents should be offered a clothing protector to avoid soiling their clothes or gown, but to maintain their dignity, these protectors should never be referred to as a "bib."

When the meal is ready to consume, describe to the resident what they have on their tray to eat and drink. If the client is visually impaired, use the **clock method** to describe their plate so they know where each food is located. For example, the nursing assistant can state, "Your mashed potatoes are at 10 o'clock, the green beans are at 2 o'clock, and the meat loaf is at 6 o'clock on your plate." If a resident has an order for a **pureed diet** (i.e., all food is blended to smooth consistency), know what each food is and name it when assisting the resident.

Nutritional requirements for each resident are determined by the dietary staff. Each resident has a specific type of diet ordered, including texture and consistency of liquids. It is imperative for nursing assistants to check the resident's care plan to know what type of diet is currently ordered and be familiar with the appearance of these types of diets. These steps ensure the correct foods and fluids are provided to residents and reduces the risk of choking and aspiration. **Aspiration** refers to inadvertently breathing fluid or food into the airway instead of swallowing it. Diets are further discussed in Chapter 6. See the "Preparing Clients for Meals and Assisting With Feeding" checklist for specific steps when assisting clients with feeding.

Things to observe for and report during feeding include the following:

- Coughing or frequent clearing of the throat while eating. This may be a sign of aspiration.
- A **wet voice**, meaning vocalization with sounds as if food or fluids remain in the mouth or throat.
- Difficulty swallowing.
- Pain with chewing or swallowing.
- Broken or cracked teeth or dentures that don't fit properly.
- Changes in appetite.

Thinking back to Maslow's Hierarchy, physiological needs such as food and fluids are the basis of a healthy existence. Digestive, circulatory, and urinary system changes related to aging will be discussed further in Chapter 11, but aging can pose several risk factors to nutritional and fluid intake. Poor dentition can cause changes in food choices. Someone with missing, cracked, or painful teeth, ill-fitting dentures, or other oral concerns may choose softer foods. A declining sense of smell, taste, or vision can decrease appetite. Pain with movement or other factors that limit mobility may make elimination difficult, which may be a factor in decreasing intake, so toileting needs are less frequent. These are just a few of the aging issues that can lead to malnutrition, dehydration, or both in aging clients and those unable to care for themselves.

Feeding Aids

There are several assistive devices that allow residents to more easily feed themselves.

Built-up handles allow the use of utensils by individuals with limited functional ability of their fingers to hold a smaller handle (such as for someone with severe arthritis). Silverware with prebuilt handles can be purchased, or a foam tube can be placed around regular silverware and removed for washing.

Weighted silverware has a weighted handle for individuals with tremors or

unsteady hands. The weight slows down the shaking and allows food to remain on the utensil. See Figure 5.7[1] for an image of built-up handles and weighted silverware.

Figure 5.7 Built-Up and Weighted Silverware

Swivel spoons rotate so if the resident's hand shakes, the spoon doesn't move, and the food remains on the utensil. See an image of a swivel spoon in Figure 5.8.[2]

Figure 5.8 Swivel Spoon

Covered cups prevent liquids from spilling due to tremors and also slow

1. "Built-Up-Silverware-scaled.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
2. "Swivel-Spoon-scaled.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

down the rate of fluid leaving the cup. For example, individuals with aspiration risk (as discussed in Chapter 6.2, "Nutrition and Fluid Needs") may be permitted to drink regular liquids out of a covered cup rather than requiring thickened liquids. See an image of a covered cup in Figure 5.9.[3]

Figure 5.9 Covered Cup

Nosey cups are used for clients with limited neck mobility. The nosey cup allows them to drink all of the fluid in the cup without tipping their head back. The cut-out portion of the cup fits around the person's nose so it can be tilted up to finish the fluid. See an image of a nosey cup in Figure 5.10.[4]

Figure 5.10 Nosey Cup

3. "Kennedy-Cup-scaled.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
4. "Nosey-Cup-scaled.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Plate guards are used for individuals who can use only one hand or who have difficulty maneuvering utensils. Food can be pushed onto the utensil by pushing it against the plate guard. The plate guard can be placed on any plate (such as the image of the plate in Figure 5.11[5]), or it may be on a special plate made with the guard built on the plate surface (as in Figure 5.12[6]).

Figure 5.11 Plate Guard

Figure 5.12 Built-Up Plate

5. “Plate-Guard-scaled.jpg” by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
6. “Built-Up-Plate-scaled.jpg” by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Documentation of Food and Fluids

Documentation of food and fluids gives insight to the overall health and well-being of clients. It gives nurses, dieticians, health care providers, and other staff insight into possible health concerns. Documenting intake is an important responsibility of nurse aides. Unless otherwise indicated, food intake is documented by estimating to the nearest 25% of intake. It is also appropriate to note that a resident only ate "bites of food." See Figures 5.13 – 5.16[7] for examples of food intake.

Figure 5.13 25% intake or "bites"

Figure 5.14 50% intake

7. "25 percent intake.png," "50 percent intake.png," "75 percent intake.png," and "100 percent intake.png" by Nic Ashman for Chippewa Valley Technical College are licensed under CC BY 4.0

Figure 5.15 75% intake

Figure 5.16 100% intake

Any fluids documented in health care are converted to milliliters (mL) or cubic centimeters (cc). Milliliters and cubic centimeters are the same units, so 1 mL = 1 cc. Typically, fluids are measured in ounces in the United States, so a conversion is necessary. To do so, multiple the number of ounces by 30, as 1 ounce = 30 cc = 30 mL. Examples of fluid conversions are provided in Table 5.7.

Table 5.7 Conversions of Ounces to Milliliters (mL) or Cubic Centimeters (cc)

Fluid Ounces	Conversion	Milliliters or Cubic Centimeters
6 oz	x 30	180 mL or cc
4 oz	x 30	120 mL or cc
1 cup = 8 oz	x 30	240 mL or cc

In addition to beverages, anything that melts at room or body temperature is documented as fluids. This includes food items such as clear broth, ice chips,

ice cream, popsicles, and Jell-O. However, soup is documented as part of the client's food intake.

5.8 Assistance With Toileting

Just as there are several bathing techniques based on a resident's functioning and mobility, there are multiple methods for assisting residents with their bladder and bowel elimination. Regardless of the method used, residents should be offered toileting assistance at least every two hours. The following subsections provide an overview of each toileting method and when it may be implemented.

Toilet

The resident should be able to stand independently, walk, or pivot transfer with assistance. A mechanical lift that assists with bearing weight may also be used to place a resident on the toilet.

Bedpan

Bedpans are used for residents who cannot bear weight or prefer to stay in bed, such as when having to urinate during the night. Residents who require a full body lift to transfer typically require the use of a bedpan, but there are also toileting slings to assist a fully dependent resident to use a toilet or commode. See Figure 5.17[1] for an image of two types of bedpans. The image on the left is a standard bedpan and the image on the right is called a fracture pan. Fracture bedpans are smaller than standard bedpans and have one flat end. They are designed for individuals recovering from a hip fracture or hip replacement.

1. "Bedpan.jpg", "Fracture Bedpan.jpg", and "Fracture Bedpan View 2.jpg" by Landon Cerny are licensed under CC BY 4.0

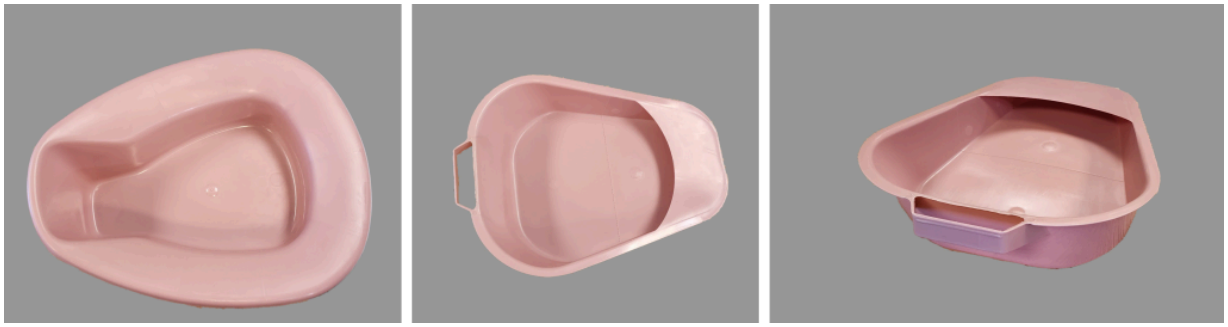

Figure 5.17 Bedpan Examples

For residents with strong hip mobility who require a bedpan, ask them to bend their knees and push their hips upwards. While they are raised, place a barrier (e.g., a towel, waterproof soaker pad, disposable pad, etc.) under them and then place a standard bedpan underneath their buttocks. Ensure the handle of the fracture pan (or the opening of the rim on a full bedpan) is pointed towards the foot of the bed before they lower themselves onto the bedpan. For residents with limited hip mobility, use their lift sheet to roll them away from you towards a raised side rail. While they are lying on their side and holding the side rail, return the lift sheet on top of the bed and then place a barrier on top of the lift sheet. Place a fracture pan behind the resident's buttocks and then gently roll both the resident and the fracture pan back to the bed surface, ensuring proper placement of the pan.

Please see Skills Checklist for additional information.

Commode

A **commode** looks like a toilet, but it is a movable device with a bucket underneath the seat. See Figure 5.18[2] for an image of a commode. Commodes are typically placed near the bed for residents who have limited weight-bearing ability, do not want to share a bathroom with another resident, or have urge incontinence. **Urge incontinence** means that as soon as the person feels the need to empty their bladder, they have very little time before urine escapes.

2. "Bedside Commode" by Landon Cerny is licensed under CC BY 4.0

Figure 5.18 Bedside Commode

Incontinence Briefs or Pads

Incontinence briefs or pads are disposable products used for residents who have little to no control over bladder or bowel function and are worn in, or in place of, their underwear. Please see Skills Checklist for additional information.

Urinary Catheter

A urinary catheter is a device placed into the bladder by a nurse using sterile technique that allows the urine to drain into a collection bag. Urinary catheters are used sparingly due to increased risk of urinary tract infections. Catheters are typically used for clients with urinary retention, have a wound near the perineal area that may become infected due to incontinence, or have a neurological condition that does not allow them to control their bladder function. See Figure 5.19[3] for an illustration of an indwelling urinary catheter attached to a collection bag. Nursing assistants may assist in emptying/ documenting urine output from the collection bag or providing catheter care according to agency policy. Please see 5.25 Skills Checklist for additional information.

3. "Foley Catheter with Collection Bag and Leg Strap" by Landon Cerny is licensed under CC BY 4.0

Figure 5.19 Indwelling Urinary Catheter With a Collection Bag

Urostomy

A **urostomy** is placed surgically to collect urine from the ureters when the bladder is diseased or has been removed. Urostomies are typically located on the lower right side of the abdomen, and urine is collected into a drainage bag. See Figure 5.20[4] for an illustration of a urostomy.

4. "Diagram_showing_how_a_urostomy_is_made_(ileal_conduit)_CRUK_124.svg" by Cancer Research UK is licensed under CC BY-SA 4.0

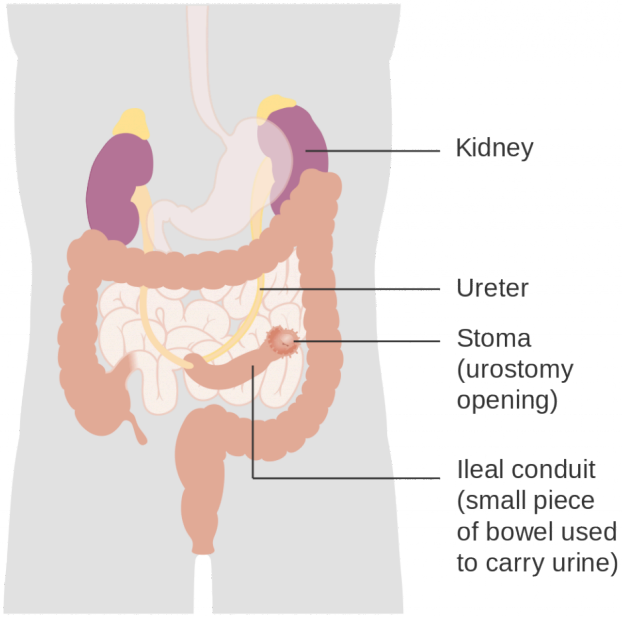

Figure 5.20 Urostomy

Colostomy

A **colostomy** is placed surgically when colon function is impaired. A piece of the colon is diverted to an artificial opening in the abdominal wall called a stoma, and feces is collected in a pouch.

Considerations When Assisting Clients With Toileting

Nursing assistants must consider a resident's privacy and dignity when assisting with toileting just as they do with bathing. Most residents prefer to be alone when urinating or defecating. Privacy can be provided by closing the bathroom door if the resident is able to be left alone. If the resident is not safe to be left alone, close the door as much as possible while keeping the resident within eyesight. Maintain awareness of a resident who is toileting or on the bedpan so they do not need to wait for assistance with perineal care after elimination and will not develop any skin issues from sitting on a hard surface.

To maintain dignity, nurse aides should be careful when explaining and providing care related to toileting. For example, a disposable brief should never be referred to as a diaper; acceptable terms include a brief, pad, liner, or disposable underwear. Additionally, a nurse aide should never show

reluctance or appear burdened when providing toileting assistance, no matter how often a resident feels the need to be toileted or requires perineal care due to incontinence.

Bladder and Bowel Retraining

Clients who are dependent on others for assistance with elimination should be taken to the bathroom or offered toileting options every two hours. Incontinence is a very personal matter and can be embarrassing for clients. Nursing assistants should use therapeutic communication when assisting clients with toileting.

When indicated, clients may undergo bladder and bowel retraining to regain control of elimination. There are several strategies used to promote bladder continence. The nurse aide may assist the nurse with one of the strategies called timed voiding. **Timed voiding** encourages the patient to urinate on a set schedule, such as every hour, whether they feel the urge to urinate or not. The time between bathroom trips is gradually extended with the general goal of achieving four hours between voiding. Timed voiding helps to control urge and overflow incontinence as the brain is trained to be less sensitive to the sensation of the bladder walls expanding as they fill.[5]

Bowel retraining involves teaching the body to have a bowel movement at a certain time of the day. This training includes encouraging clients to go to the bathroom when feeling the urge to do so and not ignoring the urge. For some individuals, it is helpful to schedule this consistent time in the morning when the natural urge occurs after drinking warm fluids or eating breakfast. For other people, especially those with a neurological cause, a laxative may be scheduled regularly to stimulate the urge to have a bowel movement on a regular basis and prevent constipation. The nurse should communicate to the

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nursing assistant when bowel retraining is in place, or a laxative is administered to a client so they are aware of the client's need to defecate.[6]

Urinary Tract Infection (UTI)[7]

A **urinary tract infection (UTI)** is a common infection that occurs when bacteria, typically from the rectum, enter the urethra and infect the bladder or kidneys. Infections can affect several parts of the urinary tract, but the most common type is a bladder infection. Kidney infections are more serious than a bladder infection because they can have long-lasting effects on the kidneys.

Some people are at higher risk of getting a UTI. UTIs are more common in females because their urethras are shorter and closer to the rectum, which makes it easier for bacteria to enter the urinary tract. Providing improper perineal care is a common cause of a UTI. Nursing assistants must be diligent and assist with perineal hygiene as needed to prevent infections. Other factors that can increase the risk of UTIs include the following:

- A previous UTI
- Sexual activity, especially with a new sexual partner
- Pregnancy
- Age (Older adults and young children are at higher risk)
- Urinary retention
- Low fluid intake
- Structural problems in the urinary tract, such as prostate enlargement

Symptoms of a UTI should be reported to the nurse immediately and include the following:

- Pain or burning while urinating (dysuria)
- Frequent urination (frequency)

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- Urgency with small amounts of urine
- Bloody urine
- Pressure or cramping in the groin or lower abdomen
- Confusion or altered mental status in older adults

Symptoms of a more serious kidney infection (called pyelonephritis) include fever above 101 degrees F (38.3 degrees C), shaking chills, lower back pain or flank pain (i.e., on the sides of the back), and nausea or vomiting.

It is important to remember that older adults with a UTI may not exhibit these common symptoms but instead demonstrate an increased level of confusion. Older adults often become weaker when they have a UTI and may fall. If you notice increased weakness or a change in the level of confusion in an older client, report these symptoms to the nurse immediately. If not treated quickly, UTIs can spread to the blood (called septicemia), leading to life-threatening infection called **sepsis**.

When a patient has symptoms related to a possible UTI, the health care provider will order diagnostic tests, such as a urine dip, urinalysis, or urine culture. See the subsection below on "Specimen Collection," which details how nursing aides assist with these tests. Antibiotics are prescribed for urinary tract infections and are administered by the nurse. Nursing assistants should encourage clients with UTIs to drink extra fluids to help flush bacteria from the urinary tract, and toileting should be offered more frequently with proper perineal care.

Observation and Documentation of Urinary Output

When assisting residents with urinary elimination, their urine should be observed for the characteristics described in Table 5.8. Terms used to document these characteristics are included.

Characteristics of urine can be indicative of a urinary tract infection or dehydration and should be reported to the nurse. Dark urine, minimal urine output, or the infrequent need to void can be signs of dehydration. Characteristics of an infection are described in the previous "Urinary Tract

Infection (UTI)" subsection. If noted and reported promptly, fluids can be encouraged to help treat these conditions.

Table 5.8 Urine Characteristics

Characteristic	Normal Observation	Abnormal Observation	Documentation Terminology
Color	Amber (like a stoplight) or straw-colored	Dark amber or possibly root beer or cola-colored	Amber or cola
Odor	Acidic	Noticeably stronger odor than usual	Strong
Clarity	Clear	Cloudy	Cloudy
Sediment	None present	Particles present	Sediment noted
Amount	Generally 250-350 cc	More or less than usual amount	Amount in milliliters or cubic centimeters. Minimal amount may be described as scant

If a resident is regularly incontinent and uses a brief or disposable pad for elimination, the nursing assistant should document the number of times the resident is incontinent rather than recording the amount. For a continent resident, use a toilet hat to measure urine output as described in the "Specimen Collection" subsection below. If the resident uses a commode or bedpan, place a graduated cylinder on a barrier, carefully pour the urine into the graduated cylinder, and observe and document the characteristics. See Figure 5.21[8] for an image of a graduated cylinder.

8. "Graduated Cylinder" by Landon Cerny is licensed under CC BY 4.0

Figure 5.21 Graduated Cylinder

Observation and Documentation of Stool

Similar to urine, stool output and characteristics can indicate underlying health concerns. Risk factors to healthy stool elimination will be discussed further in the "Digestive System" section in Chapter 11, but slowing of the digestive system, decreased intake, and lower mobility can all contribute to constipation and even cause bowel obstruction. Documentation and reporting of unusual characteristics can assist nurses in providing interventions that can prevent more serious health concerns.

Elimination patterns vary for each individual, but a typical range for bowel elimination is twice daily to once every other day. When regular bowel movements do not occur, stool becomes hardened in the colon, making it difficult to push out, especially for those who are physically declined. Stool should be soft and formed when eliminated to prevent additional problems like hemorrhoids. Stool that is loose or liquid may indicate an infection or other chronic intestinal issues.

Nursing assistants should note the size of a client's bowel movement as "small," "medium," or "large" as an estimation. Using agency protocol, the consistency of the stool should also be documented. The Bristol Stool Chart is a common tool used to easily observe and document the consistency of stool.

See Figure 5.22[9] for an image of the Bristol Stool Chart. Additionally, if any blood or dark tarry stool is observed, this should be reported immediately to the nurse.

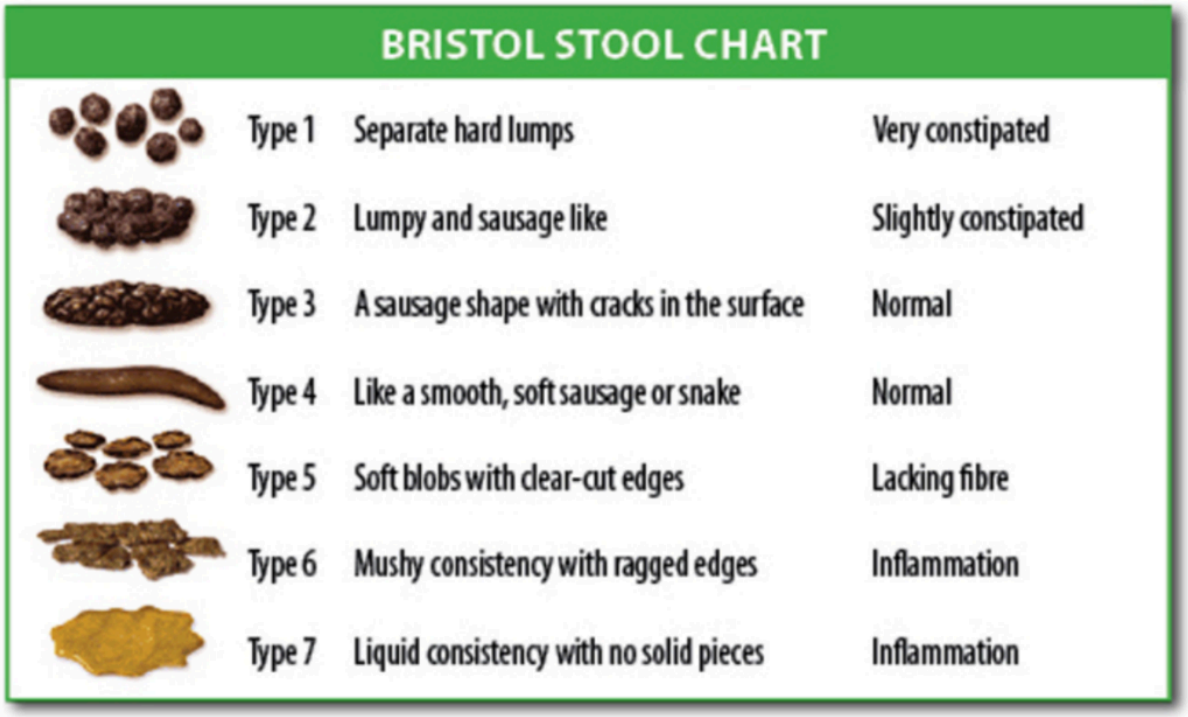

Figure 5.22 Bristol Stool Chart

Specimen Collection[10]

Urinary Samples

Urinary samples may need to be collected to detect infection. When needed, obtain a toilet hat (see Figure 5.23"Toilet Hat" and "Commode with Toilet Hat" by Landon Cerny are licensed under CC BY 4.0[/footnote]. Ask the nurse to label a specimen cup before collecting urine (see Figure 5.24[11]).

When assisting in collecting a urine specimen, place the cup and toilet hat on a barrier to prevent contamination with bacteria from the environment. Apply

9. "Bristol_stool_chart.svg" by Cabot Health, Bristol Stool Chart is licensed under CC BY-SA 3.0
10. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
11. "Sterile Specimen Container" by Landon Cerny are licensed under CC BY 4.0

gloves and assist the client when needed to clean around the urethra to remove any external pathogens. If able, ask the resident to void a small amount of urine into the toilet. Place the toilet hat in the front of the toilet and instruct the resident to void into the hat. Do not put toilet paper or any other products into the toilet hat. After urination, assist the resident in completing perineal care and transferring from the toilet. Remove dirty gloves, perform hand hygiene, and apply new gloves to prevent contamination of the urine with bacteria from the perineal area. Pour the urine sample from the toilet hat into the specimen cup and tightly put on its cover. Remove gloves and perform hand hygiene before writing the time of collection on the label. Immediately bring the urine sample to the nurse.

Figure 5.23 Toilet Hat

Figure 5.24 Specimen Cup

Stool Samples

Stool samples are collected from patients to test for cancer, parasites, or for occult blood (i.e., hidden blood). The Guaiac-Based Fecal Occult Blood Test (gFOBT) is a commonly used test to find hidden blood in the stool that is not visibly apparent. As a screening test for colon cancer, it is typically obtained by the patient in their home using samples from three different bowel movements. Nursing assistants may collect gFOBT specimens for clients.

Before the test, the nurse should verify that the client has avoided red meat for three days and has not taken aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, for seven days prior to the test. (Blood from the meat can cause a false positive test, and aspirin and NSAIDS can cause bleeding, also leading to a false positive result.) Vitamin C (more than 250 mg a day) from supplements, citrus fruits, or citrus juices should be avoided for 3 to 7 days before testing because it can affect the chemicals in the test and make the result negative, even if blood is present.

To perform a gFOBT in an inpatient setting, perform the following steps.

- Verify with the nurse that the client has met dietary and medication requirements.
- Explain the procedure to the client. Assist the resident to a clean, dry commode and instruct them not to put any toilet paper in the commode,

as this may alter the test result. Request they use the call light when they have had a bowel movement.

- Review the manufacturer's instructions with the nurse.
- Label the card with the patient's name and medical information per agency policy. Open the flap of the guaiac test card.
- Apply nonsterile gloves. Use the applicator stick to apply a thin smear of the stool specimen to one of the squares of filter paper on the card. Obtain a second specimen from a different part of the stool and apply it to the second square of filter paper on the card. (Occult blood isn't typically equally dispersed throughout the stool.)
- Place the labeled test card in a transport bag.
- Remove gloves and perform hand hygiene.
- Give the transport bag to the nurse to send to the laboratory for analysis.

5.9 Skills Checklist: Partial Bath

1. Gather Supplies: Wash basin, warm water, soap, lotion, two washcloths, one towel, barrier, gloves, clean clothes or gown, and linen bag or hamper. See Figure 5.25[1] at the end of this checklist for an image of a wash basin.
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Put on gloves.
    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Raise the bed height to a working height.
    - Keep the resident covered as much as possible using a bath blanket or bed linens.
    - Wash the resident's face using water only.
    - Pat dry the face.
    - Remove the gown from one arm, keeping the rest of the body covered.
    - Place a towel under one arm, only exposing the arm.
    - Wet a washcloth, put soap on the washcloth, and wash the arm with soap.

1. "Wash Basin" by Landon Cerny is licensed under CC BY 4.0

- Wash the hand with soap.
- Wash the underarm with soap. Place the washcloth containing soap on the edge of the basin or barrier.
- Rinse the arm with the second washcloth.
- Rinse the hand.
- Rinse the underarm.
- Pat dry the arm.
- Pat dry the hand.
- Pat dry the underarm.
- Move to the other side of the bed and repeat actions on the other side of the body.
- Dispose of the gown into a linen bag or laundry hamper.
- Ask the resident if they would like lotion. When applying lotion, wear gloves.
- Assist the resident to put on a clean gown or clothes.
- While wearing gloves, empty the equipment.
- Rinse the equipment.
- Dry the basin.
- Return the equipment to storage.
- Dispose of soiled linen in the designated laundry hamper.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and if anything else is needed.
- Be sure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues or changes noted with the resident.

Figure 5.25 Wash Basin

View a YouTube video[2] of an instructor demonstrating a partial bath:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=284#oembed-1

2. Chippewa Valley Technical College. (2022, December 3). Partial Bath. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/iR1r-_SKVpc

5.10 Skills Checklist: Full Bed Bath

1. Gather Supplies: Basin, warm water, soap, shampoo and conditioner if used, lotion, six washcloths, two towels, barrier, gloves, clean clothes or gown, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Place a towel under one leg, keeping the rest of the body covered with the bath blanket.
    - Wash the leg with soap, only exposing the leg.
    - Wash the feet with soap.
    - Rinse the leg and feet.
    - Pat the leg and feet dry.
    - Repeat on the other leg.
    - Raise the side rail on one side of the bed.
    - Move to the opposite side of the bed and assist the resident to roll on their side using a lift sheet or other supportive device.
    - Wash the back while keeping the rest of the body covered.
    - Rinse the back.
    - Pat the back dry.
    - Dispose of the gown and used linens into the linen bag or laundry

hamper.
    - Ask the resident if they would like lotion. If applying lotion, wear gloves.
    - Perform perineal care using clean linens according to Chapters 5.18 & 5.19 “Perineal Care Skills Checklists.”
    - Assist the resident to put on a clean gown or clothes and apply an incontinence product if needed.
    - While wearing gloves, empty the equipment.
    - Rinse the equipment.
    - Dry the basin.
    - Return the equipment to storage.
    - Dispose of soiled linen in the designated laundry hamper.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and if anything else is needed.
    - Be sure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin issues or changes noted with the resident.

Note: Shampooing can be done before washing face, after washing back, or after perineal care per resident preference. See “Shampoo Skills Checklist” for specific steps.

View a YouTube video[1] of an instructor demonstrating a full bed bath:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=286#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Full Bed Bath . [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/j5GYMOvjjtk

5.11 Skills Checklist: Shower

1. Gather Supplies: Soap, shampoo and conditioner if used, lotion, two washcloths, several towels, barrier, gloves, clean clothes or gown, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Assist the resident to the shower per facility protocol. See the "Considerations During Bathing" subsection in this chapter and implement comfort measures. Keep the resident covered as long as possible and have the resident test the water temperature on their fingers. Repeatedly check the water temperature throughout the shower.
    - Put on gloves.
    - Wet a washcloth and wash the face without soap.
    - Put soap on the washcloth and wash the resident, starting with their upper body and then their legs.
    - Lift any skin-on-skin areas and wash gently with soap.
    - Wash the front of the perineal area.
    - Reach through the bottom of the shower chair and wash the rectal area from front to back.
    - Remove the gloves, turning them inside out.
    - Perform hand hygiene.
    - Put on clean gloves.
    - Rinse the resident starting with the upper body, followed by the legs,

front perineal area, and rectal area.
    - Change the gloves and perform hand hygiene if the perineal area was touched during rinsing.
    - Turn off the water and place warm towels to cover the resident
    - Pat dry.
    - Ask the resident if they would like lotion. If applying lotion, wear gloves.
    - Assist the resident to put on a clean gown or clothes, keeping a dry towel over the back of the shower chair and avoiding getting the gown or clothes wet.
    - Place nonskid footwear on the client.
    - Assist the resident to stand per their care plan.
    - Dry the back of their legs
    - Dry the perineal area from front to back
    - Finish putting on clothes.
    - Assist the resident to a wheelchair or other preferred surface, changing gloves and performing hand hygiene as soon as the resident is safely seated.
    - Place all linens and soiled gown or clothing in a linen bag or designated hamper.
    - Sanitize the shower chair per facility policy.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Be sure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin issues or changes noted with the resident.

5.12 Skills Checklist: Tub Bath

1. Gather Supplies: Soap, shampoo and conditioner if used, lotion, four washcloths, four towels, barrier, gloves, clean clothes or gown, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Keep the resident covered as long as possible and have the resident test the water temperature on their fingers. Assist the resident to the tub per facility protocol. See the subsection in this chapter called "Considerations During Bathing" for comfort measures. Repeatedly check the water temperature throughout the bath.
    - Put on gloves.
    - Wash the client's face with a washcloth and no soap.
    - Put soap on the washcloth and wash the resident starting with their upper body and then their legs.
    - Lift any skin-on-skin areas and wash gently with soap.
    - Perineal care can be performed in the bed prior to the bath. See Skills Checklists 5.18 and 5.19 for perineal care specifics.
    - Wash the client's hair. See the "Shampoo" checklist for specific steps.
    - Drain the tub per facility protocol and rinse the resident.
    - Place warm towels to cover the resident.
    - Pat dry.
    - Ask the resident if they would like lotion. If applying lotion, wear gloves.

- Assist the resident to put on a clean gown or clothes, keeping a dry towel over the back of the shower chair to prevent getting the gown or clothes wet.
- Place nonskid footwear on the client.
- Assist the resident to stand per their care plan.
- Dry the back of their legs.
- Dry the perineal area from front to back.
- Finish putting on clothes.
- Assist the resident to a wheelchair or other preferred surface, changing gloves and performing hand hygiene as soon as the resident is safely seated.
- Place all linens and soiled gown or clothing in a linen bag or designated hamper.
- Sanitize the bath chair per facility policy.
- Remove the gloves by turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and ask if anything else is needed.
- Be sure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues or changes noted with the resident.

5.13 Skills Checklist: Shampoo

1. Gather Supplies: Shampoo basin if in bed, shampoo, conditioner if used, two washcloths or small towels, one large towel, gloves, and linen bag
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Place a basin underneath the client's head and neck if they are in bed and place the drain over the garbage can located on the floor.
    - Give the client a dry washcloth or towel to cover their face if desired.
    - Check the water temperature for safety and comfort. Have the resident check the water temperature by placing their hand in the water in the basin or putting a wet washcloth on the back of their hand. Ask the resident if the temperature is comfortable to them.
    - Wet their hair with a wet washcloth or by gently pouring water over their hair.
    - Apply shampoo and lather while massaging scalp gently.
    - Rinse their hair.
    - Apply conditioner if used, massaging the scalp gently.
    - Rinse their hair.
    - Dry their hair gently and style it per the resident's preference.
    - While wearing gloves, empty the equipment.
    - Rinse the equipment.
    - Dry the basin.
    - Return the equipment to storage.

- Dispose of soiled linen in a designated laundry hamper.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin or scalp issues or changes noted with the resident.

5.14 Skills Checklist: Foot Care

1. Gather Supplies: Basin, warm water, soap, lotion, two washcloths, one towel, barrier, gloves, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Fill a foot basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Remove their socks.
    - Immerse their feet in warm water for 5 to 20 minutes.
    - Use water and a soapy washcloth.
    - Wash each foot and between the toes.
    - Rinse the entire foot with the wet washcloth, including between the toes.
    - Dry the foot thoroughly, including between the toes.
    - Ask the resident if they would like lotion. If applying lotion, wear gloves.
    - Massage the lotion over the foot but avoid applying any lotion between the toes.
    - Wipe off any excess lotion with a dry towel.
    - Replace the socks or preferred footwear.
    - While wearing gloves, empty the equipment.

- Rinse the equipment.
- Dry the basin.
- Return the equipment to storage.
- Dispose of soiled linen in a designated laundry hamper.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin or nail issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating foot care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=297#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Foot Care. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/gQekzAPHKGY

5.15 Skills Checklist: Nail Care

NOTE: Nail care for clients with diabetes should be performed by a Registered Nurse (RN).

1. Gather Supplies: Basin, warm water, soap, lotion, two washcloths, one towel, barrier, gloves, manicure stick, emery board, nail clipper, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Have the resident perform hand hygiene with sanitizer.
    - Immerse the client's hands in warm water for 5 to 20 minutes.
    - Place their hand on a barrier.
    - Using a manicure stick, clean underneath each nail, wiping any debris on the barrier after each nail.
    - If necessary, trim nails using a clipper. Sanitize the clipper prior to and after use.
    - Using an emery board, file each nail from the outside of the nail towards the middle of the nail.
    - Check each nail for snags and file until smooth.

- Rinse the hand in water, return to the barrier, and dry.
- Repeat the procedure for the second hand.
- Offer lotion. If applying lotion, wear gloves.
- Rub the lotion gently into the skin if requested.
- Wipe off any excess lotion with a dry towel.
- While wearing gloves, empty the equipment.
- Rinse the equipment.
- Dry the basin.
- Return the equipment to storage.
- Dispose of soiled linen in a designated laundry hamper.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene
    - Document and report any skin or nail issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating nail care:

1. Chippewa Valley Technical College. (2022, December 3). Nail Care. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/T32Csl2Rx0s

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=299#oembed-1

5.16 Skills Checklist: Skin Care

1. Gather Supplies: Gloves and lotion
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene and put on gloves.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Position the resident as needed and only expose the skin that will be moisturized.
    - Put on gloves.
    - Place a quarter-sized circle of lotion on one palm.
    - Rub the hands together to warm the lotion.
    - Apply the lotion to dry skin but avoid getting lotion between the toes.
    - Use additional lotion, warming between your hands as needed, until all dry skin has been moisturized.
    - Wipe off any excess lotion gently with a dry towel.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin issues or changes noted with the

resident.

It is important to properly clean the wash basin and other supplies after performing any type of skin care to prevent the spread of infection.

View a YouTube video[1] of an instructor demonstrating cleaning supplies after performing skin care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=302#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Post Skin Care Procedure. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/yZ_VfxFxUho

5.17 Skills Checklist: Back Rub

1. Gather Supplies: Gloves and lotion
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Raise the side rail on one side of the bed.
    - Move to the opposite side of the bed and assist the resident to roll towards the raised side rail.
    - Only expose the resident's back from the shoulders to the top of the hips.
    - Place a quarter-sized circle of lotion on one palm.
    - Rub the hands together to warm the lotion.
    - Begin with long, gentle strokes starting at the top of hips and moving to the top of the shoulders. Repeat about five times.
    - Throughout the back rub, ask the resident if there is any pain or discomfort. If pain is present, stop the procedure and report it to the nurse.
    - Apply more lotion to gloved hands as needed to reduce friction on the resident's skin.
    - Make large circles with both hands from the top of hips to the top of shoulders. Repeat about five times.
    - Apply additional lotion to gloved hands as needed to reduce friction on resident's skin.
    - Make small circles with both hands from the top of the hips to the top

of the shoulders. Repeat about five times.
    - Apply additional lotion to gloved hands if needed to reduce friction on resident skin.
    - End with long, gentle strokes starting at the top of hips and moving to the top of shoulders. Repeat about five times.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Cover the resident completely per resident preference.
    - Assist the resident to their preferred position.
    - Lower the side rail that was raised.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating a backrub:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=304#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Back Rub. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/CqFgIrLaQ4M

5.18 Skills Checklist: Perineal Care (Female)

1. Gather Supplies: Basin, warm water, soap, four washcloths, one towel, barrier, gloves, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Raise one side rail of the bed after checking the resident's mobility and their preferred side to lie on.
    - Put on gloves.
    - Raise the bed height if needed.
    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Turn the resident or raise their hips and place a barrier (a towel, waterproof soaker pad, disposable pad, etc.) under their buttocks.
    - Expose their perineum only.
    - Separate the labia.
    - Use water and a soapy washcloth.
    - Clean one side of the labia from top to bottom.
    - Using a clean portion of the first washcloth, clean the other side of the labia from top to bottom.
    - Using a clean portion of the first washcloth, clean the vaginal area from top to bottom.
    - Put the first washcloth in the linen bag.

- Using the second clean washcloth, rinse one side of the labia from top to bottom.
- Using a clean portion of the second washcloth, rinse the other side of the labia from top to bottom.
- Using a clean portion of the second washcloth, rinse the vaginal area from top to bottom.
- Put the second washcloth in the linen bag.
- Avoid overexposure throughout the procedure.
- Pat dry.
- Cover the exposed area with the bath blanket.
- Assist the resident to turn onto their side facing away from you and ask the resident to hold onto the raised side rail.
- Using the third clean washcloth, apply water and soap.
- Using a clean portion of the third washcloth, clean one side of the buttock, wiping away from vagina.
- Using a clean portion of the third washcloth, clean the other side of the buttock, wiping away from the vagina.
- Using a clean portion of the third washcloth, clean the rectal area wiping away from the vagina.
- Put the third washcloth in the linen bag.
- Using the fourth washcloth, rinse one side of the buttock wiping away from the vagina.
- Using a clean portion of the fourth washcloth, rinse the other side of the buttock wiping away from the vagina.
- Using a clean portion of the fourth washcloth, rinse the rectal area wiping away from vagina.
- Put the fourth washcloth in the linen bag.
- Pat dry.
- Safely remove the waterproof pad from under the buttocks.
- Remove the gloves, turning them inside out.
- Perform hand hygiene.
- Position the resident on her back.
- Put on clean gloves.
- Dispose of soiled linen in the designated laundry hamper.

- Empty the equipment.
- Rinse the equipment.
- Dry the equipment.
- Return the equipment to storage.
- Remove the gloves, turning them inside out.
- Dispose of the gloves in an appropriate container.

4. Post- Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating female perineal care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=307#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Perineal Care (Female). [Video]. YouTube. Video licensed underCC BY 4.0. https://youtu.be/6Xu2Sgk1y80

5.19 Skills Checklist: Perineal Care (Male)

1. Gather Supplies: Basin, warm water, soap, four washcloths, one towel, barrier, gloves, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Raise one side rail of the bed. Check the resident's mobility and their preferred side to lie on.
    - Put on gloves.
    - Raise the bed height if needed.
    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Turn the resident or raise the hips and place a barrier (a towel, waterproof soaker pad, disposable pad, etc.) under their buttocks.
    - Expose the perineum only.
    - Use water and a soapy washcloth.
    - If the resident is not circumcised, gently move the foreskin away from their urethra toward the base of the penis.
        - Using a clean portion of the first washcloth, start from the urethra and clean in a circular motion toward their scrotum.
        - Using a clean portion of the first washcloth, clean one groin fold and the scrotum.

        - Using a clean portion of the first washcloth, clean the other groin fold and the other side of scrotum.
        - Put the first washcloth in a linen bag.
        - Using the second clean washcloth, rinse from the urethra in a circular motion toward the scrotum.
        - Using a clean portion of the second washcloth, rinse one groin fold and the scrotum.
        - Using a clean portion of the second washcloth, rinse the other groin fold and the other side of the scrotum.
        - Put the second washcloth in the linen bag.
        - Avoid overexposure throughout the procedure.
        - Pat dry.
    - If uncircumcised, gently return the foreskin toward the urethra.
        - Cover the exposed area with the bath blanket.
        - Assist the resident to turn onto their side away from you and ask the resident to hold onto the raised side rail.
        - Using the third clean washcloth, apply water and soap.
        - Using a clean portion of the third washcloth, clean one side of the buttock wiping away from the urethra.
        - Using a clean portion of the third washcloth, clean the other side of the buttock wiping away from the urethra.
        - Using a clean portion of the third washcloth, clean the rectal area wiping away from the urethra.
        - Put the third washcloth in the linen bag.
        - Using the fourth washcloth, rinse one side of the buttock wiping away from the urethra.
        - Using a clean portion of the fourth washcloth, rinse the other side of the buttock wiping away from the urethra.
        - Using a clean portion of the fourth washcloth, rinse the rectal area wiping away from the urethra.
        - Put the fourth washcloth in the linen bag.
        - Pat dry.
    - Safely remove the waterproof pad from under the buttocks.
    - Remove the gloves, turning them inside out.

- Perform hand hygiene.
- Position the resident on his back.
- Put on clean gloves.
- Dispose of soiled linen in the designated laundry hamper.
- Empty the equipment.
- Rinse the equipment.
- Dry the equipment.
- Return the equipment to storage.
- Remove the gloves, turning them inside out.
- Dispose of gloves in an appropriate container.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating male perineal care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=309#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Perineal Care (Male). [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/n3Ed36YSz9w

5.20 Skills Checklist: Oral Care

1. Gather Supplies: Gloves, toothbrush, toothpaste, emesis/oral basin, cup of water, clothing protector (towel), barrier (paper towel), and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Place all supplies on a barrier.
    - Put on gloves.
    - If the resident is in bed, elevate the head of the bed if it is permissible per the care plan.
    - Cover the resident's chest with a towel to keep their clothing or gown clean.
    - Wet the toothbrush in the sink or in a cup of water.
    - Apply a small amount of toothpaste to the toothbrush.
    - Brush the resident's teeth, including the inner, outer, and chewing surfaces of all upper and lower teeth.
    - After each quadrant of the mouth (i.e., lower right, lower left, upper right, or upper left), allow the resident to rinse with water and spit into an emesis basin if needed.
    - Clean the resident's tongue being careful not to cause the resident to gag.
    - Assist the resident in rinsing their mouth.
    - Wipe the resident's mouth with the towel on their chest.
    - Remove the towel and place it in a linen bag.

- Empty the emesis basin.
- Rinse the emesis basin.
- Dry the emesis basin.
- Rinse the toothbrush.
- Return the equipment to storage.
- Remove the gloves, turning them inside out.
- Dispose of the gloves in an appropriate container.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any oral issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating oral care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=311#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Oral Care. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/SQEjgHODEz0

5.21 Skills Checklist: Denture Care

1. Gather Supplies: Gloves, denture brush, denture toothpaste if available, dentures, denture cup, denture cleansing tablet if desired, emesis/oral basin, oral swab, cup of water, clothing protector (towel), barrier (paper towel), sink liner (paper towel or washcloth), and linen bag or hamper. See Figure 5.26[1] at the end of this checklist for an image of an oral swab.
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Place all supplies on a barrier.
    - Place a clothing protector on the resident.
    - Line the sink with a washcloth or paper towel.
    - Remove dentures from the cup or remove them from the resident's mouth and place them in the denture cup or emesis basin.
    - Handle the dentures carefully to avoid damage or contamination.
    - Wet the denture brush and apply denture toothpaste if available. Water alone is acceptable to clean dentures if toothpaste is not available.
    - Thoroughly brush the inner, outer, and chewing surfaces of each denture.
    - Rinse the dentures using clean, cool water and place them on a clean

1. "Oral Swab" by Landon Cerny is licensed under CC BY 4.0

barrier or in an emesis basin.
    - Rinse the denture cup.
    - Place the dentures in a rinsed cup.
    - Wet an oral swab and gently clean all surfaces of the resident's gums and tongue.
    - Allow the resident to rinse and spit into the emesis basin.
    - Place the dentures in the resident's mouth if desired.
    - Wipe the resident's mouth and remove the clothing protector, placing it in an appropriate container.
    - In the evening, place the dentures in the denture cup and add cool, clean water to the denture cup to cover the dentures.
    - Put a denture cleansing tablet in the cup, if desired.
    - Rinse the equipment (denture brush and emesis basin).
    - Return the equipment to storage.
    - Discard the protective lining in an appropriate container.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document and report any oral issues or changes noted with the resident.

Figure 5.26 Oral Swab

View a YouTube video[2] of an instructor demonstrating denture care:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=313#oembed-1

2. Chippewa Valley Technical College. (2022, December 3). Denture Care. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/kDWlh3lRGnk

5.22 Skills Checklist: Preparing Clients for Meals and Assisting With Feeding

1. Gather Supplies: Clothing protector, meal, diet card, eating utensils, sanitizer or soapy and wet washcloths
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door unless they are in the dining room.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Verify the name on the diet card matches the resident.
    - Verify the diet, diet texture, and liquid consistency matches the diet card.
    - Position the resident in an upright position, at least 45 degrees.
    - Place a clothing protector on the resident if desired (e.g., a paper or cloth towel or a large napkin).
    - Ask the resident if they would like oral care before eating.
    - Assist the resident to clean their hands before feeding using sanitizer or soapy and wet washcloths.
    - Position yourself at eye level facing the resident.
    - Describe the foods and fluids being offered to the resident.
    - Offer small amounts of food at a reasonable rate.
    - Offer fluids frequently.
    - Allow the resident time to chew and swallow.
    - Wipe the resident's face whenever necessary.
    - Continue to alternate foods and fluids until the resident indicates they are full.
    - Clean the resident's face and hands.
    - Ask the resident if they would like oral care.

- Leave the resident with their head elevated at least 30 degrees.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Record the intake as a percentage of total solid food eaten.
- Record the sum of estimated fluid intakes in mL or cc.
- Check for resident comfort and ask if anything else is needed.
- If in the resident's room, ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any feeding issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating preparing clients for meals and assistance with feeding:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=316#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Preparing Clients for Meals and Assistance With Feeding. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/Yt3EelUdy60

5.23 Skills Checklist: Choking Maneuver

1. Call out for help or tell another staff member to get the nurse if you think a resident is choking. If no nurse is available, direct someone to call 911 while proceeding with the following steps.
2. Until help arrives, stand behind the victim with one leg forward between the victim's legs.
3. For a child, move down to their level and keep your head to one side.
4. Reach around their abdomen and locate the navel.
5. Place the thumb side of your fist against their abdomen just above the navel.
6. Grasp your fist with your other hand and thrust inward and upward into the victim's abdomen with quick jerks.
7. For a responsive pregnant victim, any victim you cannot get your arms around, or for anyone in whom abdominal thrusts are not effective, give chest thrusts while standing behind them. Avoid squeezing the ribs with your arms.
8. Continue thrusts until the victim expels the object or becomes unresponsive.
9. If the person becomes unconscious, notify the nurse. If no nurse is available, call 911.

View a YouTube video[1] of an instructor demonstrating the choking maneuver:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=318#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Choking Maneuver. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/HMtwmw5Vaoo

5.24 Skills Checklist: Catheter Care

1. Gather Supplies: Basin, warm water, soap, two washcloths, one towel, barrier, gloves, and linen bag or hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Fill the basin with warm water and place it on a flat surface with a barrier underneath. Have the resident check the water temperature by placing their hand in the basin or putting a wet washcloth on the back of their hand.
    - Raise the bed height to a working height.
    - Expose only the urethra and catheter.
    - Follow the tubing from the resident toward the drainage bag, ensuring that the tubing is at a lower level as it goes toward the bag. Be sure no kinks or elevation can cause backflow to the bladder.
    - Turn the resident or raise their hips and place a barrier (e.g., a towel, waterproof soaker pad, or disposable pad) under their buttocks.
    - Use the first washcloth with soap and water to carefully wash around the catheter where it exits the urethra.
    - Hold the catheter where it exits the urethra with one hand.
    - While holding the catheter, clean 3-4 inches down the catheter tube.
    - Clean with strokes moving away from the urethra.
    - Use a clean portion of washcloth for each stroke.
    - Put the soiled first washcloth in the linen bag.

- Wet the second washcloth and rinse, using strokes only away from the urethra while continuing to hold the catheter where it exits the urethra.
- Rinse using a clean portion of washcloth for each stroke.
- Put the soiled second washcloth in the linen bag.
- Pat dry with a towel.
- Do not allow the tube to be pulled at any time during the procedure.
- Replace the gown over the resident's perineal area.
- While wearing gloves, empty the basin.
- Rinse the basin.
- Dry the basin.
- Return the equipment to storage.
- Dispose of soiled linen in a designated laundry hamper.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating catheter care:

1. Chippewa Valley Technical College. (2022, December 3). Catheter Care. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/pIM5rRt9s-w

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=320#oembed-1

5.25 Skills Checklist: Emptying Catheter Drainage Bag

1. Gather Supplies: Gloves, two barriers, graduated cylinder, and alcohol swab
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Place a barrier (e.g., paper towel or disposable pad) on the floor under the drainage bag.
    - Place the graduated cylinder on the barrier.
    - Open the drain to allow the urine to flow into the graduated cylinder.
    - Avoid touching the tip of the tubing to the sides of the graduated cylinder.
    - Close the drain.
    - Wipe the drain with an alcohol wipe.
    - Wipe the drain holder, if present, with an alcohol wipe.
    - Replace the drain into the holder.
    - Place a clean barrier on a level, flat surface.
    - Place the graduated cylinder on the barrier.
    - With the graduated cylinder at eye level, read the amount of output.
    - Note the characteristics (i.e., color, clarity, sediment, or unusual odor) of the urine.
    - Empty the urine in the graduated cylinder into the toilet.
    - Rinse the graduated cylinder and empty it into the toilet.
    - Return the equipment to storage.

- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document urinary output in mL and report any issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating emptying catheter drainage bag:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=322#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Emptying Catheter Drainage Bag. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/V2Xq4GWcfow

5.26 Skills Checklist: Assisting With a Bedpan

1. Gather Supplies: Gloves, bedpan, barrier, and toilet tissue
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Put on gloves.
    - Turn the resident or raise their hips and place a barrier (e.g., a towel, waterproof soaker pad, disposable pad) under their buttocks.
    - Position the resident on the bedpan/fracture pan correctly. The deeper portion of the bedpan should be directed toward their toes, and the resident should be centered on the bedpan. For fracture bedpans, the handle should be directed toward their toes.
    - Raise the head of the bed to a comfortable level.
    - Cover the resident with linens or a bath blanket.
    - Leave toilet tissue within reach of the resident.
    - Leave the call light within reach of the resident.
    - Wait nearby allowing for resident privacy.
    - When the resident signals, return and assist the resident to perform hand hygiene.
    - Discard the soiled linen in the designated laundry hamper.
    - Gently remove the bedpan/fracture pan.
    - Assist with perineal care.
    - Empty the bedpan into the toilet or into a graduated cylinder if output is being recorded. Note the amount and characteristics (i.e., color, clarity, sediment, or unusual odor) of the urine. Empty the urine

from the graduated cylinder used into the toilet.
- Rinse the equipment used and empty the rinse water into the toilet.
- Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document urinary output in mL and report any issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating assisting with a bedpan:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=324#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Assisting with a Bedpan. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/WCg57s4HGhc

5.27 Skills Checklist: Assisting With a Urinal

1. Gather Supplies: Gloves, urinal, and barrier
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Assist the resident to their preferred position of comfort and mobility status (e.g., seated on the side of the bed, lying in bed, or standing).
    - Place the urinal with the shaft of the penis well within the opening. Keep the urinal level to prevent urine spillage while the resident is urinating. If the resident has discomfort, a washcloth can be placed around the rim of the urinal to prevent skin issues.
    - Provide privacy while the resident voids.
    - Place a barrier on a flat surface.
    - Place the urinal on the barrier.
    - With the urinal at eye level, read the amount of urine and note its characteristics (i.e., color, clarity, sediment, or unusual odor).
    - Empty the urinal into the toilet.
    - Rinse the urinal and empty the rinse water into the toilet.
    - Return the urinal to storage.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.

- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document urinary output in mL and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating assisting with a urinal:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=326#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Assisting with a Urinal. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/bLtm0TLEAFk

5.28 Skills Checklist: Changing Incontinence Brief

1. Gather Supplies: Gloves and brief
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - If the resident is in bed, raise one side rail.
    - Moving to the opposite side of bed, assist the resident to raise their hips or turn towards the side rail. Remove the soiled brief.
    - Remove the gloves, turning them inside out.
    - Perform hand hygiene.
    - Put on gloves.
    - Assist with perineal care.
    - Remove the gloves, turning them inside out.
    - Perform hand hygiene.
    - Put on gloves.
    - Place a new brief under the resident's buttocks and center the brief. Gently tuck the tabs under the resident.
    - Assist the resident to roll onto their back.
    - Position the brief over the front of the resident and secure the brief with tabs.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document output from the soiled brief and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating changing incontinence brief:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=329#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Changing Incontinence Brief. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/1Ue22ysFyqQ

5.29 Skills Checklist: Dressing A Client Who Needs Total Assistance

1. Gather Supplies: Resident clothing, socks and footwear, and hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Raise the bed height.
    - Keep the resident covered while removing their gown.
    - Remove the gown from the unaffected (most mobile) side first.
    - Place the used gown in a designated laundry hamper.
    - Ask the resident their preferences for desired clothing.
    - Start dressing them on their affected (least mobile) side first. Insert their hand through the sleeve of their shirt and grasp the hand of the resident to guide it through the sleeve.
    - Put pants on both legs, starting with the affected (least mobile) side first. If the resident is able, assist them to raise their buttocks. If they are unable to raise their hips, put the side rail on their unaffected (most mobile) side up. Assist the resident to turn towards the side rail. Pull the pants over their buttocks and up to their waist.
    - While still on the unaffected (most mobile) side, tuck the resident's shirt underneath their unaffected side.
    - Assist the resident onto their back.
    - Raise the side rail if the resident is unable to lift their hips.
    - Move to the unaffected side of the resident.
    - Place their unaffected arm in the shirt sleeve, grasping the hand of

the resident. Finish putting on their shirt by buttoning and zipping closures.
- Assist the resident to turn onto their affected side and pull their pants up to their waist.
- Return the resident to lying on their back.
- Put on the resident's socks. Draw the socks up the resident's foot until they are smooth.
- Put on the resident's nonskid footwear by slipping each nonskid footwear on the resident's feet.
- Leave only when the resident is properly dressed.

4. Post-Procedure Steps:

- Check for resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating dressing a client who needs total assistance:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=331#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Dressing a Client Who Needs Total Assistance. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/StcnLjYQBtY

5.30 Skills Checklist: Shaving With an Electric Razor

1. Gather Supplies: Gloves, clothing protector (towel), razor, and hamper
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Sit the resident upright and place a clothing protector over their chest.
    - Hold the shaver at a right angle to the resident's face, using your free hand to pull their skin taught as you shave. This will minimize snagging and the risk of cutting the resident.
    - Shave all areas of the face and neck per resident preference.
    - Gather the clothing protector so their whiskers do not fall onto their clothing.
    - Place the clothing protector in the designated hamper.
    - Clean the razor per facility guidelines and charge or plug it in.
    - Remove the gloves, turning them inside out.

4. Post-Procedure Steps:

    - Perform hand hygiene.
    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.

- Perform hand hygiene.
- Document and report any skin issues or changes noted with the resident.

View a YouTube video[1] of an instructor demonstrating shaving with an electric razor:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=333#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Shaving with an Electric Razor. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/ShawTlxf1o8

5.31 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=344#h5p-28

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=344#h5p-39

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=344#h5p-41

V Glossary

Activities of daily living (ADLs): Hygiene, grooming, dressing, fluid and nutritional intake, mobility, and elimination needs of clients.

A.M. care: Personal care performed in the morning.

Aspiration: Inadvertently breathing fluid or food into the airway instead of swallowing it.

Clock method: A method used with clients with visual impairments to describe where the food on their plate is located. For example, state, "Your mashed potatoes are at 10 o'clock, the green beans are at 2 o'clock, and the meat loaf is at 6 o'clock on your plate."

CLOWD: An acronym to consider after providing personal care but before leaving the room that stands for Comfort; Light, Lock and Low; Open; Wash; and Document.

Colostomy: A surgically placed opening when a client's colon function is impaired. A piece of the colon is diverted to an artificial opening in the abdominal wall called a stoma, and feces is collected in a pouch.

Commode: A movable device with a bucket underneath the seat that is used for elimination when the client has difficulty getting to the bathroom.

Complete bed bath: A bath provided in bed for clients who have difficulty getting out of bed, are experiencing excessive pain, or have other physical or cognitive issues that make other types of bathing less tolerable.

Grooming: Maintaining a resident's appearance through shaving, hair, and nail care.

Hygiene: Keeping the body clean and reducing pathogens by performing tasks such as bathing and oral care.

Impaired skin integrity: Skin that is damaged or not healing normally. An

example of impaired skin integrity is a pressure injury (also called a bedsore or pressure ulcer) with damage to the skin and surrounding tissue.

Incontinence briefs or pads: Disposable products used for clients with little to no control over bladder or bowel function.

Partial bath: Washing the face, underarms, arms, hands, and perineal area. Partial baths are given daily to maintain hygiene. They preserve skin integrity by not drying out skin with excessive soap and water use.

Perineal: The genital and anal area.

Personal care: Care that a client needs to maintain hygiene, well-being, self-esteem, and dignity.

Person-centered care: A care approach that considers the whole person, not just their physical and medical needs. It also refers to a person' autonomy to make decisions about their care, as well as participate in their own care.

P.M. care: Personal care performed in the evening.

Pureed diet: A diet order indicating all food is blended to smooth consistency.

Routine cares: Personal cares provided to every resident every day, such as assisting them in getting dressed for breakfast.

Sepsis: Life-threatening infection that has spread throughout the body.

SKWIPE: An acronym to consider before providing cares to clients that stands for Supplies, Knock, Wash, Introduce, Privacy, and Explain.

Timed voiding: Encourages the patient to urinate on a set schedule.

Urge incontinence: A condition where as soon as the person feels the need to empty their bladder they have very little time before urine escapes.

Urinary catheter: A device placed into the bladder by a nurse using sterile technique that allows the urine to drain into a collection bag.

Urinary tract infection (UTI): A common infection that occurs when bacteria, typically from the rectum, enter the urethra and infect the bladder or kidneys.

Urostomy: A surgically placed opening to collect urine from a person's ureters when their bladder is diseased or has been removed. Urostomies are typically located on the lower right side of the abdomen, and urine is collected into a drainage bag.

Wet voice: Vocalization with sounds as if food or fluids remain in the mouth or throat.

PART VI

CHAPTER 6: PROVIDE FOR BASIC NURSING CARE NEEDS

6.1 Introduction to Provide for Basic Nursing Care Needs

Learning Objectives

- Carry out the basic nursing skills required for the nursing assistant
- Adapt care to meet the physical needs of the aging client
- Apply heat and cold applications
- Administer nonprescription (OTC) medications
- Define the principles of nutrition and fluid needs
- Provide client comfort measures
- Assist with end-of-life care for the dying client
- Assist with postmortem care
- Recognize the general effects of prescribed routine medications

The general scope of practice for nursing assistants (NAs) relates to helping individuals with their activities of daily living (ADLs), including facilitating fluid and nutritional intake. NAs also complete actions that provide comfort and increase clients' quality of life. **Quality of life** refers to the degree to which an individual is healthy, comfortable, and able to participate in or enjoy life events.

Nurses may delegate actions to nursing assistants that provide comfort to residents, such as application of nonprescription, topical medications or heat and cold treatments. Nursing assistants may also provide care to residents in special situations, such as end-of-life care or postmortem care. End-of-life care is a term used to describe care provided when death is imminent and life expectancy is limited to a short number of hours or days. **Postmortem care** refers to care provided after death has occurred through transfer to a morgue

or funeral provider. Knowing how to safely and respectfully implement these delegated interventions is essential.

6.2 Nutrition and Fluid Needs

Nursing assistants (NAs) help clients meet their nutritional and fluid needs as they assist them with their activities of daily living. Let's begin by reviewing the anatomy and physiology of the gastrointestinal system.

Anatomy and Physiology of the Gastrointestinal System

The gastrointestinal system (also referred to as the digestive system) is responsible for several functions, including digestion, absorption, and immune response. Digestion begins at the mouth, where chewing of food occurs. This is called mechanical digestion. If food is not broken down mechanically by the teeth, it is very difficult to digest, and it also increases the risk of choking. If there are any concerns with missing or broken teeth, dentures that don't fit well, or any pain or open areas in the mouth, the NA should report these concerns to the nurse immediately.

After food is chewed and swallowed, it goes into the stomach via the esophagus. Involuntary movement, called peristalsis, allows the food to enter the stomach to mix with acidic gastric juices. The breaking down of food with these acids is called chemical digestion. From the stomach, the liquid food (called chyme) passes through the small and large intestine where nutrients and water are absorbed into the bloodstream. Waste products are condensed into feces and excreted through the anus.[1,2] More information on the structure and function of the digestive system will be covered in Chapter 11.

Appropriate food and fluid intake are essential to good health, so anything that potentially decreases a client's appetite must be addressed. For example, all five senses decline in functioning to some extent in older adults. It is important for the NA to provide accommodations that address these declines in sensory function that can impact food intake and overall health. Enhancing

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food intake in older adults with altered sensory function includes the following accommodations:

- **Vision**
    - If the resident is known to wear glasses, ensure they are wearing them, and the lenses are clean. Seeing food often stimulates the desire to eat.
    - Explain what is on the meal tray if the client has significant visual impairment. It is helpful to use the "clock method," such as, "On your plate, your peas are at 3 o'clock, your roast beef is at 6 o'clock, and your mashed potatoes are at 9 o'clock."
    - If a resident has a pureed diet order, review their menu so you can describe each type of food in an appealing manner.
    - Make meals look as attractive as possible. Take food off trays and avoid using plastic utensils and disposable cups whenever possible so the resident feels as if they are having a meal at home.

- **Hearing**
    - If the resident has hearing aids, ensure they are in place, charged, and functioning so they can hear you describe the food.
    - Ask if music is preferred during mealtime.
    - When seating residents in a public eating area, ensure they are seated with others with similar cognitive status so they may enjoy conversation while eating.

- **Touch**
    - Encourage the resident to eat as independently as possible by using adaptive silverware or other meal aids. Occupational therapists can assess the needs of the resident and provide adaptive equipment.
    - If utensils can't be held by the resident, try using finger foods such as fruit, bread, or crackers.

- **Smell**

    - If possible, dietary staff should prepare meals near resident rooms because the aroma of cooking food may increase hunger.
    - If a client is eating a meal in their room, clear the room of unpleasant odors or sights. For example, empty the trash can if it has soiled incontinence products, and empty urinals that may be sitting on side tables.

- **Taste**
    - Check the diet order. If the order permits, ask residents if they prefer seasoning or condiments.
    - Ensure hot foods are served hot and cold foods are served cold. Judge the temperature of the food by placing your hand above the food to sense heat, but do not touch the food directly with your hand. Rewarm hot foods that have cooled.
    - If the resident does not like the meal choice, find an alternative food that appeals to them.

Refer to the "Assisting With Nutrition and Fluid Needs" section and the checklist "Preparing Clients for Meals and Assisting With Feeding" in Chapter 5 for specific steps and additional insight on feeding a dependent client.

Macronutrients

In hospitals and long-term care facilities, the dietician assesses clients periodically to ensure that their nutritional and fluid needs are met. However, when providing care in a group home, assisted living, or home health, NAs are often responsible for creating meals. It is important to understand basic nutritional concepts so you can address your clients' nutritional needs.

Macronutrients make up most of a person's diet and provide energy, as well as essential nutrient intake. Macronutrients include carbohydrates, proteins, and fats. However, too many macronutrients without associated physical activity cause excess nutrition that can lead to obesity, cardiovascular disease,

diabetes mellitus, kidney disease, and other chronic diseases. Conversely, too few macronutrients contribute to nutrient deficiencies and malnourishment.[3]

Carbohydrates are sugars and starches and are an important energy source. Each gram of carbohydrates provides four calories. Carbohydrates break down into glucose and raise blood sugar levels. Diabetics should limit carbohydrate intake to maintain blood sugar levels in a healthy range.

Proteins are peptides and amino acids that provide four calories per gram. Proteins are necessary for tissue repair and function, growth, energy, fluid balance, clotting, and the production of white blood cells.

Fats consist of fatty acids and glycerol and are essential for tissue growth, insulation, energy, energy storage, and hormone production. Each gram of fat provides nine calories. While some fat intake is necessary for energy and the absorption of fat-soluble vitamins, excess fat intake contributes to heart disease and obesity. Due to its high-calorie content, a little fat goes a long way.[4]

Fats are classified as saturated, unsaturated, and trans fatty acids. Saturated fats come from animal products, such as butter and red meat (e.g., steak). Saturated fats are solid at room temperature. Recommended intake of saturated fats is less than 10% of daily calories because saturated fat raises cholesterol and contributes to heart disease.[5]

Unsaturated fats come from oils and plants, although chicken and fish also contain some unsaturated fats. Unsaturated fats are healthier than saturated fats. Examples of unsaturated fats include olive oil, canola oil, avocados, almonds, and pumpkin seeds. Fats containing omega-3 fatty acids are

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considered polyunsaturated fats and help lower cholesterol levels. Fish and other seafood are excellent sources of omega-3 fatty acids.[6]

Trans fats are fats that have been altered through a hydrogenation process, so they are not in their natural state. During the hydrogenation process, fat is changed to make it harder at room temperature and have a longer shelf life. Trans fats are found in processed foods, such as chips, crackers, and cookies, as well as in some margarines and salad dressings. Minimal trans-fat intake is recommended because it increases cholesterol and contributes to heart disease.[7]

Choosing Food Groups to Meet Macronutrient Needs

Good resources for healthy nutritional choices are the USDA's "My Plate" guidelines.[8] By using a plate as a visual, sections on the plate illustrate general amounts of the different types of food groups that should be eaten every meal, including fruits and vegetables, grains, protein, and dairy. See Figure 6.1[9] for an image of the USDA's "My Plate" guidelines.

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7. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
8. MyPlate.gov. (n.d.). *What is MyPlate?* U.S. Department of Agriculture. https://www.myplate.gov/eat-healthy/what-is-myplate
9. "MyPlate_blue.png" by USDA is licensed under CC0

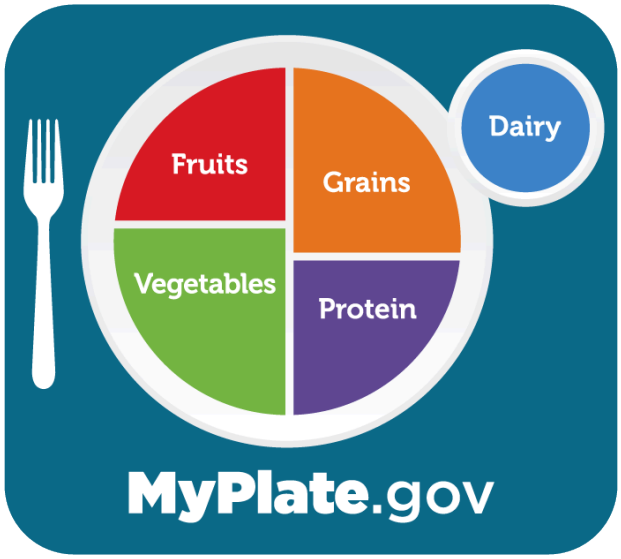

Figure 6.1 My Plate

About half the plate should be fruits and vegetables that provide many nutrients, as well as fiber for healthy bowel elimination. Fruits and vegetables are low in fat and calories and have no cholesterol. Fresh fruits and vegetables are the best choice, but frozen options have similar nutritional value. Frozen produce can also be more cost-effective because it doesn't spoil and can save time as the food is already cleaned and chopped. A variety of colors of fruits and vegetables not only makes the plate visually appealing, but also provides the greatest array of nutrients.

About 25% of the plate should be grains. Pasta, cereal, and bread are sources of grains. Types of grains include wheat, corn, rice, oats, barley, and quinoa. Grains are low in fat and cholesterol but have high carbohydrate and fiber content. The fiber content in grains can be helpful in preventing constipation and lowering cholesterol. Due to the high carbohydrate content of grains, they may need to be limited for clients with diabetes.

The remaining 25% of the plate should contain protein sources. Common proteins include soy, quinoa, eggs, fish, meat, nuts and seeds, legumes (beans), and dairy products. Just as with the other food groups, a variety of protein selections provides the most nutrients. Red meat can contain a lot of fat and cholesterol, so lean cuts are preferred for heart health. Fish, especially salmon, has healthy fat and should be consumed twice weekly. Nuts, seeds,

and legumes are low in saturated fat and high in fiber, which also make them a good choice for protein.

Dairy choices are important for calcium intake that aids in bone health. Calcium intake is important for older adults because they naturally retain less calcium and are at higher risk for bone fractures. Dairy products include milk, lactose-free milk, soy milk, buttermilk, cheese, yogurt, and kefir. Sour cream and cream cheese are not considered dairy items in terms of nutritional benefits. Adults should consume about three cups of dairy per day.

Choosing whole foods that are unprocessed, or as close to their original form as possible, is important to feeling full and stabilizing blood sugar because it takes longer to digest unprocessed foods. Think about eating an apple as compared to drinking apple juice. The whole apple will take a long time to chew and chemically break down to chyme, whereas the juice is ready to move through the digestive tract immediately. Eating whole foods can also reduce salt, fat, and sugar intake because they have no additives and can keep blood pressure, blood sugar, and cholesterol levels lower.

> Read additional information about My Plate guidelines at https://www.myplate.gov/.

Fluid Intake

Fluid intake comes from both liquids and foods. For example, most fruits and vegetables contain a lot of water, so they contribute to fluid intake. See Table 6.2[10] for water content in various foods.

Table 6.2 Water Content in Foods

10. This image is a derivative of "Table 3.1 Water Content in Foods" by University of Hawai'i at Mānoa Food Science and Human Nutrition Program and is licensed under CC BY-NC-SA 4.0

Percentage	Food Items
90-99	Nonfat milk, cantaloupe, strawberries, watermelon, lettuce, cabbage, celery, spinach, squash
80-89	Fruit juice, yogurt, apples, grapes, oranges, carrots, broccoli, pears, pineapple
70-79	Bananas, avocados, cottage cheese, ricotta cheese, baked potato, shrimp
60-69	Pasta, legumes, salmon, chicken breast
50-59	Ground beef, hot dogs, steak, feta cheese
40-49	Pizza
30-39	Cheddar cheese, bagels, bread
20-29	Pepperoni, cake, biscuits
10-19	Butter, margarine, raisins
1-9	Walnuts, dry-roasted peanuts, crackers, cereals, pretzels, peanut butter
0	Oils, sugars

The average fluid intake in adults per day is 1.5 liters of fluids with additional 700 milliliters (mL) of water gained from solid foods. About 2.5 liters of fluid are excreted daily in adults in urine, feces, respiration, and other body fluids like sweat and saliva.[11]

There is some debate over the amount of water required to maintain health. There is no consistent scientific evidence proving that drinking a particular amount of water improves health or reduces the risk of disease. Additionally, the amount of fluids a person consumes daily is variable and based on their climate, age, physical activity level, and kidney function.[12]

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Our bodies are constantly trying to balance our fluid volume using the physiological mechanisms of thirst and urine output. The "thirst center" is contained within the hypothalamus, a portion of the brain that lies just above the brain stem. As people age, their thirst mechanism becomes less responsive, causing a higher risk of dehydration. See Figure 6.2[13] for an illustration of the thirst response. Thirst occurs in the following sequence of physiological events:

- Receptors in the kidney, heart, and hypothalamus detect decreased fluid volume or increased sodium concentration in the blood.
- Hormonal and neural messages are relayed to the brain's thirst center in the hypothalamus.
- The hypothalamus sends neural signals stimulating the conscious thought to drink.
- Fluids are consumed.
- Receptors in the mouth and stomach detect mechanical movements involved with fluid ingestion.
- Neural signals are sent to the brain and the thirst mechanism is shut off.[14]

13. "Regulating-Water-intake-.jpg" by Allison Calabrese is licensed under CC BY 4.0. Access for free at https://pressbooks.oer.hawaii.edu/humannutrition/chapter/regulation-of-water-balance/
14. Human Nutrition by University of Hawai'i at Mānoa Food Science and Human Nutrition Program is licensed under CC BY 4.0

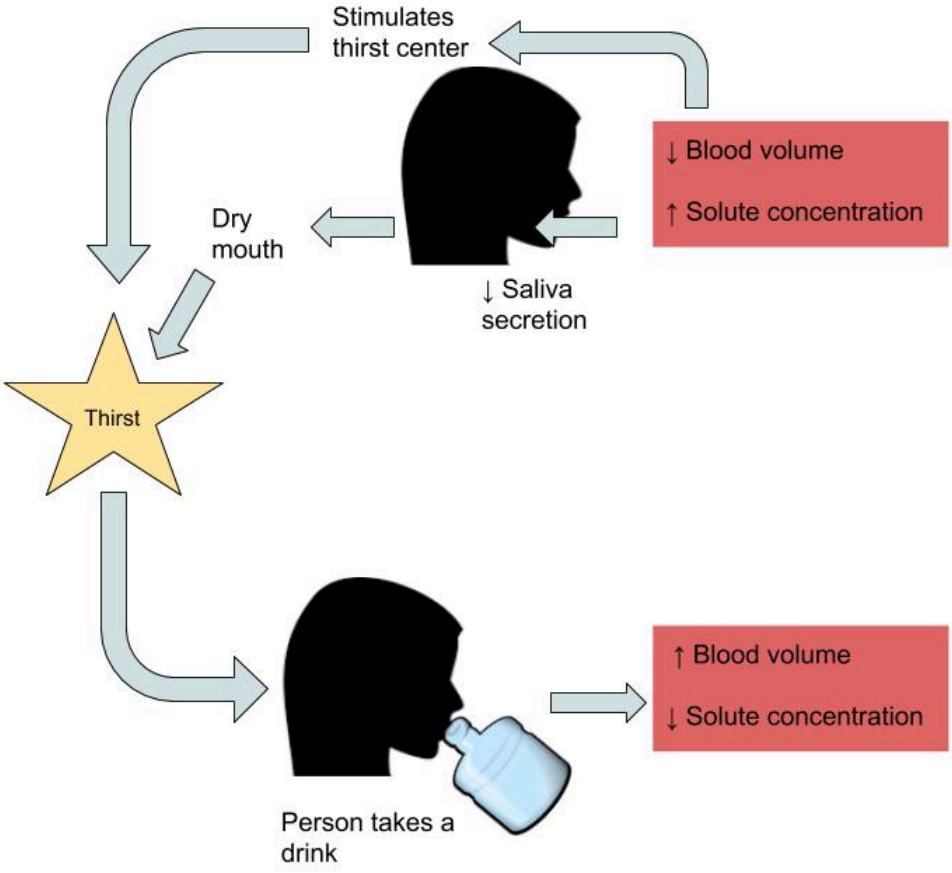

Figure 6.2 Thirst Response

Thirst is a subconscious physiological mechanism to stimulate water intake. However, actual fluid intake is controlled by conscious eating and drinking habits that are influenced by cognitive, social, and cultural factors. For example, some individuals have a habit of drinking a glass of orange juice, coffee, or milk every morning before going to school or work. Conversely, older adults often have decreased fluid intake due to physical or cognitive challenges in obtaining or drinking fluids. For this reason, older adults often require assistance to maintain a healthy intake of fluids.

Due to the decreased thirst response in older adults, it is important to prevent dehydration by encouraging fluid intake even when they don't feel thirsty. Dehydration can lead to confusion, falls, and bladder infections. Signs of dehydration include the following[15]:

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- Dry mouth or other mucous membranes
- Dry skin or skin that does not return to normal shape when gently pinched
- Dark urine or urine amounts smaller than 200-300 mL
- Headache
- Dizziness
- Rapid heart rate
- Low blood pressure

If signs or symptoms of dehydration are noted, these concerns should be reported to the supervising nurse, and fluid intake should be encouraged as tolerated.

In hospitals and long-term care facilities, dieticians often determine the amount of daily fluid intake for clients. Fluid restrictions may be prescribed by the health care provider based on the client's medical condition. Fluid restrictions are further discussed in the following "Modified Diets" subsection.

Cultural and Religious Considerations With Nutritional Intake

Cultural and religious beliefs often influence a client's food selection and food intake. Dieticians and nurses assess a client's cultural and religious preferences on admission to a facility, but NAs should continually ask clients about their food and fluid preferences. A particular diet should never be assumed based on a client's stated culture or religion.

Cultural beliefs may affect the types of food eaten, as well as when they are eaten. Some foods may be restricted due to cultural beliefs or religious rituals, whereas other foods may be viewed as part of the healing process. For example, some individuals choose not to eat pork because of cultural or religious beliefs that consider pork unclean. Other individuals choose to eat "kosher" food because its method of preparation fits with their religious guidelines. Additionally, some individuals avoid eating during certain times. For example, some clients' religious beliefs encourage fasting on religious

holidays from sunrise to sunset, whereas other individuals avoid eating meat during their religious season of Lent.[16]

Modified Diets

Some individuals require limitations of certain foods or fluids due to medical circumstances, illnesses, or chronic diseases. For these reasons, the provider may order a modified diet, also referred to as a "therapeutic diet," based on recommendations from a dietician. A **modified diet** is any diet altered to include or exclude certain components. For example, a client may have a modified diet order due to an upcoming test or procedure, a specific medical condition like diabetes, an allergy like a gluten allergy, or to lose weight.

As previously discussed in Chapter 5, it is critical for the NA to verify the diet orders for every client and then verify the food and fluids on their meal trays are correct based on the diet order. Here are some of the most common diet orders:

- **Low-Sodium:** Salt intake is commonly restricted for individuals with high blood pressure, heart failure, and kidney disease. Salt substitutes may be offered and high sodium condiments, such as ketchup, soy, barbecue and steak sauces, are avoided. This diet is commonly abbreviated as Low NA (sodium) or NAS (No added salt/sodium).
- **Low-Fat:** A low-fat diet is commonly prescribed for individuals with high cholesterol, heart disease, or arterial circulation problems. High-fat dairy and meat products, fried foods, desserts, and baked goods are avoided. However, healthy fats can be consumed from plant-based sources such as olive oil, nuts, avocados, and salmon.
- **Low-Residue or Low-Fiber:** Low-residue or low-fiber diets are commonly prescribed for individuals with bowel disorders. Fiber is found in grains, seeds, fruits, and vegetables, so these food choices are typically avoided.
- **Diabetic or Carb-Controlled:** Carb-controlled diets are typically

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prescribed for individuals with diabetes to help keep their blood sugar in a healthy range. This diet includes reduced intake of carbohydrates, especially from processed sources such as juices, starches such as potatoes and bread, and cereal or pasta that is not whole grain. Good carbohydrate sources include whole fruits and vegetables. Fat intake may also be restricted because it can elevate blood sugar levels. This diet is commonly abbreviated as CHO or CCHO. Many clients with diabetes have orders for a bedside blood glucose test before eating; ensure this test is completed and/or reported to the nurse.

- **Gluten-Free:** The gluten-free diet is typically prescribed for people with gastrointestinal conditions such as celiac disease or irritable bowel syndrome because their symptoms are aggravated by gluten. Gluten is found in wheat, rye, and barley, so rice, oats, and quinoa are good substitutes. There are many gluten-free pasta, cereal, and bread products available.
- **Lactose-Free:** Lactose is removed from the diet for individuals who are lactose intolerant. Lactose is found in milk and dairy products. Soy, almond, or rice milk are good substitutes that provide calcium.
- **Fluid Restriction:** Fluid restriction orders may be temporary, such as several hours before surgery, or permanent, such as for clients with kidney failure or heart failure. The provider prescribes the amount of fluid a person should consume in one day. In a hospital or facility, this amount is typically split across shifts based on meal and snack times while also taking into consideration fluids consumed with medications. Clients on fluid restrictions will also have their fluid intake and output tracked and documented daily as previously discussed in Chapter 5.
- **NPO:** NPO is a common medical abbreviation referring to “nothing by mouth.” NPO may be a temporary order, such as 8-12 hours before surgery, or a permanent order, such as for an individual with a permanent feeding tube due to dysphagia. **Dysphagia** refers to difficulty swallowing that can cause aspiration of liquids and food into one’s lungs and lead to life-threatening pneumonia. Individuals with severe dysphagia may never be able to eat or drink anything without risking pneumonia. Their nutrition is typically given through a permanent tube placed directly into

their stomach (i.e., a PEG tube), or if it is a temporary condition, a tube is inserted through their nose into the stomach (i.e., an NG tube). Residents who are NPO do not typically desire to go to the dining room during meals because they can't eat a regular diet, but be sure to ask their preference.

Diet Texture

In addition to modified diet orders regarding the content of the food choices, the texture of the food may also be modified based on the chewing and swallowing ability of the resident. Common orders for diet textures for residents include regular, mechanical soft, or pureed:

Regular Diet: Regular diets include any texture of food.

Mechanical Soft: Mechanical soft diets include food that is soft or easily mashed with a utensil. Meat is ground to make chewing easier. Fruits and vegetables are boiled to soften any skin, and sometimes it is removed. See Figure 6.3[17] for an image of a mechanical soft diet.

Figure 6.3 Example of a Mechanically-Soft Meal. Used with permission.

17. "dysphagia-meat-and-potatoes-1w03r35.jpg" by Savannah Greiner is used with permission. Access for free at https://sites.udel.edu/chs-udfoodlab/2017/04/10/learning-about-dysphagia/

Pureed: Pureed diets include food that is blended to the consistency of a thick paste. See Figure 6.4[18] for an image of a pureed diet.

Figure 6.4 Example of Pureed Food. Used with permission.

Liquid Consistency

Clients may require a specific type of liquid consistency if they have dysphagia and increased risk for aspiration. The flap that covers the trachea and prevents liquids from entering the lungs when swallowing is called the **epiglottis**. If the epiglottis loses muscle tone, liquid can seep around it into the lungs and cause aspiration pneumonia. Signs of possible dysphagia are when a client continually coughs or clears their throat while eating or drinking. These signs should be reported immediately to the nurse because it can indicate early stages of dysphagia.

Clients with dysphagia typically have orders for thickened liquids. Thickened liquids are easier for the epiglottis to prevent from entering the lungs. Here are common types of liquid consistencies ordered:

Regular or Thin Liquids: No modifications for liquid consistency are required.

18. "dysphagia-pureed-breakfast-1kl60uo.jpg" by Savannah Greiner is used with permission. Access for free at https://sites.udel.edu/chs-udfoodlab/2017/04/10/learning-about-dysphagia/

Nectar Thick (NT): Fluids are modified to have the consistency of thicker juices like a creamy soup.

Honey Thick (HT): Fluids are modified to have the consistency of honey or syrup that pour very slowly and may be consumed with a spoon.

Pudding Thick (PT): Fluids are modified to have semi-solid consistency like pudding. A spoon stands up in pudding-thick liquid.

See Figure 6.5[19] for an illustration comparing liquid consistency.

Figure 6.5 Liquid Consistencies for Regular (Thin), Honey Thick, and Pudding-Thick Liquids

Liquids can be thickened using thickening powder. Pre-thickened liquids from manufacturers typically have a smoother consistency than prepared liquids. See Figure 6.6[20] for an image of a commercial thickening powder in use. Thickening liquid with powder requires exact attention to measurements to ensure the resident receives the correct liquid consistency and does not aspirate the fluid. Ice cubes should not be added to thickened liquids because as they melt, the liquid will become thinner. See Figure 6.7[21] for an image of thickening water.

19. "Honey Thick Liquid," "Pudding Thick," and "Thin Liquid" by Open RN Project are licensed under CC BY 4.0
20. "Powdered Thickener" and "Adding Thickener to Water" by Landon Cerny are licensed under CC BY 4.0
21. "Thickened Water" by Landon Cerny is licensed under CC BY 4.0

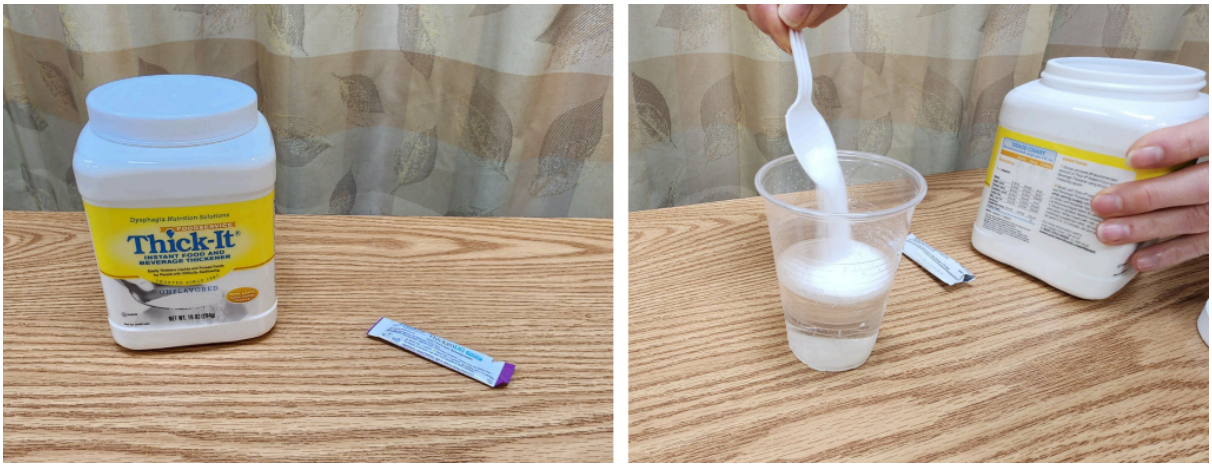

Figure 6.6 Pre-thickened Water

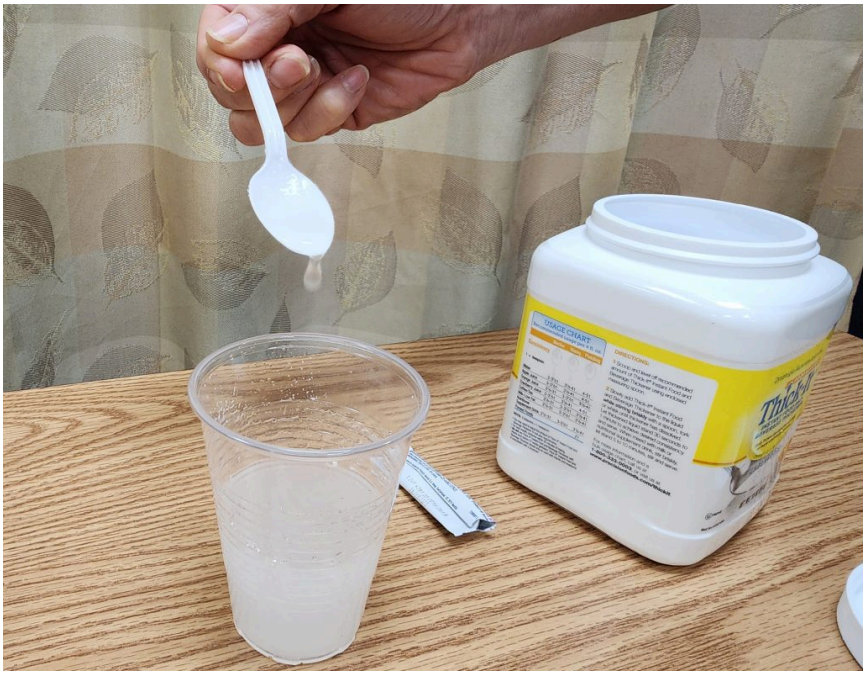

Figure 6.7 Thickened Water

Read additional information on modified diets and liquid consistencies in the Virginia Department of Behavioral Health and Developmental Services PDF.

6.3 Pain

Pain is traditionally defined in health care as, "Whatever the patient says it is, experienced whenever they say they are experiencing it."[1] In 2020 the International Association for the Study of Pain released a revised definition of pain as, "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage," along with these additional notes:

- Pain is always a personal experience that is influenced to varying degrees by the body's ability to function, how the brain perceives pain, and even how pain has been reacted to or cared for by others in the past.
- Individuals learn the concept of pain throughout all stages of their life.
- A person's report of an experience of pain should be respected.
- Although pain usually serves an adaptive role to protect oneself, it can have adverse effects on function, socialization, and psychological well-being.
- Verbal description is only one of several behaviors that express pain. The inability to communicate does not negate the possibility that a person is experiencing pain.[2]
- Be aware that cultural beliefs and generational norms affect how an individual expresses their pain.

Pain motivates the individual to withdraw from dangerous stimuli, like touching a hot stove. It reminds the body to protect an injured part while it heals, such as not walking on a sprained ankle. Most pain resolves after the painful stimulus is removed and the body has healed, but sometimes pain persists despite removal of the stimulus and apparent healing of the body.

1. Pasero, C., & MacCaffery, M. (2010). *Pain assessment and pharmacological management* (1st ed.). Mosby.
2. International Association for the Study of Pain. (2017, December 14). *Terminology*. https://www.iasp-pain.org/Education/Content.aspx?ItemNumber=1698

Pain can also occur in the absence of any detectable stimulus, damage, or disease.[3,4]

Factors Affecting Pain

There are many factors that affect how a person perceives pain, how they will act while they are in pain, and how they communicate their pain to others. See Table 6.3a for common factors that influence pain.[5]

Table 6.3a Factors Affecting Pain[6]

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6. Pain Management Best Practices Inter-Agency Task Force. (2019, May 9). *Pain management best practices.* U.S. Department of Health and Human Services. https://www.hhs.gov/sites/default/files/pmtf-final-report-2019-05-23.pdf

Biological Factors	Psychological Factors	Social Factors
• Nociception • Brain function • Source of pain • Illness • Medical diagnosis • Age • Injury, past or present • Genetic sensitivity • Hormones • Inflammation • Obesity • Cognitive function	• Mood/affect • Fatigue • Stress • Coping • Trauma • Sleep • Fear • Anxiety • Developmental stage • Meaning of pain • Memory • Attitude • Beliefs • Emotional status • Expectations	• Culture • Values • Economic • Environment • Social support • Coping mechanisms • Spirituality • Ethnicity • Education

There are endless sources of pain. For example, as people age, osteoarthritis is a common cause of pain. **Osteoarthritis** is a type of arthritis causing inflammation or swelling of the joints due to daily wear and tear on the body. The extent of a person's arthritis can be affected by repeatedly performing physically demanding tasks such as those found in jobs such as health care, construction, and manufacturing. Topical medications and treatments such as arthritis cream, ice, or heat can be very effective in managing arthritis pain.

Acute Versus Chronic Pain

The duration of a person's pain can be classified as either acute or chronic. **Acute pain** has limited duration and is associated with a specific cause. It is often attributed to a specific event, such as a fracture, childbirth, or surgery,

and should lessen as the body heals. Acute pain usually causes observable physiological responses such as increased pulse, respirations, and blood pressure. The person may also have excessive sweating called **diaphoresis**.[7]

Chronic pain is ongoing and persistent for longer than six months. It typically does not cause a change in vital signs or diaphoresis. Chronic pain can affect an individual's psychological, social, and behavioral responses and impact daily functioning. Chronic medical problems, such as osteoarthritis, spinal conditions, fibromyalgia, and peripheral neuropathy, are common causes of chronic pain. Chronic pain can continue even after the original injury or illness that caused it has healed or resolved. Some people suffer chronic pain even when there is no past injury or apparent body damage, and it may not be located in a specific area of the body.[8]

People experiencing chronic pain often have other physical effects that are stressful on the body such as tense muscles, limited ability to move around, lack of energy, and appetite or sleep changes. Emotional effects of chronic pain include depression, anger, anxiety, and fear of reinjury. These effects can limit a person's ability to return to their regular work or leisure activities.[9,10]

Objective and Subjective Signs of Pain

The concepts of objective and subjective data were previously discussed in the Chapter 1, "Guidelines for Reporting" subsection. Subjective signs of pain are what the person reports to you, such as "My stomach hurts" or "My knees ache when I walk." Objective data is observable, such as the change in vital signs that can occur when an individual is experiencing acute pain. Signs of pain can also include nonverbal responses such as grimacing, guarding the

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9. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
10. Cleveland Clinic. (2020, December 8). *Acute vs. chronic pain*. https://my.clevelandclinic.org/health/articles/12051-acute-vs-chronic-pain

injured body part, rocking, rubbing the area, or moaning. See Figure 6.8[11] for an image of observable signs of pain.

Figure 6.8 Observable Signs of Pain

When an individual is unable to communicate pain due to cognitive deficits, recognizing objective signs of pain is vital for providing comfort measures and improving their quality of life. The Pain Assessment in Advanced Dementia (PAINAD) is an example of a tool that nurses and NAs use to identify the presence of pain in individuals who are unable to verbally report it.[12] See the PAINAD scale in Table 6.3b. A number is identified for each row and the total number is their pain rating.

Table 6.3b PAINAD Scale[13]

11. "238074231_2485ed053b_o" by Erik Ogan is licensed under CC BY-SA 2.0
12. Warden, V., Hurley, A., & Volicer, L. (2003). Development and psychometric evaluation of the pain assessment in advanced dementia (PAINAD) scale. *Journal of the American Medical Directors Association, 4*(1), 9-15. https://doi.org/10.1097/01.JAM.0000043422.31640.F7
13. Warden, V., Hurley, A., & Volicer, L. (2003). Development and psychometric evaluation of the pain assessment in

Item	0	1	2
Breathing independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation.	Noisy labored breathing. Long period of hyperventilation. Cheyne-Stokes respirations.
Negative vocalization	None	Occasional moan or groan. Low-level speech with a negative or disapproving quality.	Repeated trouble calling out. Loud moaning or groaning. Crying.
Facial Expression	Smiling or inexpressive	Sad. Frightened. Frowning.	Facial grimacing.
Body language	Relaxed	Tense. Distressed pacing. Fidgeting.	Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out.
Consoling	No need to console	Distracted or reassured by voice or touch.	Unable to console, distract, or reassure.

advanced dementia (PAINAD) scale. *Journal of the American Medical Directors Association, 4*(1), 9-15. https://doi.org/10.1097/01.JAM.0000043422.31640.F7

6.4 Comfort Measures

Nursing assistants (NAs) should report subjective and objective signs of clients' pain to the nurse for further assessment. After assessing the client, the nurse may choose to administer medication with provider order and/or provide other nonpharmacological treatments. The nurse may delegate tasks to the NA such as the application of over-the-counter topical medications, ice, or heat. The NA may also assist with repositioning and massage.

Topical Medications

Topical medications are applied to the skin and are typically over-the-counter (OTC) medications, meaning no prescription is needed to obtain them. Topical analgesics may come as a cream, gel, spray, or patch. An example of a topical analgesic is "Icy-Hot" cream.

There are also other types of topical medications an NA may be delegated to apply, such as antifungal medications (e.g., Nystatin in powder or cream form) or barrier creams to reduce the risk of skin breakdown or assist in healing of opened areas. When applying topical medications, it is important to use diligent infection control measures to prevent the medication from becoming contaminated. See the "Topical Medications" Skills Checklist for steps on how to properly apply topical medications.

Ice and Heat Applications

Applying ice and heat can also be delegated from the registered nurse to the NA. To safely apply ice or heat, first place a thin barrier on the skin, such as a towel or washcloth, to avoid damaging the tissue. Ice may be placed in a plastic bag, or cold therapy may be available in a disposable package. In some situations, a reusable gel pack may be placed in the freezer between uses.

Heat applications may include using an electrical heating pad or a reusable microwavable pack. The NA should discuss the setting for the heating pad or the time the pack should be warmed in the microwave with the delegating

nurse. The NA should feel the pack's temperature before placing it on the resident.

Ice or heat applications are typically left on for 15-20 minutes. If the resident is unable to communicate, the NA should lift the pack, check the skin temperature, and look for any redness every five minutes to prevent damage to the skin. If the ice or heat applications are not disposable, ensure they are sanitized according to agency policy before providing them to the resident.

Positioning and Massage

Pain may arise when a client remains in one position too long or is placed in a position that causes pressure on a sensitive area such as a joint, tendon, or muscle. Residents who are unable to move on their own should be repositioned at least every two hours, and some may require more frequent repositioning due to pain or skin issues. Clients can be maintained in a position of comfort by placing pillows to prevent discomfort between joints and bony prominences or to support the body and prevent them from rolling out of the position. For information on proper positioning, see Chapter 8.

Massage provides relaxation by reducing soreness and tension in muscles. It also increases circulation by promoting blood flow. However, a massage should never be provided over red or swollen areas. A massage given to a resident for pain relief should last about 3-5 minutes. For specifics on giving a massage, see the 5.17 "Back Rub" Skills Checklist in Chapter 5.

Other Comfort Measures

In addition to the previously described interventions to reduce pain, NAs can further help reduce clients' pain by offering distractions, such as talking with the resident about pleasant or interesting things that the resident enjoys, looking at photos or magazines, playing board games, or listening to music. Deep breathing, mindfulness techniques, aromatherapy, and light range of motion (ROM) activities can also help calm the resident and ease their pain.

Read more about providing ROM activities in Chapter 9. See Figure 6.9[1] for images of nonpharmacological treatments for pain.

Figure 6.9 Nonpharmacological Treatments for Pain

> Read more about pain management for older adults from the University of Iowa.

1. "Massage-hand-4.jpg" by Lubyanka is licensed under CC BY-SA 3.0, "Biofeedback_training_program_for_post-traumatic_stress_symptoms.jpg" by Army Medicine is licensed under CC BY 2.0, "Tai_Chi1.jpg" by Craig Nagy is licensed under CC BY-SA 2.0, "Musicoterapia_Imidiman_flickr.jpg" by Midiman is licensed under CC BY 2.0, "Cold_Hot_Pack.jpg" by Mamun2a is licensed under CC BY-SA 4.0, "pexels-photo-1188511.jpeg" by Mareefe is licensed under CC0, "STOTT-PILATES-reformer-class.jpg" by MHandF is licensed under CC BY-SA 3.0, "prayer-2544994_960_720.jpg" by Himsan is licensed under CC0, and "gaming-2259191_960_720.jpg" by JESHOOTS-com is licensed under CC0

6.5 Effects of Prescribed Routine Medications

NAs may not be aware of all the medications a client is receiving, but the nurse should inform the NA of potential harmful side effects to report when a new medication has been prescribed. The NA should be vigilant for possible side effects, especially if it is known that a new medication has been prescribed. Common side effects to report to the nurse are as follows:

- Dizziness
- Drowsiness
- Change in cognition (i.e., new confusion)
- Constipation; diarrhea; or dark, bloody or tarry stools
- Nausea or vomiting
- Dry mouth
- Ringing in the ears
- Itchy skin or rash
- Increased urination or discolored urine
- Muscle aches
- Bleeding gums
- Increased bruising

6.6 End-of-Life Care

There are many circumstances and medical diagnoses that may cause an individual to approach the end of their life. The natural aging process and chronic conditions such as heart failure (HF), chronic obstructive pulmonary disease (COPD), cancer, and advanced dementia may lead to end-of-life care.

All nursing care should be provided in a holistic, person-centered approach, but during end-of-life care, all caregivers must be fully attuned to the needs and wishes of the person. Caregivers often have a long-standing relationship with the dying person, but it is critical to not assume their client's preferences. Communication must be more frequent and intentional during end-of-life care because a patient's needs can change quickly. Additionally, attitudes and mental outlooks often fluctuate for the patient and their loved ones during this difficult time when many decisions need to be made. It is essential for caregivers to find an appropriate balance of interventions and space for the dying person and their loved ones. Use techniques discussed in Chapter 1 for therapeutic communication and making observations of facial expressions and body language to guide your interactions with the resident and their loved ones.

As discussed in Chapter 2.6, "Health Care Settings," hospice care is a choice offered to individuals approaching end of life. **Hospice care** is offered to patients who are terminally ill and expected to live less than six months. Hospice provides comfort to the client and supports the family, but curative medical treatments are stopped. It is based on the idea that dying is part of the normal life cycle. Hospice care does not hasten death but focuses on providing comfort.[1] For example, a cancer patient may choose to no longer receive chemotherapy due to its severe side effects but will continue to take medications to manage pain and nausea. While nutritional intake is still important, food choices center around those that are pleasurable to the client rather than meeting their daily requirement of nutrients.

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Hospice is a service provided by Medicare and can be delivered in a person's home or in a facility such as a nursing home or hospital. To qualify for hospice care, a hospice doctor and the client's primary doctor must certify that the person is terminally ill with a life expectancy of six months or less. The client signs a statement choosing hospice care instead of curative care covered by Medicare. Hospice coverage includes the following:

- All items and services needed for pain relief and symptom management
- Medical, nursing, and social services
- Medications for pain management
- Durable medical equipment for pain relief and symptom management
- Aide and homemaker services
- Physical therapy services
- Occupational therapy services
- Speech-language pathology services
- Social services
- Dietary counseling
- Spiritual and grief counseling for the client and their family
- Short-term inpatient care for pain and symptom management in a Medicare-approved facility, such as a hospice facility, hospital, or skilled nursing facility that contracts with the hospice agency
- Inpatient respite care, which is care provided in a Medicare-approved facility so the usual caregiver (like a family member or friend) can rest. The client can stay up to five days each time respite care is needed. Respite care can occur more than once but only on an occasional basis.
- Other services that Medicare covers to manage pain and other symptoms related to the terminal illness and related conditions the hospice team recommends[2]

After two physicians agree that a person qualifies for hospice, a nurse from a hospice agency completes an assessment and makes care

2. Ouellette, L., Puro, A., Weatherhead, J., Shaheen, M., Chassee, T., Whalen, D., & Jones, J. (2018). Public knowledge and perceptions about cardiopulmonary resuscitation (CPR): Results of a multicenter survey. *The American Journal of Emergency Medicine, 36*(10), 1900-1901. https://doi.org/10.1016/j.ajem.2018.01.103

recommendations. If the client is in a nursing home, their hospice team will coordinate with the facility team to manage the client's needs and wishes. Visits are scheduled at intervals designated by the hospice team. A hospice nursing assistant may come to the facility to provide cares because they can spend more time with the enrolled hospice client than routinely provided by the facility staff. This extra time can reduce pain that may occur during cares by moving at a slower pace and allowing for periods of rest. The additional social interaction is also beneficial for the hospice client. To improve quality of life, hospice may also provide additional resources such as spiritual chaplains, music therapists, or volunteers who simply visit with the client if they do not have friends or family available.

If a hospice client remains in their own home, the hospice agency provides durable medical equipment like a hospital bed and other items to make caring for the client easier, such as a commode, shower chair, or mechanical lift for moving the client. The hospice nurse and nursing assistant visit regularly based on the needs of the client and their family. The nurse's or nursing assistant's visits may also serve as respite, allowing the loved ones a reprieve from caring for the client themselves.

Nursing assistants may choose to work for a hospice agency and receive additional training to better understand and provide end-of-life care.

Ethical and Legal Considerations

End-of-life care often includes unique complexities for the patient, family, and nurse. There may be times when what the physician or nurse believes to be the best treatment conflicts with what the patient or family desires. There may also be challenges related to decision-making that cause disagreements within a family or cause conflict with the treatment plan. Additional challenging factors during end-of-life care include availability of resources and insurance company policies.[3]

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Despite these complexities, it is important for the care team to honor and respect the wishes of the patient. Despite any conflicts in decision-making among health care providers, family members, and the patient, the team must always advocate for the patient's wishes. If a nursing assistant notices conflicts or is questioned by the client or family members, they should notify the nurse. Nurses have practice guidelines for ethical dilemmas in the American Nurses Association's Standards of Professional Nursing Practice and Code of Ethics. These resources assist the nurse in implementing expected behaviors according to their professional role as a nurse.[4]

If complex ethical dilemmas occur, many organizations have dedicated ethics committees that offer support, guidance, and resources for complex ethical decisions. These committees can serve as support systems, share resources, provide legal insight, and make recommendations for action. The nursing assistant should always include their supervisor in any questionable situation and feel supported in raising concerns within their health care organization if they believe an ethical dilemma is occurring.[5]

Do-Not-Resuscitate Orders and Advanced Directives

Additional legal considerations when providing care at the end of life are do-not-resuscitate (DNR) orders and advance directives.

Do-Not-Resuscitate Orders

A **Do-Not-Resuscitate (DNR) order** is a medical order that instructs health care professionals to not perform **cardiopulmonary resuscitation (CPR)** if a patient's breathing stops or their heart stops beating. CPR is emergency treatment provided when a patient's blood flow or breathing stops and may involve chest compressions and mouth-to-mouth breathing, electric shocks

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to restart the heart, breathing tubes to open the airway, or cardiac medications.

A DNR order is written with permission by the patient (or the patient's health care power of attorney, if activated). Ideally, a DNR order is set up before a critical condition occurs. A DNR order is recorded in a patient's medical record and only refers to not performing CPR and does not affect other care. Wallet cards, bracelets, or other DNR documents are also available for individuals to have at home or in nonhospital settings.

The decision to implement a DNR order is typically very difficult for a patient and their family members to make. Many people have unrealistic ideas regarding the success rates of CPR and the quality of life a patient experiences after being revived, especially for patients with multiple chronic diseases. For example, a recent study found the overall rate of survival leading to hospital discharge for someone who experiences cardiac arrest is about 10.6 percent.[6]

Nurses can provide up-to-date patient education regarding CPR and its effectiveness based on the patient's current condition and facilitate discussion about a DNR order. Nursing assistants can provide CPR based on their scope of practice within their state. If a nursing assistant witnesses a cardiac event, their first action should be to notify the nurse.[7]

Advance Directives

Advance directives include the health care power of attorney (POA) and living will. The **health care POA** legally identifies a trusted individual to serve as a decision-maker for health issues when the patient is no longer able to speak for themselves. It is the responsibility of this designated individual to carry out care actions in accordance with the patient's wishes. A health care

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POA can be a trusted family member, friend, or colleague who is of sound mind and is over the age of 18. They should be someone who the patient is comfortable expressing their wishes to and someone who will enact those desired wishes on the patient's behalf.[8]

The health care POA should also have knowledge of the patient's wishes outlined in their living will. A **living will** is a legal document that describes the patient's wishes if they are no longer able to speak for themselves due to injury, illness, or a persistent vegetative state. The living will addresses issues like ventilator support, feeding tube placement, cardiopulmonary resuscitation, and intubation. It is a vital means of ensuring that the health care provider has a record of one's wishes. However, the living will cannot feasibly cover every possible potential circumstance, so a health care power of attorney is vital when making decisions outside the scope of the living will document.[9]

A financial power of attorney may also be appointed to manage the client's money matters when they are no longer able to do so. The financial POA can be the same person as the health care POA or a different individual. The financial POA may be enacted independently of the health care POA, meaning that the client can still make their own health care decisions even if their finances are controlled by their designee. The client should select both POAs when they are still able to make sound decisions. Two physician signatures are required to enact each POA to avoid a conflict of interest and ensure the client truly cannot make appropriate decisions. If a client has not filed these legal documents and is deemed incompetent, a state guardian will be appointed as their financial and health care POA.[10]

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Signs of Impending Death

As a person nears dying there are several notable physiological changes, especially with circulation, breathing, intake, and appearance of skin. The heart rate will slow and blood pressure lowers, creating cool extremities that may appear **cyanotic** (blue), pale, or dark. Respirations may become very irregular, referred to as Cheyne-Stokes breathing. **Cheyne-Stokes respirations** can be observed as gaps in breathing of several seconds, and long and labored or quick and shallow inhalation and exhalation. There may be gurgling or rattling of the lungs when breathing. Intake will decrease and eventually stop altogether, and output will follow the same pattern. Mottling, which looks like severely wrinkled and purple-bluish color skin, often occurs in dependent areas or lower legs and feet.

At some point, the dying person becomes unresponsive, which often leads to the jaw opening. Although the dying person may no longer communicate, hearing is the last sense to fail. It is critical that caregivers continue to talk to the dying person as if they were alert and able to understand.

Care for the Dying Person

Because the end of life is a very emotional time, the person needs to be supported and involved in their care as much as possible to maintain their sense of control. Interventions should center on quality of life and comfort measures. Another important aspect is including loved ones. Their level of involvement should be discussed with the client at an appropriate time when they are able to communicate and understand the conversation. In a long-term care facility, the care team has this conversation with the resident, and it is implemented into the care plan for the nursing assistant to carry out.

Attention to pain is very important. Notify the nurse 10-15 minutes before you plan on providing care so they can assess the resident's pain and determine if pain medication is needed prior to assisting the resident.

Repositioning should occur hourly due to decreased circulation and a high risk for skin breakdown. Incontinence care and all other hygiene should be

completed in bed, and their skin should continue to be moisturized. Massage can help with circulation if it is tolerated by the resident. Due to the jaw opening and breathing with the mouth open, oral care using a moist swab should be done hourly. Consider applying lip balm or other moisturizer at the same time.

The room should be quiet, and lighting should be lowered to the resident's comfort level. Scents from flowers, deodorizer, or perfumes may be more irritating than normal and should be avoided. Visiting times, as well as the amount of people in the room, may be determined by the nurse. A private area with refreshments away from the resident room should be available for loved ones to gather and rest as needed.

Be aware that hearing is the last sense to go. Explain to the patient what you are doing before you do it and be conscientious of the words being used near the patient. Encourage family members and staff members to talk to the patient even if they are not responding; talking can be comforting to the patient, family members, and caregivers.

Stages of Grief

There are several stages of grief that may occur due to any major life change, including end of life and death. It is helpful for caregivers to have an understanding of these stages so they can recognize the emotional reactions as symptoms of grief and support patients and families as they cope with loss. Famed Swiss psychiatrist Elizabeth Kubler-Ross identified five main stages of grief in her book *On Death and Dying*. Patients and families may experience these stages along a continuum, move randomly and repeatedly from stage to stage, or skip stages altogether. There is no one correct way to grieve, and an individual's specific needs and feelings must remain central to care planning.[11]

Kuber-Ross identified that patients and families demonstrate various characteristic responses to grief and loss. These stages include denial, anger,

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bargaining, depression, and acceptance, commonly referred to by the mnemonic "DABDA." See Figure 6.10[12] for an illustration of the Kubler-Ross Grief Cycle. Keep in mind that these stages of grief not only occur due to loss of life, but also due to significant life changes such as divorce, loss of friendships, loss of a job, or diagnosis with a chronic or terminal illness.[13]

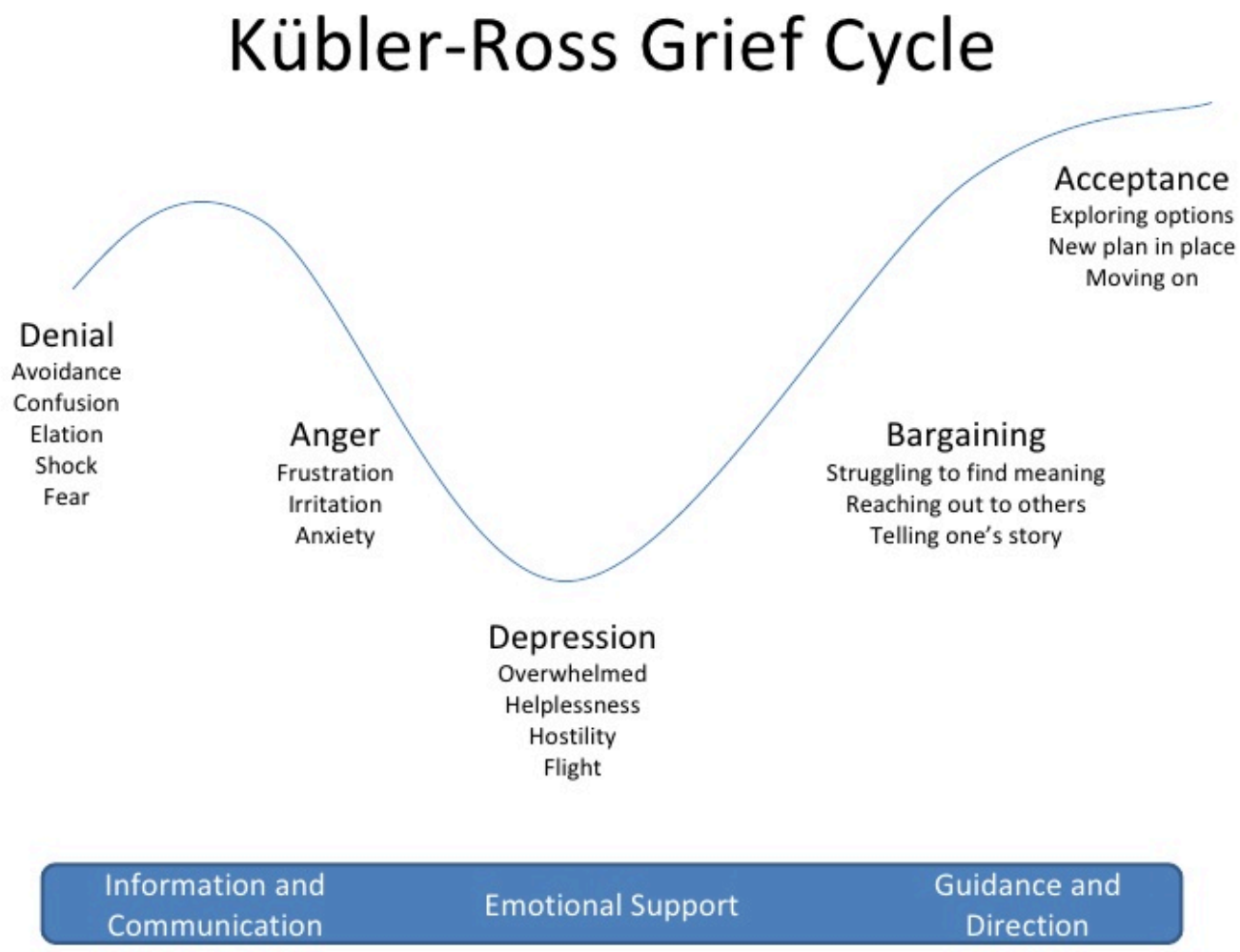

Figure 6.10 Kubler-Ross Grief Cycle

Denial

Denial occurs when the individual refuses to acknowledge the loss or pretends it isn't happening. This stage is characterized by an individual

12. "Kubler-ross-grief-cycle-1-728.jpg" by U3173699 is licensed under CC BY-SA 4.0
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stating, “This can’t be happening.” The feeling of denial is self-protective as an individual attempts to numb overwhelming emotions as they process the information. The denial process can help to offset the immediate shock of a loss. Denial is commonly experienced during traumatic or sudden loss or if unexpected life-changing information or events occur. For example, a patient who presents to the physician for a severe headache and receives a diagnosis of terminal brain cancer may experience feelings of denial and disregard the diagnosis altogether. See Figure 6.11[14] for an image of a person reacting to unexpected news with denial.

Figure 6.11 Denial

Anger

Anger in the grief process often masks pain and sadness. The subject of anger can be quite variable; anger can be directed to the individual who was lost, internalized to self, or projected toward others. Additionally, an individual may lash out at those uninvolved with the situation or have bursts of anger that seemingly have no apparent cause. As a nursing assistant, you may possibly be the target of someone’s projected anger. Health care professionals should

14. “Young-indian-with-disgusting-expression-showing-denial-with-hands-42509-pixahive.jpg” by Sukhjinder is licensed under CC0

be aware that anger may often be directed at them as they provide information or provide care. It is important that health care team members, family members, and others who become the target of anger seek to recognize that the anger and emotion are not a personal attack, but rather a manifestation of the challenging emotions that are a part of the grief process. It often comes from a loss of control in the situation and a feeling of helplessness or hopelessness. If possible, the nursing assistant can provide supportive presence and allow the patient or family member time to vent their anger and frustration while still maintaining boundaries for respectful discussion. Rather than focusing on what to say or not to say, allowing a safe place for a patient or family member to verbalize their frustration, sorrow, and anger can offer great support. See Figure 6.12[15] for an image of a patient experiencing anger.

Figure 6.12 Anger

Bargaining

Bargaining can occur during the grief process in an attempt to regain control of the loss. When individuals enter this phase, they are looking to find ways to change or negotiate the outcome by making a deal. Some may try to make a deal with God or their higher power to take away their pain or to change their

15. "Child's_Angry_Face.jpg" by Babyaimeesmom is licensed under CC BY-SA 4.0

reality by making promises to do better or give more of themselves if only the circumstances were different. For example, a patient might say, “I promised God I would stop smoking if He would heal my wife’s lung cancer,” or “I’ll go to church every week if I can be healthy again.” There may also be thoughts such as “Why isn’t this happening to me instead of my child?”

Depression

Feelings of depression can occur with intense sadness over the loss of a loved one or the situation. Depression can cause loss of interest in activities, people, or relationships that previously brought one satisfaction. There is no pleasure or joy surrounding anything. Additionally, individuals experiencing depression may experience irritability, sleeplessness, and loss of focus. It is not uncommon for individuals in the depression phase to experience significant fatigue and loss of energy. Simple tasks such as getting out of bed, taking a shower, or preparing a meal can feel so overwhelming that individuals simply withdraw from activity. In the depression phase, it can be difficult for individuals to find meaning, and they may struggle with identifying their own sense of personal worth or contribution. Depression can be associated with ineffective coping behaviors, and nursing assistants should watch for signs of self-medicating through the use of alcohol or drugs to mask or numb depressive feelings. Any remarks made about feeling depressed or talk of self-harm should be reported immediately. Other symptoms to report include noticed changes in behavior such as isolation or withdrawal from activity, sleeping more or less, and decreased interest in hygiene and self-care. Further discussion about depression can be found in Chapter 10. See Figure 6.13[16] for an image of an individual demonstrating feelings of depression.

16. “Depressed_(4649749639).jpg” by Sander van der Wel is licensed under CC BY-SA 2.0

Figure 6.13 Depression

Acceptance

Acceptance refers to an individual understanding the loss and knowing it will be hard but acknowledging the new reality. The acceptance phase does not mean absence of sadness but is the acknowledgement of one's capabilities in coping with the grief experience. In the acceptance phase, individuals begin to re-engage with others, find comfort in new routines, and even experience happiness with life activities again. This may be observed by a person saying, "I want to make the most of the time I have left by spending it with my family" or "I'd like to plan the arrangements for my funeral" or "I know this will be painful and difficult, but I will be okay with the supports I have." See Figure 6.14[17] of an image representing an individual who has reached acceptance of the new reality related to his loss.

17. "Contentment_at_its_best.jpg" by Neha Bhamburdekar is licensed under CC BY-SA 4.0

Figure 6.14 Acceptance

Assisting in the Grieving Process

As already discussed, the grieving process is different for each individual and is not easily predicted. The best action for the caregiver is to listen closely and offer support to the individual. Other possible interventions for the NA to assist with the grieving process are described in Table 6.6.

Table 6.6 Suggested Actions by the Nursing Assistant According to the Client's Stage of Grief

Stage of Grief	Suggested Actions by the Nursing Assistant
Denial	• Offer support and give the person time to sort through feelings. • Do not respond with messages such as “You will get over this” or “Everything will be fine eventually.”
Anger	• Explain cares provided and refer to the nurse if needed. • Listen to the client and/or their loved ones without judgment or offering opinions. • Involve the client in choices regarding their cares as appropriate to give them a sense of control.
Bargaining	• Assist in contacting a spiritual or religious counselor.
Depression	• Offer activities the client previously enjoyed. • Encourage participation in ADLs. • Report behavioral changes to the nurse.
Acceptance	• Validate thoughts and any plans made. • Focus on quality of life.

If the dying client lives in a facility, it is important to consider how their death may affect other residents, as well as the staff members. Some facilities may offer grief counseling that includes sharing thoughts, feelings, or memories of the deceased in a group or individual setting. A memorial service may be held at the facility for residents and staff separate from the family’s plans. Staff and residents will also work through the grieving process, so offering the same

interventions as listed above is warranted. Additionally, it is good to promote self-care by maintaining adequate nutritional intake and sleep.

6.7 Postmortem Care

The nurse will determine when an individual has died and follow agency policies. If loved ones are present, allow them to stay with the person's body as long as needed for them to say goodbye. If they express any religious or cultural preferences, they should be accommodated as much as possible. For example, individuals from some cultures prefer to cleanse their loved one's body after death. When sufficient time has been granted, the nursing assistant will prepare the body for transport.

When postmortem care is provided, it is appropriate to ask the family to leave the room. You will provide a bed bath to the resident and then position them in correct alignment. A new gown should be placed on the resident. Because urine or feces is often expelled when the resident is moved for transport, a clean incontinence brief should be provided after the bath is completed. The resident's eyelids and mouth should be gently closed if they are still open. A rolled towel can be placed under the chin to stabilize the jaw. Cover the resident to the neck with clean linens, leaving the face and head uncovered. Check facility policy for applying an identification bracelet.

The postmortem care process can be very difficult for a new nursing assistant or whenever it is completed the first few times. Be sure to ask for assistance from a more experienced nursing assistant or the nurse or consider completing the postmortem cares with another staff member to ease the difficulty of the experience.

6.8 Skills Checklist: Topical Medications

1. Gather Supplies: Topical medication, gloves, medicine cup, medicine spoon (if medication is in a jar), and barrier
2. Routine Pre-Procedure Steps:

    - Knock on the resident's door.
    - Perform hand hygiene.
    - Maintain respectful, courteous, and professional communication at all times.
    - Introduce yourself and identify the resident.
    - Provide for privacy.
    - Explain the procedure to the resident.

3. Procedure Steps:

    - Put on gloves.
    - Place the appropriate amount of medication from the tube, jar, or bottle in a medicine cup. If the medication is in a jar, use a medication spoon to scoop out the medication. Do not put your hands directly into the jar. If using a tube, do not squeeze the medication onto your gloved hand.
    - Place the medication on a flat surface with a barrier.
    - Clean the area where the medication is to be applied. If there is a patch, confirm with the nurse that it should be removed.
    - Remove gloves, turning them inside out.
    - Perform hand hygiene.
    - Put on clean gloves.
    - Using your gloved hand, apply medication from the cup onto the affected area. Be sure to gently rub in the medication so it can be absorbed by the skin for maximum effectiveness.
    - Remove gloves, turning them inside out.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check the resident's comfort and if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and the privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues or changes to the nurse.

View a YouTube video[1] of an instructor demonstration of topical medications:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=828#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Topical Medications. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/ZJGNFg6ccYM

6.9 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=831#h5p-43

An interactive H5P element has been excluded from this version of the text. You can view it online here:
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https://wtcs.pressbooks.pub/nurseassist/?p=831#h5p-46

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https://wtcs.pressbooks.pub/nurseassist/?p=831#h5p-74

VI Glossary

Acute pain: Pain with limited duration and associated with a specific cause. It usually causes observable responses such as increased pulse, respirations, and blood pressure. The person may also have diaphoresis.

Advance directives: Legal documents including the health care power of attorney (POA) and living will.

Cardiopulmonary resuscitation (CPR): Emergency treatment provided when a patient's blood flow or breathing stops and may involve chest compressions and mouth-to-mouth breathing, electric shocks to restart the heart, breathing tubes to open the airway, or cardiac medications.

Cheyne-Stokes: Irregular respirations associated with approaching death that are observed as gaps in breathing of several seconds and long and labored or quick and shallow inhalation and exhalation.

Chronic pain: Ongoing and persistent pain for longer than six months. It typically does not cause a change in vital signs or diaphoresis.

Cyanotic: A bluish discoloration of the skin.

Diaphoresis: Excessive sweating.

Do-Not-Resuscitate (DNR) order: A medical order that instructs health care professionals to not perform cardiopulmonary resuscitation (CPR) if a patient's breathing stops or their heart stops beating. A DNR order is only written with permission by the patient (or the patient's health care power of attorney, if activated).

Dysphagia: Difficulty swallowing that can cause aspiration of liquids and food into one's lungs and lead to life-threatening pneumonia.

End-of-life care: Term used to describe care provided when death is imminent and life expectancy is limited to a short number of hours or days.

Epiglottis: The anatomical flap that covers the trachea and prevents liquids from entering the lungs when swallowing.

Health Care Power of Attorney (POA): Legal identification of a trusted individual to serve as a decision-maker for health issues when the patient is no longer able to speak for themselves. It is the responsibility of this designated individual to carry out care actions in accordance with the patient's wishes.

Hospice care: Care provided to patients who are terminally ill when a health care provider has determined they are expected to live six months or less. Hospice provides comfort to the client and supports the family, but curative medical treatments are stopped. It is based on the idea that dying is part of the normal life cycle.

Living will: A legal document that describes the patient's wishes if they are no longer able to speak for themselves due to injury, illness, or a persistent vegetative state. The living will addresses issues like ventilator support, feeding tube placement, cardiopulmonary resuscitation, and intubation.

Macronutrients: Carbohydrates, proteins, and fats that make up most of a person's diet and provide energy, as well as essential nutrient intake.

Modified diet: Any diet altered to include or exclude certain components. For example, a low-salt diet is an example of a modified diet.

NPO: A common medical abbreviation referring to "nothing by mouth."

Osteoarthritis: A type of arthritis causing inflammation or swelling of the joints due to daily wear and tear on the body.

Pain: An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.

Postmortem care: Care provided after death has occurred through transfer to a morgue or funeral provider.

Quality of life: The degree to which an individual is healthy, comfortable, and able to participate in or enjoy life events.

PART VII

CHAPTER 7: DEMONSTRATE REPORTING AND DOCUMENTATION OF CLIENT DATA

7.1 Introduction to Demonstrate Reporting and Documentation of Client Data

Learning Objectives

- Measure temperature, pulse, and respiration
- Measure weight and height
- Recognize normal and abnormal blood pressure readings
- Identify normal and abnormal vital signs
- Measure intake and output
- Document client data
- Prioritize the reporting of data
- Recognize signs of client discomfort

Nursing assistants collect and document client data such as vital signs, height, weight, intake, and output. While performing cares and collecting data, nursing assistants spend a lot of time with residents and may observe subtle changes in behavior, mood, mobility, and cognition, as well as signs of discomfort. They report these observations promptly to nurses to ensure safe, quality, holistic care. This chapter will discuss collection of this data, as well as prioritization of data that should be immediately reported to the nurse.

7.2 Documenting and Reporting Data

Documentation is legally required for nursing assistants and other health care team members to record client observations and care provided in the medical record. Documentation is used to ensure continuity of care across shifts and among health care team members, to monitor standards of care for quality assurance activities, and to provide information for reimbursement purposes by insurance companies and Medicare or Medicaid. Documentation may also be used for research purposes or, in some instances, for legal concerns in a court of law.[1] For these reasons, always document the care you provide and never document for someone else. Review Chapter 1, "Documenting and Reporting" for details on how observations should be recorded. The facility or employer should provide training on how to document according to their expectations and what should be included in the client's record.

Charting by exception (CBE) is a common type of health care documentation indicating routine care and collection of data were completed. Notes are only written for abnormal findings or anything out of the ordinary. CBE is designed to keep documentation concise and reduce the amount of time required for documentation. CBE may include checklists and flowsheets as efficient means of documenting that standards of care have been provided. For example, nursing assistants may document activities of daily living (ADL) or vital signs on a flow sheet. See an example of an ADL flowsheet using the information in the following box. Keep in mind that documentation is reviewed and submitted by agencies for insurance reimbursement, so it is imperative that charting is accurate and up-to-date.

> See a PDF example of an ADL flowchart.

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In addition to documenting client cares and data collected, nursing assistants also report findings to the nurse. When observations are normal, they can be reported at routine times such as during shift change report. However, abnormal vital signs or significant changes in client status pertaining to breathing, circulation, cognition, pain, or falls should be immediately reported to the nurse for rapid assessment and intervention to ensure client health and safety.

Nursing assistants use critical thinking skills to determine what should be immediately reported to the nurse. If you are unsure about the significance of a finding, it is best to report it to the nurse and allow them to determine what is needed for the resident. It is never incorrect to report information to the nurse. However, waiting to report an important finding can negatively impact the client's health, so use a cautious approach and report anything that seems out of the ordinary. As you gain experience, your critical thinking skills will grow and improve.

Throughout this textbook, observations are described that should be immediately reported. Review Chapter 3.2 ("Emergency Situations") and Chapter 6.3 ("Pain") for additional information. The "Normal Ranges for Vital Signs" section in this chapter can be used to determine when vital signs are out of range and should be reported to the nurse.

7.3 Recognizing Signs of Client Discomfort

While performing cares, obtaining vital signs, or collecting other data, the nursing assistant may notice subjective or objective signs of discomfort in the client.

Subjective signs of discomfort are what the person reports to you such as, “My stomach hurts,” or “I feel achy when I walk.” Subjective reports cannot be verified objectively and must be reported based on what the person communicates. For this reason, when documenting subjective data, write exactly what the client said in quotations. For example, a nursing assistant might document: The client stated, “My stomach hurts.”

Objective data are observable and verifiable. Nursing assistants may suspect a client is experiencing discomfort based on nonverbal signs, such as grimacing, guarding the injured body part, rocking, rubbing the area, or moaning. When a client is unable to verbally communicate, noticing objective signs of pain is integral for providing comfort measures and improving their quality of life. Review the Pain Assessment in Advanced Dementia (PAINAD) in Chapter 6 (“Pain”) that is used to observe and document objective signs of pain.

> Review the concepts of objective and subjective data in the Chapter 1.5, “Guidelines for Reporting” subsection.

7.4 Obtaining Vital Signs

Vital signs are taken upon admission to a facility and then routinely (e.g., weekly in long-term care settings or every shift in inpatient care settings). They are also obtained when there is a change in client condition (e.g., a suspected infection), after a fall, or with some medication changes.

Vital signs are taken at regular intervals to establish a client's baseline, evaluate trends, and determine if a client is experiencing a variance outside their normal range. Many factors can affect vital signs, including activity level, medications, recent intake, or age.

Vital signs include temperature recorded in Celsius or Fahrenheit, pulse, respiratory rate, blood pressure, and oxygen saturation using a pulse oximeter. Obtaining a pain rating is often considered a sixth vital sign. Read about pain ratings in the "Pain" section of Chapter 6.

See Figure 7.1[1] for an image of a nursing assistant obtaining vital signs. Obtaining vital signs may be delegated to a nursing assistant for stable patients, depending on the state's scope of practice for nurse aides and agency policy and training.[2]

1. "US Navy 110714-N-RM525-060 Hospitalman Seckisiesha Isaac, from New York, prepares to take a woman's temperature at a pre-screening vital signs stat.jpg" by U.S. Navy photo by Mass Communication Specialist 2nd Class Jonathen E. Davis is licensed under CC0
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Figure 7.1 Obtaining Vital Signs

Temperature

Accurate temperature measurements provide information about a patient's health status and guide clinical decisions made by the nurse. For example, an elevated temperature (referred to as a fever) can indicate the client is experiencing an infection. Body temperature is documented in degrees Celsius (°C) or Fahrenheit (°F).

There are several methods for measuring body temperature based on the client's developmental age, cognitive functioning, level of consciousness, health status, and agency policy. Common methods of temperature measurement include oral, axillary, tympanic, rectal, and temporal routes. Each of these routes is further discussed in the following subsections, and Skills Checklists are provided later in the chapter.

When documenting a client's temperature, it is important to document the route used to obtain the temperature because of normal variations in temperature in different locations of the body. For example, axillary temperature can be one degree or more lower than an oral temperature. See normal temperature ranges according to method in Table 7.5a in the "Normal Ranges for Vital Signs" section of this chapter.

Oral Temperature

Oral temperature is taken in the mouth under the tongue. Normal oral temperature is 35.8 – 37.3°C (96.4 – 99.1°F). An oral thermometer is shown in Figure 7.2.[3] The device has blue coloring indicating its use as an oral or axillary thermometer, as opposed to a rectal thermometer that has red coloring. Oral temperature is reliable when it is obtained close to the sublingual artery at either side of the base of the tongue. Some factors can cause an inaccurate measurement using the oral route. For example, if the patient recently consumed a hot or cold food or beverage, chewed gum, or smoked prior to measurement, a falsely elevated or decreased reading may be obtained. Oral temperature should be taken 15 to 25 minutes following consumption of a hot or cold beverage or food or 5 minutes after chewing gum or smoking.[4]

Figure 7.2 Oral Thermometer

Axillary Temperature

Axillary temperature is taken in the armpit. The axillary method is a minimally invasive way to measure temperature and is commonly used in children or in adults with impaired cognition who may not tolerate oral or

3. "Thermometer-oral-768x548.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/02%3A_Temperature/2.17%3A_Oral_Temperature
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tympanic routes. It uses the same electronic device as an oral thermometer (with blue coloring), but the probe is placed in the armpit. The axillary temperature can be as much as one degree lower than the oral temperature. See Figure 7.3.[5] for an image of a nursing assistant taking an axillary temperature.[6]

Figure 7.3 Axillary Temperature

Tympanic Temperature

Tympanic temperature is taken using a device placed in the ear. It is more accurate than oral or axillary measurement because the tympanic membrane in the ear shares the same artery that perfuses the hypothalamus (the part of the brain that regulates the body's temperature). The tympanic temperature is typically 0.3 – 0.6°C higher than an oral temperature. See Figure 7.4[7] of a

5. "Axilla-Temperature-1-768x596.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/02%3A_Temperature/2.19%3A_Axillary_Temperature
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7. "Tympanic-Thermometer.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/02%3A_Temperature/2.18%3A_Tympanic_Temperature

tympanic thermometer. The tympanic method should not be used if the patient has a suspected ear infection.[8]

Figure 7.4 Tympanic Thermometer

Rectal Temperature

Rectal temperature is taken in the rectum. It is the most accurate measurement method but is considered an invasive procedure. Some sources suggest its use only when other methods are not appropriate. However, when measuring infant temperature, it is considered a gold standard because of its accuracy. An adult requiring a rectal temperature should be placed in the Sims' position. (See Chapter 8 for positioning techniques.) The rectal temperature is usually 1°C higher than oral temperature. A rectal thermometer has red coloring where the probe attaches to the device to distinguish it from an oral/axillary thermometer.[9] See Figure 7.5[10] for an image of a rectal thermometer.

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10. "Rectal Thermometer" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

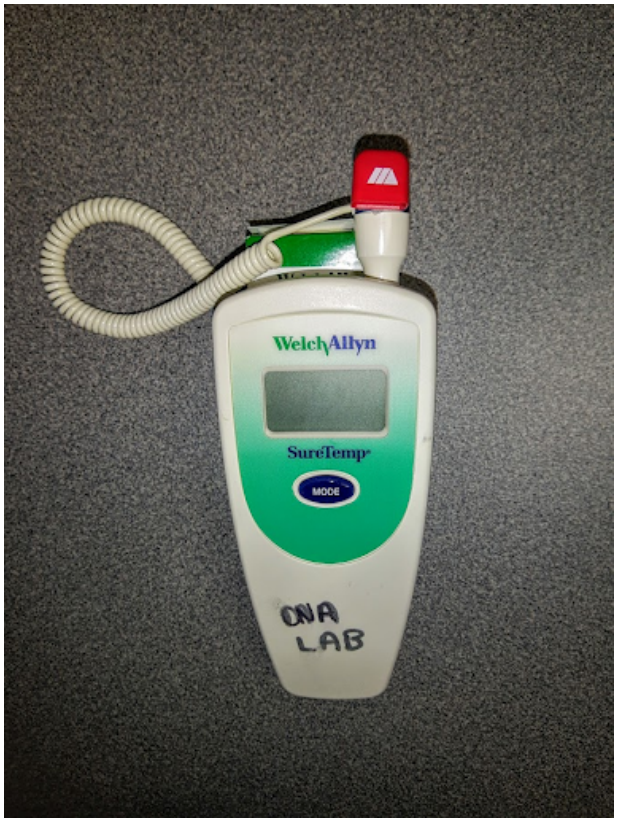

Figure 7.5 Rectal Thermometer

Temporal Temperature

Temporal temperature is taken by using a device placed on the forehead. Temporal thermometers contain an infrared scanner that measures the heat on the surface of the skin resulting from blood moving through the temporal artery in the forehead. Temporal temperature is typically 0.5°F (0.3°C) to 1°F (0.6°C) lower than an oral temperature. It is a quick, noninvasive method, but accurate measurement is dependent on good contact with the skin and good placement on the forehead. See Figure 7.6[11] for an image of a temporal thermometer.

11. "49894280938_74504454c3_h" by Adafruit Industries is licensed under CC BY-NC-SA 2.0

Figure 7.6 Temporal Thermometer

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=896#h5p-50

Pulse

Pulse refers to the pressure wave that expands and recoils arteries when the left ventricle of the heart contracts. It can be palpated at many points throughout the body as shown in Figure 7.7.[12]

12. "Radial-brachial-carotid-and-apical-pulse-final-930x1024.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/03%3A_Pulse_and_Respiration/3.15%3A_What_is_Pulse%3F

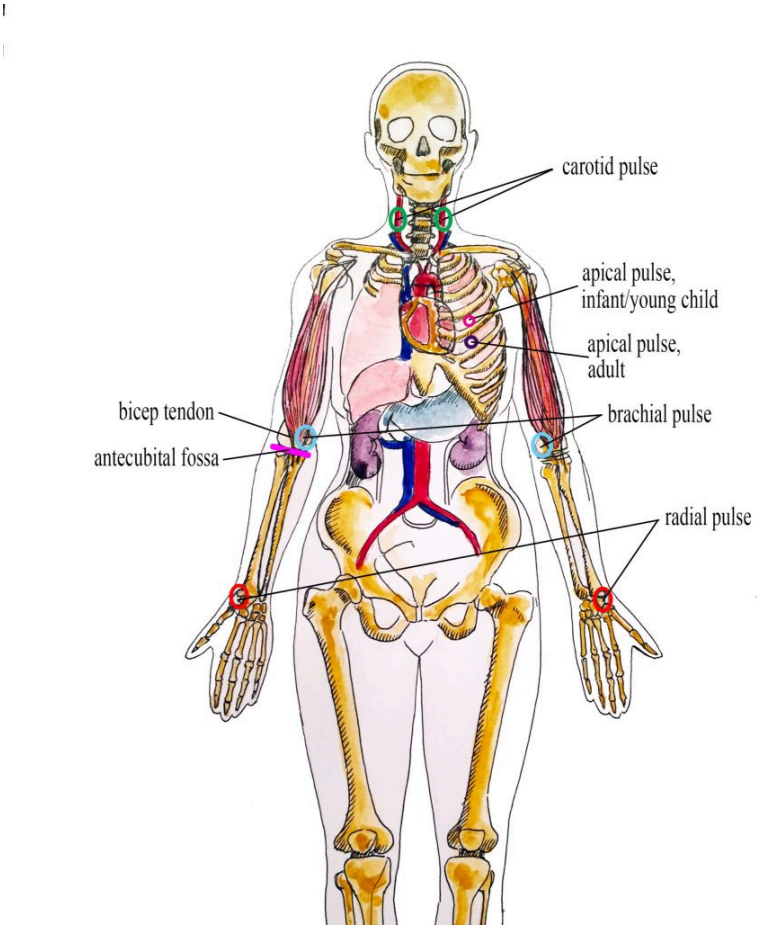

Figure 7.7 Common Pulse Assessment Locations

Nursing assistants typically obtain the radial pulse because it is easily accessible. See Figure 7.8[13] for an image of a nursing assistant obtaining a radial pulse. To locate the radial pulse, ask the client to hold the palm of their hand upwards. Draw an imaginary line from the extended index finger of the resident past the wrist to the radial bone and then palpate the radial pulse just inside the radial bone. Use your index and third finger when palpating a pulse; never use the thumb because it has its own pulse, and you may inadvertently count your own heart rate rather than the heart rate of the client. When obtaining a pulse, the patient should be seated comfortably with their arms and legs uncrossed. If the patient is lying down, this may lower their heart rate so their position should be documented.

13. "Radial-pulse-correct.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/03%3A_Pulse_and_Respiration/3.18%3A_Radial_Pulse

Figure 7.8 Radial Pulse

Pulse is measured in beats per minute. The normal adult pulse rate (heart rate) at rest is 60–100 beats per minute, with different ranges according to age.[14] See normal pulse ranges by age in Table 7.5b in the "Normal Ranges for Vital Signs" section of this chapter.

The pulse rate should be regular, meaning the frequency of the pulsation felt by your fingers is an even tempo with equal intervals between pulsations. However, heart conditions can cause irregularities in heart rate, called arrhythmias. When an irregular pulse is noted, it should be documented and reported to the nurse. It is considered best practice to assess a patient's pulse for a full 60 seconds, especially if there is an irregularity to the rhythm.[15]

Respiration

Respiration refers to a person's breathing and the movement of air into and out of the lungs. Inspiration refers to the process causing air to enter the lungs, and expiration refers to the process causing air to leave the lungs. A respiratory cycle (i.e., measured as one breath for the respiratory rate) is one sequence of inspiration and expiration (i.e., the chest rises and falls once).[16]

The quality of a person's breathing is normally relaxed and silent. However, loud breathing, nasal flaring, or the use of accessory muscles in the neck,

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chest, or ribs is a sign of breathing problems (referred to as **respiratory distress**). People who are experiencing respiratory distress naturally assume a **tripod position**, meaning they lean forward and place their arms or elbows on their knees or on a bedside table to help improve lung expansion. If a patient is demonstrating new signs of respiratory distress as you are obtaining their vital signs, immediately notify the nurse.[17]

Respirations normally have a regular rhythm in children and adults who are awake. A regular rhythm means that the frequency of the respiration follows an even tempo with equal intervals between each respiration. However, newborns and infants commonly exhibit an irregular respiratory rhythm.[18]

Normal respiratory rates vary based on age. The normal resting respiratory rate for adults is 12–20 breaths per minute, whereas infants younger than one year old normally have a respiratory rate of 30–60 breaths per minute.[19] See normal respiratory rate ranges by age in Table 7.5c in the "Normal Ranges for Vital Signs" section of this chapter.

When obtaining a respiratory rate, the most accurate measurement is obtained when the client is not aware you are watching their breathing; knowing they are being observed can unconsciously change their breathing pattern. For this reason, many nursing assistants count the client's respirations while they appear to be taking their pulse. (This is one exception to the standard rule of explaining to the client what you will be doing.)

When counting respirations, it can be difficult to see a complete respiratory cycle. Respirations can be observed by looking at the client's shoulders move up and down with each breath, the stomach or chest rising and falling, or the clothing around the ribs moving. You may have to ask the client to remain quiet while respirations are being observed because talking or moving changes the respiratory rate. Respirations are documented as the number of

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breaths per minute, with each cycle of inspiration and exhalation counting as one breath.

Blood Pressure

Blood pressure is the measurement of the force of blood against the walls of the arteries as the heart pumps blood through the body. It is reported as millimeters of mercury (mmHg). This pressure inside the arteries changes when the heart is contracting compared to when the heart is resting and filling with blood. For this reason, blood pressure is expressed as two numbers called systolic pressure and diastolic pressure (e.g., 120/80). **Systolic blood pressure** (the top number of the fraction) is the pressure in the arteries during **systole** (i.e., when the ventricles are contracting and causing the ejection of blood into the aorta and pulmonary arteries). **Diastolic blood pressure** (the bottom number of the fraction) is the resting pressure in the arteries during **diastole** (i.e., the phase between each contraction of the heart when the ventricles are filling with blood).[20]

Depending on your state's scope of practice for nursing assistants and the training you receive at the facility where you work, you may be delegated the task of taking blood pressure with an automated cuff. Be aware of the client's health status because there are circumstances when blood pressure should not be taken on a certain arm, such as an arm containing a fistula for dialysis, an intravenous (IV) line, or implanted birth control. If the person has had a mastectomy, blood pressure should not be taken on the arm on the side of the mastectomy.

When obtaining a blood pressure, allow the person to rest in place for a few minutes or an inaccurately high blood pressure may be obtained due to recent activity. Position the person in a seated position with their legs and arms uncrossed and the elbow of their arm at heart level supported by a table or your arm. Lying down or standing will change the blood pressure reading,

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so document if the client is standing, sitting, or lying down when the blood pressure is measured.

Raise the client's sleeve or assist the client to remove their arm from their sleeve. Place the artery marker on the blood pressure cuff directly on the skin above the client's brachial artery. To find the brachial artery, gently flex the arm and feel for the bicep muscle, which is the larger muscle of the upper arm. The brachial artery is located towards the inside of the base of the bicep muscle.

See the different sizes of blood pressure cuffs in Figure 7.9.[21] In adults, "regular" or "large" cuffs are typically used based on the size of the client's upper arm.

Figure 7.9 Different Sizes of Blood Pressure Cuffs

It is vital to ensure the cuff fits appropriately on the person's arm in order to obtain an accurate blood pressure measurement. An undersized cuff will cause an artificially high blood pressure reading, and an oversized cuff will produce an artificially low reading. When applying the cuff to the client's arm,

21. "BP-Multiple-Cuff-Sizes.jpg" by British Columbia Institute of Technology (BCIT) is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/vitalsign/chap ter/how-is-blood-pressure-measured/

the end of the cuff should be within the indicated range margins on the cuff. See Figure 7.10[22] for an image of the range designated on the cuff.

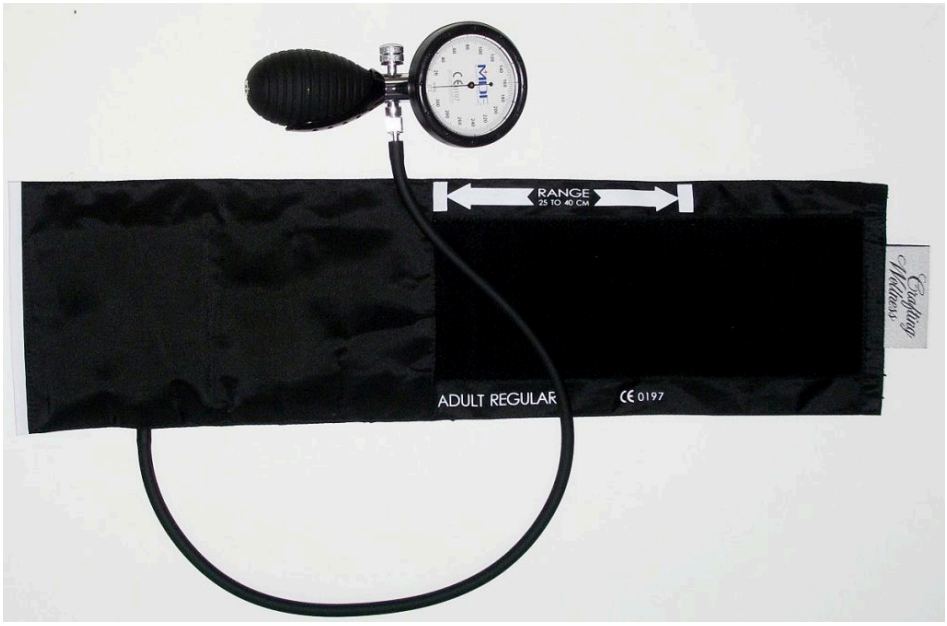

Figure 7.10 Range Markings to Ensure Proper Cuff Size

After the cuff is in place, press the start button on the monitor. The cuff will automatically inflate to a specific pressure and then deflate at a rate of 2 mmHg per second. The monitor digitally displays the blood pressure reading when it is done. See Figure 7.11[23] for an image of an automatic blood pressure monitor. Abnormal blood pressure readings should be promptly reported to the nurse. See normal and abnormal blood pressure ranges in Table 7.5d in the "Normal Ranges for Vital Signs" section of this chapter.

22. "Sphygmomanometer&Cuff.JPG" by ML5 is in the Public Domain
23. "Automatische bloeddrukmeter (0).jpg" by Harmid is in the Public Domain

Figure 7.11 Automatic Blood Pressure Monitor

Oxygen Saturation

Patient oxygenation status is assessed routinely using pulse oximetry. **Oxygen saturation**, also referred to as SpO2, is a client's oxygenation status measured by a pulse oximeter. SpO2 estimates a person's oxygenation level based on how much hemoglobin in their red blood cells is "saturated" with oxygen. The target range of SpO2 for an adult is 94-98%. For patients with chronic respiratory conditions, such as chronic obstructive pulmonary disease (COPD), their normal range for SpO2 is often lower (e.g., 88% to 92%).

Although SpO2 is an efficient, noninvasive method to assess a patient's oxygenation status, it is an estimate and not always accurate. For example, severe anemia (i.e., decreased level of hemoglobin in the blood) or decreased peripheral circulation can cause an inaccurately low SpO2 level.[24]

A pulse oximeter includes a sensor that measures light absorption of hemoglobin to estimate oxygen saturation. See Figure 7.12[25] for an image of a pulse oximeter. The sensor can be attached to the patient using a variety of

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25. "02-Sat-Apparatus-1-1-1024x682.jpg" by British Columbia Institute of Technology is licensed under CC BY 4.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Vital_Sign_Measurement_Across_the_Lifespan_(Lapum_et_al.)/04%3A_Oxygen_Saturation/4.09%3A_How_is_Oxygen_Saturation_Measured%3F

devices. For intermittent measurement of oxygen saturation, a spring-loaded clip is attached to a patient's finger or toe. However, this clip is too large for use on newborns and young children, so the sensor is typically taped to a finger or toe. An earlobe clip is an alternative for patients who cannot tolerate the finger or toe clip or have a condition (such as vasoconstriction and poor peripheral perfusion) that can affect the results. Fingernail polish causes inaccurate measurement and should be removed from the nail of the finger being used for measurement.[26]

Figure 7.12 Pulse Oximeter

When documenting a client's oxygen saturation level, it is vital to document if the client was receiving supplemental oxygen or if the reading was taken while they were breathing room air. If supplemental oxygen was being provided, the type of oxygenation device and the amount of oxygen being delivered should also be documented (e.g., "Oxygen saturation of 90% while receiving oxygen via nasal cannula at 2 Liters/minute").

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7.5 Normal Ranges for Vital Signs

Temperature

The average body temperature is 98.6° F (37° C), but normal body temperature can range between 97° F (36.1° C) to 99° F (37.2° C), depending on the activity level or the time of day. Older adults have lower body temperatures; a reading of 96° F (36° C) is not unusual. See Table 7.5a for average temperature ranges according to the measurement method. In general, notify the nurse for temperatures greater than 38° degrees C (100.4° degrees F) because this indicates a fever.

Table 7.5a Normal Range of Temperatures According to Method[1,2]

Method	Average Range C	Average Range F
Oral	35.8 – 37.3°C	96 – 99°F
Axillary	34.8 – 36.3°C	94.6 – 97.3°F
Tympanic	36.1 – 37.9°C	96.9 – 100.2°F
Rectal	36.8 – 38.2°C	98.2 – 100.7°F
Temporal	35.2 – 36.7°C	95.3 – 98°F

Pulse

Heart rate varies greatly from newborns to adults. In general, immediately report an adult's pulse rate that is less than 60 or higher than 100 to the nurse. See Table 7.5b for normal heart rate ranges by age.

Table 7.5b Normal Heart Rate Ranges by Age[3]

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2. RB Health Partners, Inc. (n.d.). *ADL CNA flow sheet.* [Form]. http://anha.org/members/documents/ADLCNAFlowSheet2.pdf
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Age Group	Heart Rate
Preterm	120 – 180
Newborn (0 to 1 month)	100 – 160
Infant (1 to 12 months)	80 – 140
Toddler (1 to 3 years)	80 – 130
Preschool (3 to 5 years)	80 – 110
School Age (6 to 12 years)	70 – 100
Adolescents (13 to 18 years) and Adults	60 – 100

Respiration

Respiratory rate varies greatly from infants to adults. In general, report an adult's respiratory rate immediately to the nurse if it is less than 12 or greater than 20. See normal respiratory rate ranges by age in Table 7.5c.

Table 7.5c Respiratory Rate Ranges by Age[4]

Age	Normal Range
Newborn to one month	30 – 60
One month to one year	26 – 60
1-10 years of age	14 – 50
11-18 years of age	12 – 22
Adult (ages 18 and older)	12 – 20

Blood Pressure

Blood pressure (BP) is categorized into three ranges: low blood pressure (**hypotension**), normal blood pressure, and high blood pressure (**hypertension (HTN)**). In general, 120/80 mmHg is considered a normal adult blood pressure reading. See blood pressure ranges for adults for categories of hypotension, normal, and hypertension in Table 7.5d. Systolic and/or diastolic

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blood pressure readings outside the normal range should be immediately reported to the nurse.

Table 7.5d Blood Pressure Ranges for Adults[5]

Category	Systolic Reading	Diastolic Reading
Hypotension (low BP)	Less than 90 mmHg	Less than 60 mmHg
Normal	91-129 mmHg	61-89 mmHg
Hypertension (high BP)	130 mmHg or higher	90 mmHg or higher

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7.6 Measuring Weight and Height

Height and weight are documented upon admission to a facility as a baseline measurement and then taken routinely. Accurate weights are required for calculating medication dosages, ensuring adequate food and fluid intake, and monitoring chronic conditions such as heart failure (because weight gain is often the first indication of an impending problem).

If a resident requires **daily weights** as documented in their care plan, their weight should be taken on the same scale at the same time every day, before any food or fluids are consumed, and while wearing a similar amount of clothing. The weight is documented, and weight changes of 3 pounds over 24 hours or 5 pounds within a week should be immediately reported to the nurse to address any possible complications. See the "Measuring Weight for Ambulatory Residents" Skills Checklist for measuring weight for more details.

If a resident is nonambulatory, the nursing assistant should weigh the wheelchair and any associated accessories (such as foot pedals or a chair cushion). After the resident is dressed and groomed, the nursing assistant should bring them to the scale, obtain the weight, and then subtract the weight of the chair and associated accessories. See Figure 7.13[1] for an image of weighing a resident on a wheelchair scale.

If a resident requires transfer with a full-body mechanical lift, some lifts have a scale function that can weigh the resident as they transfer from bed to wheelchair.

1. "HOM-2600KL-2.jpg by unknown author is used on the basis of Fair Use.

Figure 7.13 Wheelchair Scale. Used on the basis of Fair Use.

Height

Resident height is typically obtained on admission and documented in the medical record. Because height rarely changes, measurement is rarely repeated. See the "Measuring Height for Ambulatory Residents" Skills Checklist for measuring the height of an ambulatory person with a stadiometer. Figure 7.14[2] shows a person being measured with a stadiometer. If a resident is nonambulatory or unable to stand, their height can be measured with a tape measure while they are lying in bed. Height is recorded in inches or millimeters based on agency policy.

2. "stadiometer-3.jpeg" by unknown author is used on the basis of Fair Use.

Figure 7.14 Measuring Height With a Stadiometer. Used on the basis of Fair Use.

Body Mass Index

Nursing assistants may be asked to obtain a height and weight to calculate a resident's Body Mass Index (BMI). **Body mass index (BMI)** is a calculated measure of body fat based on a person's height and weight. It is calculated by dividing weight in kilograms by the square of their height in meters. BMI is used to evaluate if an individual is underweight (BMI less than 18.5), normal (BMI 18.6-24.9), overweight (BMI over 25), or obese (BMI over 30). Elevated BMI measurements are associated with cardiovascular disease, type 2 diabetes, and other chronic diseases.[3]

3. This work is a derivative of StatPearls by McNeil-Masuka and Boyer and is licensed under CC BY 4.0

7.7 Measuring Intake and Output

Nursing aides assist with documenting clients' intake and output. **Intake** refers to the amount of fluids the client ingests, and **output** refers to the amount of fluids that leave the body. Total intake should be nearly equal to total output every day, but some fluids, referred to as "**insensible losses**," cannot be measured, such as fluids lost through the respiratory system, sweat, and stool. Therefore, urine is the most commonly measured output. Other fluids, like wound drainage in a drainage device, are also measured.

Fluids are typically documented as milliliters (mL). See the Chapter 5.7, "Documentation of Food and Fluids" subsection for review of converting ounces to mL and additional information on measuring intake and output.

Fluid intake is routinely documented with meal intake. Some clients with certain health conditions also have their output measured and documented every shift. Intake and output are then calculated over a 24-hour period and monitored by the nurse. A client's **intake and output ("I&O")** may be closely monitored by the nurse due to illness, a new medication, or a circulatory or urinary condition. See Figure 7.15[1] for an example of a 24-hour intake and output documentation record.

1. "Intake and Output Record.PNG" by Chippewa Valley Technical College is licensed under CC BY 4.0

INTAKE AND OUTPUT RECORD

Patient Name: _____ Date: _____

INTAKE			OUTPUT		
Time	Amount	Type of Intake	Time	Amount	Type of Output
2300-0700					
Shift Total					
0700-1500					
Shift Total					
1500-2300					
Shift Total					

Figure 7.15 Sample Intake & Output Documentation Record

7.8 Skills Checklist: Oral, Tympanic, Axillary, Rectal and Temporal Temperatures

1. Gather Supplies: Thermometer; probe covers for oral, rectal, axillary, or tympanic thermometer. See Figure 7.16[1] at the end of this checklist for an image of various types of thermometers.
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Oral temperature
    - Remove the probe from the device.
    - Slide a probe cover (from the attached box) onto the oral thermometer without touching the probe cover with your hands.
    - Place the thermometer under the client's tongue at either side of the base of the tongue.
    - Instruct the person to keep their mouth closed.
    - Leave the thermometer in place for as long as is indicated by the device manufacturer, usually indicated by a beep.
    - Read the digital display of the results.
    - Discard the probe cover in the garbage without touching the cover.
    - Place the probe back into the device.

4. Tympanic temperature

1. "Thermometers" by Landon Cerny is licensed under CC BY 4.0

- Remove the tympanic thermometer from its holder.
- Place a probe cover on the thermometer tip without touching the probe cover with your hands.
- Ask the client to keep their head still.
- For an adult or older child, gently pull the outer ear up and back to visualize the ear canal.
- For an infant or child under age 3, gently pull the outer ear down.
- Insert the probe just inside the ear canal.
- Do not force the thermometer into the ear.
- Hold the device in place until it beeps (within a few seconds after the temperature is measured).
- Read the results displayed.
- Discard the probe cover in the garbage without touching the cover.
- Place the device back into the holder.

5. Axillary temperature

    - Remove the probe from the device.
    - Place a probe cover (from the attached box) on the thermometer without touching the cover with your hands.
    - Ask the client to raise their arm or gently raise their arm for them.
    - With the probe facing towards the back of the resident, place the thermometer probe in the armpit on bare skin as high up into the axilla as possible.
    - Ask the patient to lower their arm or gently lower it for them.
    - Leave the device in place until it beeps, usually about 10–20 seconds.
    - Read the displayed results.
    - Discard the probe cover in the garbage without touching the cover.
    - Place the probe back into the device.

6. Rectal temperature (Use the red probe)

    - Put on gloves.

7. Position the patient:

- For infants, place them in a supine position and raise their legs upwards toward their chest.
- For older children and adults, assist them into a side lying position and explain the procedure.
- Remove the probe from the device.
- Place a probe cover (from the attached box) on the thermometer.
- Lubricate the cover with a water-based lubricant.
- Gently insert the probe 2–3 cm or less inside the anus, depending on the patient's size.
- Remove the probe when the device beeps.
- Read the result.
- Discard the probe cover in the trash can without touching it.
- Cleanse the device as indicated by agency policy.
- Remove gloves, turning them inside out and discard.
- Perform hand hygiene.

8. Temporal temperature

    - Remove eyeglasses from the client if they are worn.
    - Place the sensor on their forehead, ensuring good skin contact.
    - Slowly slide the thermometer across the forehead to the ear, maintaining contact with the skin at all times.
    - Stop when the sensor reaches the hairline and read the displayed result.

9. Post-Procedure Steps:

    - Check for resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document temperature and report abnormal findings to the nurse.

Figure 7.16 Thermometers

View a YouTube video[2] of an instructor demonstration of obtaining a temperature:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=987#oembed-1

View a YouTube video[3] of an instructor demonstration of obtaining a rectal temperature:

2. Chippewa Valley Technical College. (2022, December 3). Obtaining a Temperature. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/rZftX0z6aKo
3. Chippewa Valley Technical College. (2023, January 5). Rectal Temperature. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/LKg2OS2D3rQ

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=987#oembed-2

7.9 Skills Checklist: Pulse

Pulse

1. Gather Supplies: Watch or clock with a second hand
2. Routine Pre-Procedure Steps:

    - Knock on the client's door.
    - Perform hand hygiene.
    - Introduce yourself and identify the resident.
    - Maintain respectful, courteous, and professional communication at all times.
    - Provide for privacy.
    - Explain the procedure to the client.

3. Procedure Steps:

    - Locate the radial pulse by placing the tips of your fingers on the side of the resident's wrist.
    - Count the pulse for 60 seconds.

4. Post-Procedure Steps:

    - Check on resident comfort and ask if anything else is needed.
    - Ensure the bed is low and locked. Check the brakes.
    - Place the call light or signaling device within reach of the resident.
    - Open the door and privacy curtain.
    - Perform hand hygiene.
    - Document pulse and report abnormal findings to the nurse.

View a YouTube video[1] of an instructor demonstration of obtaining a pulse:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=990#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Obtaining a Pulse. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/Q82Fn8pLDtg

7.10 Skills Checklist: Respirations

1. Gather Supplies: Watch or clock with a second hand

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Count respirations for 60 seconds.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document respiratory rate and report abnormal findings to the nurse.

View a YouTube video[1] of an instructor demonstration of obtaining respirations:

1. Chippewa Valley Technical College. (2022, December 3). Obtaining Respirations. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/yljzSZHqbq8

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=992#oembed-1

View a YouTube video[2] of an instructor demonstrating obtaining temperature, pulse, and respirations in a sequential procedure:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=992#oembed-2

2. Chippewa Valley Technical College. (2022, December 3). Obtaining Temperature, Pulse, and Respirations. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/_NRc4zEYrNI

7.11 Skills Checklist: Measuring Height for Ambulatory Residents

1. Gather Supplies: Gait belt and stadiometer

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Put nonskid footwear on the resident.
- Apply a gait belt if indicated on the care plan.
- If the resident is in a wheelchair, assist the resident to the stadiometer and lock the brakes.
- Assist the resident to stand and walk to the stadiometer.
- Slowly turn the resident so their back is near the stadiometer and they are facing away from the supporting wall.
- Instruct the resident to look forward and keep their chin up.
- Gently lower the stadiometer arm to the top of the resident's head.
- Note the measurement.
- Raise the stadiometer arm.
- Assist the resident back to the wheelchair if used.
- Remove the gait belt if it was applied.
- Unlock the brakes if the resident is seated in a wheelchair.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.

- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document height and report abnormal findings to the nurse.

View a YouTube video[1] of an instructor demonstration of measuring height:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=994#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Measuring Height. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/T_h4uMnh3UA

7.12 Skills Checklist: Measuring Weight for Ambulatory Residents

1. Gather Supplies: Gait belt and scale

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Verify the resident is wearing nonskid footwear.
- Balance (or zero) scale.
- If the resident is in a wheelchair, apply the brakes.
- Assist the resident to stand, using a gait belt as needed.
- Walk the resident to the scale.
- Assist the resident to step on the scale.
- Check that the resident is centered on the scale.
- Check that the resident has their arms at their side.
- Ensure the resident is not holding on to anything that would alter the reading of the weight.
- Adjust the weights until the scale is in balance or read analog scale.
- Assist the resident back to a seated position.
- Remove the gait belt if it was used.
- Release the brakes if the resident is seated in a wheelchair.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.

- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document weight and report abnormal findings to the nurse.

View a YouTube video[1] of an instructor demonstration of measuring weight:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=996#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Measuring Weight. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/QnQoEwdcG1k

7.13 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=907#h5p-47

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=907#h5p-48

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=907#h5p-52

VII Glossary

Axillary temperature: Temperature taken in the armpit using the same device as when taking an oral temperature. It can be as much as one degree lower than the oral temperature.

Blood pressure: The force of blood against the walls of the arteries as the heart pumps blood through the body reported in millimeters of mercury (mmHg). It is expressed as two numbers: systolic pressure and diastolic pressure.

Body mass index (BMI): A calculated measure of body fat based on a person's height and weight.

Charting by exception (CBE): A common type of health care documentation where routine care is provided and notes are only written for abnormal findings or anything out of the ordinary. It is designed to keep documentation concise and reduce the amount of time required for documentation.

Daily weights: Client weight taken at the same time every day, on the same scale, in similar clothing, and before any food or fluids are consumed.

Diastole: The phase between each contraction of the heart when the ventricles are filling with blood.

Diastolic blood pressure: Resting pressure within the arteries during diastole.

Hypertension (HTN): Elevated blood pressure.

Hypotension: Low blood pressure.

Insensible losses: Fluid loss that cannot be measured, such as fluids lost through the respiratory system, sweat, and stool.

Intake and output (I&O): Fluid intake and output measured and documented every shift.

Oral temperature: Temperature taken in the mouth under the tongue.

Output: Fluids that leave the body, including urine output that is measured.

Oxygen saturation (SpO2): Oxygenation status by a pulse oximeter based on how much of hemoglobin in red blood cells is "saturated" with oxygen.

Pulse: The pressure wave that expands and recoils arteries when the left ventricle of the heart contracts. It can be palpated at many points throughout the body.

Rectal temperature: Temperature taken in the rectum. It provides the most accurate temperature measurement but is considered an invasive procedure.

Respirations: The movement of air into and out of the lungs. Inspiration refers to the process causing air to enter the lungs, and expiration refers to the process causing air to leave the lungs.

Respiratory distress: Problems breathing.

Systole: The phase of the heartbeat when the ventricles contract, causing the ejection of blood into the aorta and pulmonary arteries.

Systolic blood pressure: The maximum pressure within the arteries during systole.

Temporal temperature: Temperature taken by using a device placed on the forehead that measures the heat on the surface of the skin resulting from blood moving through the temporal artery in the forehead.

Tripod position: A position that people experiencing respiratory distress naturally assume by leaning forward and placing their arms or elbows on their knees or on a bedside table to help improve lung expansion.

Tympanic temperature: Temperature taken using a device placed in the ear. It is more accurate than oral or axillary measurement because the tympanic membrane in the ear shares the same artery that perfuses the hypothalamus (the part of the brain that regulates the body's temperature).

Vital signs: Vital signs include temperature recorded in Celsius or Fahrenheit, pulse, respiratory rate, blood pressure, and oxygen saturation using a pulse oximeter.

PART VIII

CHAPTER 8: UTILIZE PRINCIPLES OF MOBILITY TO ASSIST CLIENTS

8.1 Introduction to Utilize Principles of Mobility to Assist Clients

Learning Objectives

- Examine types and uses of restraining devices
- Use alternatives to restraints
- Assist with moving or positioning a client
- Promote joint mobility, body alignment, and activity
- Assist with ambulation
- Use client transfer techniques
- Apply prosthetic and orthotic devices

Mobility is the ability to move one's body parts, change positions, and function safely within the environment. It is one of the most important factors for remaining independent. **Immobility**, the inability to independently move and change positions, is a major reason why people are admitted to long-term care facilities for assistance to complete their activities of daily living (ADLs). Declining mobility can negatively affect many aspects of one's health, especially in the musculoskeletal, respiratory, integumentary, circulatory, and digestive systems. Complications of immobility will be further discussed in Chapter 9.

Nursing assistants (NAs) have a major responsibility for assisting clients who have decreased mobility. Some clients require minor assistance to ambulate safely or move from their bed to a chair, whereas other clients require full assistance for repositioning in bed and/or transferring. NAs also assist in maintaining a resident's level of functioning by promoting joint mobility and applying prosthetics and orthotics. This chapter will review moving and positioning clients, as well as promoting their joint mobility.

In some circumstances, medical restraints may need to be applied to clients who are at risk for hurting themselves or others. This chapter will also review various types of restraints and how to prevent complications that can result from decreased movement.

8.2 Moving and Positioning Clients

When a resident is admitted to a facility or begins receiving home health care, assessments are completed by health care staff (including nurses, physical therapists, and occupational therapists) to determine their care needs. Examples of assessments include their ability to complete hygiene and grooming needs, as well as the amount and type of assistance required to safely reposition themselves in bed, move in and out of bed into a chair, and walk (if they are able). The findings from these assessments are implemented into the client's care plan that the nurse and NA carry out. Roles of various therapists will be further discussed in Chapter 9.

Repositioning in Bed

As discussed in the "Skin Care" section in Chapter 5, clients who are immobile must be repositioned every two hours to prevent pressure injuries and other complications of immobility that will be further discussed in Chapter 9. Moving residents must be done carefully because their skin can easily be damaged by improper handling. Due to the effects of aging on the integumentary system, older adults can develop pressure injuries from friction and shear when repositioned or from lying in one position for long periods of time in bed. **Pressure injuries** (formerly called pressure ulcers or bedsores) are localized damage to the skin or underlying soft tissue, usually over a bony prominence, as a result of intense and prolonged pressure and/or shear.[1]

Shear happens when skin moves one way but the underlying bone and muscle stay fixed or move the opposite direction. Shear can occur when an individual sits up in a bed, chair, or wheelchair, and gravity causes the bone and muscle to slide down while the skin is pulled in the opposite direction by the sheets or clothing. **Friction** is caused when skin is rubbed by clothing,

1. Edsberg, L. E., Black, J. M., Goldberg, M., McNichol, L., Moore, L., & Sieggreen, M. (2016). Revised national pressure ulcer advisory panel pressure injury staging system: Revised pressure injury staging system. *Journal of Wound, Ostomy, and Continence Nursing: Official Publication of The Wound, Ostomy and Continence Nurses Society, 43*(6), 585–597. https://doi.org/10.1097/WON.0000000000000281

linens, or another body part and can cause chafing. Chafing typically occurs when the skin has inadequate moisture. See an illustration of sheer and friction in Figure 8.1.[2]

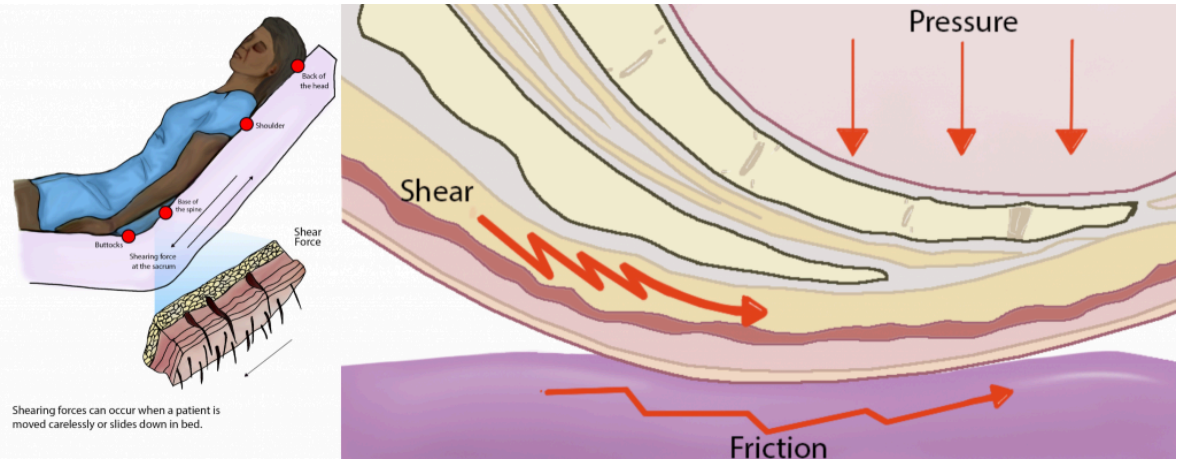

Figure 8.1 Friction and Shear Causing Pressure Injuries

> For additional information on friction and shear, visit the Wound Care Education Institute's Friction vs. Shearing in Wound Care web page.

To prevent friction and shear, residents should be moved in bed with a lift sheet. The **lift sheet**, also called a draw sheet, is placed between the resident and the bottom or fitted sheet. (Review types of linens in "Making an Unoccupied Bed Checklist" in Chapter 3.) The lift sheet protects the client's skin by creating a barrier when the client is moved so the friction that occurs happens between the lift sheet and fitted sheet rather than the resident's skin and the fitted sheet. Lift sheets also protect the client's skin from bruising and skin tears that can occur when moving the client by assistants

2. "Shear Force" and "Shear Force Closeup" by Meredith Pomietlo at Chippewa Valley Technical College are licensed under CC BY 4.0

putting their hands directly on a client's limbs. A **skin tear** is a separation of skin layers caused by shear, friction, and/or blunt force. Lift sheets should always be used to reposition a client who requires assistance, and failing to do so is considered neglectful due to the high probability of skin injury. See Figure 8.2[3] for an image of boosting a resident in bed with a lift sheet.

Figure 8.2 Boosting a Resident in Bed With a Lift Sheet

The steps for boosting a client up in bed include the following components[4]:

- Explain to the patient what will happen and how the patient can help.
- Perform hand hygiene.
- Raise the bed to a safe working height and ensure that the brakes are applied.
- Position the patient in the supine position with the bed flat. Place a pillow at the head of the bed and against the headboard to prevent accidentally bumping the patient's head on the headboard.
- Stand with your feet shoulder width apart at the bedside between the client's shoulders and hips with a second assistant in a similar position on the other side of the bed. This position keeps the heaviest part of the

3. "Book-pictures-2015-572.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-5-positioning-a-patient-on-the-side-of-a-bed/
4. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0

client closest to the center of gravity of the assistants.

- Fan-fold the lift sheet toward the patient with your palms facing upwards. This provides a strong grip to move the client up with the lift sheet.
- Ask the patient to tilt their head toward their chest, fold their arms across their chest, and bend their knees to assist with the movement. Let the patient know the move will happen on the count of three. This step prevents injury from occurring to the patient and prepares them for the move.
- Tighten your gluteal and abdominal muscles, bend your knees, and keep your back straight and neutral. Face toward the direction of movement. Using proper body mechanics can help prevent back injury when used appropriately in patient-care situations.
- On the count of three by the lead person, gently slide (not lift) the patient toward the head of the bed, shifting your weight from the foot closest to the end of the bed to the foot closest to the head of the bed, while keeping your back straight and knees slightly bent.
- Replace the pillow under the patient's head, move them into a different position as indicated, and cover them with a sheet or blanket per their preference.
- Check the patent's comfort and for proper alignment.
- Ensure the patient remains in the middle of the bed.
- Lower the bed, check that the brakes are locked, and ensure the call light is within reach. Perform hand hygiene.
- Document or report any skin issues or other observed changes with the patient.

Review the "Body Mechanics and Safe Equipment Use" section in Chapter 3 to prevent yourself from injury during repositioning.

Pressure injuries are preventable by repositioning clients at least every two hours and reporting any skin redness or other changes to the nurse for additional interventions. There are several positions that can be used to relieve pressure points and keep residents safe from pressure injuries.

Repositioning also promotes improved circulation through movement. Positions are described in the various "Positions" subsections below.

When a resident has an existing pressure injury or a susceptible area, an hourly repositioning schedule is typically implemented (rather than the standard two-hour repositioning schedule considered routine care for all residents requiring assistance with their mobility). Repositioning a client every hour should be documented, indicating the time and the positions the resident was moved from and placed into. An example of documentation is, "At 1400, the resident was repositioned from a right side-lying position to a supine position."

Body Alignment for Positioning Residents

Similar to how nursing assistants use good **body alignment** (i.e., good posture) to prevent musculoskeletal injuries to themselves, the same principle should also be applied to residents. Good body alignment not only prevents injury, but also promotes comfort for residents. After repositioning a resident, the NA should stand at the foot of the bed and verify that the resident's spinal column is straight and parallel to the sides of the bed, as well as ensuring the resident is lying in the middle of the bed (to reduce the risk of accidentally rolling out of bed). See Figure 8.3[5] of an image of a properly aligned mannequin in the lateral position.

5. "Lateral Position.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 8.3 Properly Aligned Lateral Position

Pressure Relieving Devices

In addition to being caused by friction and shear, pressure injuries can occur in high-risk areas such as bony prominences or where a bone is lying directly on top of another bone. **Bony prominences** are the areas of the body where a bone lies close to the skin's surface, such as the back of the head, shoulders, elbows, heels, ankles, tops of the toes, hips, and **coccyx** (i.e., tailbone). These areas are most susceptible to developing pressure injuries because they have the least amount of cushioning. Placing pillows or other specialized equipment reduces the pressure in these areas and also helps to prevent the resident from rolling out of position.

There are different sizes of pillows and equipment available in facilities to

relieve pressure, prevent rolling, and increase client comfort. For example, foam wedges are placed behind a patient's back to prevent them from returning to the supine position or rolling close to the edge of the bed. See Figure 8.4[6] for images of a wedge cushion and a client positioned using a wedge cushion.

Figure 8.4 Wedge Cushion Used for Positioning. Used under Fair Use.

Positions

Common positions used for repositioning patients are supine, Fowler's, lateral, Sims', and prone positions.

Supine Position

The most common sleeping position is the **supine position**, where the client is lying flat on their back as demonstrated in Figure 8.5.[7] Pillows or wedges

6. "6105kmeOsGL._AC_SL1000_.jpg" by unknown author is used on the basis of Fair Use.
7. "supine.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-4-positioning-a-patient-in-bed/

can be placed on each side of the resident to promote comfort or to support a limb that is immobile or has impaired function. A pillow should also be placed underneath their calves to keep their heels off the bed and prevent pressure that can cause pressure injuries. (This pillow placement under the calves is often referred to as "floating the heels.") After repositioning the client, the NA should be able to place their hand underneath the client's heels to verify there is no contact by the heels on the mattress.

Figure 8.5 Supine Position

If a resident is highly susceptible to pressure injuries of the heels, they may have specialized soft **foam boots**, as illustrated in Figure 8.6,[8] that support the ankles and keep the heels floated off the bed. A **foot cradle** may also be used to keep sheets and blankets off the tops of the toes if the resident has a history of skin injury in that area.

8. "Foam Boot" and "Foam Boot Supporting a Heel" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

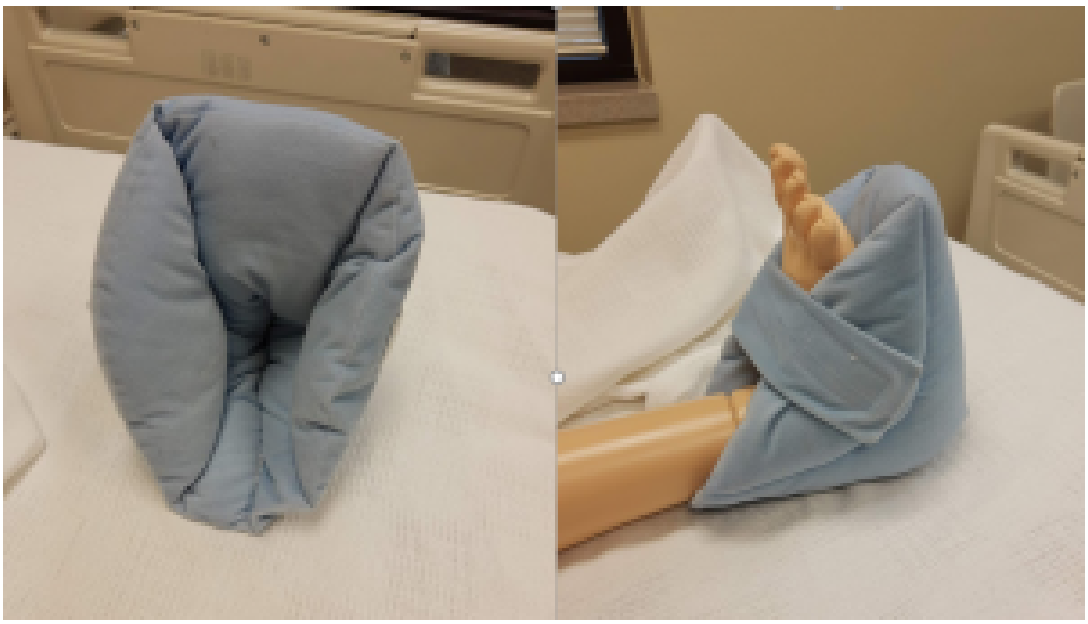

Figure 8.6 Inside of Foam Boot (left) and a Foam Boot Supporting a Heel

Fowler's Position

In **Fowler's position**, the client is lying on their back with their head elevated between 30 and 90 degrees, as illustrated in Figure 8.7.[9] Residents should be placed in Fowler's position any time they are eating or drinking or when oral care is provided. Fowler's position is also used to increase lung expansion for those with breathing difficulties, such as those that occur with heart failure. It may also be used for comfort during leisure activities such as watching television or reading. Additionally, residents receiving tube feeding should never have their head placed below a 30-degree angle because this can cause aspiration of the fluids.

However, Fowler's position increases the risk of friction and shear on the coccyx and gluteal muscles as the client slides down in bed. This risk can be reduced by concurrently raising the lower portion of the bed or by putting multiple pillows below the lower legs. These actions bend the knees and reduce the pull of gravity that causes the resident to slide down in bed. A pillow can also be placed below the feet to prevent them from contacting the foot of the bed.

9. "degreeLow.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-4-positioning-a-patient-in-bed/

Figure 8.7 Fowler's Position

Lateral or Side-Lying Position

Lateral (side-lying) position places the resident on their left or right side as shown in Figure 8.8.[10] This position relieves pressure on the coccyx and can increase blood flow to the fetus in pregnant women. The top arm and leg can be placed in a flexed position in any range that is comfortable to the resident. Supports should be placed behind the back to keep the resident from rolling to the supine position. Additionally, supports should be placed between the top knee and the bed or other knee and between the top elbow and rib cage or the bed, depending on the location of the elbow joint. These supports will alleviate pressure between the bony prominences in these areas. The pillow underneath the resident's head should also be adjusted for comfort and alignment checked from the foot of the bed.

The most common rotation of positions for repositioning residents is to rotate them from supine position to lateral position, to supine position, to lateral position on the opposite side. See the "Positioning Supine to Lateral (Side-

10. "lateral.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-4-positioning-a-patient-in-bed/

Lying) Skills Checklist" for the steps to move a resident from the supine to lateral (side-lying) position.

Figure 8.8 Lateral (Side-Lying) Position

Sims' Position

Sims' position is very similar to the lateral position, but the client is always placed on their left side and their left arm is placed behind the body (rather than in front of the body). Sims' position is commonly used for administration of a suppository or an enema. Depending on your state's scope of practice, you may be delegated to give an enema, or the nurse may ask you to prepare the patient for an enema by placing them in the Sims' position as pictured in Figure 8.9.[11]

11. "sims.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-4-positioning-a-patient-in-bed/

Figure 8.9 Sim's Position

Prone Position

In the **prone position**, the client is placed on their stomach with their head turned to one side, as seen in Figure 8.10.[12] Pillows should be placed underneath the shins to relieve pressure. Pillows (or wedges) can also be placed on both sides of the patient, and the head pillow should be readjusted for comfort.

Prone is the least commonly used position, especially in older adults due to their neck immobility. This position may be used for a client with a surgical wound on the back side of their body or to improve respiratory status in clients with respiratory conditions like COVID-19.

12. "prone.jpg" by unknown author is licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-4-positioning-a-patient-in-bed/

Figure 8.10 Prone Position

8.3 Promoting Joint Mobility and Activity

Actions for maintaining the musculoskeletal system and preventing complications will be discussed in Chapter 11. These actions can be summarized by the phrase, “Use it or lose it,” meaning the functioning of the musculoskeletal system declines quickly when it is not being used. Small, everyday activities help maintain flexibility in joints, muscle strength, and healthy bone density. The NA can help residents maintain their musculoskeletal health by encouraging them to do as many activities for themselves as possible.

While it may be faster to perform ADLs for a resident, allowing them to provide care for themselves not only maintains musculoskeletal function but also gives them a sense of control that can enhance their self-esteem and quality of life. Here are ways NAs can encourage residents to participate in their self-cares:

- Allow residents to dress themselves to maintain flexibility in their shoulders, wrists, hips, and knee joints. Using buttons and zippers helps to maintain flexibility in the fingers, as well as promoting hand-eye coordination.
- When toileting a resident, encourage them to walk into the bathroom rather than bringing them in their wheelchair to the toilet or commode.
- Encourage residents to walk to meals (with assistance as needed) rather than being transported by wheelchair.
- Play board games or card games to promote upper body mobility, as well as to stimulate their cognitive status.
- Encourage residents to feed themselves. If they require extensive assistance, offer finger foods they can hold and eat more easily.
- Ask residents to wash their face, brush their teeth, or shave. Prepare the soap and washcloth, toothbrush and toothpaste, or razor, and assist in completing the task as needed.
- If a resident can’t walk, take off the foot pedals from their wheelchair (if it is safe to do so). Encourage them to move their feet while sitting to propel themselves around the facility independently.

- Inform residents of scheduled daily activities and promote movement and social interaction.

8.4 Assisting Clients to Transfer

It is important to note that most injuries that happen to clients and staff occur when clients are being transferred. Safety is an integral component of moving clients and should receive the highest priority. Special consideration should be given to these items to prevent injury from occurring:

- Gait belt fit and placement
- Brakes on the bed
- Brakes on the wheelchair
- Brakes released on the lift
- Placement of nonskid footwear
- Resident's proximity to the lift
- Objects in the room that may be a hazard during the movement

Nursing assistants should always review a client's care plan for their current transfer status before moving them. **Transfer status** refers to how a resident moves from one place to the other, such as from a bed to wheelchair or wheelchair to toilet. **Physical therapists** (i.e., health specialists who evaluate and treat movement disorders) assess clients and make recommendations for how clients should be safely transferred. Transfer status orders are determined by how much body weight a client can independently bear and how much weight an assistant is required to support. Transfer status orders include these types of orders:

- **Independent:** The client requires no assistance to move from one place to another.
- **Contact-Guard-Assist (CGA):** One assistant must have their hand on the client at all times to steady their balance.
- **1 assist (1A):** One assistant is required to help the resident transfer (with a gait belt in place).
- **2 assist (2A):** Two assistants are required to help the resident transfer (with a gait belt in place).
- **Sit-to-Stand:** A sit-to-stand mechanical lift is required to help a resident transfer. A sit-to-stand mechanical lift provides support as the client

stands while allowing them to bear some body weight and maintain joint mobility and leg strength. (Using a gait belt would require extensive assistance and could cause injury to the client or the staff.) Sit-to-stands may be completed with one or two assistants, as determined by the physical therapist and agency policy.

- **Full-Body Mechanical Lift:** A full-body mechanical lift is required when the resident cannot bear any of their weight when transferred from bed to chair and back. ("Full-body mechanical lift" is a generic term. The facility or organization may refer to this type of lift by the manufacturer of the lift, such as a "Hoyer lift" or "PAL lift.") Full-body mechanical lifts may be portable or attached to the ceiling. Two assistants are always required for transfer with full-body mechanical lifts for safety purposes. Due to federal liability laws, the health care professional moving the lift must be 18 years of age or older.

Assisting to Seated Position or Dangling

When transferring a client using a 1A, 2A, or sit-to-stand transfer method, first assist the resident to move to a seated position on the side of their bed. Residents who can transfer with one of these methods are able to bear some or most of their weight and should be able to move partially on their own. Use your hands on the person's limbs to direct the movement, and use the lift sheet (similar to when boosting a client up in bed).

Due to heart and circulation changes that occur with age, orthostatic hypotension can occur when a person moves suddenly from a lying to sitting position or from a sitting to standing position. **Orthostatic hypotension** is a sudden drop in blood pressure that can cause clients to feel dizzy and increase their risk for falls with position changes. Some clients may experience **vertigo**, a sensation that the room is spinning. To prevent orthostatic hypotension and these symptoms, tell the person to **dangle** (i.e., sit up on the edge of the bed) for a few moments before continuing with the transfer. Dangling gives the cardiovascular system time to regulate blood pressure and blood flow to the brain, thus preventing dizziness and falls. Ask the client if they are feeling dizzy before you proceed with transferring. See

Figure 8.11[1] for illustration of the steps to safely assist a client to a seated position[2]:

- Lock the brakes on the bed.
- Raise the bed to a working height.
- Stand facing the head of the bed at a 45-degree angle with your feet apart, with one foot in front of the other. Stand next to the waist of the resident.
- Ask the resident to turn onto their side, facing you, as they move closer to the edge of the bed. Use the lift sheet to assist the resident if needed.
- Place one hand behind the resident's shoulders, supporting their neck and vertebrae.
- Place the other hand around the resident's knees.
- On the count of three, instruct the resident to use their elbows to push up against the bed and then grasp the side rail. Support their shoulders as they move to a seated position. Shift your weight from the front foot to the back foot as you assist them to sit. Do not allow the resident to place their arms around your shoulders because this can cause serious back injuries.
- As you shift your weight, gently grasp the resident's outer thighs with your other hand and help them slide their feet off the bed to dangle or touch the floor. This step helps the resident sit and move their legs off the bed at the same time. As you perform this action, bend your knees and keep your back straight and neutral. Move the resident as one entire unit (rather than the upper body followed by the lower body).
- Lower the bed so the resident's feet touch the floor.
- Observe the resident for symptoms of orthostatic hypotension or vertigo. Ask if they are feeling dizzy before attempting any further movement.
- Check that the resident is wearing nonskid footwear before transferring.

1. "Book-pictures-2015-5851.jpg," "Book-pictures-2015-587.jpg," and "Book-pictures-2015-588.jpg" by unknown authors are licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-5-positioning-a-patient-on-the-side-of-a-bed/
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Figure 8.11 Assisting a Resident to a Seated Position

If the resident is having difficulty moving during this procedure, use the lift sheet to pull them closer to you or to assist them from a lying to a seated position. The head of the bed can be raised before they turn on their side to support their core strength and to reduce the weight the assistant must bear. During this entire process, do not use the resident's limbs to move them but rather move them with the trunk of their body to prevent shear and injury to their limbs and skin.

After the person is sitting upright and states they are not experiencing dizziness, apply a gait belt for a 1A or 2A transfer. The gait belt should be placed around their waist while considering the location of their breasts and abdominal folds. See Figure 8.12[3] for an image of applying a gait belt. The fit of the gait belt should be snug, but you should be able to put your fingers underneath the gait belt for support. As the resident stands and their core muscles contract, the gait belt can loosen and tend to slide up, so it is important for it to be snug. If the belt is too long, it can get caught in the patient's legs during transfer, so tuck the excess length back into the belt. Gait belts should not be used for clients with abdominal wounds or some types of heart conditions; a different transfer method should be in the care

3. "Sept-22-2015-119.jpg" and "Sept-22-2015-121-001.jpg" by unknown authors are licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-5-positioning-a-patient-on-the-side-of-a-bed/

plan. Contact the nurse if you have concerns about using a gait belt based on the client's condition.

Place nonskid footwear on the resident before transferring them from the bed to the chair. These preparations should be done before the wheelchair or sit-to-stand is brought closer to the bed to reduce the risk of injury from the resident inadvertently hitting the lift or chair while moving.

The steps to complete a one person assist (1A) are listed in the "Transfer From Bed to Chair With a Gait Belt" Skills Checklist. If a two-person assist (2A) is required, the same steps are used, but the assistants stand on each side of the resident to provide additional support during the transfer.

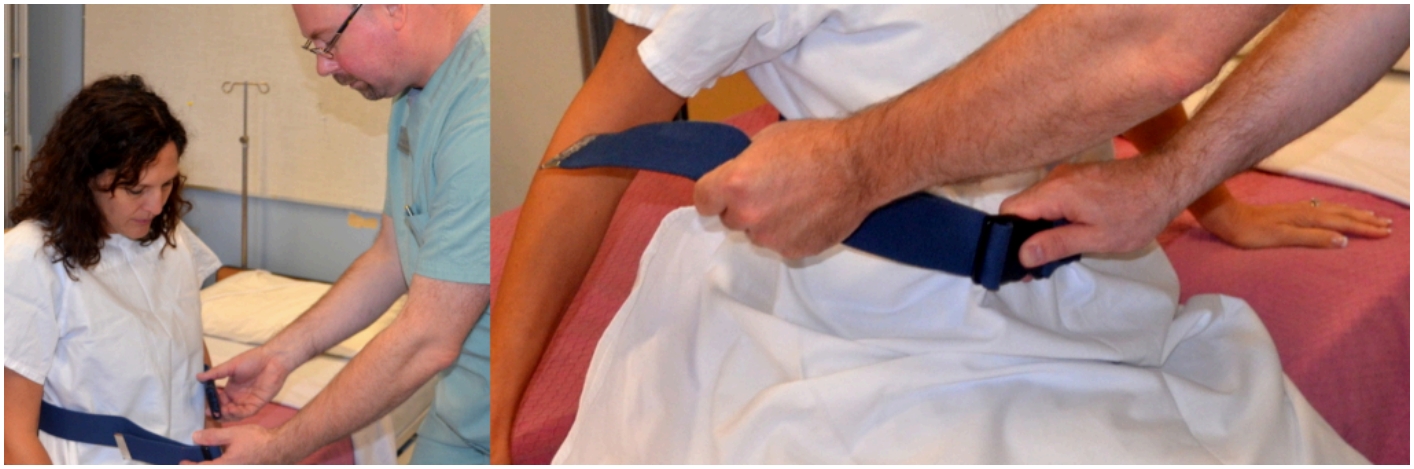

Figure 8.12 Applying a Gait Belt

View the following video showing a transfer of a patient from a bed to a regular chair[4]: Assisting From Bed to Chair With a Gait Belt or Transfer Belt.

4. Thompson Rivers University Open Learning. (n.d.). *Assisting from bed to chair with a gait belt or transfer belt* [Video]. Thompson Rivers University Open Learning. All rights reserved. https://barabus.tru.ca/nursing/assisting_from_bed.html

Transferring with Mechanical Lifts

Mechanical lifts include sit-to-stand lifts and full-body lifts. Some facilities have full-body mechanical lifts that are attached to the ceiling of the room. See Figure 8.13[5] of an image of a sit-to-stand lift and Figure 8.14[6] of an image of a full-body mechanical lift and mechanical swing. NAs should be aware of agency policy regarding transferring clients using mechanical lifts; for safety purposes, most agencies require two NAs or a nurse and an NA to transfer clients using a mechanical lift.

Figure 8.13 Sit-to-Stand Lift

5. "Transferring Client Using a Sit to Stand" by Landon Cerny is licensed under CC BY 4.0
6. "Transferring a Client Using a Mechanical Lift and a Full Body Sling", "Transferring a Client Using a Mechanical Lift and a Split Leg Sling", and "Transferring a Client Using a Mechanical Lift and Split Leg Sling in a Basket Approach" by Landon Cerny are licensed under CC BY 4.0

Figure 8.14 Full-Body Mechanical Lift and Mechanical Sling

The legs of portable full-body mechanical lifts can be placed in a closed or open position. The open position provides the greatest stability due to a wide base of support. See Figure 8.15[7] for an image comparing the legs of a portable full-body mechanical lift in a closed and open position.

Figure 8.15 Portable Full-Body Mechanical Lift With Legs in a.) Closed Position and b.) Open Position

When transferring a client from their bed to wheelchair using a sit-to-stand or portable full-body mechanical lift, the wheelchair should be positioned

7. "Portable Full-Body Mechanical Lift With Legs in Closed Position" and "Portable Full-Body Mechanical Lift With Legs in Open Position" by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0

near the bed while also allowing enough room for the lift to rotate towards the chair. Because the lift will have to slide underneath the bed, check for any cords or equipment under the bed that can cause the lift to get tangled. Raising the bed height just before placing the lift under the bed should also alleviate potential problems.

The lift has greatest stability when its legs are open with a wide base of support, but some beds do not have enough space underneath to allow the legs to be open. If this is the case, open the legs as soon as possible when moving the lift from under the bed to provide a stable base.

Sit-to-stand and full-body lifts have brakes, but brakes should not be applied when the resident is standing in the sit-to-stand or raised off the bed in a full-body lift. (If the client's weight shifts while the brakes are on, it can cause the lift to tip and endanger the resident, as well as the assistants.)

Before initiating a transfer, verify that the lift will support the weight of the resident. Most mechanical lifts have a weight capacity of 400 pounds. **Bariatric lifts** are used to support a client weighing 600 or more pounds. See Figure 8.16[8] for locating the weight capacity on a lift.

8. "Weight Capacity of a Mechanical Lift" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 8.16 Weight Capacity of a Mechanical Lift

Full-body mechanical lifts have different types of slings used to lift the client. Slings may be full-body or split-leg (butterfly). The type of sling used is determined by the physical therapist, based on the client's strength and mobility, and should be noted in the resident's care plan. A sling has various loops to connect it to the lift and are often color-coded to ensure the resident's body is in proper position for transferring. See Figure 8.17[9] for images of a full-body sling and Figure 8.18[10] for images of a split-leg (butterfly) sling.

9. "Front of Full-Body Sling," "Back of Full-Body Sling," and "Loops" by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0
10. "Front of Full-Body Sling," "Back of Full-Body Sling," and "Loops" by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0

Figure 8.17 a.) Front of Full-Body Sling; b.) Back of Full-Body Sling; c.) Loops (right)

Figure 8.18 a.) Front of Split-Leg (Butterfly) Sling and b.) Back of Split-Leg (Butterly) Sling

The top of a full-body sling should be placed above the resident's head and should end just above the knee joint to avoid hyperextending the knees when they are suspended in the lift. The top of a split-leg (butterfly) sling should be placed at shoulder height, and the bottom of the sling should be around the buttocks. Depending on hip mobility, the split-leg sling may be crossed between the client's legs or placed around their legs (often referred to as a "basket"). See Figure 8.19[11] for an image of a mannequin prepared to transfer

11. "Preparing to Transfer With Crossed Sling" and "Suspended in a Crossed Sling" by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0

using a crossed sling and Figure 8.20[12] for an image of transferring a mannequin with the sling wrapped around their legs (i.e., a “basket” approach).

Figure 8.19 a.) Preparing to Transfer With Crossed Sling and b.) Suspended in a Crossed Sling

Figure 8.20 a.) Preparing to Transfer With a “Basket” Approach b.) Suspended in a Sling With a “Basket” Approach

12. “Preparing to Transfer With a ‘Basket’ Approach” and “Suspended in a Sling With a ‘Basket’ Approach” by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0

The handles of the sling should face away from the client, allowing the assistants to position the client in their chair or bed. (Do not move clients by directly contacting their limbs because this can cause injury.)

After transferring a client from a bed to a chair using a full-body sling, the sling should remain under the resident while they are seated in a wheelchair or other chair. When placing the resident back in bed, the sling is then removed. However, when transferring a client using a split-leg (butterfly) sling, it can be removed from underneath the client in the chair and replaced before they are transferred again.

See the Skills Checklists "Transfer From Bed to Chair With Sit-to-Stand" and "Transfer From Bed to Chair With Mechanical Lift" for steps for providing safe transfers with both types of lifts. Each brand of sit-to-stand and mechanical lift has some variances; the facility where you work will provide specific training on their lifts.

- Watch the following YouTube video for a demonstration of moving a resident with a sit-to-stand[13]: Aidacare Training Video – Manual Handling – Sit To Stand.
- Explore the following YouTube video[14] on a mechanical lift completed with a butterfly or split-leg sling: Aidacare Training Video – Manual Handling – Lie To Sit

13. Aidacare. (2017, July 5). *Aidacare training video - Manual handling - Sit To stand* [Video]. YouTube. All rights reserved. https://youtu.be/L914lkoub6E
14. Aidacare. (2017, July 5). *Aidacare training video – Manual handling – Lie to sit* [Video]. YouTube. All rights reserved. https://youtu.be/3GOgp_HX4JQ

8.5 Assisting With Ambulation

Ambulation is the medical term used for walking. Ambulation provides weight-bearing activity that promotes bone health and joint mobility. A physical therapist will determine if a person can safely walk independently, with the assistance of one or two people, or if they require an assistive device such as a cane or walker. This information is documented in their nursing care plan. Similar to when assisting a client to transfer with a gait belt, the nursing assistant should place nonskid footwear on the person and allow them to dangle on the edge of the bed before standing to ambulate. For specific steps, see the "Ambulation From Wheelchair" Skills Checklist.

If a resident requires assistance with a cane, the cane should be placed on the resident's stronger side. The resident should step forward with the strong leg and then use the cane and the weaker leg for the next step.

There are three types of walkers: a standard walker, a two-wheeled walker (2WW), and a four-wheeled walker (4WW). The type of walker a resident should use is recommended by the physical therapist. A 2WW or standard walker allows for more support and a slower gait, whereas a 4WW is used by clients with better balance and mobility.

View a YouTube video[1] of an instructor demonstrating helping clients with ambulatory assistive devices:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1045#oembed-1

Regardless of the assistive device used for ambulation, the NA should remind

1. Chippewa Valley Technical College. (2022, December 3). Ambulatory Assistive Devices. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/ATn7OOP4Jko

the resident to stand up straight and look forward when walking. The resident should be encouraged to take purposeful steps and to not shuffle their feet. The NA should stand to one side of the resident and slightly behind them, with one hand on their gait belt. If the resident has a weaker side, the NA should stand on that side. The NA's fingertips should be facing upwards underneath the gait belt for proper support. If the resident loses their balance while in this position, the NA's arm will allow them to use their bicep muscle, rather than their forearm, to steady the client. The bicep is larger and stronger than the forearm and can provide better support.

A second staff member can follow a resident who is ambulating with assistance with their wheelchair in case they experience weakness or dizziness. If the client needs to sit while ambulating, the wheelchair brakes should be applied before they sit, or in an emergent situation, the NA should block the back of the wheelchair with their body to ensure stability when the resident sits.

If a resident starts to fall while standing or ambulating, do not attempt to stop their fall or catch the resident because this can cause you to injure your back. Instead, move behind the patient and take one step back with one leg so you have a wide base of support. Support the patient around their waist or hip area or grab the gait belt. Bend one of your legs and place it between the patient's legs from behind. Slowly slide the patient down your bent leg, lowering yourself to the floor at the same time. Always protect the resident's head to prevent head injury. After the resident is on the floor, do not move them. For witnessed or unwitnessed falls, notify the nurse immediately for assessment. After the nurse has completed the assessment and met the resident's immediate needs, use a mechanical lift to transfer the resident back to a wheelchair or bed. An incident report will be completed by the nurse, and the NA will be asked to give a statement on what occurred and

their actions in response to the situation.[2] See Figure 8.21[3] for an image of lowering a resident who is falling to the floor.

Figure 8.21 Lowering a Client Who is Falling to the Floor

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3. "Sept-22-2015-132-001.jpg" and "Sept-22-2015-133.jpg" by unknown authors are licensed under CC BY 4.0. Access for free at https://opentextbc.ca/clinicalskills/chapter/3-7-fall-prevention/

8.6 Applying Prosthetics and Orthotics

Prosthetics are an addition or attachment to the body that replicates the function of a lost or dysfunctional limb.[1] An **orthotic** is a support, brace, or splint used to support, align, prevent, or correct the function of movable parts of the body. Shoe inserts are the most common orthotics and are intended to correct an abnormal or irregular walking pattern. Other orthotics include neck braces, back supports, knee braces, and wrist supports.[2] NAs apply prosthetics and orthotics to residents following the therapist's instructions. Incorrectly applying these devices can cause harm or injury to the resident, so you must understand the correct placement of these supports. If you are unsure, seek guidance from your supervising nurse before placing any prosthetics or orthotics.

One of the main concerns with prosthetic or orthotic devices is skin irritation. Prosthetics typically have a protective sleeve that goes over the limb prior to placing the device. The sleeve gives the prosthetic some security to prevent displacement while also protecting the skin. After the prosthetic is attached, always ask the resident if it is comfortable or if they feel any areas of pressure that may damage the skin. Most orthotics, splints, or braces are padded, but some can be applied over thin clothing. Be sure to review the resident's nursing care plan regarding how long and at what times any supportive devices should be worn and removed. See Figure 8.22[3] for a device that prevents foot drop.

1. Vinjamuri, R. (Ed.). (2020). *Prosthesis.* IntechOpen. https://doi.org/10.5772/intechopen.73978
2. Stoppler, M. C. (Ed.). (2021, March 29). *Medical definition of orthotic*. MedicineNet. https://www.medicinenet.com/orthotic/definition.htm
3. "AFO_Ankle_Foot_Orthosis_Orthotic_Brace.JPG" by Pagemaker787 is licensed under CC BY-SA 4.0

Figure 8.22 Supportive Brace to Prevent Foot Drop

8.7 Restraints and Restraint Alternatives

Restraints are devices used in health care settings to prevent patients from causing harm to themselves or others when alternative interventions have not been effective. A **restraint** is a device, method, or process that is used for the specific purpose of restricting a patient's freedom of movement. While restraints are typically used in acute care settings, they may be used in some circumstances in long-term care settings for safety purposes. However, restraints restrict mobility and can affect a client's dignity, self-esteem, and quality of life; every possible measure to ensure safety should be considered before a restraint is implemented. An order from a health care provider is required to implement a restraint, and agency policy must be strictly followed.[1]

Restraints include physical devices (such as a tie wrist device), chemical restraints, or seclusion. The Joint Commission defines a **chemical restraint** as a drug used to manage a patient's behavior, restrict the patient's freedom of movement, or impair the patient's ability to appropriately interact with their surroundings that is not standard treatment or dosage for the patient's condition. It is important to note that the definition states the medication "is not standard treatment or dosage for the patient's condition." **Seclusion** is defined as the confinement of a patient in a locked room from which they cannot exit on their own. It is generally used as a method of discipline, convenience, or coercion. Seclusion limits freedom of movement because, although the patient is not mechanically or chemically restrained, they cannot leave the area.[2]

Although restraints are used with the intention to keep a patient safe, they impact a patient's psychological safety and dignity and can cause additional safety issues and, in some cases, death. A restrained person has a natural tendency to struggle and try to remove the restraint and can fall or become

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fatally entangled in the restraint. Furthermore, immobility that results from the use of restraints can cause pressure injuries, contractures, and muscle loss. Restraints take a large emotional toll on the patient's self-esteem and may cause humiliation, fear, and anger.[3]

Restraint Guidelines

The American Nurses Association (ANA) has established evidence-based guidelines that a restraint-free environment is considered the standard of care. The ANA encourages the reduction of patient restraints and seclusion in all health care settings. Restraining or secluding patients is viewed as contrary to the goals and ethical traditions of nursing because it violates the fundamental patient rights of autonomy and dignity. However, the ANA also recognizes there are times when there is no viable option other than restraints to keep a patient safe, such as during an acute psychotic episode when patient and staff safety are in jeopardy due to aggression or assault. The ANA also states that restraints may be justified in some patients with severe dementia or delirium when they are at risk for serious injuries such as a hip fracture due to falling.[4]

The ANA provides the following guidelines: When restraint is necessary, documentation of application of the restraint should be done by more than one witness. Once restrained, the patient should be treated with humane care that preserves human dignity. In those instances where restraint, seclusion, or therapeutic holding is determined to be clinically appropriate and adequately justified, registered nurses who possess the necessary knowledge and skills to effectively manage the situation must be actively involved in the assessment, implementation, and evaluation of the selected emergency measure, adhering to federal regulations and the standards of The Joint Commission regarding appropriate use of restraints and seclusion.[5]

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Nursing documentation is vital when restraints are applied and includes information such as patient behavior necessitating the restraint, alternatives to restraints that were attempted, the type of restraint used, the time it was applied, the location of the restraint, and patient education regarding the restraint. Frequent monitoring according to agency guidelines and provision of basic needs (food, fluids, and toileting) must also be documented.[6]

Any health care facility that accepts Medicare and Medicaid reimbursement must follow federal guidelines for the use of restraints. These guidelines include the following[7]:

- When a restraint is the only viable option, it must be discontinued at the earliest possible time.
- Orders for the use of seclusion or restraint can never be written as a standing order or PRN (as needed).
- The treating physician must be consulted as soon as possible if the restraint or seclusion is not ordered by the patient's treating physician.
- A physician or licensed independent practitioner must see and evaluate the need for the restraint or seclusion within one hour after the initiation.
- The patient in seclusion or restraints must be routinely monitored according to agency policy. Generally, the best practice for physical restraints is continuous visual monitoring or visual checks at least every 15 minutes. Some agencies require a 1:1 patient sitter when restraints are applied. Physical restraints should be removed every 1 to 2 hours for range of motion exercise and skin checks.
- Each written order for a physical restraint or seclusion is limited to 4 hours for adults, 2 hours for children and adolescents ages 9 to 17, or 1 hour for patients under 9. The original order may only be renewed in accordance with these limits for up to a total of 24 hours. After the original order expires, a physician or licensed independent practitioner (if allowed under state law) must see and assess the patient before issuing a new order.

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In addition to continually monitoring the site of a physical restraint for skin issues, a physical restraint should only be secured to the bed with a quick-release knot in case of emergency.

View a YouTube video[8] of an instructor demonstration of a tying a quick release knot:

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Side Rails

Side rails and enclosed beds may also be considered a restraint, depending on the purpose of the device. Recall the definition of a restraint as "a device, method, or process that is used for the specific purpose of restricting a patient's freedom of movement or access to movement." If the purpose of raising the side rails is to prevent a patient from voluntarily getting out of bed or attempting to exit the bed, then use of the side rails would be considered a restraint. On the other hand, if the purpose of raising the side rails is to prevent the patient from inadvertently falling out of bed, then it is not considered a restraint. If a patient does not have the physical capacity to get out of bed, regardless if side rails are raised or not, then the use of side rails is not considered a restraint.[9]

Full side rails are generally only found on beds in acute care. In long-term care, beds usually have a transfer loop that is a much smaller side rail. The transfer loop allows the resident to support themselves while repositioning in

8. Chippewa Valley Technical College. (2022, December 3). Quick Release Knot. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/S7LbOclRQcw
9. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0

bed and standing up from the bed. The smaller size of this type of side rail reduces the risk of the resident becoming entrapped and injured from the device. Full side rails may be ordered by the physician if they allow the resident to reposition independently. If a resident's bed in a long-term care setting has full side rails and they are not used for repositioning, they should always be lowered when care is complete, and a staff member is no longer present in the room. Acute care settings have different regulations regarding full side rails; review specific agency policy.[10]

Hand Mitts

A **hand mitt** is a large, soft glove that covers a confused patient's hand to prevent them from inadvertently dislodging medical equipment such as a catheter, feeding tube, or intravenous (IV) catheter. See Figure 8.23[11] for an image of a hand mitt. Hand mitts are considered a restraint by The Joint Commission if they are used under these circumstances:

- Pinned or otherwise attached to the bed or bedding
- Applied so tightly that the patient's hands or finger are immobilized
- Are so bulky that the patient's ability to use their hands is significantly reduced
- Cannot be easily removed by the patient in the same manner it was applied by staff, considering the patient's physical condition and ability to accomplish this objective

10. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
11. "Hand Mitt" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 8.23 Hand Mitt

View the following YouTube video for applying hand mitts[12]: Hand Control Mittens With Tie Closure.

Vests

A vest restraint is worn on the upper body and has ties that secure it to a chair or bed frame, allowing the restrained person to sit or lie in bed.

View the following YouTube video on properly using a vest restraint[13]: Criss Cross Vest.

12. DeRoyal. (2015, May 31). *Hand control mittens with tie closure* [Video]. YouTube. All rights reserved. https://youtu.be/7gCp40b9Bcs
13. DeRoyal. (2015, March 31). *Criss cross ves*t [Video]. YouTube. All rights reserved. https://youtu.be/tJ7k8hWzFLI

Other Restraints

Common items can be considered restraints when used improperly. A general rule is if any device limits the mobility, freedom of movement, or access to one's body, it is considered a restraint. The resident must be able to independently remove any device that is utilized when directed to do so. This action shows that the resident can cognitively and physically control their environment. Here are some examples of how common devices can be considered a restraint:

- Wheelchair brakes that are left on with a resident who cannot independently release them are considered a restraint because it prevents the resident from moving freely throughout their environment.
- Lap trays (used for meals or supporting an immobile limb) are considered a restraint if it impairs the resident's ability to move.
- Self-release seat belts can be used to keep a resident positioned properly in their wheelchair, but the resident must be able to remove the seat belt if asked to do so.
- Gait belts must be removed after residents have completed a transfer. They should not be left on during meals or activities for convenience because they can cause discomfort.

Restraint Alternatives

There are many interventions available to keep residents safe without applying restraints. When a potentially unsafe behavior is occurring, the health care team should look at all the factors surrounding the behavior to determine the root cause. After the root cause is determined, the staff can implement appropriate redirection. Common risks and appropriate interventions include the following:

If a resident continues to attempt to self-transfer without assistance:

- Offer toileting every hour
- Offer the opportunity to lie down after meals
- Assist in ambulation (if their condition permits) throughout the day

- Place a motion alarm in the doorway or near the foot of the bed
- Use a pressure or tab alarm in the wheelchair

If a resident is agitated or aggressive towards other residents:

- Offer an individual activity such as board games, crafts, or movies
- Ambulate or take them for a walk in their wheelchair
- Give them something to hold such as a stuffed animal
- Offer a blanket
- Ask about pain, hunger, or toileting needs

If a resident wanders or wants to leave the facility:

- Allow them to self-propel in wheelchair in a safe area
- Offer an individual activity such as board games, crafts, or movies
- Ambulate or take them for a walk in their wheelchair
- Apply a wanderguard to the wheelchair or their wrist or ankle

Motion sensors, pressure or tab alarms, and wanderguards are all alarms. There are many facilities that choose not to use alarms because they can be disruptive to the environment due to the noise and can reduce the dignity of the resident. If implemented incorrectly, they may not deter the unsafe behavior but merely notify staff the behavior is occurring or has occurred. If an alarm is indicated in the care plan, the NA is responsible for making sure the alarm is functioning and properly placed as indicated in the care plan. Behavioral and environmental interventions, as previously discussed, should be considered before alarms are put in place.

For more information on alarms, view the following YouTube videos:

Wanderguard[14]: Prevent Wandering With Smart Caregiver Fall Prevention and Anti-Wandering Products

Pressure alarm[15]: TL-2020 With Corded Bed Pad

14. Smart Caregiver. (2017, May 26). *Prevent wandering with Smart Caregiver fall prevention and anti-wandering products* [Video]. YouTube. All rights reserved. https://youtu.be/TTMPmg-atPM
15. Smart Caregiver. (2021, June 24). *TL-2020 with corded bed pad* [Video]. YouTube. All rights reserved. https://youtu.be/JtsCLkEmQ6A

8.8 Skills Checklist: Positioning Supine to Lateral (Side-Lying)

1. Gather Supplies: Four pillows

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Position the bed flat.
- Raise the bed height.
- Raise the side rail on the side of the bed the resident will be facing after repositioning for safety.
- Move to the working side of the bed, which is opposite the side rail that was raised.
- Explain to the resident that you will move them closer to you before turning on the count of three.
- From the working side of the bed using the lift sheet, count to three and move the resident towards you.
- Instruct the resident to move their arm closest to the raised side rail away from their body. If able, the resident should grasp the side rail with the hand closest to you, reaching across their own body.
- Raise the resident's knee that is closest to you to assist in turning.
- Explain that you will turn the resident towards the side rail on the count of three.
- Count to three and use the lift sheet to turn the resident towards the raised side rail.
- Ensure that the resident's face never comes close to the side rail or

becomes covered by the pillow.
- Check that the resident is not lying on their bottom arm.
- Place a pillow behind the resident's back, ensuring they will not roll back to the supine position.
- Move to the end of the bed and check that the resident is in correct body alignment.
- Verify that the resident is in the middle of the bed.
- Place a pillow between the resident's top arm and their rib cage or the bed, ensuring the elbow is not directly on their ribs.
- Place a pillow under the top knee, ensuring the knee is not resting directly on the other knee or the ankle is not on top of the other ankle.
- Adjust the pillow under the resident's head for comfort.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document repositioning and report any abnormal skin findings to the nurse.

View a YouTube video[1] of an instructor demonstration of positioning from the supine to lateral side-lying position:

1. Chippewa Valley Technical College. (2022, December 3). Positioning a Client from the Supine to the Lateral (Side-Lying) Position. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/kIw9IhPhsBA

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1065#oembed-1

8.9 Skills Checklist: Transfer From Bed to Chair With a Gait Belt

1. Gather Supplies: Gait belt, wheelchair, and nonskid footwear

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times. Provide for privacy.
- Provide for privacy. Explain the procedure to the client.
- Explain the procedure to the client.

3. Procedure Steps:

- Check the brakes on the bed to ensure they are locked.
- Remove the foot pedals from the wheelchair if needed.
- Assist the resident to a seated position on the side of the bed with their feet on the floor; allow them to dangle their feet for a few minutes.
- Assist the resident in putting on nonskid footwear.
- Place the gait belt on the resident.
- Position the wheelchair at the head or foot of the bed so the resident will move towards the wheelchair with the stronger side of their body. The wheelchair should touch the side of the bed.
- Lock the brakes on the wheelchair.
- Ask the resident if they feel dizzy or light-headed.
- Face the resident and place each of your feet in front of the resident's feet to prevent them from slipping.
- Instruct the resident to push up on the bed to aid in standing on the count of three.
- Grasp the gait belt with both hands, with your palms and fingertips pointing up.
- Count to three and assist the resident to stand.

- Assist the resident to pivot.
- Instruct the resident to grasp the arms of the wheelchair when they can feel the back of their knees are in contact with the wheelchair seat.
- Assist the resident to a seated position in the wheelchair.
- Remove the gait belt gently to avoid skin injury.
- Release the wheelchair brakes.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues, pain with movement, or any other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of transfer from bed to chair with a gait belt:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1067#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Transfer From Bed to Chair With a Gait Belt. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/pyoHSHef90c

8.10 Skills Checklist: Transfer From Bed to Chair With Sit-to-Stand

1. Gather Supplies: Wheelchair, lift, and nonskid footwear. Check agency policy for assistance requirements and the client's care plan for current transfer status.

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedural Steps:

- Position the wheelchair appropriately, remove the foot pedals, and lock the brakes. Provide ample room to rotate the lift from the bed to the wheelchair without hitting other objects.
- Place the transfer sling under the resident's armpits with the handles facing away from the resident.
- Secure the transfer sling with the seat belt or by crossing the sling straps following manufacturer's recommendations.
- Raise the bed to allow the legs of the lift to go underneath the bed.
- Open the legs of the lift if the bed allows room to do so.
- Ask the resident to put their feet onto the base of the lift. When bringing the lift closer to the resident, ensure that the arms of the lift do not hit the resident's head or arms.
- Secure the strap at the base of the lift around the calves of the resident if available.
- Check that the resident's feet are completely on the base.
- Place the sling behind the resident's back and under their armpits on both sides. Secure the sling clasp in front of the patient around their

chest/waist.
- Connect the transfer sling to the lift ensuring equal length is attached on each side of the sling.
- Instruct the resident to place their hands on the handles of the lift arms.
- Check that the sling remains under both of the resident's armpits and their arms are outside of the lift arms.
- Ensure the resident is not experiencing any dizziness before they stand.
- Instruct the resident that you will begin raising the lift. Ask them to pull up with their arms and straighten their legs. (If the resident is not currently able to perform these actions, a sit-to-stand should not be used.)
- Use the lift to raise the resident to a standing position.
- Slowly move the lift away from the bed. Open the legs of the lift if they are closed underneath the bed.
- Slowly move the lift towards the wheelchair.
- After the back of the resident's knees touch the wheelchair seat, explain that you will lower them to the chair. Do not apply the brakes on the lift because they can cause the resident's legs to be compressed by the lift as they are lowered to the chair.
- While lowering the resident into the wheelchair, assist them to sit all the way back in the wheelchair by guiding the handle on the sling towards the back of the wheelchair seat.
- After the resident is seated in the chair, remove the leg strap and sling from the lift. Instruct the resident to release their hands from the lift.
- Slowly move the lift away from the resident, ensuring the lift does not hit the resident's head or arms.
- Ask the resident to lean slightly forward and remove the sling.
- Release the wheelchair brakes.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.

- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues, pain with movement, or any other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of transfer from bed to chair with a sit to stand:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1069#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Transfer from Bed to Chair with a Sit to Stand. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/zs_CIYylxtU

8.11 Skills Checklist: Transfer From Bed to Chair With Mechanical Lift

1. Gather Supplies: Mechanical lift, lift sling, second person to assist, and a wheelchair. Review agency policy for mechanical lifts. NOTE: The driver of the lift must be at least 18 years old.

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Raise the bed to a working height.
- Instruct the resident to cross their arms over their chest to avoid rolling on top of their arm.
- Using the lift sheet, roll the resident to one side. Coordinate movement with the resident and the second assistant to avoid injury.
- Position the lift sling underneath the resident from the shoulders to the buttocks. Fan-fold the sling in the middle to allow the second assistant to pull it through on the other side. The handles should be facing away from the resident.
- Ensure the lift sling is on top of the lift sheet.
- Inform the resident they will be rolling over the gathered fabric of the sling.
- (Second assistant) Using the lift sheet, initiate rolling the resident towards the first assistant with the resident's arms still crossed, coordinating movement with the resident and first assistant.
- (Second assistant) Pull the lift sling from underneath the resident,

smoothing out any wrinkles.
- Using the lift sheet, gently roll the resident back to the supine position.
- Check that the resident is positioned in the center of the lift sling and their head and knees will be properly supported when lifted.
- Check the body alignment of the resident.
- Move the full-body mechanical lift into position over the resident, ensuring the lift does not come into contact with any part of the resident.
- Raise the head of the bed to avoid pulling on the sling when connecting it to the lift.
- Hook the top loops of the sling to the lift per manufacturer's guidelines, ensuring the loops are the same lengths on each side.
- Hook the bottom loops of the sling to lift per manufacturer's guidelines, ensuring the loops are the same lengths on each side.
- Position the wheelchair appropriately and lock the brakes. Provide ample room to rotate the lift from the bed to the wheelchair without hitting other objects.
- Recline the wheelchair slightly if able.
- Instruct the resident to cross their arms over their chest.
- Prepare to support the resident's feet by having the second assistant move to the same side of the bed as the driver and the lift.
- Inform the resident you will be raising the lift and moving them to the wheelchair.
- Raise the lift until the resident is no longer in contact with the bed while the second assistant guides the resident's feet.
- Position the resident over the wheelchair with the main support of the lift to one side, thus avoiding the resident's feet coming into contact with the lift support.
- After the driver of the lift moves behind the wheelchair, have the resident grasp the handles on the lift sling.
- Instruct the resident you will be lowering the lift sling.
- (Second assistant) Lower the lift while the driver gently pulls up on the sling to get the resident's back positioned upright and against

the back of the wheelchair.
- (Second assistant) Guide the resident's feet to keep their body aligned and avoid coming in contact with the left.
- Remove the sling from the lift after the resident is properly seated.
- Carefully move the lift away from the resident, avoiding the resident's head and limbs from coming into contact with the lift.
- Tuck the lift sling into the wheelchair, keeping the fabric smooth to avoid skin issues and keeping loops away from any moving parts of the wheelchair.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues, pain with movement, or any other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of transfer from bed to chair with a mechanical lift:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1071#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Transfer from Bed to Chair with a Mechanical Lift. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/sqkE7MNndyE

8.12 Skills Checklist: Ambulation From Wheelchair

1. Gather Supplies: Gait belt, wheelchair, nonskid footwear, and assistive devices if needed (walker or cane)

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times. Provide for privacy.
- Provide for privacy. Explain the procedure to the client.
- Explain the procedure to the client.

3. Procedure Steps:

- Check the brakes on the wheelchair to ensure they are locked.
- Verify the resident is wearing nonskid footwear.
- Properly place the gait belt around the resident's waist.
- Check the gait belt for tightness by slipping your fingers between the gait belt and the resident.
- Ask the resident if they feel dizzy or light-headed.
- Face the resident and place each of your feet in front of the resident's feet to prevent them from slipping.
- Instruct the resident to push up on the wheelchair arms on the count of three to assist with standing.
- Count to three and assist the resident to a standing position.
- Provide the resident's assistive device, as needed.
- Move to the weak side of the resident, slightly behind them. Hold the gait belt with your palms and fingertips pointing upwards.
- Stabilize the resident as they ambulate for the desired duration.
- Assist the resident to pivot/turn in front of the wheelchair.
- Ensure the wheelchair brakes are locked.
- Instruct the resident to grasp the arms of the wheelchair when the

back of their knees touch the wheelchair seat.
- Assist the resident to a seated position in the wheelchair.
- Remove the gait belt.
- Release the wheelchair brakes.

4. Post-Procedure Steps:

- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report any skin issues, pain with movement, or any other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of ambulation from a wheelchair:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1074#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Ambulation From a Wheelchair. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/jtj95sPrc_k

8.13 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1077#h5p-53

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1077#h5p-54

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1077#h5p-56

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1077#h5p-73

VIII Glossary

Ambulation: A medical term used for walking.

Bariatric lifts: Mechanical lifts that support a client weighing 600 or more pounds.

Body alignment: Good posture principles that prevent musculoskeletal injuries.

Bony prominences: Areas of the body where a bone lies close to the skin's surface, such as the back of the head, shoulders, elbows, heels, ankles, tops of the toes, hips, and coccyx.

Chemical restraint: A drug used to manage a patient's behavior, restrict the patient's freedom of movement, or impair the patient's ability to appropriately interact with their surroundings, that is not standard treatment or dosage for the patient's condition.

Coccyx: Tailbone.

Dangle: Sitting up on the edge of bed for a few minutes before standing to prevent orthostatic hypotension and dizziness.

Foam boots: Specialized soft boots used to support the ankles and keep the heels floated off the bed.

Foot cradle: A device used to keep the sheets and blankets off the tops of a client's toes.

Fowler's position: A position where the client is lying on their back with their head elevated between 30 and 90 degrees.

Friction: Injury caused to skin when it is rubbed by clothing, linens, or another body part.

Hand mitt: A large, soft glove that covers a confused patient's hand to prevent

them from inadvertently dislodging medical equipment such as a catheter, feeding tube, or intravenous (IV) catheter.

Immobility: The loss of independent control of one's body to change positions and function safety within the environment.

Lateral (side-lying) position: A position that places the client on their left or right side to relieve pressure on the coccyx or increase blood flow to the fetus in pregnant women.

Mobility: The ability to move one's body parts, change positions, and function safely within the environment. It is one of the most important factors for remaining independent.

Orthostatic hypotension: A sudden drop in blood pressure that can cause clients to feel dizzy and increase their risk for falls.

Orthotic: A support, brace, or splint used to support, align, prevent, or correct the function of movable parts of the body.

Physical therapists: Health specialists who evaluate and treat movement disorders.

Pressure injuries: Localized damage to the skin or underlying soft tissue, usually over a bony prominence, as a result of intense and prolonged pressure and/or shear.

Prone position: A position where the client is placed on their stomach with their head turned to one side.

Prosthetics: An addition or attachment to the body that replicates the function of a lost or dysfunctional limb.

Restraints: Devices used in health care settings to prevent patients from causing harm to themselves or others when alternative interventions are not effective.

Seclusion: The confinement of a patient in a locked room from which they

cannot exit on their own. It is generally used as a method of discipline, convenience, or coercion.

Shear: Injury to skin that occurs when skin moves one way, but the underlying bone and muscle stay fixed or move the opposite direction.

Sims' position: A position similar to the lateral position, but the client is always placed on their left side and their left arm is placed behind their body.

Skin tear: A separation of skin layers caused by shear, friction, and/or blunt force.

Supine position: A position where the client is lying flat on their back.

Transfer status: How a resident moves from one place to the other, such as from a bed to wheelchair or a wheelchair to toilet.

Transfer status orders: Orders that establish how much assistance is required for moving a client based on how much body weight they can independently bear and how much weight an assistant is required to support. Transfer status orders include independent, contact-guard-assist (CGA), 1 assist (1A), 2 assist (2A), sit-to-stand lift, or full-body mechanical lift.

Vertigo: A sensation that the room is spinning.

PART IX

CHAPTER 9: PROMOTE INDEPENDENCE THROUGH REHABILITATION/ RESTORATIVE CARE

9.1 Introduction to Promote Independence Through Rehabilitation/Restorative Care

Learning Objectives

- Assist client with range of motion exercises
- Promote client independence during activities of daily living (ADL)
- Assist clients with hearing or vision impairment with activities of daily living
- Assist clients with speech impairment with activities of daily living
- Assist with restorative therapies

Chapter 8 discussed how nursing assistants help clients with mobility with actions ranging from repositioning them in bed, transferring them out of bed to a chair, or ambulating them in the hallway. This chapter will focus on how the nursing assistant promotes client functioning and independence through rehabilitation and restorative care.

Acute health events and chronic illnesses can reduce a client's level of functioning and independence. For example, clients who experience a stroke or hip fracture or live with chronic disease like heart failure or chronic obstructive pulmonary disorder (COPD) often require assistance in completing their activities of daily living (ADLs). Any condition that requires bed rest can cause muscle atrophy, decreased lung function, and other complications. Clients recovering from illnesses or injury may require therapy performed by the licensed therapy team to return lost levels of function. As their functioning is restored, the nursing assistant can help clients retain the

highest possible level of functioning and independence and promote their physical and mental well-being.

9.2 The Rehabilitation Process

After an individual experiences an acute illness, injury, or significant change in health status, there is always a period of recovery. During recovery, some individuals participate in rehabilitation. **Rehabilitation** helps people regain body functions they lost due to medical conditions or injury. Rehabilitation can help improve many body functions, including bowel and bladder problems, chewing and swallowing, problems thinking or reasoning, movement or mobility, speech, and language.[1]

The goal of the rehabilitation is to return the person to their prior level of function before the health event. The length of time for recovery varies for each individual, and there are several factors that can influence its progression. A list of factors that can affect an individual's recovery process include the following:

- **Comorbidities:** Comorbidities are coexisting health conditions. Having another chronic diagnosis or other acute condition may slow the progression of healing. Here are some examples of how comorbidities affect healing and recovery:
    - If a person has diabetes, their healing process is slower, and their risk of infection is higher.
    - If a person has chronic respiratory or cardiac conditions such as asthma, chronic obstructive pulmonary disease (COPD), or heart failure, their endurance to complete rehabilitation exercises may be decreased.
    - If a person has dementia, they may not remember they are injured and may try to move without assistance, resulting in a fall or further injury to the affected area.
- **Age:** As people age, healing slows down, and the functioning of various body systems declines. Older adults are more likely to have comorbidities and complications related to these coexisting conditions that can slow or

1. A.D.A.M. Medical Encyclopedia [Internet]. Atlanta (GA): A.D.A.M., Inc.; c1997-2022. Physical medicine and rehabilitation; [updated 2022, April 1]. https://medlineplus.gov/ency/article/007448.htm

even halt the rehabilitation process.

- **Motivation:** If a person lives with severe chronic illness or experienced health events that previously required rehabilitation, they may feel like giving up or not putting in the effort to return to their prior level of functioning. Some people prefer someone assisting them with their ADLs for a variety of reasons, such as experiencing increased pain with movement, severe fatigue, or feeling lonely and desiring increased interaction with others.
- **Resources:** Resources include support from family members or friends who offer encouragement, nearby health care providers in the community, and transportation available to get to appointments. Insurance also plays a role in recovery because the amount of reimbursement for rehabilitation services is determined by insurance coverage.

The types of therapy provided are determined by the individual's illness or injury. The roles and responsibilities of different disciplines will be further discussed in the "Members of the Therapy Team" section of this chapter. Rehabilitation may begin in an acute care setting when intensive interventions are required several times throughout the day and then transfer to a short-term stay or rehabilitation unit in a long-term care facility for further rehabilitation. In the long-term care facility, they typically see therapists once or twice a day until they are independent enough to return to their previous home environment. Both of these situations are referred to as **in-patient therapy** because the rehabilitation treatment occurs in a facility where the client is staying. However, in some cases, the individual can return home and visit a therapist once or twice a week, which is referred to as out-patient therapy. **Out-patient therapy** is commonly prescribed for post-operative rehabilitation, such as that required for a hip, knee, or shoulder replacement.

Therapists determine the types of interventions needed and the frequency of treatments based on each individual's situation. Therapists provide rehabilitation treatment for as long as the client continues to improve, but it will conclude when their progress plateaus (i.e., their level of function remains

the same and no longer improves). Sometimes an individual is unable to achieve their prior level of functioning and must remain in a long-term care facility for assistance and supportive care for the remainder of their life. When this occurs, the individual will have a restorative care plan that is further discussed in the "Rehabilitation Versus Restorative Care" section of this chapter.

9.3 Members of the Therapy Team

In a short-term stay unit of a long-term care facility, there is typically a therapy gym where rehabilitation interventions are performed. Therapists may be employees of the facility or may work for another health care organization that contracts with the long-term care facility to provide therapy to its residents.

The therapy team is part of the interprofessional health care team as previously discussed in Chapter 2.3, "Members of the Health Care Team and Nursing Home Structure." It is helpful to understand the roles and responsibilities of each type of therapy discipline, especially if you work on a short-term stay or rehabilitation unit. Occupational therapists, speech therapists, and physical therapists are the most common types of therapists. Respiratory therapists may be present in long-term care settings that have specialized ventilator units.

Occupational Therapists (OT): Occupational therapists assess, plan, implement, and evaluate interventions to help clients achieve their highest possible level of independence in completing their activities of daily living (ADLs) such as bathing, grooming, eating, and dressing. OTs also teach clients how to use adaptive devices to complete their ADLs. Adaptive devices include long shoehorns (to assist clients with putting shoes on), sock pulls (to independently pull on socks), adaptive silverware (to facilitate independent eating), grabbers (to pick items up from the floor), and special devices to manipulate buttoning so the client can dress and button their clothing independently. These devices are further discussed in the "Promoting Independence During ADLs" section. OTs may also assess the client's home for safety and their need for assistive devices when they return home (if they are able to do so). For example, OTs may recommend home environment modifications such as ramps, grab rails, and handrails to ensure client safety and independence.[1]

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Physical Therapists (PT): Physical therapists are licensed health care professionals who assess, plan, implement, and evaluate interventions related to clients' functional abilities in terms of their strength, mobility, balance, gait, coordination, and joint range of motion. They supervise exercises tailored for a client's condition and teach them how to use assistive devices like walkers and canes.[2]

Speech Therapists (ST): Speech therapists assess, diagnose, and treat communication and swallowing disorders. For example, clients with **expressive aphasia** understand what other people say but struggle to get words out, speak in very short sentences, and omit words. They may say, "Want food," or "Bathroom go." Speech therapists teach these clients how to use word boards and other electronic devices to facilitate communication. STs also assess clients with swallowing disorders (i.e., **dysphagia**) and determine if they require thickened liquids or a modified diet to prevent aspiration of substances into their lungs. STs collaborate with other members of the health care team, including nurses, dieticians, and health care providers.[3]

Respiratory Therapists (RT): Respiratory therapists treat respiratory-related conditions in patients. Their specialized respiratory care includes managing oxygen therapy; drawing arterial blood gasses; managing patients on specialized oxygenation devices such as mechanical ventilators, CPAP, and Bi-PAP machines; administering respiratory medications like inhalers and nebulizers; intubating patients; assisting with bronchoscopy and other respiratory-related diagnostic tests; performing pulmonary hygiene measures like chest physiotherapy; and serving an integral role in maintaining a client's airway during cardiac and respiratory arrests.[4]

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9.4 Complications of Immobility

Movement, activity, and mobility positively affect one's overall health. When someone is recovering from a severe illness or injury, their mobility is often reduced, and they may be unable to perform ADLs. Health care team members play a vital role in preventing the physical and mental decline in functioning that can occur from immobility by proactively implementing interventions.

Risks of immobility are well-known, and complications are viewed as avoidable. In fact, many insurance companies do not reimburse health care agencies for complications resulting from immobility, like pressure injuries, because they are viewed as avoidable with the proper care. Therefore, nursing assistants must be diligent in their actions and observations to maintain their client's health and prevent complications.

See Table 9.4 for potential complications of immobility by body system and additional preventative measures that will keep clients as healthy as possible. Promoting clients' independence in completing their ADLs and encouraging activity as tolerated can help prevent all these complications of immobility. "Encouraging activity as tolerated" means involving the resident in movement while also adhering to mobility restrictions noted in the care plan and observing for respiratory changes that indicate the resident may be lacking endurance to maintain the activity. Sometimes a client's lack of endurance in completing activities requires the nursing assistant to segment their ADLs. **Segmenting ADLs** refers to breaking up tasks to accommodate the client's activity intolerance. An example of segmenting ADLs would be assisting a person to bathe in bed as independently as possible, letting them rest after bathing, and then returning later to assist them with dressing and grooming to get them ready for the day.

Table 9.4 Potential Complications of Immobility and Preventative Measures

Body System	Potential Complication(s)	Preventative Measures
Integumentary (Skin)	Pressure Injuries	• Repositioning every 1-2 hours • Ensuring proper hygiene • Providing incontinence care as needed • Providing skin care • Encouraging good nutrition
Musculoskeletal	Muscle atrophy Contracture	• Assisting with active or passive range of motion (ROM) exercises • Applying splints or positioning devices as prescribed
Digestive	Constipation Incontinence	• Encouraging fluids (if not contraindicated) • Encouraging fiber intake • Encouraging activity as tolerated • Providing frequent toileting • Providing bowel and bladder retraining if needed
Respiratory	Decreased lung function	• Encouraging incentive spirometry or coughing and deep breathing • Encouraging activity as tolerated

Circulatory	Deep vein thrombosis (DVT) Decreased cardiac function Increased fluid retention	• Ambulating • Applying compression stockings or other compression devices as ordered • Encouraging low sodium intake (as prescribed) • Obtaining accurate daily weights • Elevating extremities
Psychological	Depression	• Involving clients in social activities • Offering pleasurable individual activities if not interested in group activities • Encouraging visits by family, friends, or volunteers for 1:1 interaction

Devices to Prevent Contracture

The "Applying Prosthetics and Orthotics" section in Chapter 8 describes devices such as a foot split to prevent musculoskeletal contracture. There are additional devices that can prevent a client's hand contracture, as well as prevent their fingernails from creating open skin areas in their palm. The first type of hand device is a cone that slides into the palm of the hand and is kept in place with a soft elastic band. The cone should not be forced into the fingers but placed gently. A second type of device is a palm protector that is softer than the cone and separates the fingers from one another. If neither of these devices is available, a washcloth can be rolled and placed underneath the fingers. See Figure 9.1[1] for an image of a cone and palm protector, and Figure 9.2[2] for images showing application of these devices.

1. "Cone to Prevent Hand Contracture (left) and a Palm Protector (right)" by Myra Reuter for Chippewa Valley Technical College are licensed under CC BY 4.0
2. "Cone and Palm Protectors on Client" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 9.1 Cone to Prevent Hand Contracture (left) and a Palm Protector (right)

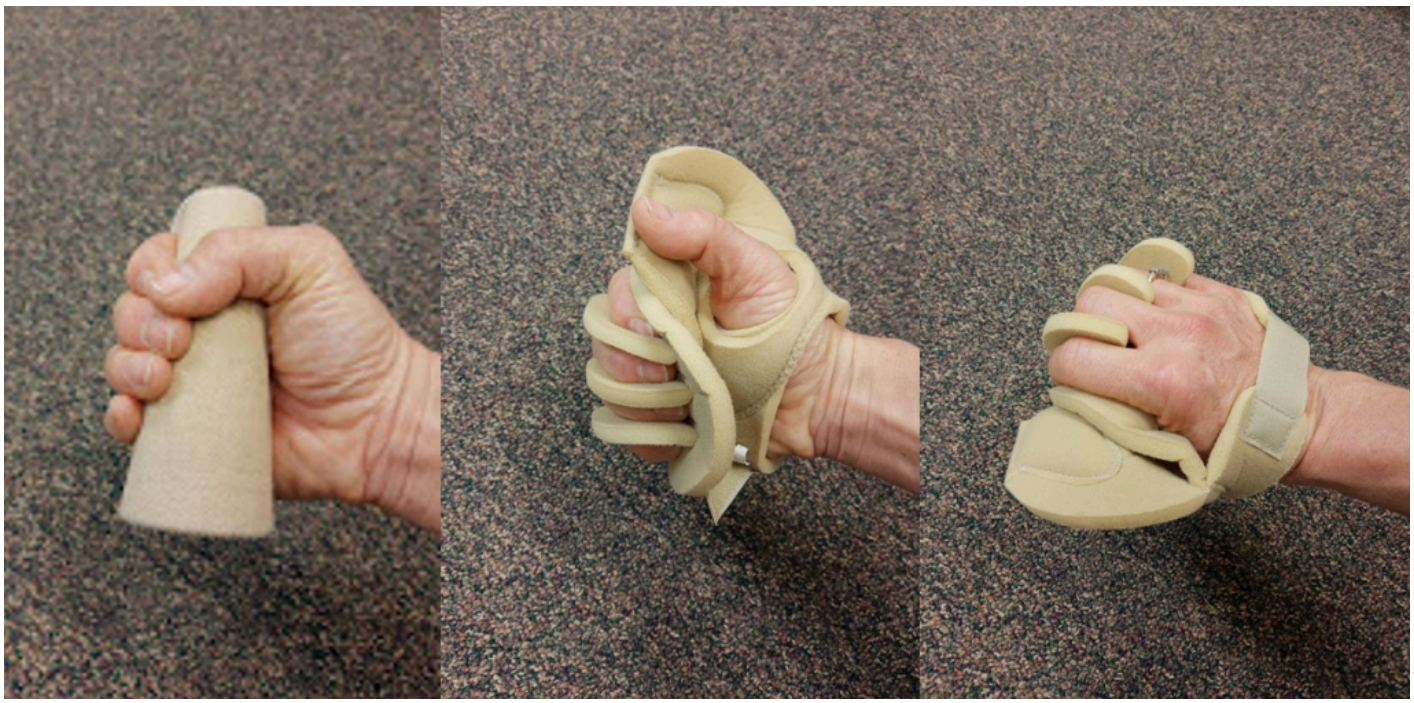

Figure 9.2 a.) Cone on Client's Hand, b.) Palm Protector Viewed on the Palm of a Client's Hand, and c.) Palm Protector Viewed on the Dorsal Side of Client's Hand

Range of Motion (ROM)

Active and passive range of motion (ROM) exercises prevent complications of immobility in the musculoskeletal system. ROM exercises facilitate movement of specific joints and promote mobility of the extremities. Because changes in joints can occur after just three days of immobility, ROM exercises should be

started by the nursing assistant as soon as they are directed by the nurse as safe to do so.

There are three types of ROM exercises: passive, active, and active assist. **Passive range of motion** is movement applied to an individual's joint by another person or by a passive motion machine. When passive range of motion is applied, the joint of an individual receiving the exercise is completely relaxed while the outside force moves the body part. For example, clients who undergo knee replacement surgery may be prescribed a passive range of motion machine that continuously flexes and extends the patient's knee while they are lying in bed. See Figure 9.3[3] for an image of a passive motion machine.

Active range of motion is movement of a joint by the individual with no outside force aiding in the movement. A staff member may provide verbal cues to complete the action, but the movement is done independently by the client.

Active assist range of motion is joint movement by an individual with partial assistance from an outside force. For example, during the recovery period after shoulder surgery, a client attends physical therapy and receives 50% assistance in moving their arm with the help of a physical therapy assistant.

Figure 9.3 Passive Motion Machine

3. "Continuous_Passive_Motion_Machine.jpg" by User:Ravedave is licensed under CC BY-SA 3.0

Several terms are used to refer to certain body movements during range of motion exercises, such as abduction, adduction, flexion, and extension. **Abduction** refers to the movement of a limb away from the body's midline. For example, hip abduction is the movement of the leg away from the midline of the body. We use this action every day when we step to the side, get out of bed, and get out of the car. **Adduction** refers to moving a limb towards the midline. For example, if a person has their fingers spread wide apart, bringing them back together is adduction. **Flexion** is movement that decreases the angle between two bones and **extension** is movement that increases the angle between two bones. For example, a bicep curl during weight lifting demonstrates both flexion and extension. Flexion occurs when the bicep muscle contracts and the elbow joint bends, lifting the weight. Extension occurs when the arm is straightened back to starting position, increasing the angle between the elbow joint.

When assisting a client with ROM activities, the nursing assistant must follow the plan of care established by the licensed therapist. The plan is tailored to the needs of the individual and will include the specific joints to move. Typically, larger joints such as shoulders, elbows, hips, knees, and ankles are included in ROM exercises, but ROM can be also applied to smaller joints such as the fingers and wrists.

When assisting with ROM exercises, the nursing assistant must support any joints below the joint being exercised to prevent injury. For instance, if the shoulder is being exercised, the nursing assistant places their hands underneath the elbow and wrist to support them. The joint should be moved gently and only to the point to where there is slight resistance. A joint should never be forced to achieve full ROM if there is resistance. For example, a client who has had limited mobility for several years may have a joint that can only be moved a few inches, but it is important to maintain that mobility, no matter how small.

While providing ROM, the nursing assistant must observe for objective and subjective signs of pain. The resident should be asked if they are experiencing any pain during the movement, and the assistant should watch for nonverbal

signs of pain like grimacing, clenching the teeth, groaning, or labored breathing. Refer to the "Objective and Subjective Signs of Pain" subsection in Chapter 6.3 to review observations to make and report. See the steps for providing ROM for the shoulder and hip joints in the "ROM Exercises for the Shoulder" and "ROM Exercises for the Hip and Knee" Skills Checklists later in this chapter.

Incentive Spirometry

When a client experiences immobility, normally healthy alveoli can collapse and cause decreased lung function. Decreased lung function can reduce a person's stamina and their ability to perform activities, referred to as **activity intolerance**. To prevent a decrease in lung function, reduce the build-up of fluids in the airways, and prevent pneumonia, clients are often prescribed incentive spirometry to keep their bronchioles open. The incentive spirometer encourages a client to complete slow, deep breathing to keep their bronchioles open. See Figure 9.4[4] for an image of a client using an incentive spirometer. Nursing assistants are often expected to encourage clients to use their incentive spirometer hourly.

4. "Incentive Spirometer.png" by BruceBlaus is licensed under CC BY-SA 4.0

Figure 9.4 Using an Incentive Spirometer

The nurse or respiratory therapist initially teaches the client how to use the incentive spirometer but encouraging and observing clients complete this action every hour is commonly delegated to a nursing assistant. The client should sit upright (if possible), place the mouthpiece in their mouth, and create a tight seal with their lips around it. They should breathe in slowly and as deeply as possible through the tubing, with the goal of raising the piston to their prescribed level. The resistance indicator on the right side should be monitored to ensure they are not breathing in too quickly. The client should attempt to hold their breath for as long as possible (at least five seconds) and then exhale and rest for a few seconds. Coughing is expected, and clients should be encouraged to expel any mucus (not swallow it). This technique should be repeated by the client ten times every hour while they are awake. Report completion of the activity to the nurse who documents frequency and effectiveness of this intervention.[5]

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Compression Stockings

Deep-vein thrombosis (DVT) is a common complication for clients experiencing immobility. When blood is not moving much due to client inactivity, it can **coagulate** (i.e, form a clot). This blockage reduces blood flow to the affected area. A **deep-vein thrombosis (DVT)** is a blood clot that forms within the deep veins, usually of the lower leg, but can occur anywhere within the cardiovascular system. If the clot breaks free, it can travel to the lungs and become fatal.

The best way for nursing assistants to prevent DVT is to assist clients to ambulate or otherwise complete as much activity as they can tolerate. Some clients are prescribed **compression stockings**, also referred to as thrombo-embolic-deterrent hose (TED hose). Compression stockings promote the return of fluid back into circulation by gently providing pressure on veins. They are commonly used for clients with swelling of their extremities (**edema**) caused by cardiac conditions that cause fluid retention.

Compression stockings require a physician's order and should be applied in the morning and taken off at night. They should be applied upon awakening because edema is usually at its lowest point after lying in bed overnight. However, as the client sits or stands upright during the day, blood tends to pool in the lower legs. The pressure from compression stockings helps return fluid into the cardiovascular system and may reduce the risk for DVT.

When removed at night, the compression stockings should be washed by hand in the sink with soap and water and then hung to air dry. Do not send them to the laundry or put them on a heater to dry because this can cause shrinking and ruin the hose. Clients often have two or more pairs of compression stockings to ensure they dry completely before wearing them again in the morning.

Compression stockings may be knee length or hip length. See Figure 9.5[6] for an image comparing both lengths. The amount of pressure the hose applies

6. "TED Hose Lengths.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

to the legs is prescribed. For example, some compression stockings may seem like slightly tight socks, whereas other stockings for clients with severe edema are custom-made to fit very tightly and may have a zipper for ease of application.

Figure 9.5 Thigh-high TED Hose (left) and Knee-high TED Hose (right)

When applying stockings, proper placement on the heel is important. The stockings have a square marker around the heel to guide correct placement on the heel. It can be difficult to see this square but stretching the fabric around the heel area should make it more visible. See Figure 9.6[7] for an image of locating the heel marker. If there is writing on the stocking, it should be on the outside and facing away from the skin when worn.

7. “TED Hose Heel Marker.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 9.6 Locating the Heel Marker on TED Hose

When applying TED hose, find the heel marker first. You can gather or roll the sides of the hose down to the heel or choose to turn the stocking inside out to the heel marker. If turned inside out, put your hand inside the hose, hold at the top of the heel marker with your thumb and forefinger, and then pull the top of the stocking down to the heel marker. See Figure 9.7[8] for a demonstration of these techniques. Use any of these techniques to place the stocking on the heel, and then check for proper placement of the heel marker before applying the rest of the stocking. See Figure 9.8[9] for heel placement.

8. “TED Hose Application Methods.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
9. “Heel Marker on TED Hose.jpg” by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 9.7 TED Hose Gathered (left), Rolled (center), and Turned Inside Out (right) to Place on Client's Heel

Figure 9.8 Ensure Proper Placement of Heel Marker on Heel

After the heel of the stocking is placed properly on the client's heel, check that the hose is not twisted. Make any adjustments before proceeding because the hose will be very difficult to adjust after it is pulled up the leg. When you have the hose positioned correctly, pull the remainder of the stocking up to the knee or hip, depending upon the length of the hose. Check that there are no wrinkles in the hose and that the client has no discomfort.

The toe of the stocking is typically open to allow for easy assessment of the

client's circulation. The fabric should be completely over the toes, or completely at the base of the toes, to prevent skin breakdown or blockage of circulation to the toes. See Figure 9.9[10] for images of both types of applications of the toe opening of the stocking.

Figure 9.9 a.) and b.) TED Hose Covering Toes and c.) TED Hose at the Base of the Toes

Regular socks or slippers can be placed over the TEDs for warmth if desired. For specific steps in applying TED hose, see the "Application of Compression Stockings (TED Hose)" Skills Checklist at the end of the chapter.

10. "Toes of TED Hose.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

9.5 Rehabilitation Versus Restorative Care

As previously explained in “The Rehabilitation Process” section, speech therapists, occupational therapists, and physical therapists create the client’s rehabilitation plan with the goal of returning them to their level of function prior to the injury or illness. When an individual has progressed to their highest level of functioning, a restorative care plan is established to ensure this level of function is maintained. Although therapists provide rehabilitation therapy, nursing assistants are responsible for providing restorative care planned by the therapy team.

Common restorative plans include assisting with ambulation (Chapter 8.5); performing passive or active range-of-motion (ROM) exercises (Chapter 9.6); assisting with activities of daily living (ADLs) (Chapter 5.2); and applying prosthetics, splints, and orthotics (Chapter 8.6). Providing restorative care should be documented because it is an integral part of keeping residents as independent as possible and maintaining their overall health and quality of life. If the client resides in a facility that receives Medicare reimbursement, restorative care is reported as part of the person’s quarterly minimum data set (MDS) assessment. (To review aspects of MDS, see Chapter 1.5, “Documenting and Reporting.”) If it is found that a resident experienced a decline in mobility because their restorative care plan was not being followed appropriately, the facility must provide therapy at no charge to restore their prior level of function.

Restorative care can occur individually or within a group. An individual activity means the nursing assistant is working with one resident at a time on that resident’s specific restorative needs. Restorative care can also occur in a group setting, such as an exercise group where residents follow the lead of an aide and participate as they are able. As discussed in the Chapter 8.6, “Applying Prosthetics and Orthotics” section, it is the nursing assistant’s responsibility to know how to properly perform restorative care, as well as keep residents safe from injury during restorative activities. If you are unsure about any aspect of restorative care, seek instruction from your supervising nurse.

Although clients benefit from restorative care and are encouraged to participate, they do have the right to refuse to participate in restorative care, just as they do in any other aspect of their health care. Certain situations, such as those described below, can make it difficult to motivate residents to participate in restorative care[1]:

- The resident has cognitive deficits that make the benefits of restorative care difficult to understand or impair their ability to participate.
- The resident has been dependent on others for their daily care for a long time.
- The resident experiences pain associated with the activity.
- The resident (or their caregiver) is fearful of falling or becoming injured when performing the activity.
- There is unfamiliarity or the lack of a trusting relationship between the caregiver and resident.

If these circumstances occur, the nursing assistant should continue to encourage the resident to participate in the restorative care in a respectful manner. It may be helpful to delay the care and reapproach the resident at a different time of day. If the resident displays any subjective or objective signs of pain, it should be reported to the nurse for assessment and treatment. Involving loved ones in explaining the importance of restorative care can also enhance a resident's participation, along with reassurance from a nurse or therapist who oversees the restorative plan. If the resident continues to decline participation despite these attempted approaches, the nursing assistant should report the situation to the nurse, as well as document it was the resident's choice to not participate in restorative care activities despite the approaches attempted.

1. Talley, K. M., Wyman, J. F., Savik, K., Kane, R. L., Mueller, C., & Zhao, H. (2015). Restorative care's effect on activities of daily living dependency in long-stay nursing home residents. *The Gerontologist, 55*(Supplement 1), S88–S98. https://doi.org/10.1093/geront/gnv011

For more information on restorative care, see Restorative Care's Effect on Activities of Daily Living Dependency in Long-stay Nursing Home Residents.

9.6 Promoting Independence During ADLs

As a health care professional, it is your responsibility to maintain residents' optimal levels of functioning by encouraging their participation and independence in completing activities of daily living (ADLs). While it may be quicker and more efficient to wheel someone to the dining room rather than assisting them to walk there, it is detrimental to their health to do so. As previously discussed in the "Complications of Immobility" section of this chapter, many interventions prevent decline in residents' functioning, including encouraging activity as tolerated, and promote independence in completing ADLs with segmenting as needed. Independence in completing ADLs not only prevents complications of immobility but also enhances their quality of life by promoting mental wellness through enhancement of their autonomy and self-esteem.

However, some clients may prefer others to completely care for them because the movements are painful or involve more effort than they are willing to exert. As you gain more experience as a nursing assistant, you will learn to find the delicate balance between promoting health and following client preferences.

Always encourage clients to complete as many ADLs as they can, segmenting them if needed. When you notice a client is becoming fatigued or irritable when performing a task, it is often a good time to begin assisting the client. It does not matter how little a person is able to do for themselves; they should be given the time and opportunity to do so. For nonverbal clients, consider using a white board, communication book, or other device to assist in their communication. These actions demonstrate respect for the person's dignity, as well as promote their physical health and cognitive involvement in their own care. Refer to the Chapter 8.3, "Promoting Joint Mobility and Activity" section for other ways to encourage mobility and independence.

The therapy team will assess the client and recommend aids that can promote independence to complete daily tasks. Common aids for ADLs may include a reacher, sock aid, bath sponge, and an elongated shoehorn. All these tools allow a person to reach objects or complete hygiene needs with

less bending or stretching. They may be used temporarily during the rehabilitation process until full ROM is achieved, especially after joint replacement surgeries. See Figure 9.10[1] for an image of these assistive devices.

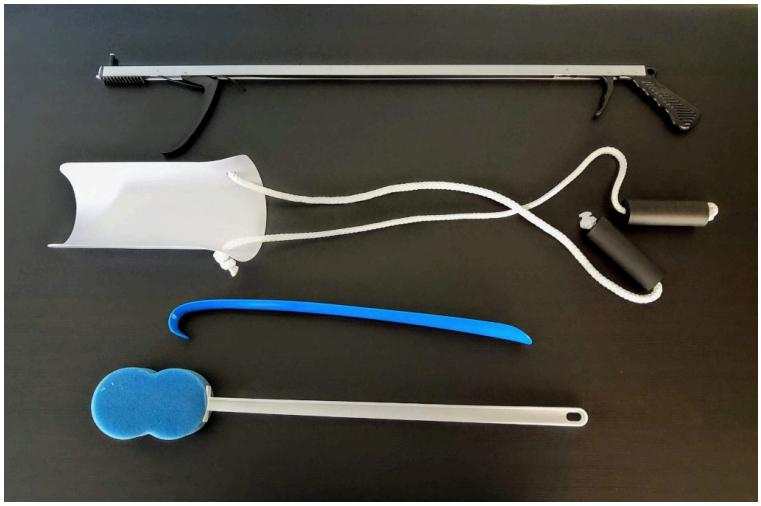

Figure 9.10 Reacher, Sock Aid, Elongated Shoehorn, and Elongated Bath Sponge (top to bottom).

Sock Aid

To utilize the sock aid, the sock is placed around the plastic mold. The person holds the rope handles and then puts their foot into the sock. They pull on the ropes to get the sock completely on the foot without bending over to the floor. See Figure 9.11[2] for an image of the placement of a sock on a sock aid and Figure 9.12[3] for an image of getting the sock on the foot.

1. “ADL Aids” by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
2. “Sock Aid.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0
3. “Applying Sock Aid.png” by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

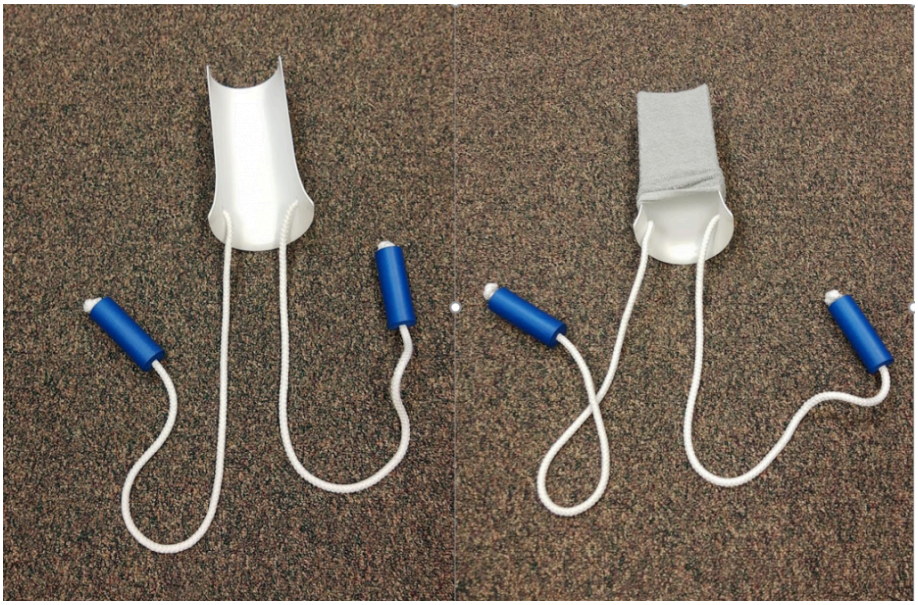

Figure 9.11 Placing a Sock on the Sock Aid

Figure 9.12 Putting a Sock on the Foot Using a Sock Aid

Please also review assistive devices to promote independence with feeding in "Assistance With Nutrition and Fluid Needs."

9.7 Assisting With Sensory Deficits

An impairment of one or more senses can occur in clients of any age, in addition to the aging process causing a decline in all sensory functioning. Sensory impairments, especially vision and hearing impairments, can impact the way a person navigates through the environment and thus increases their risk for falls. Refer to Chapter 11.8, "Neurological System" for additional information about sensory impairments. Information regarding communicating with individuals affected by sensory deficits can be found in the Chapter 1.3, "Strategies for Communicating With Patients With Impaired Hearing, Vision, and Speech" subsection. Interventions that can be performed by nursing assistants to reduce safety risks are described below.

Visual Impairment

The human eye changes around age 40 and decreases an individual's ability to see close-up objects clearly and makes reading more difficult, although distance vision remains intact. **Depth perception** also becomes distorted, meaning the person cannot accurately determine the distance between themselves and another object.

Other eye conditions may occur with age that impair vision. Some people develop **cataracts**, a clouding of the clear lens of the eye. Cataracts can be observed in a person's eye by the appearance of a cloudiness in their pupil. See Figure 9.13[1] for a simulated image of a person with cataracts.

1. "Cataract in human eye.png" by Rakesh Ajuja, MD is licensed under CC BY-SA 3

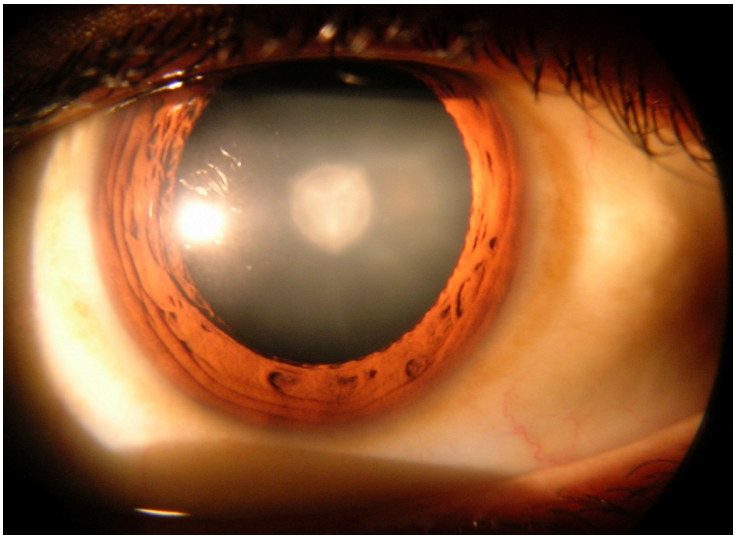

Figure 9.13 Simulated Image of a Cataract

Glaucoma is a visual condition caused by elevated pressure on the optic nerve, resulting in loss of peripheral vision, blind spots, or even blindness across the entire visual field.

Macular degeneration is another visual condition that results in a blind spot in an individual's center field of vision. It is the leading cause of vision loss in people over 50. See Figure 9.14[2] for a simulated image of what a person with macular degeneration may experience.

Figure 9.14 Simulated Vision of a Person With Macular Degeneration

2. National Eye Institute. (2020, August 17). *Age-related macular degeneration*. https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/age-related-macular-degeneration

The **Snellen chart** is a common tool for assessing distant vision.[3] See Figure 9.15[4] for a simulated image of how a person with 20/20 vision sees the Snellen chart compared to simulated visual experiences of those with levels of low vision and blindness.

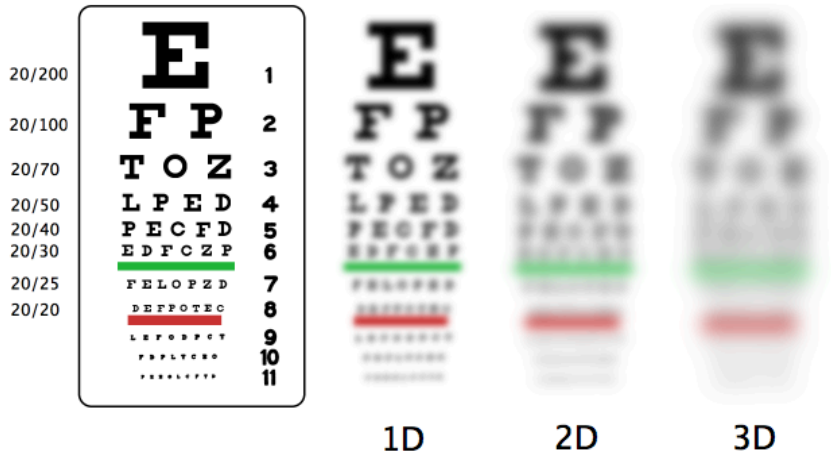

Figure 9.15 Simulated Views of the Snellen Chart With 20/20 Vision Compared to Levels of Impaired Vision

- To learn more about cataracts, visit the MedlinePlus webpage on cataracts.

To experience what someone with cataracts may see, watch the following YouTube video[5]: See What I See: Cataracts.

- To learn more about glaucoma, visit the National Eye Institute web page on glaucoma.

To experience what someone with glaucoma may see,

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4. "Snellen-myopia.png" by Daniel P. B. Smith (talk) (Uploads) is licensed under CC BY-SA 3.0
5. National Eye Institute, NIH. (2018, November 7). *See what I see: Cataracts* [Video]. YouTube. All rights reserved. https://youtu.be/nGV3PD5sBgM

- watch the following YouTube video[6]: Glaucoma Simulation – Busy Road.
- To learn more about macular degeneration, visit the American Academy of Ophthalmology's What is Macular Degeneration? web page.
- To experience what someone with macular degeneration may see, watch the following YouTube video[7]: See What I See: AMD.

The simplest interventions for maintaining safety for clients with visual impairment include ensuring they are wearing their prescribed eyeglasses, the glasses are clean, and their living areas are well-lit. There should be no clutter, area rugs, or other small objects on the floor or in a direct path to the bathroom, closet, or exit door of the room to prevent tripping. Keeping the room and personal belongings arranged in a consistent manner allows residents to remain aware of the room set-up, making it easier for them to navigate despite impaired vision. If their visual impairment is severe, tell them where personal items are located before leaving the room, especially the call light and frequently used things like facial tissue, beverages, television remotes, or phones. When ambulating a resident with poor vision, tell them when they are getting close to an object that could pose a fall risk.

Hearing Loss

The most common form of hearing loss occurs as a natural part of aging and is called **presbycusis**. This type of hearing loss is typically worse at higher frequency sounds, so it interferes with speech recognition and music appreciation. Men tend to experience greater hearing loss than females,

6. Pugini, A. (2016, May 21). *Glaucoma simulation - Busy road* [Video]. YouTube. All rights reserved. https://youtu.be/jkYeC_JDEPs
7. National Eye Institute, NIH. (2018, November 7). *See what I see: AMD* [Video]. YouTube. All rights reserved. https://youtu.be/lu5ToTfUOok

perhaps because they have historically worked in louder environments, but it is unknown how much the differences in hearing between genders are caused by biological or social factors.[8]

Hearing can impact an individual's safety risks. For example, the sense of hearing allows a person to locate objects around them making noise without much conscious thought. For example, sounds like fire alarms or ambulance sirens warn people of emergencies. To understand how sound affects safety, try wearing noise-canceling headphones or earplugs while seated in a populated, busy area. Notice how the lack of hearing changes your perception of movement and the location of objects in your environment.

To assist individuals with hearing loss, use other senses, such as vision and touch, to aid in communication. Stand directly in front of the person when you are speaking, use appropriate gestures to guide actions, and use a light touch to gain their attention or assist in movement. People with hearing loss may become frustrated if they are unable to communicate effectively and may withdraw from interaction with others if hearing loss is profound. Be sure to utilize communication techniques described in the Chapter 1.3 subsection "Impaired Hearing" to prevent isolation.

Hearing aids make sounds louder but do not help in every environment. Even with hearing aids, it can be difficult for individuals to hear a conversation in a large open space or if there is other background noise such as music, television, or other conversations.

If a resident has hearing aids, be sure they are cleaned regularly, and change the batteries once a week. Wax can be removed with a monofilament tool provided with the hearing aids. Some hearing aids have rechargeable batteries that should be charged each night while the resident sleeps. See Figure 9.16[9] for a hearing aid in a case with a battery and a cleaning tool.

8. Introduction to Sensation and Perception by Students of PSY 3031 and edited by Dr. Cheryl Olman is licensed under CC BY 4.0
9. "Hearing Aid in Case.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 9.16 Hearing Aid in a Case With a Battery and Cleaning Tool

Hearing aids are expensive for residents to purchase, so it is important to always handle them with care and store them in an appropriate place, so they are not lost. If you are unsure of how to fit a hearing aid into a resident's ear, ask for assistance from the nurse. Hearing aids can fit completely inside the ear or over the top of the ear. See Figure 9.17[10] for an example of a hearing aid that is placed over the top of the ear and Figure 9.18[11] for a simulated hearing aid placed inside a mannequin ear.

Figure 9.17 Hearing Aid on Top of the Ear

10. "mark-paton-QpOxts03rps-unsplash" by Mark Paton on Unsplash is licensed under CC BY 4.0
11. "Hearing Aid in Mannequin.jpg" by Myra Reuter for Chippewa Valley Technical College is licensed under CC BY 4.0

Figure 9.18 Simulated Hearing Aid Placed Inside a Mannequin Ear

To experience what someone with hearing loss may hear, watch the following YouTube video[12]: Hearing Loss Simulator – Hear What Hearing Loss Sounds Like.

Speech Impairment

Speech impairment is common for individuals who have had a stroke or who have experienced injuries to certain parts of their brain. These injuries can make forming words and understanding conversations difficult. The medical terms for these conditions are **expressive aphasia** and **receptive aphasia**.

People with aphasia can become very frustrated. Everyone has experienced a time when they were trying to think of a word but couldn't remember it. Imagine how it would feel if this was your experience every time you were trying to communicate with someone. Just as can happen with people with

12. Ear Science Institute Australia. (2017, May 1). *Hearing loss simulator - Hear what hearing loss sounds like* [Video]. YouTube. All rights reserved. https://youtu.be/_jpe0_v2nAc

hearing loss, clients with aphasia may isolate themselves, avoid interaction, or become agitated and even aggressive if not approached appropriately.

Interventions when working with a client with a speech impairment include allowing the person extra time to form words or to process what was spoken to them. The feeling of being rushed can make aphasia worse, so providing ample time to process and respond is key. Writing conversations on a whiteboard may also be helpful, depending upon the cognition of the person.

A speech therapist plays an integral role in assessing a resident with aphasia and creating a communication plan. A communication book may be created so the person can point to images of common phrases or requests instead of trying to remember or say the words. See Figure 9.19[13] for an example of a communication board. Refer to the Chapter 1.2, "Overcoming Communication Barriers" subsection for additional information on overcoming barriers.

13. "I Need Help" and "Places I Want to Go" by Meredith Pomietlo for Chippewa Valley Technical College are licensed under CC BY 4.0

Figure 9.19 Communication Board

To learn more about speech impairment, view the following YouTube video[14]: Aphasia: The Disorder That Makes You Lose Your Words – Susan Wortman-Jutt.

14. TED-Ed. (2016, September 15). *Aphasia: The disorder that makes you lose your words - Susan Wortman-Jutt* [Video]. YouTube. All rights reserved. https://youtu.be/-GsVhbmecJA

9.8 Fall Prevention

“Prevent residents from falling” is one of the National Patient Safety Goals for long-term care centers. Client falls in long-term care centers, hospitals, or homes are very common and can cause serious injury and death. Older adults have the highest risk of falling. Each year, three million older people are treated in emergency departments for fall injuries, and over 800,000 are hospitalized because of a head injury or hip fracture resulting from a fall. Many older adults who fall, even if they’re not injured, become afraid of falling. This fear may cause them to limit their everyday activities. When a person is less active, they become weaker, which further increases their chances of falling.[1]

Many conditions increase an individual’s risk for falls, including the following[2]:

- Lower body weakness
- Vitamin D deficiency
- Difficulties with walking and balance
- Medications, such as tranquilizers, sedatives, antihypertensives, or antidepressants
- Vision problems
- Foot pain or poor footwear
- Environmental hazards, such as throw rugs or clutter that can cause tripping

Most falls are caused by a combination of risk factors. The more risk factors a person has, the greater their chances of falling. Many risk factors can be changed or modified to help prevent falls.[3] The best way to prevent falls is to follow these guidelines:

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- Keep residents as strong and mobile as possible
- Utilize the interventions described in the "Assisting With Sensory Deficits" section of this chapter to address any sensory impairments
- Use proper transfer techniques as outlined in Chapter 8.4
- Report any weakness, confusion, or change in condition
- Encourage fluid and nutritional intake to prevent dizziness and promote strength

Residents are assessed for their potential fall risk by the nursing staff or therapists when they are admitted to a facility, at regular intervals during their stay, and any time there is a change in their condition or when certain medications are ordered. Nursing assistants do not perform this assessment but should be aware of factors that can increase fall risk.

View a PDF sample of a fall risk assessment: Johns Hopkins Fall Risk Assessment Tool.

9.9 Skills Checklist: Range of Motion (ROM) Exercises for the Shoulder

Note: Includes Shoulder Flexion/Extension and Abduction/Adduction Movements

1. Gather Supplies: None

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Raise the bed height if needed.
- Position the resident in supine position (with the bed flat).
- Place one of your hands under the resident's elbow with your palm facing up.
- Place your other hand under the resident's wrist with your palm facing up.
- Watch the resident for objective signs of pain during movement.
- Move their arm gently and stop if there is any resistance.
- While keeping the resident's arm straight, raise their arm up and over their head (i.e., flexion).
- Ask the resident if they are experiencing any pain during movement.
- Stop the ROM exercise if the resident reports pain or displays objective signs of pain.
- Bring the resident's arm back down to their side (i.e., extension).
- Complete flexion and extension movements of the shoulder

according to the order in the restorative care plan.
- Continue to support the elbow and wrist of the resident.
- Keeping the resident's arm straight, move their entire arm out away from the body (i.e., abduction).
- Move their arm gently and stop if there is any resistance.
- Ask the resident if they are experiencing any pain during movement.
- Return the resident's arm to their side (adduction).
- Complete abduction and adduction movements of the shoulder according to the order in the restorative care plan.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report ROM performed and any skin issues, pain with movement, or other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of range of motion exercises for the shoulder:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1133#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Range of Motion Exercises for the Shoulder. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/9MNw0bO5g0I/

9.10 Skills Checklist: Range of Motion (ROM) for the Hip and Knee

Note: Includes abduction/adduction of the hip and flexion/extension of the hip and knee movements.

1. Gather Supplies: None

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Raise the bed height if needed.
- Position the resident in the supine position (with the bed flat).
- Place one of your hands under the resident's knee with your palm facing up.
- Place your other hand under the resident's ankle with your palm facing up.
- Watch for any objective signs of pain during movement.

Abduction/Adduction for Hip:

- Keeping the resident's leg straight, gently move their entire leg away from their body (i.e., abduction).
- Move their leg gently and stop if there is any resistance.
- Ask the resident if they are experiencing any pain during movement.
- Stop the ROM movement if the resident reports pain or displays objective signs of pain.

- Keeping the resident's leg straight, move their entire leg toward their body (i.e., adduction).
- Complete abduction and adduction movements of the hip according to the order in their restorative care plan.
- Continue to correctly support joints by keeping one of your hands under the resident's knee and the other hand under the resident's ankle.

Flexion/Extension of Knee and Hip:

- Bend the resident's knee and hip up toward the resident's trunk (i.e., flexion of hip and knee at the same time).
- Move the resident's leg gently and stop if there is any resistance.
- Ask the resident if they are experiencing any pain during movement.
- Stop the ROM movement if the resident reports pain or displays objective signs of pain.
- Straighten their knee and hip (i.e., extension of knee and hip at the same time).
- Complete flexion and extension movements of the knee and hip according to the order in the restorative care plan.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.
- Perform hand hygiene.
- Document and report ROM performed and any skin issues, pain with movement, or other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of range of motion exercises for the hip and knee:

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1135#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Range of Motion Exercises for the Hip and Knee. [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/ynmFa68Rv7w

9.11 Skills Checklist: Application of Compression Stockings (TED Hose)

1. Gather Supplies: Compression stockings

2. Routine Pre-Procedure Steps:

- Knock on the client's door.
- Perform hand hygiene.
- Introduce yourself and identify the resident.
- Maintain respectful, courteous, and professional communication at all times.
- Provide for privacy.
- Explain the procedure to the client.

3. Procedure Steps:

- Raise the bed height if needed.
- Position the resident in the supine position (bed flat).
- Expose only the leg you will be placing the stocking on.
- Roll, gather, or turn the stocking inside out to the heel.
- Place the stocking over the resident's toes, foot, and heel.
- Check the placement of heel marking.
- Roll or gently pull the stocking up their leg.
- Check the resident's toes for possible pressure from stocking.
- Adjust stocking as needed; stocking should be wrinkle-free to the knee or hip, depending on length of stocking.

4. Post-Procedure Steps:

- Perform hand hygiene.
- Check on resident comfort and ask if anything else is needed.
- Ensure the bed is low and locked. Check the brakes.
- Place the call light or signaling device within reach of the resident.
- Open the door and privacy curtain.

- Perform hand hygiene.
- Document and report application of TED hose and any skin issues, pain with movement, or other changes noted with the resident.

View a YouTube video[1] of an instructor demonstration of application of compression stockings (TED hose):

One or more interactive elements has been excluded from this version of the text. You can view them online here: https://wtcs.pressbooks.pub/nurseassist/?p=1137#oembed-1

1. Chippewa Valley Technical College. (2022, December 3). Application of Compression Stockings (TED hose). [Video]. YouTube. Video licensed under CC BY 4.0. https://youtu.be/MeV0Kitfy0I

9.12 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1139#h5p-57

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1139#h5p-58

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1139#h5p-59

IX Glossary

Abduction: The movement of a limb away from the body's midline. For example, hip abduction is the movement of the leg away from the midline of the body when getting out of bed.

Active assist range of motion: Movement of a joint by an individual with partial assistance from an outside force.

Active range of motion: Movement of a joint by the individual with no outside force aiding in the movement.

Activity intolerance: The reduction of a person's stamina and their ability to perform activities.

Adduction: The movement of a limb towards the midline. For example, if a person has their fingers spread wide apart, bringing them back together is adduction.

Built-up handles: Specialized silverware that allows the use of utensils by individuals with limited functional ability of their fingers (such as severe arthritis) to hold a smaller handle.

Cataracts: A vision condition causing clouding of the clear lens of the eye.

Coagulate: Form a clot.

Comorbidities: Coexisting health conditions.

Compression stockings: Stockings that apply gentle pressure to a limb to reduce edema; also referred to as thrombo-embolic-deterrent (TED) hose.

Deep-vein thrombosis (DVT): A blood clot that forms within the deep veins, usually of the lower leg, but can occur anywhere within the cardiovascular system.

Depth perception: The ability to determine distance between oneself and another object.

Dysphagia: A swallowing disorder.

Edema: Fluid retention causing swelling in the extremities.

Expressive aphasia: A speech disorder where a person understands what other people say but struggles to form words.

Extension: Movement that increases the angle between two bones. For example, extension occurs when doing a bicep curl and the arm is straightened back to starting position, increasing the angle between the elbow joint.

Flexion: Movement that decreases the angle between two bones. For example, contracting the bicep to lift a weight upwards is flexion.

Glaucoma: A visual condition that occurs due to high pressure on the optic nerve that results in loss of peripheral vision, blind spots, or even blindness across the entire visual field.

In-patient therapy: Rehabilitation treatment that occurs in a facility where the client is staying.

Macular degeneration: A visual condition that causes a blind spot in the center field of vision and is the leading cause of vision loss in people over 50.

Occupational therapists: Therapists who assess, plan, implement, and evaluate interventions to help clients achieve their highest possible level of independence in completing their activities of daily living (ADLs), such as bathing, grooming, eating, and dressing.

Out-patient therapy: Rehabilitation treatment that occurs when an individual is staying at home and visits a therapist once or twice a week.

Passive range of motion: When passive range of motion is applied, the joint of an individual receiving the exercise is completely relaxed while the outside force moves the body part.

Physical therapists: Licensed health care professionals who assess, plan,

implement, and evaluate interventions related to clients' functional abilities in terms of strength, mobility, balance, gait, coordination, and joint range of motion.

Presbycusis: Hearing loss that occurs due to the aging process.

Receptive aphasia: A speech condition that causes difficulty in understanding conversations.

Rehabilitation: Therapy to help people regain body functions they lost due to medical conditions or injury.

Respiratory therapists: Therapists who treat respiratory-related conditions in patients.

Segmenting ADLs: Breaking up activities of daily living (ADLs) to accommodate a client's activity intolerance.

Snellen chart: A common tool used for assessing distant vision.

Speech therapists: Therapists who assess, diagnose, and treat communication and swallowing disorders.

Weighted silverware: Specialized silverware with a weighted handle for individuals with tremors or unsteady hands.

PART X

CHAPTER 10: PROVIDE CARE FOR CLIENTS EXPERIENCING ACUTE AND CHRONIC HEALTH CONDITIONS

10.1 Introduction to Provide Care for Clients Experiencing Acute and Chronic Conditions

Learning Objectives

- Care for clients with developmental disabilities
- Care for clients with long-term, disabling conditions, including dementia
- Manage stressful situations involving clients with dementia
- Provide food and fluid intake monitoring and interventions for clients with dementia
- Manage behavioral challenges of clients with dementia
- Demonstrate sensitivity to emotional needs, social diversity, and mental health of clients
- Respond to psychosocial needs of clients

Many nursing assistants work in long-term care settings where residents live for assistance with chronic medical conditions. Chronic health conditions are health issues lasting more than six months and often require specialized interventions to maintain the individual's highest possible level of health and functioning. Acute health conditions in long-term care settings are typically related to the resident's rehabilitation process, an infection, or an injury.

Nursing assistants also work in hospital settings where patients with acute health conditions can experience rapid changes in their condition. These changes must be promptly communicated to the nurse so they can be addressed quickly. In this chapter you will learn how to meet the needs of residents with chronic conditions related to developmental disabilities, mental health disorders, and dementia. You will also be introduced to

providing care for patients with acute conditions that require additional safety or behavioral interventions.

10.2 History of Care for Individuals With Mental Health Disorders and Developmental Disorders

In the past, individuals living with mental health disorders or developmental disorders were viewed as unable to be a part of general society and were often placed in large institutions with little to no access to the outside environment or the community. This unfortunate stigma was due to a vast misunderstanding of these diagnoses. We now know this misconception is detrimental to individuals, and legislative and societal changes have been made to better meet the needs of these individuals. As a health care professional, it is important to understand how you can continue to improve the quality of life in individuals with these diagnoses through your communication, awareness, and approach.

Historically, facilities for institutionalized individuals looked like the Willowbrook State School pictured in Figure 10.1.[1] Residents were typically cared for in large spaces and group settings and eating at long tables with little space for comfort. Often, residents slept in large rooms with several beds in close proximity to each other with no accommodations for privacy or noise reduction. This care environment often caused overstimulation, resulting in sleep disturbances and client behaviors that were difficult to manage. In contrast to current health care practices, individual preferences were not prioritized.

1. "Willowbrook_State_School_(NYPL_b15279351-105038)_-_cropped.jpg" by unknown author is in the Public Domain

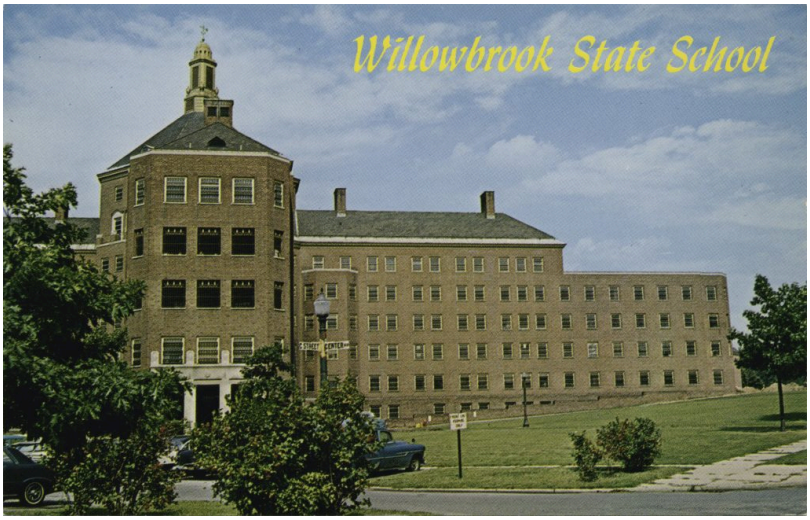

Figure 10.1 Willowbrook State School

These institutions lacked funding, professional caregivers, and basic knowledge of what residents needed to successfully function to the best of their ability. Because of these conditions, individuals with developmental or behavioral health disorders were often looked down upon, shunned, stigmatized, vilified, criminalized, and, in some cases, imprisoned or tortured. This type of inhumane treatment has been documented as far back as the Middle Ages in Europe and up until the mid-1900s in the United States.[2]

In the United States, this type of care environment continued until 1963 when President John F. Kennedy signed the Community Mental Health Act (as seen in Figure 10.2[3]). President Kennedy described this act as "a bold new approach" and provided federal grants to states to construct community mental health centers (CMHC). This act aimed to improve the diagnosis, treatment, and delivery of mental health services to individuals and prevent acute episodes that could impact their safety. In 1965 federal funding was allocated by the Medicaid Act to statewide institutions to improve conditions, staff education, and treatment of residents.[4]

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3. "John_F._Kennedy_Signs_the_Community_Mental_Health_Act_-_ST-C376-2-63.jpg" by Cecil W. Stoughton (1920–2008) is in the Public Domain
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Figure 10.2 President John F. Kennedy Signing the Community Mental Health Act

The Community Mental Health Act resulted in a mass "deinstitutionalization" across the country, and by 1980 the population of psychiatric hospitals had decreased by nearly 75%. Deinstitutionalization meant that individuals with behavioral and developmental disorders were cared for in group home settings that allowed for community involvement rather than being isolated in a facility with little or no interaction with general society. By 2009 less than 2% of individuals with mental health disorders lived in a large institution, thus greatly increasing their quality of life, attention to their individualized needs and preferences, and their ability to be active in the community.[5]

Additional consideration has also been given to school-aged children and adolescents with developmental disorders and disabilities to be educated in a mainstream environment. In 1975 the Education of Handicapped Children Act was passed to support special education and related service programming

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for children and youth with disabilities in public schools. This act mandated that everyone with an intellectual disability was granted equal access to a free education. It was renamed the Individuals with Disabilities Education Act (IDEA) in 1990. In 2010 President Barack Obama signed "Rosa's Law," which eliminated the term "mental retardation" and replaced it with "intellectual disability." Deleting this term from legislation helped to change the negative stigma associated with disabilities.

> Read the following PDF about Rosa's Law.

The remaining sections of this chapter will describe common developmental disorders, mental health disorders, and dementias you may encounter as a caregiver.[6]

6. What is the Individuals With Disabilities Education Act? by University of Washington is licensed under CC BY-NC-SA 3.0

10.3 Caring for Clients With Developmental Disorders

Developmental disorders, also referred to as "intellectual disabilities," are caused by impairments in the brain or central nervous system. These impairments result from problems that occurred during fetal development or injuries sustained during birth or early infancy, such as cerebral palsy and autism. Other disorders, such as Down syndrome, have a genetic cause.[1]

These impairments can impact mobility, problem-solving, planning, abstract thinking, judgment, academic learning, and learning from experience. Individuals with developmental disorders often function at a lower developmental stage than the average person of the same chronological age.[2]

> Refer to the Chapter 1.4, "Human Needs and Developmental Stages" section to review "Erikson's Stages of Development" and what is expected at each stage.

Intellectual disabilities are diagnosed by health care providers based on two major criteria[3]:

- The ability to learn, think, solve problems, and make sense of the world, referred to as intellectual functioning or Intelligence Quotient (IQ).
- The skills and abilities to live independently, referred to as **adaptive behavior** or adaptive functioning.

Intellectual functioning is typically measured by a standardized IQ test. The average score of an IQ test is 100. People scoring below 70 to 75 are thought to have an intellectual disability.

To measure adaptive behavior, professionals look at what an individual can do

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in comparison to other individuals their age. Skills important for adaptive behavior include the following[4]:

- Daily living skills, such as getting dressed, going to the bathroom, and feeding oneself
- Communication skills, such as understanding what is said and being able to answer
- Social skills with peers, family members, adults, and others

Adaptive behavior is much more about how a person manages in daily life and their ability to do the things that are expected of their age within their culture. Without ongoing support, deficits in adaptive behavior limit an individual's functioning in many areas such as communication, social participation, and independent living at home, school, work, or in the community. A person without adequate adaptive behaviors requires caregivers and other types of resources depending on their level of impairment. As a nursing assistant, you may be providing most of their needed support.

Levels of severity of intellectual disability and associated care needs can be categorized into mild, moderate, severe, and profound. It is important for nursing assistants to know what can be expected and how to care for individuals with these levels of disabilities[5]:

- **Mild Intellectual Disabilities:** In very young children with mild intellectual disabilities, there may be no obvious problems, but as they enter school, they often demonstrate difficulties in academic skills. As they become adults, abstract thinking and short-term memory are reduced, and communication is more immature than expected for their age. They may have difficulties regulating their emotions or have impaired social judgment, which puts them at risk of being manipulated by others. The

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individual may be independent with their activities of daily living (ADLs) and personal hygiene needs but requires support with shopping, cooking, housekeeping, and managing money. They may require assistance in finding appropriate leisure activities, as well as making health care decisions and legal decisions. Individuals with mild disabilities may be employed in jobs that don't require much decision-making.[6]

- **Moderate Intellectual Disabilities:** The conceptual skills of individuals with moderate intellectual disability can be observed because they are behind in development compared to their peers. For school-aged children, their academic achievement is limited, and their learning progress is slow in all areas compared to their peers. As they become adults, their academic skills typically remain at a primary school level. They rely on spoken words for communication and are often unable to understand written instructions. They develop personal relationships, although they may not perceive or interpret social cues accurately. Social judgment and decision-making abilities are limited, and appointed caregivers must assist them with important life decisions. An individual with moderate intellectual disabilities can achieve most of their ADLs if given appropriate time, verbal cues, and supervision to ensure they complete all personal hygiene needs. Similar guidance is needed for other household and life skills. Employment requires considerable support from coworkers and supervisors. Disruptive behaviors may be present that cause socialization problems.[7]
- **Severe Intellectual Disabilities:** Individuals with severe intellectual disabilities typically have little understanding of written language or concepts involving numbers, quantities, time, and money. Caregivers must plan extensive support for problem-solving throughout the individual's life because they are unable to make decisions regarding their well-being. Spoken language is limited in vocabulary and may be single words or phrases possibly supplemented by gestures, signs, or pictures.

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Communication tends to be focused on the here and now within everyday events. Relationships with family members, friends, and familiar others (like caregivers) are a great source of pleasure and help. Individuals require support for all ADLs and supervision at all times. Some individuals may demonstrate disruptive behaviors that are challenging for family members to manage.[8]

- **Profound Intellectual Disabilities:** Individuals with profound intellectual disabilities have very limited conceptual skills and at best can understand concrete objects but not symbols such as pictures or words. They can learn skills such as matching and sorting based on physical characteristics and may use objects for specific purposes such as self-care and recreation. They may understand some simple instructions with gestures and often express their desires and emotions through nonverbal, nonsymbolic communication. They enjoy relationships with well-known family members, caregivers, and familiar others and can initiate and respond to social interactions through gestural and emotional cues. However, sensory and physical impairments limit the amount and quality of social interaction, so extensive support may be required to ensure that social interaction occurs. They are dependent on others for all aspects of their care, health, and safety. If there are no physical impairments, they can assist with simple chores around the home such as putting dishes away. With support, it is possible to engage them in vocational tasks that depend on simple actions with objects. Recreational activities may involve listening to music, watching movies, going for walks, or water activities, all with the support of others. Without support, they often spend a lot of time just watching others. They may demonstrate disruptive behaviors.[9]

Individuals with developmental disabilities generally have few physical limitations. The majority of their care needs are based on supervised decision-

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making and ensuring safety needs are met. Because these impairments begin at a young age, caregivers must provide opportunities for individuals with developmental disabilities to be as independent as possible and integrated into everyday life. This philosophy is reflected in the legislative acts previously discussed in the "History of Care for Individuals With Mental Health Disorders and Developmental Disorders" section, with individuals having developmental disorders placed in small, community-based group homes if their care is unable to be managed by family members in their homes.

Down Syndrome

Nursing assistants may help support individuals with a common developmental disorder called Down syndrome. People with Down syndrome typically experience mild to moderate severity levels of intellectual disability with associated adaptive behaviors regarding daily life activities as previously described. Individuals with Down syndrome also have common physical characteristics based on its genetic cause related to an excess 21st chromosome.

Chromosomes can be thought of as small packages of genes in the body that determine how a baby forms as it develops during pregnancy and functions after birth. Typically, a baby is born with 46 chromosomes. However, babies with Down syndrome have an extra copy of Chromosome 21. The medical term for having an extra copy of a chromosome is **trisomy**, so Down syndrome is also referred to as "Trisomy 21." This extra 21st chromosome causes common physical features for individuals with Down syndrome as seen in Figures 10.3[10] and 10.4.[11]

10. "down-syndrome-full-medium.jpg" by National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention is in the Public Domain. Access for free at https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html#:~:text=Some%20common%20physical%20features%20of,A%20short%20neck
11. "Boy_with_Down_Syndrome.JPG" by Vanellus Foto is in the Public Domain

Figure 10.3 Infant With Down Syndrome

Figure 10.4 School-Aged Child With Down Syndrome

Common physical features of individuals with Down syndrome include the following[12]:

- A flattened face, especially the bridge of the nose
- Almond-shaped eyes that slant up
- A short neck
- Small ears
- A tongue that tends to stick out of the mouth
- Tiny white spots on the iris (colored part) of the eye
- Small hands and feet
- A single line across the palm of the hand (palmar crease)
- Small fifth fingers that sometimes curve toward the thumb
- Poor muscle tone or loose joints
- Shorter height as children and adults

Most people with Down syndrome have common facial features but no other major birth defects. However, some people with Down syndrome have other major birth defects and an increased risk of medical problems such as heart

12. Centers for Disease Control and Prevention (2021, April 6). *Facts about Down syndrome*. https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html#:~:text=Some%20common%20physical%20features%20of,A%20short%20neck

or thyroid disease. Common health problems associated with Down syndrome are as follows[13]:

- Hearing loss
- **Obstructive sleep apnea** (breathing temporarily stops while asleep)
- Ear infections
- Eye diseases
- Heart defects present at birth

Individuals with Down syndrome typically enjoy socialization and being part of a group, and finding ways to give them recognition for their achievements is important. For example, during school years, activities like helping with athletic teams are often enjoyable. After high school, employment provides feelings of self-esteem and achievement. Because these individuals thrive on encouragement, allowing them the opportunity to be as independent as possible and achieve their personal goals greatly increases their quality of life. Independence can range from completing ADLs independently, completing school coursework, or gaining skills from a job.

Autism Spectrum Disorders (ASD)

Nursing assistants may help care for individuals with an autism spectrum disorder (ASD). As the word spectrum infers, there is a wide range of potential behavioral patterns associated with autism. In contrast with other developmental disorders, individuals with autism can be extremely intelligent. Autism causes individuals to process environmental stimuli and social interactions in a different way. Sensory stimulation such as lights, sounds, odors, or crowds can cause individuals with ASD to fidget, call out, or repeat movements that can be perceived by others as outside the social norm. The media often portrays individuals with autism as having altered social awareness or the inability to show emotion or empathy. Actual behaviors associated with ASD are outlined in the following subsections.

13. Centers for Disease Control and Prevention (2021, April 6). *Facts about Down syndrome*. https://www.cdc.gov/ncbddd/birthdefects/downsyndrome.html#:~:text=Some%20common%20physical%20features%20of,A%20short%20neck

Social Communication

Individuals with autism often have altered social communication with others that becomes apparent early in childhood. Infants with ASD show less attention to social stimuli, smile and look at others less frequently, and have a decreased response to their name. Toddlers with ASD may demonstrate less eye contact and taking turns with others and may not have the ability to use simple movements to express themselves. Individuals with severe forms of ASD do not develop enough speech ability to meet their daily communication needs with others.[14]

Restricted and Repetitive Behaviors

Children with ASD may exhibit repetitive or restricted behaviors, including the following[15]:

- **Stereotypic:** Repetitive movements, such as hand flapping, head rolling, or body rocking.
- **Compulsive behavior:** Repetitive acts characterized by the feeling that one "has to" perform them, such as arranging objects in stacks or parallel lines.
- **Resistance to change:** Preference for an unvarying pattern of daily activities, such as insisting that the furniture not be moved.
- **Restricted behavior:** Limited focus, interest, or activities, such as preoccupation with a single television program, toy, or game.
- **Self-injury:** Movements that can cause the person to hurt themselves, such as eye poking, skin picking, hand biting, and head banging.

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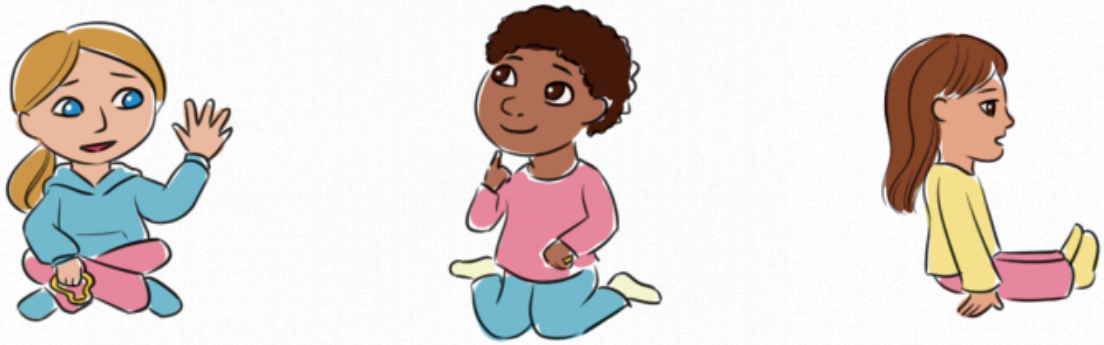
Figure 10.5[16] further explains three functional levels of ASD from the perspective of someone with autism.

16. "Three_Levels_of_Autism_1.png" by MissLunaRose12 is licensed under CC BY-SA 4.0

Three Functional Levels of Autism

written from an autistic perspective



Level 1

Requiring Support

I need help navigating a non-autistic world.

Average traits

People may see me as awkward, not disabled.

I can befriend or date non-disabled people, but it's hard and I'm often lonely.

I can handle change, but I prefer routine.

My fidgeting is seen as quirky or "annoying."

People may think my developmental delays are signs of laziness or insecurity.

Please know that

Social interactions are challenging. Please be understanding and offer help.

I struggle more than I let on.

Meeting others' expectations is exhausting. Please be patient.

I deserve respect and support.

Level 2

Requiring Substantial Support

I need help handling everyday challenges.

Average traits

People can usually tell that I have a disability.

My social life is very limited or nonexistent.

Coping with change is very challenging.

My repetitive behaviors are noticeably unusual.

I have significant developmental delays and will meet milestones late.

Please know that

I may seem inattentive, but I hear and understand you.

Routines and repetitive behavior help me feel safe.

I need a lot of help coping with stress.

I deserve respect and support.

Level 3

Requiring Very Substantial Support

I often need one-on-one support.

Average traits

My disability is very obvious.

I usually only communicate to express needs or answer questions.

Change and transitions can be unbearably difficult.

My intense repetitive behavior is calming and important to me.

I have large developmental delays and may not meet every milestone.

Please know that

I may seem unresponsive, but I hear and understand you.

Routines and repetitive behaviors help me feel safe.

I need help with communication skills.

I deserve respect and support.

These levels aren't clear-cut or permanent. Someone's skills may change.
Stress, environment, and support will impact someone's ability to function.

MissLunaRose

Figure 10.5 Three Functional Levels of Autism

View the following YouTube video to learn more about how individuals with autism experience daily life:[17] : What It's Really Like to Have Autism | Ethan Lisi.

17. TED. (2020, April 29). *What it's really like to have autism | Ethan Lisi* [Video]. YouTube. All rights reserved. https://youtu.be/y4vurv9usYA

10.4 Caring for Clients With Mental Health or Substance Use Disorders

Nursing assistants provide care for individuals with mental health disorders in many settings. According to the National Alliance on Mental Illness (NAMI), approximately 1 in 5 adults in the United States experiences some type of mental health disorder. In the United States, this means that over 43 million people experience a mental health disorder within any given year. Among individuals who experience a mental health disorder, 9.8 million experience a severe mental health disorder, meaning it dramatically interferes or limits their ability to function in everyday life. However, of all the adults in the United States with a mental health disorder, research shows that only 41% received mental health services in the past year, and for those diagnosed with a severe mental health disorder, only 63% received treatment or services. These numbers demonstrate the need to identify and provide effective treatment to individuals living with these disorders.[1]

Just as there are various physical illnesses with varying degrees of severity, there are also various mental health illnesses with varying degrees of severity. Symptoms of mental health disorders can often be managed with medications, in a similar way that physical illnesses like diabetes are managed with insulin and other medications. By helping individuals with mental health disorders manage their medications and attend psychotherapy and/or counseling sessions, caregivers can help individuals with mental health disorders stabilize their emotions and behaviors and reach their greatest potential in their life.

Being aware of common mental health disorders will allow you, as a caregiver, to understand what the person is experiencing and how to help them meet their needs in the best possible way. While every case is different, it is important to be aware of how individuals with mental health disorders may

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present themselves and start thinking about how you will help manage related symptoms and behaviors.[2]

There are several categories of mental health disorders diagnosed by mental health providers such as a psychiatrist, psychologist, or advanced practice nurse practitioner. This section will further describe these common mental health disorders:

- Anxiety Disorders
- Psychotic Disorders
- Bipolar Disorder
- Depressive Disorders
- Trauma Disorders
- Personality Disorders
- Substance Use Disorder

Anxiety Disorders

Anxiety is a universal human experience that includes feelings of apprehension, uneasiness, uncertainty, or dread resulting from a real or perceived threat. Fear is a reaction to a specific danger, whereas anxiety is a vague sense of dread to specific or unknown danger.[3] Everyone experiences feelings of mild anxiety due to situations that occur in their daily lives, such as an upcoming exam, job interview, sports competition, or other type of performance. However, individuals with anxiety disorders experience more than temporary worry or fear. The anxiety can worsen over time, and symptoms interfere with their daily functioning. People experiencing moderate to severe anxiety may also have objective symptoms such as an elevated heart rate, respiratory rate, or blood pressure.

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There are several types of anxiety disorders, including generalized anxiety disorder, panic disorder, and phobia-related disorders[4,5]:

- **Generalized Anxiety Disorder (GAD):** People with GAD have excessive anxiety and worry about numerous events or activities (such as work or school performance). The individual finds it difficult to control their anxiety and worry, and it is associated with symptoms such as restlessness, becoming easily fatigued, difficulty concentrating, irritability, muscle tension, and sleep disturbances. These symptoms impact daily functioning.
- **Panic Disorder:** People with panic disorder have recurrent panic attacks. **Panic attacks** are sudden periods of intense fear that come on quickly and reach their peak within minutes. Attacks can occur unexpectedly or can be brought on by a trigger, such as a feared object or situation. People experiencing a panic attack may exhibit symptoms such as sweating, trembling, shortness of breath, chest pain, nausea, increased heart rate, or feelings of losing control.
- **Phobia:** A **phobia** is an intense fear of specific objects or situations (such as flying, heights, or spiders).
    - Arachnophobia (fear of spiders) is a common phobia.
    - Agoraphobia is an intense fear of being in open spaces, a crowd, or outside of one's home alone. People with agoraphobia often avoid these situations because they fear having a panic attack and, as a result, may become homebound.
    - Social anxiety disorder is a type of phobia that includes fear or anxiety about social situations where there is possible scrutiny by others.

Psychotic Disorders

The term **psychosis** describes conditions when a person experiences a loss of contact with reality and has difficulty understanding what is real and what is

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5. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.

not real. Symptoms of psychosis include hallucinations and delusions. **Hallucinations** are false sensory perceptions not associated with real external stimuli and can include any of the five senses (seeing, hearing, feeling, tasting, or smelling). For example, individuals may experience hallucinations of seeing someone in the room when no one is there, hearing voices when alone, or smelling something cooking when nothing is being prepared. Some people are aware that their hallucinations are not real while others cannot separate their hallucinations from reality. **Delusions** are fixed, false beliefs held by a person even though there is concrete evidence they are not true. Examples of delusions may include believing that spies can hear your thoughts, people are poisoning your food, or a celebrity is in love with you. Symptoms of a psychotic episode include delusions, hallucinations, incoherent speech, and purposeless excessive movement.[6,7]

Psychosis is a symptom of several mental illnesses, including schizophrenia, bipolar disorder, severe depression, or severe anxiety, but there are also potential medical causes. Sleep deprivation, medical conditions like hyperglycemia, side effects of certain prescription medications, and use of alcohol or other drugs can cause psychotic symptoms. Psychosis caused by medical conditions or substance use is referred to as delirium. It starts suddenly and can cause hallucinations, but it is reversible by treating the cause of the **delirium**.

Nursing assistants can help manage patients' symptoms of psychosis with the following interventions[8,9]:

- Making sure the room is quiet and well-lit
- Having clocks and calendars within view
- Inviting family members to spend time in the room

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9. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.

- Ensuring hearing aids and glasses are worn
- Promoting undisrupted sleep when possible
- Getting patients up and out of bed when possible

Schizophrenia is a type of mental illness with symptoms of psychosis that last for at least six months. In addition to symptoms of psychosis, it also affects how a person feels, with reduced motivation, difficulty concentrating, disinterest or lack of enjoyment in daily activities, social withdrawal, difficulty showing emotion, and difficulty functioning in daily life activities. It is typically diagnosed in the late teen years to early thirties.[10,11]

Depressive Disorders

Depression is a common illness worldwide affecting an estimated 5% of adults. Depression is different from mood fluctuations or short-lived emotional responses to everyday life stressors or events, such as the loss of a loved one or the end of a relationship. Depression can become so severe that it affects the individual's ability to function at work, at school, and in their family roles. It can cause self-neglect, such as the failure to meet one's hygiene needs or obtain sufficient nutritional intake. At its worst, depression can lead to suicide.[12,13]

During a **depressive episode**, the person experiences a depressed mood (feeling sad, irritable, or empty) or a loss of pleasure or interest in activities they normally enjoy. Other symptoms may include poor concentration, feelings of excessive guilt or low self-worth, hopelessness about the future, thoughts about dying or suicide, disrupted sleep, changes in appetite or weight, and feeling fatigued.

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11. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.
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13. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.

Bipolar Disorders

Bipolar disorders include shifts in mood from abnormal highs (called manic episodes) to abnormal lows (i.e., depressive episodes). These shifts cause significant impairment in the person's functioning socially or at work. A manic episode is an elevated or irritable mood with abnormally increased energy that lasts at least one week. As the manic episode worsens, the individual may become psychotic with hallucinations. During a manic episode, the person often experiences a reduced need to sleep or eat and can exhibit risky behaviors like excessive buying sprees, unrestrained gambling, or sexual indiscretions. Depressive episodes have opposite symptoms of manic episodes and are exhibited by low energy, low motivation, and loss of interest in daily activities.[14,15]

Trauma Disorders

Trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening and can have lasting adverse effects on their functioning and mental, physical, social, emotional, or spiritual well-being. For example, a person may experience trauma from an event like a mass shooting, physical assault, rape, violent accident, or after natural disasters such as hurricanes or tornadoes. Trauma is also associated with experiences by military personnel/veterans or victims of war.

Types of trauma disorders include the following[16,17]:

- Post-traumatic stress disorder (PTSD) is a disorder that can be caused by experiencing, witnessing, or hearing about a traumatic event. After a month of being removed from the event, a person may continue to

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17. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.

experience sleeplessness, increased heart rate, mood shifts, physically lashing out, or any combination of responses. These responses may be brought on by any environmental stimuli that reminds the person of the terrifying event or by recurring thoughts about the event.

- Acute stress disorder is a disorder that has similar symptoms as post-traumatic stress disorder, but the symptoms only last for three days to one month. If symptoms last for longer than one month, it meets the criteria for PTSD. This disorder is experienced by individuals who have been exposed to actual or threatened death, serious injury, or sexual violence. It can be caused by directly experiencing the event, witnessing the event, learning the event occurred to a close family member or friend, or experiencing repeated exposure to details of traumatic events.[18]

Personality Disorders

A person's personality is a relatively stable pattern of thinking, feeling, and behaving that evolves over their lifetime. A **personality disorder** is a pattern of inner experiences and behaviors that deviates from the expectations of the individual's culture. It can be traced back to adolescence or early adulthood and leads to impaired functioning the remainder of the person's life.

There are ten types of personality disorders that can include distrust of others, isolation, habitual lying, and aggressive or violent acts with little remorse. Three common personality disorders are as follows[19,20,21]:

- **Obsessive-compulsive personality disorder (OCD):** OCD includes a pattern of preoccupation with orderliness, perfectionism, and control. This preoccupation may impair one's social life, health, or ability to function in the outside environment. This is the most common personality disorder in the United States.

18. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.
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21. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.

- **Borderline personality disorder:** Borderline personality disorder includes a pattern of instability in interpersonal relationships, altered self-image and emotions, and significant impulsivity. People with borderline personality disorder may experience chronic feelings of emptiness and exhibit frantic efforts to avoid real or imagined abandonment. They may have difficulty controlling their anger or experience dissociative symptoms where they feel detached from their body with a loss of memory of the experience.
- **Narcissistic personality disorder:** Narcissistic personality disorder includes a pattern of grandiosity, need for admiration, and lack of empathy for others.

Substance Use Disorders

Prolonged, repeated misuse of substances can produce changes to the brain that can lead to **substance use disorder**. Substances may include alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, stimulants, or misuse of other prescription or over-the-counter medications. All these substances taken in excess have a common effect of intensely activating the reward system in the brain so much that normal life activities may be neglected. Substance use disorder (SUD) is an illness caused by repeated misuse of these substances.[22]

Over 40 million Americans are diagnosed with SUD (14.5% of the population). Severe substance use disorders are commonly referred to as addiction. Addiction is associated with compulsive or uncontrolled use of one or more substances. Addiction is a chronic illness that has the potential for relapse or recovery. Relapse refers to the return to substance use after a significant period of abstinence. Recovery is a process of change when individuals improve their health and wellness and strive to reach their full potential. Individuals with severe SUD can overcome their disorder with effective treatment and regain health and social functioning, referred to as remission.[23]

22. American Psychiatric Association. (2013). *Desk reference to the diagnostic criteria from DSM-5*.
23. Substance Abuse and Mental Health Services Administration, & Office of the Surgeon General. (2016). *Facing*

Care Considerations

Treatment for mental health and SUDs often involves a variety of approaches such as medication, individual or group therapy, and peer support groups. These interventions may happen in an outpatient or inpatient setting. While you will not be involved in providing these treatments as a nursing assistant, it is important to understand what someone with any of these diagnoses is experiencing. Your support and the manner in which you provide assistance can make a large impact on the quality of life for those in recovery.

When providing ADLs and other assistance for those with mental health disorders, substance use disorders, or developmental disorders, the same considerations apply as when providing care to any individual with respect to promoting their dignity, privacy, and preferences. It is also important to be aware of exposure to potential situations or environments that may feel overwhelming to the individual and/or trigger their symptoms or behaviors.

Major themes of care to implement for individuals with developmental, mental health, or substance use disorders include the following:

- **Communication:** As with all caregiving relationships, work to build a trusting relationship through good communication. Allow time for the client to talk about any concerns and report any changes in outlook to the nurse for additional support. When providing care, explain the procedure and look for body language, as well as verbal cues, to determine the client's level of comfort.
- **Routine:** Keep things as predictable as possible. The daily schedule should remain as consistent as possible by waking, providing meals, engaging in activities, and going to bed around the same times each day. Staff involved in personal care and other support should remain consistent whenever feasible. Change and unexpected situations can provoke anxiety in anyone but can be especially upsetting for people with

addiction in America: The surgeon general's report on alcohol, drugs, and health. United States Department of Health and Human Services. https://www.ncbi.nlm.nih.gov/books/NBK424857/

mental health, substance use, or developmental disorders.

- **Empathy:** Remember that interactions with the environment, family, friends, and caregivers are often processed differently by those with mental health or development disorders and may result in disruptive behaviors. Do not take their behaviors personally or assume they are trying to be difficult, but instead be aware their ability to respond calmly or cope with excessive stimuli or interactions may be diminished.
- **Redirect or Reapproach:** If a client with a developmental or mental health disorder displays disruptive behaviors, focus on their safety and determine what is absolutely necessary to accomplish at this point in time. Do not focus on completing a task now if doing it at a later time when the client is calmer will have the same outcome. Attempt to redirect their attention by carefully encouraging engagement in another activity that may be more appealing or by tactfully changing the subject of a conversation that may be upsetting. For example, if a resident becomes agitated because they don't want to get dressed right away in the morning, will it matter if they wear their pajamas until they need to go outside of their room? You can reapproach them at a later time when they may be calmer. This is no different than accommodating preferences for any resident.

There are specific care considerations based on the individual's diagnosis and things the caregiver should be aware of when trying to meet their personal needs. See Table 10.4 for care considerations for individuals with mental health and developmental disorders.

Table 10.4 Care Considerations for Individuals With Mental Health and Developmental Disorders

Diagnosis	Strategies to Approach Care
Anxiety Disorder	Allow time to talk about the situation causing feelings of fear or anxiety (if they are willing to talk about it). If change causes anxiety, determine if being aware of change in advance will cause less anxiety based on the individual's preferences.
Depressive Disorder	Listen to the patient's expression of their feelings when providing care. Encourage them to be independent and participate in activities, even if this means 1:1 socialization. Recognize and reinforce their efforts at participating in their cares or socializing with others. Encourage effective coping strategies like physical activity, meditation, journaling, art, and music.
Bipolar Disorder	During manic episodes, encourage rest and nutrition. Allow time to discuss overwhelming feelings or situations. Use approaches for depressive disorders during low periods.
Schizophrenia	Empathize and provide safety if they are experiencing hallucinations. Do not contradict what they may be visualizing. Validate their experiences with statements such as, "That must be scary for you; how can I help?" Check for lighting or sounds that may be triggering hallucinations and move to a different room or area as needed.
Post-Traumatic Stress Disorder (PTSD)	Maintain a consistent environment and routine. Be aware of things that may overstimulate them or trigger stressful feelings.
Substance Use Disorder	Support healthy decisions, encourage recovery, and promote self-esteem.
Down Syndrome	Provide ample time when explaining tasks and give choices to encourage independence. Establish routines and rewards.
Autism	Be aware of situations or experiences that may cause overstimulation and make them feel overwhelmed. Provide time for alone time or independent activities.

10.5 Caring for Clients With Dementia

Dementia is a general term for loss of memory, language, problem-solving, and other thinking abilities that are severe enough to interfere with daily life. Disorders grouped under the general term “dementia” are caused by abnormal brain changes. These changes in brain cells affect their communication with each other, affecting a person’s thinking (i.e., cognitive abilities), behaviors, and feelings. There are many types of dementia. Alzheimer’s disease is the most common type of dementia. Vascular dementia is the second most common cause of dementia, followed by frontal-temporal dementia and Lewy body disease. While there are various causes of dementia, the observable characteristics are similar.[1]

Signs and symptoms of dementia include forgetfulness, impaired decision-making, and decreased thinking abilities that interfere with daily living. It is gradual and progressive, meaning the signs of dementia start out slowly and gradually get worse over time. Some examples of decreased thinking include changes in the ability to perform the following actions[2]:

- Recalling things from short-term memory
- Keeping track of a purse or wallet
- Paying bills
- Planning and preparing meals
- Remembering appointments
- Traveling out of the neighborhood

Dementia typically starts later in life, but it can begin as early as the mid-40s. It is not an expected part of aging. There is no cure for dementia, and the

1. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB
2. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

effects are irreversible. However, appropriate care improves the safety and the quality of life for individuals affected by dementia and their loved ones.[3]

Types of Dementia

Various types of dementia are further described in the following subsections.

Alzheimer's Disease

About 10% of people older than 65 are affected by Alzheimer's disease (AD). AD is the most common type of dementia and accounts for 60-80% of cases. Changes in the brain may begin a decade or more before impaired short-term memory and other cognitive problems appear, and the brain's functioning continues to decline over time.

Scientists continue to unravel the complex brain changes involved in the onset and progression of AD. Abnormal deposits of proteins occur throughout the brain and form structures called amyloid plaques and tau tangles, causing previously healthy nerve cells (neurons) to stop functioning, lose connections with other neurons, and die. The damage initially appears to take place in the hippocampus and the cortex, the parts of the brain that are essential for forming memories. As additional neurons die, more parts of the brain are affected and begin to shrink. By the final stage of AD, damage is widespread, and brain tissue has shrunk significantly.[4] See Figure 10.6[5] for images comparing a healthy brain to the changes that occur during AD.

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5. "Alzheimers_Disease.jpg" by BruceBlaus is licensed under CC BY-SA 4.0 and "24239522109_6b061a9d69_o.jpg" by NIH Image Gallery is licensed under CC0

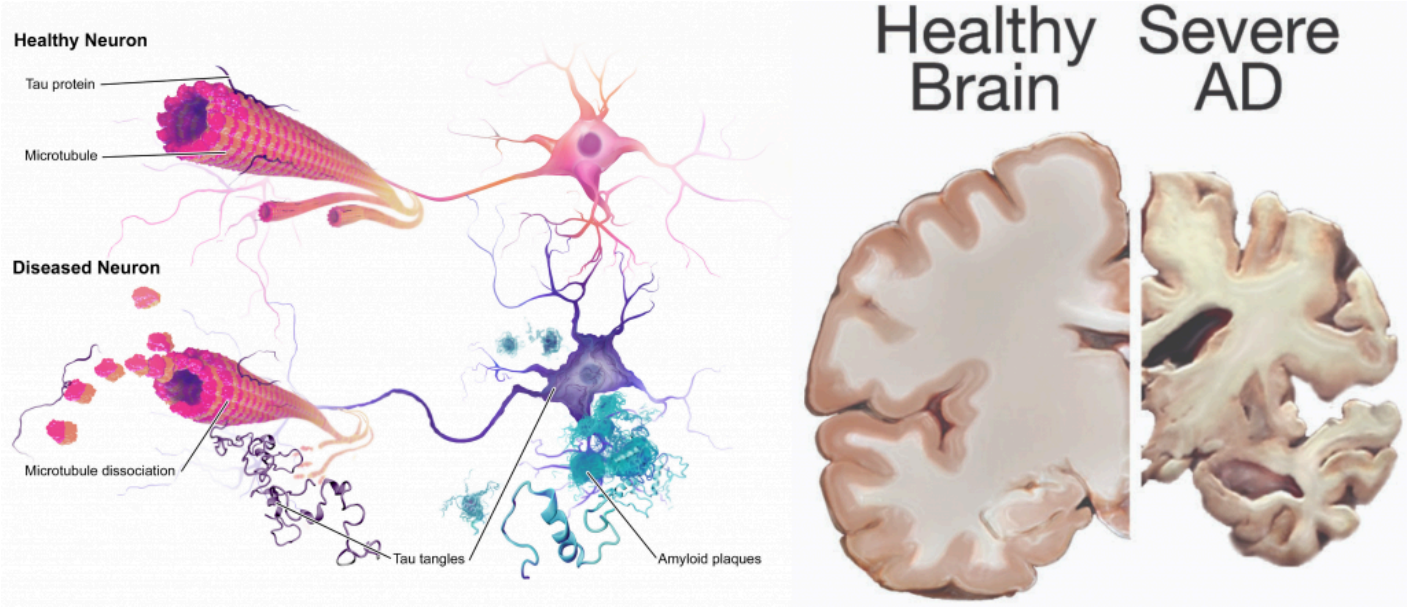

Figure 10.6 Changes in Neurons and the Brain Caused by Alzheimer's Disease

There is no single diagnostic test that can determine if a person has AD. Health care providers use a patient's medical history, mental status tests, physical and neurological exams, and diagnostic tests to diagnose AD and other types of dementia. During the neurological exam, reflexes, coordination, muscle tone and strength, eye movement, speech, and sensation are tested. While there is no cure for AD, there are medications to reduce progression of the symptoms of memory loss and confusion, as well as interventions to manage common symptomatic behaviors.[6]

Vascular Dementia

Vascular dementia occurs at a younger age than Alzheimer's disease with most symptoms starting around age 60. Vascular dementia is the second most common type of dementia worldwide and affects about 10-20% of patients with dementia. It is caused by microscopic bleeding and blood vessel blockage in the brain and is also called multi-infarct dementia. High blood pressure and strokes are common causes of vascular dementia.

The onset of vascular dementia is typically abrupt and followed by a rapid

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decline in functioning, in comparison to the slow progression of Alzheimer's disease. Common symptoms in vascular dementia include apraxia and agnosia. **Apraxia** is the impaired ability to carry out motor activities despite intact motor function. This means the person can understand instructions and has the ability to complete an action but cannot process the cue to actually perform the task. **Agnosia** is the failure to recognize or identify objects despite intact sensory function.[7]

Lewy Body Dementia

Lewy body dementia (LBD) affects approximately 10 to 20% of patients with dementia. Like Alzheimer's disease, LBD causes a progressive decline in cognition, leading to a functional impairment in daily activities. This type of dementia typically appears around age 70, and Parkinson's disease and sleep disorders are often precursors to being diagnosed with LBD.

Significant features of LBD are fluctuating cognition, visual hallucinations, and sleep disturbances that affect motor and psychiatric functioning. These factors increase the risk of falls, infection, and malnutrition. Individuals with LBD frequently have aggressive behaviors. Medications used for treating dementia are less effective for LBD and often result in more adverse side effects than with other types of dementia.[8]

Frontotemporal Dementia

Frontotemporal dementia (FTD) is caused by degeneration of neurons in the frontal and anterior temporal lobes of the brain. In patients older than 65 years, it is the third most common cause of dementia. For individuals younger than 65 years, it is the second most common cause of early-onset dementia and commonly affects patients ranging from 45 to 65 years of age.

7. Abnormal Psychology by Lumen Learning is licensed under CC BY 4.0
8. This work is a derivative of A Long Goodbye: Ed and Mary's Journey With Lewy Body Dementia by James Cook University and is licensed under CC BY-NC-ND 4.0

Genetics plays a key role in the development of FTD with approximately 40% of cases familial in origin. Head trauma and thyroid disease have also been linked to the development of FTD. Individuals who have experienced head trauma are three times more likely to develop FTD, and individuals with thyroid disease are over twice as likely to develop this type of dementia.

FTD targets brain areas that are responsible for personality, behavior, language learning, motivation, abstract thinking, and executive function. Behavior changes and/or language difficulties are common symptoms, followed by loss of cognitive abilities and executive functioning like planning, organizing, and self-control.[9]

Stages of Dementia

Stages of dementia are often classified as early, moderate, or advanced.

Early Dementia

There are ten symptoms of early dementia[10]:

- **Memory loss that disrupts daily life.** This type of memory loss refers to forgetting recently learned information that disrupts daily life, such as forgetting important dates or events, asking the same questions over and over, and increasingly needing to rely on memory aids (e.g., reminder notes or electronic devices). They often rely on family members for things they used to handle on their own. These impairments are different from typical age-related changes, like sometimes forgetting names or appointments but remembering them later.
- **Challenges in planning or solving problems.** This includes changes in an individual's ability to develop and follow a plan or work with numbers. For

9. This work is a derivative of StatPearls by Khan and De Jesus and is licensed under CC BY 4.0
10. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

example, they may have trouble following a familiar recipe or keeping track of monthly bills. They may have difficulty concentrating and take much longer to do things than they did before. This is more severe and frequent than typical age-related changes of making occasional errors when managing finances or household bills.

- **Difficulty completing familiar tasks.** This includes trouble driving to a familiar location, organizing a grocery list, or remembering the rules of a favorite game. This symptom is different from a typical age-related change of occasionally needing help to use microwave settings or to record a TV show.
- **Confusion with time or place.** This includes losing track of dates, seasons, and the passage of time. Individuals may have trouble understanding something if it is not happening immediately. Sometimes they may forget where they are or how they got there. This symptom is different from a typical age-related change of forgetting the date or day of the week but figuring it out later.
- **Trouble understanding visual images and spatial relationships.** Vision problems that include difficulty judging distance, determining color or contrast, or causing issues with balance or driving can be symptoms of Alzheimer's disease. This is different from typical age-related visual changes. (See the Chapter 9.7, "Visual Impairment" subsection for more information on common vision problems.)
- **New problems with words in speaking or writing.** Individuals with Alzheimer's disease may have trouble following or joining a conversation. They may stop in the middle of a conversation and have no idea how to continue or they may repeat themselves. They may struggle with vocabulary, have trouble naming a familiar object, or use the wrong name (e.g., calling a "watch" a "hand-clock"). This is different from a typical age-related change of having trouble finding the right word.
- **Misplacing things and losing the ability to retrace steps.** A person with Alzheimer's disease may put things in unusual places. They may lose things and be unable to go back over their steps to find them again. They may accuse others of stealing, especially as the disease progresses. This is different from a typical age-related change of misplacing things from

time to time and retracing steps to find them.

- **Decreased or poor judgment.** Individuals with Alzheimer's disease may experience changes in judgment or decision-making. For example, they may use poor judgment when dealing with money or pay less attention to grooming or keeping themselves clean. This is different from a typical age-related change of making a bad decision or mistake once in a while, like neglecting to change the oil in the car.
- **Withdrawal from work or social activities.** A person living with Alzheimer's disease may experience changes in the ability to hold or follow a conversation. As a result, they may withdraw from hobbies, social activities, or other engagements. They may have trouble keeping up with a favorite team or activity. This is different from a typical age-related change of sometimes feeling uninterested in family or social obligations.
- **Changes in mood and personality.** Individuals living with Alzheimer's disease may experience mood and personality changes. They can become confused, suspicious, depressed, fearful, or anxious. They may be easily upset at home, with friends, or when out of their comfort zone. This is different from a typical age-related change of developing very specific ways of doing things and becoming irritable when a routine is disrupted.

Moderate Dementia

In moderate stages of dementia, people may experience the following symptoms[11]:

- Needing additional assistance with reminders to eat, wash, and use the restroom.
- Needing help in recognizing family and friends. Sometimes showing a photo of the person at a younger age will trigger their remaining long-term memory of that person.
- Wandering, getting lost, hallucinations, delusions, and repetitive behavior.

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- **Perseverating** on a task, meaning they repeat something over and over. The person feels compelled to do something, such as call a family member, get groceries, or pick up their children. It often is linked to a responsibility they had as a younger person before memory impairment occurred.
- Hoarding of everyday objects. In a facility, this could be things like sugar or ketchup packets, straws, or salt and pepper shakers.
- Rummaging through items in drawers. This can be upsetting to others in a facility as the person may likely go into other residents' rooms, not realizing it is inappropriate.
- Engaging in risky behavior, such as leaving the house in clothing inappropriate for weather conditions or leaving the stove burners on. If living in a facility, individuals may try to leave when it is not safe to do so (referred to as eloping).
- Demonstrating restlessness, agitation, irritability, or confusion that can begin or worsen as daylight begins to fade. This is referred to as sundowning. (Sundowning will be covered in more detail in the "Managing Sundowning" discussion later this section.)

In the moderate stage of dementia, people who pace or wander may not feel comfortable sitting down for a meal. Finger foods, frequent healthy snacks, and nutritionally enriched beverages can be offered to help maintain their nutritional intake.

Advanced Dementia

Those with advanced dementia may experience the following symptoms[12]:

- Urinary and/or bowel incontinence.
- Increasing need for assistance in washing, dressing, eating, and toileting.
- Unsteady gait or shuffling while walking, progressing to the inability to

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walk.
- Increased aggressive behavior, disinhibition (inappropriately acting on sexual desires), or inappropriate laughing.
- Difficulty eating, swallowing, and speaking.
- Increased time for processing conversations and following directions, progressing to unresponsiveness.
- Modified diet such as thickened fluids and a soft or pureed diet.
- Seizures may develop in advanced stages.

To learn more about how Alzheimer's changes the brain, view the following YouTube video[13]: How Alzheimer's Changes the Brain.

Caring for Individuals With Dementia

As dementia progresses and cognition continues to deteriorate, care must be individualized to meet the needs of the patient and family. Providing patient safety and maintaining quality of life while meeting physical and psychosocial needs are important aspects of nursing care. Unsafe behaviors put individuals with dementia at increased risk for injury.[14]

Similar to those with intellectual disabilities, individuals with dementia can be very physically mobile. Their decreased awareness of safety paired with good physical mobility means they require constant oversight as the disease progresses. Disruptive behaviors often occur due to the patient having a need or emotion without the ability to express it due to the changes in their brain.

13. National Institute on Aging. (2017, August 23). *How Alzheimer's changes the brain* [Video]. YouTube. All rights reserved. https://youtu.be/0GXv3mHs9AU
14. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

These needs may be untreated pain, hunger, anxiety, or the need to use the bathroom. Without the ability to communicate these needs, the individual may display agitation, aggression, shouting, combativeness, and many other behaviors that can be distressing for all involved. The patient's family members and caregivers require education and support to recognize that behaviors are a symptom of dementia and/or a communication of their needs rather than being upset with the caregiver. As a nursing assistant, the more familiar you are with a client, the easier it becomes to understand their behaviors and provide activities to keep their emotions stable while proactively meeting their care needs.[15]

Providing Validation Therapy

Caring for individuals with dementia can be difficult, especially for family members who have trouble understanding what is happening to their loved one. They may try to reorient the person to the present time and situation, which can be frustrating for a person with dementia because they are unable to process these cues.

One of the most effective methods used to assist people with dementia is called **validation therapy,** meaning you support the reality the person with dementia is experiencing and do not attempt to reorient them. Begin by determining what the person is perseverating on and figure out a way to satisfy their need or respond to their emotion. For example, if a person with dementia is perseverating on the need to catch an imagined bus, you can sit with them by a window and tell them you will have a conversation until the bus arrives. If they are looking for a child they recall from their past experiences, allow them to hold a doll or call the "child" they are looking for on the phone. After they feel their concerns are validated, it will be easier to redirect them to another activity and reduce their emotional response.

15. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

Remember that individuals with dementia still retain long-term memories, and these memories often provide comfort and ease anxiety. It is helpful to provide activities similar to those they formerly enjoyed or simulate situations that resemble their prior work or home environment. For example, if a person was a homemaker, allow them to fold laundry or towels. If they enjoyed working with their hands, provide nuts and bolts to put together and take apart. If they worked in an office, folding letters and placing them in envelopes may be helpful. Activities like sorting cards, doing simple crafts, or baking may also be enjoyable. In the early to moderate stages of dementia, ambulation, chair exercises, or range of motion exercises can help to utilize pent-up energy that can otherwise lead to agitation.

Keeping the environment similar to their previous home can also be a calming factor by helping them recognize where their room is and reducing wandering or the risk of entering a room that does not belong to them. Some care facilities paint the doorframe like the resident's home, use plates and utensils from the resident's kitchen, and bring furniture from their home as well.

The "Dementia Village" is an entire neighborhood in Holland, complete with movie theater, restaurants, and stores and all staffed with specialized dementia caregivers. The neighborhood is enclosed, allowing residents to walk on their own without the risk of wandering and getting lost or risking safety. View the following YouTube video about how this community is set up[16]: CNN's World's Untold Stories: Dementia Village.

16. CNN. (2013, July 10). *CNN's world's untold stories: Dementia village* [Video]. YouTube. All rights reserved. https://youtu.be/jwt4uGYGGUA

Managing Sundowning

Sundowning refers to restlessness, agitation, irritability, or confusion that typically begins or worsens as daylight begins to fade and can continue into the night, making it difficult for patients with dementia to sleep. Being overtired can increase late-afternoon and early-evening restlessness. Tips to manage sundowning are as follows[17]:

- Take the resident outside or expose them to bright light in the morning to reset their circadian rhythm.
- Do not plan too many activities during the day. A full schedule can be overtiring.
- Make early evening a quiet time of day. Play soothing music or ask a family member or friend to call during this time.
- Close the curtains or blinds at dusk to minimize shadows and the confusion they may cause.
- Reduce noise, clutter, or the number of people in the room.
- Do not serve coffee, cola, or other drinks with caffeine late in the day.

Managing Aggressive Behaviors

Aggressive behaviors may be verbal or physical. They can occur suddenly, with no apparent reason, or result from a frustrating situation. While aggression can be hard to cope with, understanding this is a symptom of dementia and the person with dementia is not acting this way on purpose can help caregivers respond.[18] See Figure 10.7[19] for an image of a resident with dementia demonstrating aggressive verbal behavior.

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18. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0
19. "5012292106_507e008c7a_o.jpg" by borosjuli is licensed under CC BY 2.0

Figure 10.7 A Resident Displaying Aggressive Verbal Behavior

There are many therapeutic methods for a nurse or caregiver to initially respond to aggressive behaviors displayed by a person with dementia as previously described in the "Caring for Clients With Mental Health or Substance Use Disorders" section:

- Communication
- Routine
- Empathy
- Redirect or reapproach

Aggression can be caused by many factors including physical discomfort, environmental factors, and poor communication. If a person with dementia becomes aggressive, consider what might be contributing to the change in behavior and address it.[20]

PHYSICAL DISCOMFORT

- Is the person able to let you know that they are experiencing physical pain? It is not uncommon for people with dementia to have urinary tract or other infections. Due to their loss of cognitive function, they are unable to articulate or identify the cause of physical discomfort and, therefore,

20. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

may express it through physical aggression.
- Is the person tired because of inadequate rest or sleep?
- Is the person hungry or thirsty?
- Are medications causing side effects? Side effects are especially likely to occur when individuals are taking multiple medications for several health conditions.[21]

ENVIRONMENTAL FACTORS

- Is the person overstimulated by loud noises, an overactive environment, or physical clutter? Large crowds or being surrounded by unfamiliar people – even within one's own home – can be overstimulating for a person with dementia.
- Does the person feel lost?
- What time of day is the person most alert? Most people function better during a certain time of day; typically, mornings are best. Consider the time of day when making appointments or scheduling activities. Choose a time when you know the person is most alert and best able to process new information or surroundings.[22]

POOR COMMUNICATION

- Are your instructions simple and easy to understand?
    - Use simple language.
    - Limit choices to one or two options. (Example: "Do you want to wear the blue shirt or the black shirt?")
    - Be sure communication techniques take sensory deficits into

21. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB
22. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

consideration.
    - Try physically demonstrating instead of verbally instructing; use pictures or gestures.
- Are you asking too many questions or making too many statements at once? Give ample time to process and respond.
- Is the person picking up on your own stress or irritability? Take a moment for deep breathing or ask another caregiver to assist if available.[23]

OTHER TECHNIQUES

The following techniques are additional strategies that can be used with aggressive behavior[24]:

- Begin by trying to identify the immediate cause of the behavior. Think about what happened right before the reaction that may have triggered the behavior. Rule out pain as the cause of the behavior. Pain can trigger aggressive behavior for a person with dementia.
- Focus on the person's feelings, not the facts. Look for the feelings behind the specific words or actions.
- Try not to get upset. Be positive and reassuring and speak slowly in a soft tone and seek help from another caregiver if needed.
- Limit distractions. Examine the person's surroundings and adapt them to avoid future triggers.
- Implement a relaxing activity. Try music, massage, or exercise to help soothe the person.
- Shift the focus to another activity (redirect). The immediate situation or activity may have unintentionally caused the aggressive response, so try a different approach.
- Take a break if needed. If the person is in a safe environment and you are

23. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB
24. This work is a derivative of Nursing Fundamentals by Chippewa Valley Technical College and is licensed under CC BY 4.0

able, walk away and take a moment for emotions to cool.
- Ensure safety! Make sure you and the patient are safe. Be aware of movement of the patient's hands and feet and protect yourself from being hit or kicked. Avoid potential strangulation hazards like retractable lanyards. If interventions do not successfully calm down an aggressive patient, seek assistance from other staff members. If it is an emergency situation, call 911 and be sure to tell the responders the person has dementia that is causing them to act aggressively.

Responding to a Person Having Hallucinations

When responding to a person experiencing hallucinations, be cautious. First, assess the situation and determine whether the hallucination is a problem for the person or for you. Is the hallucination upsetting? Is it leading the person to do something dangerous? Is the sight of an unfamiliar face causing the person to become frightened? If so, react calmly and quickly with reassuring words and a comforting touch. Do not argue with the person about what they see or hear. If the behavior is not dangerous, there may not be a need to intervene. Utilize aspects of validation therapy by doing the following[25]:

- Offer reassurance. Respond in a calm, supportive manner. You may want to respond with, "Don't worry. I'm here. I'll protect you. I'll take care of you." Gentle patting may turn the person's attention toward you and reduce the hallucination.
- Acknowledge the feelings behind the hallucination and try to find out what the hallucination means to the individual. You might want to say, "It sounds as if you're worried," or "This must be frightening for you."
- Use distractions. Suggest a walk or move to another room. Frightening hallucinations often subside in well-lit areas where other people are present. Try to turn the person's attention to music, conversation, or

25. Alzheimer's Association. (n.d.). *What is dementia?* https://www.alz.org/alzheimers-dementia/what-is-dementia?utm_source=google&utm_medium=paidsearch&utm_campaign=google_grants&utm_content=dementia&gclid=Cj0KCQjwvqeUBhCBARIsAOdt45Z-WN2Wk5Tw07mB7PRGJ3axLWBDxeaooRqavb7_E7n3wQacrGvghdwaAqoXEALw_wcB

activities they enjoy.

- Respond honestly. If the person asks you about a hallucination or delusion, be honest. For example, if they ask, “Do you see the spider on the wall?,” you can respond, “I know you see something, but I don’t see it.” This way you’re not denying what the person sees or hears and avoiding escalating their agitation.
- Modify the environment. Check for sounds that might be misinterpreted, such as noise from a television or an air conditioner. Look for lighting that casts shadows, reflections, or distortions on the surfaces of floors, walls, and furniture. Turn on lights to reduce shadows. Cover mirrors with a cloth or remove them if the person thinks they are looking at a stranger.

Managing Wandering

Wandering is the simple act of a person walking around with no purpose due to confusion regarding their location or environment. It can occur in any stage of dementia. Wandering can be unsafe if the person should not be ambulating independently or if they are attempting to leave home or a facility resulting in them becoming lost without supervision. It is especially risky during cold winter months when there is the potential for hypothermia because the person won’t realize their need for warm clothing or to return indoors.

Offering opportunities for exercise or other physical movement (like range of motion exercises) several times throughout the day can reduce the urgency for people to move about unsafely. If the person does not want to participate in physical movement, any engaging experiences such as sorting items, arts and crafts, baking, or folding clothes can help to keep residents safe.

A possible intervention for wandering is a device called a **wanderguard**. This device is a bracelet that has a tracking device. The wanderguard can be worn on the wrist or ankle. Some facilities place the wanderguard on a resident’s walker or wheelchair; however, by choosing either of these locations, the wanderguard is only effective when the resident is using that particular device. The wanderguard allows the location of the person wearing it to be

monitored via an app on a phone or other device such as a tablet or laptop. Multiple wanderguards can be activated and monitored at the same time on one device. The wanderguard sounds an alarm when the wearer comes into close proximity with any exits such as elevators, doors, and windows. It may also initiate locking of doors and disabling of elevator buttons to assist in keeping residents safe. See Figure 10.8[26] for an image of a wanderguard placed on a resident's wrist.

Figure 10.8 Wanderguard Bracelet. This image is included on the basis of Fair Use.

26. "wanderguard-blue-tag-2.jpg" by unknown author is included on the basis of Fair Use. Access original image at https://www.stanleyhealthcare.com/products/wanderguard-blue-bracelet.

10.6 Promoting Nutritional Intake

When a client is unable to accurately process information, this can lead to problems with food and fluid intake. They may not understand the process any longer, or they may not be able to follow the commands of opening their mouth, chewing, or swallowing. General considerations for promoting food and fluid intake are discussed in the Chapter 5.7, "Assisting With Nutrition and Fluid Needs" section, and the Chapter 6.2, "Nutrition and Fluid Needs" section also discusses assisting individuals with dementia, developmental disorders, or mental health disorders. The therapeutic techniques of using good communication, displaying empathy, keeping a routine, and reapproaching can also be utilized.

Aspiration risk also increases as dementia worsens, so individuals with advanced dementia may require thickened liquids and mechanical soft or pureed texture diet orders to prevent aspiration risk. Tube feeding may be initiated according to the client's preferences or at the discretion of their appointed power of attorney for health care.

There are several actions a nursing assistant can take to promote food intake. If the patient has difficulty with the motor skills of eating or drinking, determine if sensory deficits may be the issue. If the dining area is noisy, try moving them to a quieter area where it may be easier to hear prompts. Bringing the person near the area where food is prepared can increase their appetite by smelling the aromas of the meal. After the food is served, position the food in the client's direct line of vision. Put a small amount of food on a spoon and hold it gently to the lips, allowing ample time for them to process the feeling and open their mouth. Multitextured foods like cereal in milk can contribute to confusion over whether to chew or swallow. It may take a long time for the person to swallow, or they may have difficulty swallowing. Remind the person to tuck their chin towards their chest to reduce aspiration risk and aid in swallowing. If the person is holding the food in their mouth, gently rub their neck over their throat because this often prompts them to swallow. People with dementia and some with developmental disabilities may "**pocket**" their food, meaning they keep it in their cheeks and don't

swallow it. You may have to use an oral swab after meals to be certain that there is no food left in their mouth.

It can be difficult to tell when a person is full if they have dementia or other communication deficits. When they stop taking in food during a meal and seem full, a good practice is to hold each type of food to their lips one more time to be sure they have had all they want to eat of each food choice. Do the same with fluids.

Documenting food and fluid intake is the same as is required for any resident, but if intake is very minimal, report this to the nurse. When a person exhibits changes in their appetite, is coughing or clearing their throat more frequently, or has trouble managing utensils, report these changes to the nurse so that a speech or occupational therapist can assess the resident. Check the dietary card or care plan so any assistive feeding devices can be utilized to keep the resident as independent as possible and interested in meals.

10.7 Caregiver Role Strain

Eighty-three percent of the assistance provided to people living with dementia in their homes in the United States comes from family members, friends, or other unpaid caregivers. Approximately one quarter of dementia caregivers are also “sandwich generation” caregivers, meaning that they are not only caring for an aging parent, but also providing care for children under age 18. Because of the 24/7 care required, caring for a loved one with dementia can take a devastating toll on caregivers. Compared with other caregivers for people without dementia, twice as many caregivers for people with dementia indicate substantial emotional, financial, and physical difficulties.[1] See Figure 10.9[2] of an image of a caregiver daughter caring for her mother with dementia.

Figure 10.9 Daughter Caregiver

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2. “My_mum_ill_with_dementia_with_me.png” by MariaMagdalens is licensed under CC BY-SA 4.0

Signs of caregiver role strain for family caregivers may include these behaviors or thoughts[3]:

- Denial about the disease and its effect on the person who has been diagnosed. For example, the caregiver might say, “I know Mom is going to get better.”
- Anxiety about the future and facing another day. For example, the caregiver might say, “What happens when he needs more care than I can provide?”
- Sleeplessness caused by concerns. For example, the caregiver might say, “What if she wanders out of the house or falls and hurts herself?”
- Difficulties at work especially if the need for time off impact their job duties or the stress and fatigue from caregiving compromise their performance.
- Changes in relationships and roles. Some people find it challenging to assume responsibility for a family member’s needs as a caregiver while still in the role of a spouse or a daughter/son. These feelings can cause additional feelings of stress and grief.

Signs of caregiver role strain for family or paid caregivers may include the following[4]:

- Anger at the person with dementia or frustration that they can’t do the things they used to be able to do. For example, the caregiver might say, “He knows how to get dressed; he’s just being stubborn.”
- Social withdrawal from friends and activities. For example, the caregiver may say, “I don’t care about visiting with my friends anymore.”
- Depression or decreased ability to cope. For example, the caregiver might say, “I just don’t care anymore.”
- Exhaustion that makes it difficult for them to complete necessary daily

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tasks. For example, the caregiver might say, “I’m too tired to prepare meals.”
- Irritability, moodiness, or negative responses.
- Lack of concentration that makes it difficult to perform familiar tasks. For example, the caregiver might say, “I was so busy; I forgot my appointment.”
- Health problems that begin to take a mental and physical toll. For example, the caregiver might say, “I can’t remember the last time I felt good.”

There are resources available to assist home caregivers with dependent family members such as adult day care, respite care, or hospice care. Adult day centers offer people with dementia, developmental disorders, and other chronic mental health illnesses the opportunity to be social and to participate in activities in a safe environment, while also giving their caregivers the opportunity to work, run errands, or take a break. Respite care can be provided at home (by a volunteer or paid service) or in a care setting, such as adult day care or residential facility, to provide the caregiver a much-needed break. If the person with Alzheimer’s or other dementia prefers a communal living environment or requires more care than can be safely provided at home, a residential facility such as assisted living or long-term care may be the best option for meeting the individual’s needs. Different types of facilities provide different levels of care, depending on the person’s needs.[5] These varying levels were presented in the Chapter 2.6, “Health Care Settings” section.

Caregiver role strain can also occur when health care providers feel overwhelmed or unable to appropriately provide the care needed to manage the complex holistic needs of patients dependent upon them for their care. It can also be caused by working extended shifts, working several days in a row without time off, or from the daily repetition of managing clients with high care needs.

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It may be difficult for you as a caregiver to recognize when you are feeling overwhelmed by the responsibility for providing care to many dependent people with high care needs. Although this is the foundation of being a competent and dependable caregiver, providing care when you are not at your best can be unsafe for both you and those you care for. Feelings of stress overload related to client care should be communicated with your supervisor. Working while experiencing these feelings can result in poor decision-making and possibly result in negligence in your care. Here are some things to do to help manage your work responsibilities and stay healthy:

- Get adequate sleep
- Eat a nutritious diet
- Get regular physical activity
- Rotate shifts, units, or clients as able
- Talk with a trusted support person or professional while following HIPAA guidelines
- Take time off as able
- Practice mindfulness, meditation, or yoga
- Get a massage
- Engage in enjoyable leisure activities

Just as you would report a change in behavior for a resident, you should treat yourself in the same manner. Knowing when you need a break or additional assistance is a responsible and professional action. As a coworker, recognize when other staff are experiencing caregiver role strain and offer assistance so they can take a break.

10.8 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1185#h5p-60

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1185#h5p-62

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1185#h5p-63

X Glossary

Adaptive behavior: The skills and abilities to live independently.

Agnosia: The failure to recognize or identify objects despite intact sensory function.

Anxiety: A universal human experience that includes feelings of apprehension, uneasiness, uncertainty, or dread resulting from a real or perceived threat.

Anxiety disorder: A condition diagnosed when an individual experiences more than temporary worry or fear that interferes with their daily functioning.

Apraxia: The impaired ability to carry out motor activities despite intact motor function. This means the person can understand instructions and has the ability to complete an action but cannot process the cue to actually perform the task.

Bipolar disorder: A condition that includes shifts in mood from abnormal highs (called manic episodes) to abnormal lows (i.e., depressive episodes) that cause significant impairment on the person's functioning socially or at work.

Delirium: Psychosis caused by medical conditions or substance use that starts suddenly and is reversible by treating the cause of the delirium.

Delusions: Fixed, false beliefs held by a person even though there is concrete evidence they are not true.

Dementia: A general term for loss of memory, language, problem-solving, and other thinking abilities that are severe enough to interfere with daily life. There are several types of dementia, including Alzheimer's disease, vascular dementia, Lewy body dementia, and frontotemporal dementia.

Depressive episode: A condition where the person experiences a depressed mood (feeling sad, irritable, or empty) or a loss of pleasure or interest in activities they normally enjoy. Other symptoms may include poor concentration, feelings of excessive guilt or low self-worth, hopelessness

about the future, thoughts about dying or suicide, disrupted sleep, changes in appetite or weight, and feeling especially tired.

Developmental disorders: Disorders caused by impairments in the brain or central nervous system due to problems that occurred during fetal development.

Hallucinations: A symptom of psychosis when someone perceives seeing, hearing, feeling, tasting, or smelling something that is not actually present. Some people are aware that their hallucinations are not real while others cannot separate their hallucinations from reality.

Manic episode: An elevated or irritable mood with abnormally increased energy that lasts at least one week.

Obstructive sleep apnea: A condition where one's breathing temporarily stops while sleeping.

Panic attacks: Sudden periods of intense fear that come on quickly and reach their peak within minutes. Attacks can occur unexpectedly or can be brought on by a trigger, such as a feared object or situation. People experiencing a panic attack may exhibit symptoms such as sweating, trembling, shortness of breath, chest pain, nausea, increased heart rate, or feelings of losing control.

Perseverating: The act of repeating a task or thought over and over.

Personality disorder: A pattern of inner experiences and behaviors that deviates from the expectations of the individual's culture.

Phobia: An intense fear of specific objects or situations (such as flying, heights, spiders, or social events).

Pocketing: The act of keeping food or medications in one's cheeks and not swallowing it.

Psychosis: Conditions when a person experiences a loss of contact with reality and has difficulty understanding what is real and what is not real. Symptoms of psychosis include hallucinations and delusions.

Substance use disorder (SUD): An illness caused by the repeated misuse of substances such as alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, stimulants, or misuse of other prescription or over-the-counter medications. All these substances taken in excess have a common effect of intensely activating the reward system in the brain so much that normal life activities may be neglected.

Sundowning: Restlessness, agitation, irritability, or confusion that typically begins or worsens as daylight begins to fade and can continue into the night, making it difficult for patients with dementia to sleep.

Trauma: An event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening and can have lasting adverse effects on their functioning and mental, physical, social, emotional, or spiritual well-being.

Trisomy: A condition of having an extra copy of a chromosome.

Validation therapy: A technique used when caring with individuals with dementia that involves supporting the reality the person is experiencing.

Wandering: The simple act of a person walking around with no purpose due to their confusion regarding their location or environment.

PART XI

CHAPTER 11: APPLY KNOWLEDGE OF BODY SYSTEMS TO CLIENT CARE

11.1 Introduction to Apply Knowledge of Body Systems to Client Care

Learning Objectives

- Apply basic knowledge of body systems to specialize care for chronic conditions
- Promote healthy outcomes for individuals with compromised bodily functions
- Identify signs and symptoms that should be reported to the supervising nurse
- Provide interventions for chronic conditions within the scope of practice for nursing assistants

In this chapter you will learn the basic structure and functions of body systems and apply this knowledge to the individuals for whom you provide care. Age-related changes and common chronic conditions in each body system are outlined with related nursing assistant interventions to promote optimal patient outcomes. Observations related to each condition are discussed, as well as what should be immediately reported to the nurse.

11.2 Cardiovascular System

The cardiovascular system consists of the heart, blood, and blood vessels. (See Figure 11.1.[1]) The heart pumps the blood through the blood vessels. Blood can be viewed as the transportation fluid that transports nutrients to cells and carries wastes away from cells.[2]

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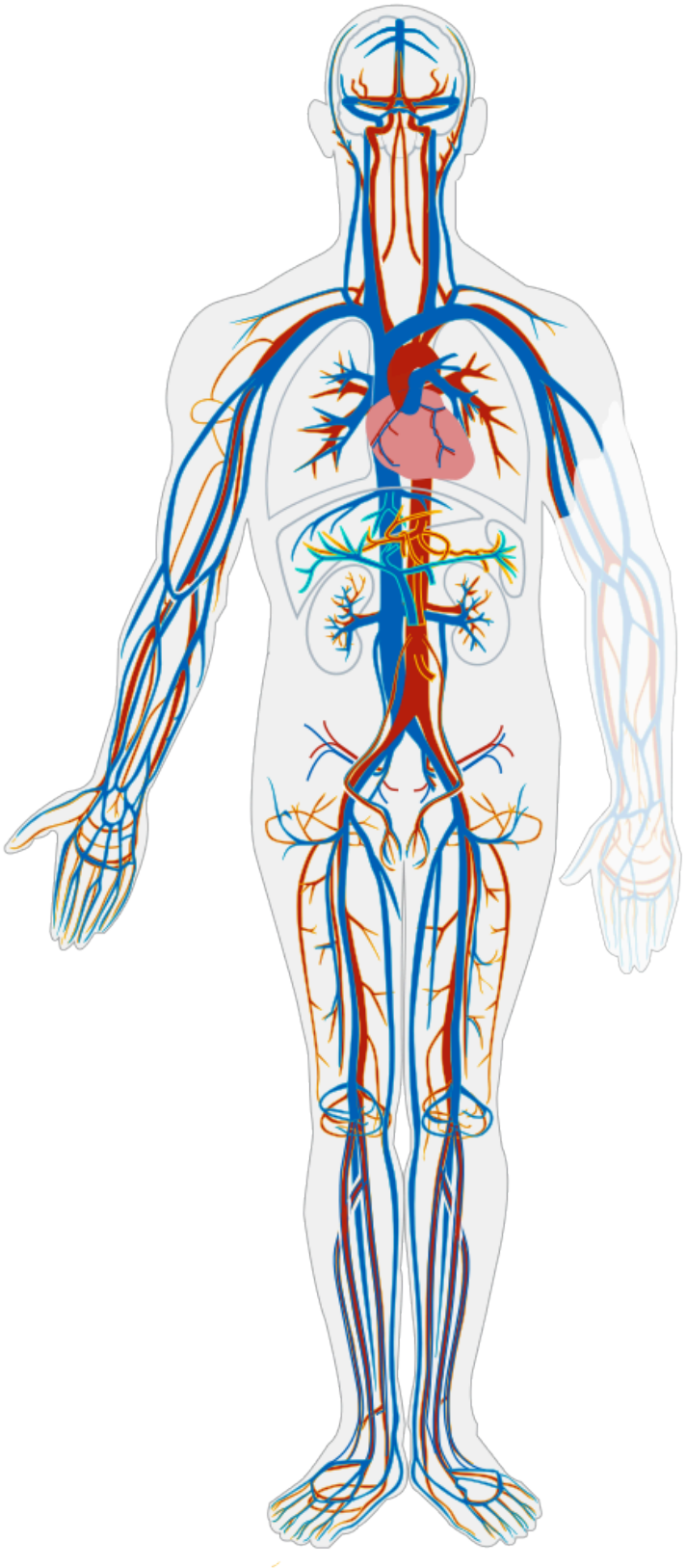

Figure 11.1 The Cardiovascular System

The transportation route to all tissues is an intricate blood vessel network

composed of arteries, veins, and capillaries. See Figure 11.2[3] for an illustration of the blood vessel network. The transportation of nutrients begins in the small intestine where they are absorbed and then transported to the liver through the hepatic portal vein. From the liver, nutrients travel in the blood up to the inferior vena cava blood vessel to the heart. The heart pumps the nutrient-rich blood to the lungs to pick up oxygen. The oxygenated blood returns to the heart, where it is pumped out to tissues in the body through the aorta and the arteries. Arteries become smaller and smaller on their way to cells, so that by the time blood reaches a cell, the vessel's diameter is extremely small, and it is now called a capillary. This reduced diameter of capillaries slows the speed of blood flow and gives cells time to harvest the nutrients and oxygen in the blood and return metabolic wastes to the capillary to be eliminated. Deoxygenated blood containing metabolic wastes is transported back to the heart via veins, and wastes are filtered out by the kidneys and liver.[4]

3. "2101_Blood_Flow_Through_the_Heart.jpg" by OpenStax College is licensed under CC BY 3.0
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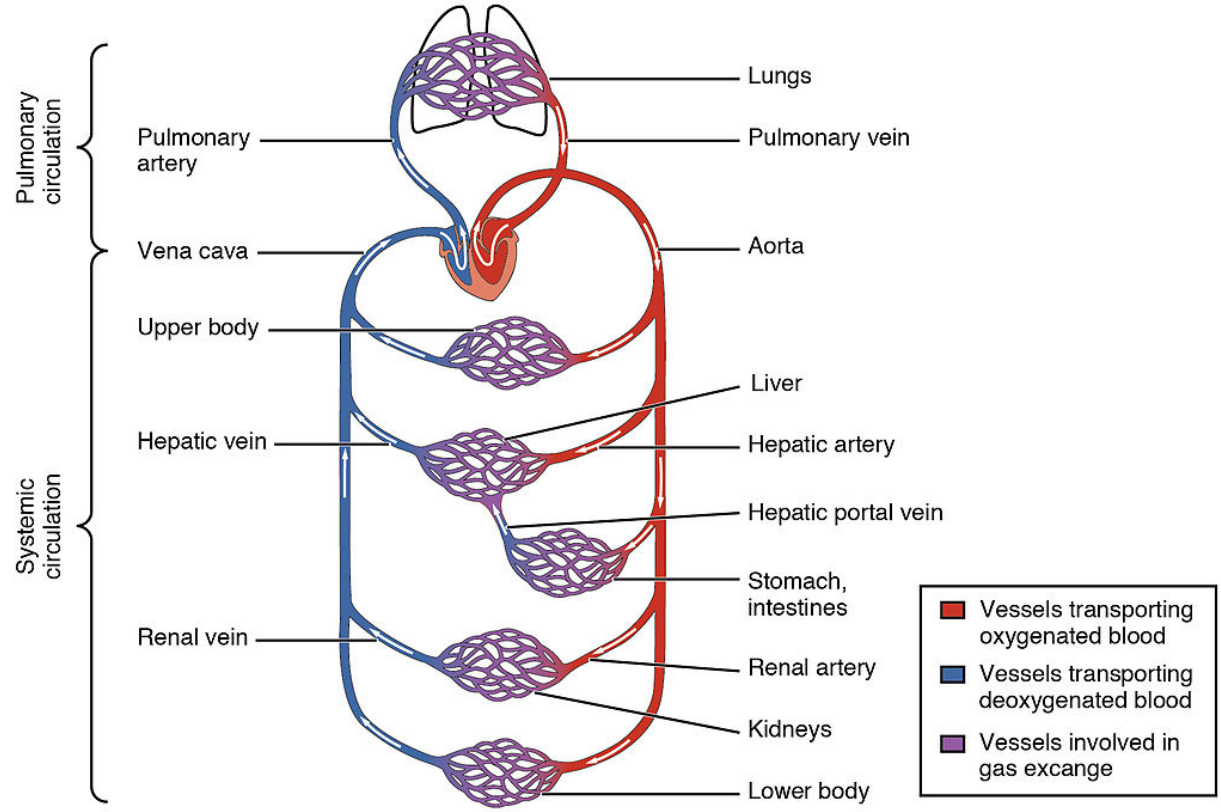

Figure 11.2 Transportation of Nutrients and Elimination of Wastes

As the body ages, the strength and elasticity of the heart and blood vessels decrease, resulting in a decreased ability to regulate blood pressure, distribute oxygen, and remove wastes from the body. These changes can lead to dizziness (and a higher fall risk), fluid retention, edema, fatigue, and decreased stamina to complete daily functions.

In addition to these age-related changes, a diet high in saturated fats causes plaque to be deposited on the walls of the blood vessels, causing further narrowing and decreased blood flow. This decrease in circulation increases the risk for blood clots, heart attacks, and strokes.

Because the cardiovascular system is vital for health, any symptoms related to chest pain, shortness of breath, or lack of oxygenation should be immediately reported to the nurse. **Cyanosis** is a common cardiovascular symptom that refers to bluish discoloration around the mouth and in the extremities (i.e., feet and hands). It occurs when there is decreased oxygenated blood flow to the tissues and should be immediately reported to the nurse. Common nursing assistant interventions for all cardiovascular conditions include

encouraging activity as tolerated; promoting a low fat, low cholesterol diet; motivating individuals to quit smoking; and helping individuals make healthy food choices to maintain a healthy weight. Table 11.2 describes symptoms of common cardiovascular diagnoses and related nursing assistant interventions.

Table 11.2 Common Chronic Cardiovascular Diagnoses and Related Nursing Assistant Interventions[5,6,7,8,9]

5. Mayo Clinic Staff. (2021, October 19). *Atrial fibrillation*. https://www.mayoclinic.org/diseases-conditions/atrial-fibrillation/diagnosis-treatment/drc-20350630
6. Mayo Clinic Staff. (2021, December 10). *Heart failure*. https://www.mayoclinic.org/diseases-conditions/heart-failure/symptoms-causes/syc-20373142
7. Mayo Clinic Staff. (2021, July 1). *High blood pressure (hypertension)*. https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/symptoms-causes/syc-20373410
8. Mayo Clinic Staff. (2022, May 25). *Coronary artery disease*. https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/syc-20350613
9. Mayo Clinic Staff. (2022, June 11). *Deep vein thrombosis (DVT)*. https://www.mayoclinic.org/diseases-conditions/deep-vein-thrombosis/symptoms-causes/syc-20352557/.

Diagnosis	Definition	Symptoms to Report	Specific Interventions
Heart Failure (HF)	Heart muscle becomes weakened and is unable to adequately pump oxygenated, nutrient-rich blood to the tissues.	Increasing edema, shortness of breath, cyanosis, or rapid weight gain (i.e., more than 2 -3 pounds in 24 hours).	• Obtain daily or weekly weights as prescribed. • Apply TED hose as prescribed. • Apply oxygen as ordered. • Elevate edematous extremities. • Monitor fluid intake and output. • Implement fluid restrictions as prescribed. • Seek emergency assistance from the nurse or in outpatient settings call 911 for individuals with sudden chest pain; severe shortness of breath; or coughing up white or pink, foamy mucus.

Hypertension (HTN) or High Blood Pressure	Increased pressure of blood flow against the arteries. HTN is often called the "silent killer" because there are few recognizable symptoms.	Dizziness and/or headache.	• Promote a low sodium diet. • Promote stress management activities. • Encourage regular appointments with health care provider to monitor blood pressure.
Atrial Fibrillation	Irregular heart rhythm that can cause decreased blood pressure, blood clots, and strokes.	Fatigue, dizziness, chest pain, shortness of breath, and/or palpitations.	• Limit alcohol. • Promote follow-up appointments with health care provider to monitor heart rhythm.

Coronary Artery Disease (CAD)	Cholesterol deposits (plaque) in the heart and arteries cause decreased oxygenated blood flow.	Signs and symptoms occur when the heart muscle doesn't get enough oxygen-rich blood, causing chest pain and shortness of breath. A complete blockage can cause a heart attack.	• Smoking, high blood pressure, high cholesterol, diabetes, obesity, or a strong family history of heart disease increases the risk for coronary artery disease. Encourage individuals with these conditions to seek care from a health care provider to prevent a heart attack. • If an individual is experiencing sudden chest pain or shortness of breath, obtain emergency assistance from the nurse or call 911 in outpatient settings.

Deep Vein Thrombosis (DVT)	A DVT is a blood clot in a deep vein, typically occurring in the legs. DVT can be serious because blood clots in the veins can break loose and travel through the bloodstream and get stuck in the lungs, called a pulmonary embolism (PE). PEs block oxygenated blood flow and are life-threatening.	Unilateral leg swelling, redness, warmth, and/or tenderness or calf cramping.	• Bed rest, lack of movement, and surgery can cause blood clots to form. Encourage movement as tolerated or perform range of motion exercises. • Apply sequential compression devices (SCDs) to post-op patients as prescribed to prevent DVT. Do not apply SCDs if signs of a DVT are present. • Immediately notify the nurse of symptoms of a suspected DVT. Seek emergency assistance or call 911 in outpatient settings for signs of a PE such as sudden shortness of breath, chest pain, or coughing up blood.

11.3 Digestive System

There are four steps in the digestive process. The first step is ingestion, the intake of food into the digestive tract. Ingestion may seem a simple process, but it includes smelling food as it is prepared and served, thinking about food and making food choices, and the involuntary release of saliva in the mouth to prepare for food entry. After food enters the mouth, the next steps of mechanical and chemical digestion of food begin. **Mechanical digestion** starts with chewing when teeth crush and grind large food particles into smaller pieces that are easy to swallow. **Chemical digestion** of food involves enzymes found in saliva that break down particles into smaller components.[1]

In the mouth, saliva provides lubrication and enables food to move downward through the **esophagus** (a muscular tube that goes from the mouth to the stomach). This slippery mass of partially broken-down food is called a **bolus** that moves down the digestive tract after it is swallowed. Swallowing is initially voluntary because it requires conscious effort to push the food with the tongue back towards the throat, but then it proceeds involuntarily through the gastrointestinal tract, meaning it proceeds without conscious control.

As the bolus is swallowed, it is pushed from the mouth through the **pharynx** (i.e., throat) and into the esophagus. As the bolus travels through the pharynx, a small flap called the **epiglottis** closes to keep food from going into the **trachea** and down into the lungs. Peristaltic contractions in the esophagus (referred to as **peristalsis**) propel the bolus down to the stomach. At the junction between the esophagus and stomach, there is a sphincter that remains closed until the food bolus approaches. The pressure of the food bolus stimulates the lower esophageal sphincter to relax and open, causing the food to move from the esophagus into the stomach. The mechanical digestion of food continues by the muscular contractions of the stomach and

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small intestine that mash, mix, and continue to propel the bolus down the digestive tract.[2]

In the **small intestine**, nutrients are absorbed from the bolus and then transported throughout the body by the cardiovascular system. The small intestine is typically 25 to 30 feet in length with a smaller diameter than the large intestine. After passing through the small intestine, the bolus enters the large intestine. The **large intestine** is about 8 to 10 feet in length with a larger diameter than the small intestine. Water is absorbed from the bolus in the large intestine, making it solid and formed. It eventually reaches the anus and is expelled as feces.[3] See Figure 11.3[4] for an illustration of digestion.

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4. "Digestive-system-overview.jpg" by Allison Calabrese is licensed under CC BY 4.0. Access for free at https://pressbooks.oer.hawaii.edu/humannutrition/chapter/the-digestive-system-2/

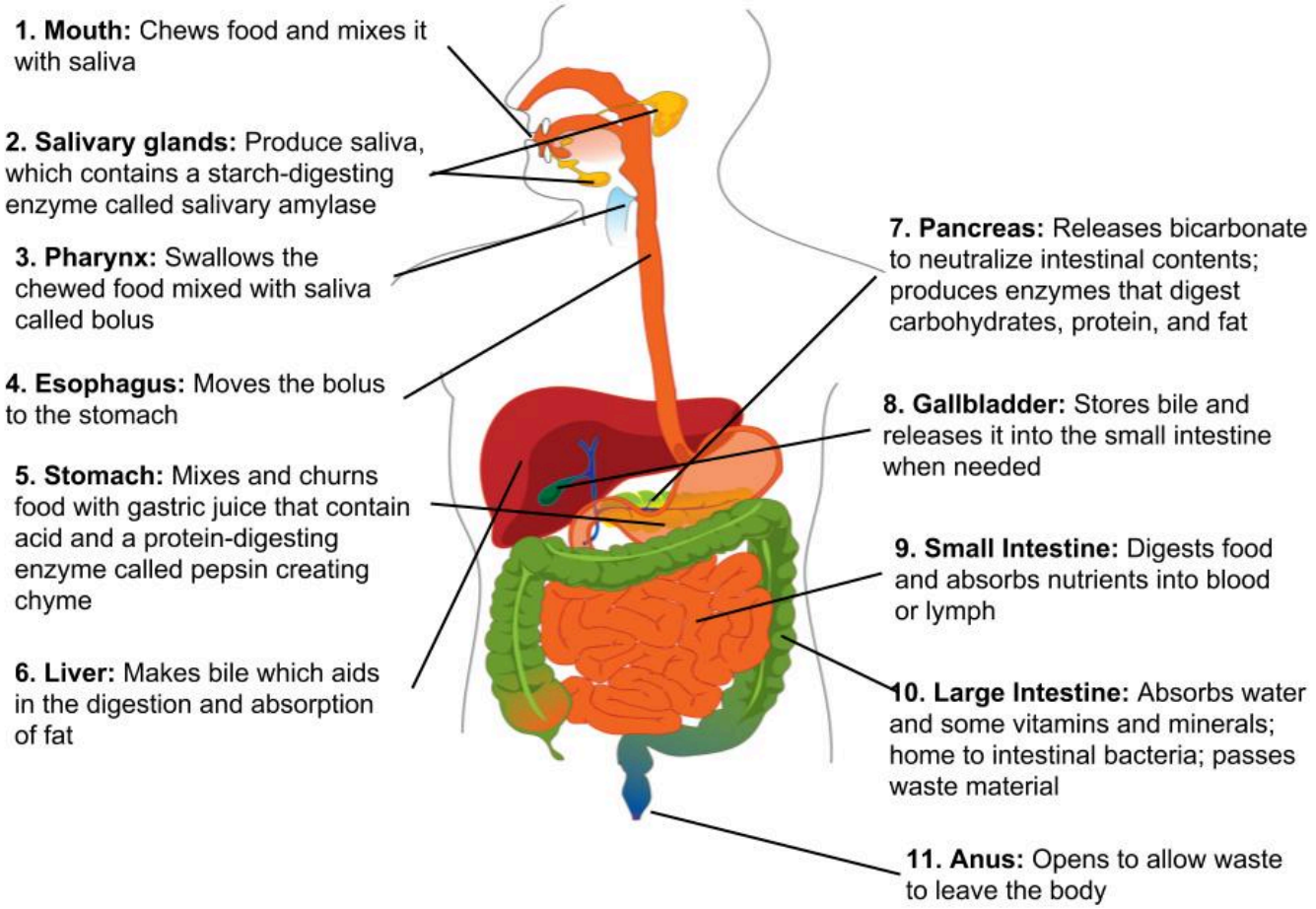

Figure 11.3 The Digestive System

View the following Khan Academy video for an overview of the digestive process[5]: The Digestive System.

As people age, many age-related changes occur in the digestive system. The condition of one's teeth (referred to as **dentition**) often declines during the aging process, resulting in the decreased ability to chew foods with a dense or tough consistency (such as meat and fibrous vegetables). Production of saliva also decreases, increasing the risk for choking. Additionally, many

5. Khan Academy. (n.d.). *The digestive system* [Video]. Khan Academy. All rights reserved. https://www.khanacademy.org/science/biology/crash-course-bio-ecology/crash-course-biology-science/v/crash-course-biology-127

medications cause a side effect of dry mouth that further contributes to the risk of choking. The epiglottis may weaken and allow food or fluids to enter the lungs that can cause aspiration pneumonia. Absorption of nutrients in the small intestine is less efficient, which can cause malnutrition even though food intake may be sufficient. Lastly, the slowing of peristalsis allows the bolus to remain in the large intestine for longer periods of time. As water continues to be absorbed, the fecal matter becomes drier and more difficult to expel, resulting in constipation and possible bowel obstruction.

A bowel obstruction stops the bolus and other digestive contents from reaching the part of the intestine beyond the blockage. The lack of peristalsis that occurs during a bowel obstruction can cause the large intestine to twist upon itself, cutting off circulation and causing tissue death. The area of the intestine experiencing tissue death may require surgical removal. Sometimes the remaining parts of the healthy intestine can be reattached to regain normal bowel function. However, if reattachment is not possible, an opening (called a **stoma**) is surgically created in the abdominal wall where the healthy part of the intestine is attached. (This type of surgery to create a stoma in the colon is referred to as a **colostomy**.) Fecal matter is collected in a drainage bag that attaches to the stoma via a device commonly called a wafer. In this manner, elimination occurs through the stoma into a pouch rather than through the rectum. Bowel obstructions, as well as other gastrointestinal conditions such as colon cancer, severe infection, fistulas, or colon injuries, can lead to the placement of a stoma. See Figure 11.4 for an image of a stoma, Figure 11.5[6] for an image of the wafer to which the drainage bag attaches, and Figure 11.6[7] for an image of an attached drainage bag.

6. "Ostomy_wafer_being_worn_by_an_ileostomy_patient.jpg" by Eric Polsinelli (VeganOstomy) is licensed under CC BY 4.0
7. "Ileostomy_2016-09-09_4158.jpg" by Salicyna is licensed under CC BY-SA 4.0

Figure 11.4 Stoma

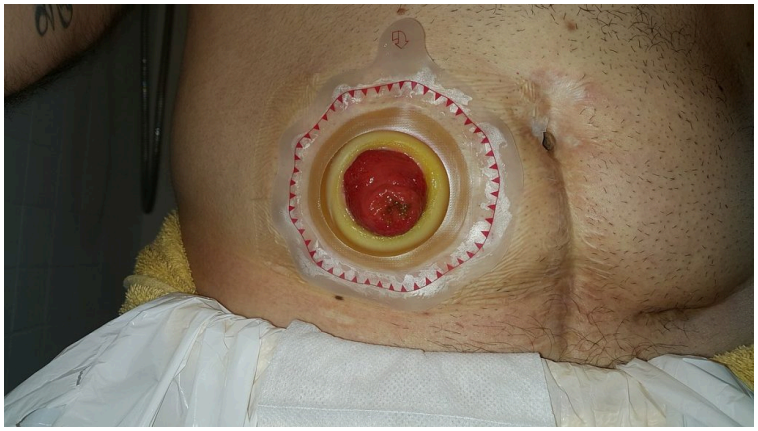

Figure 11.5 Stoma With a Wafer Placed to Attach the Drainage Bag

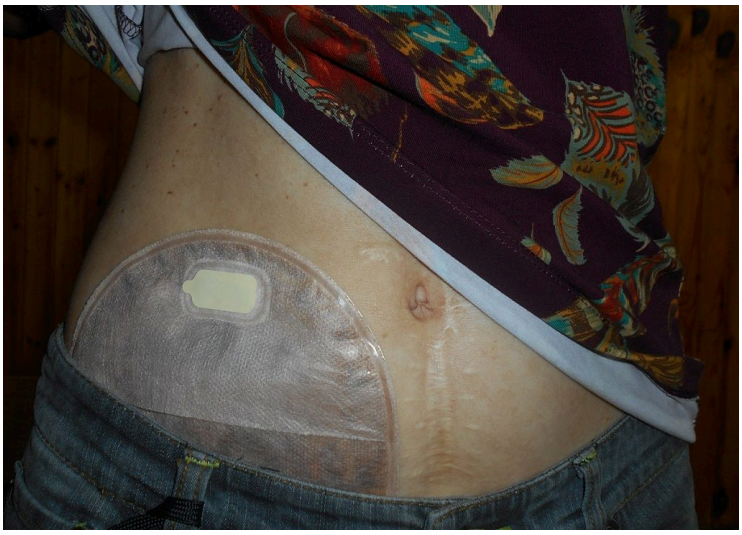

Figure 11.6 Drainage Bag Attached to a Wafer

The most effective interventions for improving digestive function are to encourage intake of fiber, water, and other fluids, as well as promoting activity as tolerated. Fiber adds bulk to the bolus to keep it moving through the large intestine. Fiber is found in plants, so any food that originates from growing in the ground contains fiber. Examples of high-fiber foods include grains in bread and cereal, rice, barley, quinoa, fruits, and vegetables. Whole grains are preferred because they contain more fiber than processed grains. Water and other fluids aid in peristaltic movement, and activity increases circulation to improve digestive function. See Table 11.3 for common digestive system diagnoses, associated symptoms to report to the nurse, and specific interventions the nursing assistant can implement to promote digestive function. Refer to section Chapter 5.7, "Assisting With Nutrition and Fluid Needs" for additional review of digestive interventions.

Table 11.3 Common Digestive System Diagnoses and Specific Nursing Assistant Interventions[8,9,10,11,12]

8. Mayo Clinic Staff. (2021, May 12). *Hemorrhoids*. https://www.mayoclinic.org/diseases-conditions/hemorrhoids/symptoms-causes/syc-20360268
9. Mayo Clinic Staff. (2021, December 1). *Irritable bowel syndrome*. https://www.mayoclinic.org/diseases-conditions/irritable-bowel-syndrome/symptoms-causes/syc-20360016
10. Mayo Clinic Staff. (2020, May 22). *Gastroesophageal reflux disease (GERD*). https://www.mayoclinic.org/diseases-conditions/gerd/symptoms-causes/syc-20361940
11. Mayo Clinic Staff. (2022, March 5). *Lactose intolerance*. https://www.mayoclinic.org/diseases-conditions/lactose-intolerance/symptoms-causes/syc-20374232
12. Mayo Clinic Staff. (2022, June 16). *Milk allergy*. https://www.mayoclinic.org/diseases-conditions/milk-allergy/symptoms-causes/syc-20375101

Diagnosis	Definition	Symptoms to Report	Nursing Assistant Interventions
Hemorrhoids	Swollen vein(s) in the rectum and anus caused by straining from constipation, during childbirth, or from regular heavy lifting. Risk increases with aging.	Bleeding during bowel movements should be reported to the nurse for follow-up. If a hemorrhoid becomes strangulated or a clot forms in a hemorrhoid, it can cause severe pain, swelling, inflammation, or a hard lump near the anus and should be immediately reported.	• Apply topical hemorrhoid cream to reduce pain as ordered. • Gently cleanse anal area. • Discourage sitting for long periods of time, especially on the toilet. • Encourage use of the bathroom as soon as the urge is felt to have a bowel movement. • Seek emergency assistance for large amounts of rectal bleeding or associated light-headedness, dizziness, or faintness.

Irritable Bowel Syndrome (IBS)	A chronic disorder causing cramping, abdominal pain, bloating, gas, diarrhea, and constipation. Symptoms may be triggered by stress or specific foods.	Increased symptoms.	• Avoid foods that trigger an individual's symptoms. • Avoid gas-producing foods like broccoli and cauliflower. • Report a change in bowel habits or rectal bleeding to the nurse.

Gastroesophageal Reflux Disease (GERD)	Stomach acid flows back into the esophagus, causing symptoms often referred to as “heartburn.”	Burning sensation in chest, regurgitation of food or sour liquid, or chronic cough.	• Avoid eating large meals or eating late at night. • Avoid foods that trigger symptoms, such as fatty or fried foods, tomato sauce, alcohol, chocolate, mint, garlic, onion, and caffeine. • Avoid beverages that trigger symptoms, such as alcohol or coffee. • Encourage quitting smoking. • Discourage lying down after a meal. • Elevate the head of the bed 6 to 9 inches. • Avoid wearing tight-fitting clothing that puts pressure on the abdomen.

Food Intolerance	An inability to digest specific foods. Common food intolerances are lactose intolerance (dairy) or gluten intolerance (wheat).	Increased gas, bloating, diarrhea, and abdominal cramping.	• Avoid trigger foods. • For lactose intolerance, lactose-reduced dairy products may be eaten, or a lactase enzyme may be added to milk to break down the lactose. • For gluten intolerance, oat, rice, or corn products may be substituted for wheat.

Food Allergies	An immune system reaction to a specific food that can range from mild to life-threatening.	Immediately report hives (a new rash); swelling of the lips, tongue, or throat; or problems breathing.	• Check the client's dietary orders before serving meal trays and ensure correct foods are provided. Common food allergies include shellfish, peanuts, and eggs. • Severe food allergies can cause anaphylaxis, a life-threatening reaction that blocks breathing and requires emergency assistance.

11.4 Endocrine System

Endocrine glands secrete hormones that affect the functioning of other organs throughout the body and are transported by the circulatory system. The glands in the endocrine system are the pituitary, thyroid, parathyroid, adrenals, thymus, pineal, pancreas, ovaries, and testes, as seen in Figure 11.7.[1]

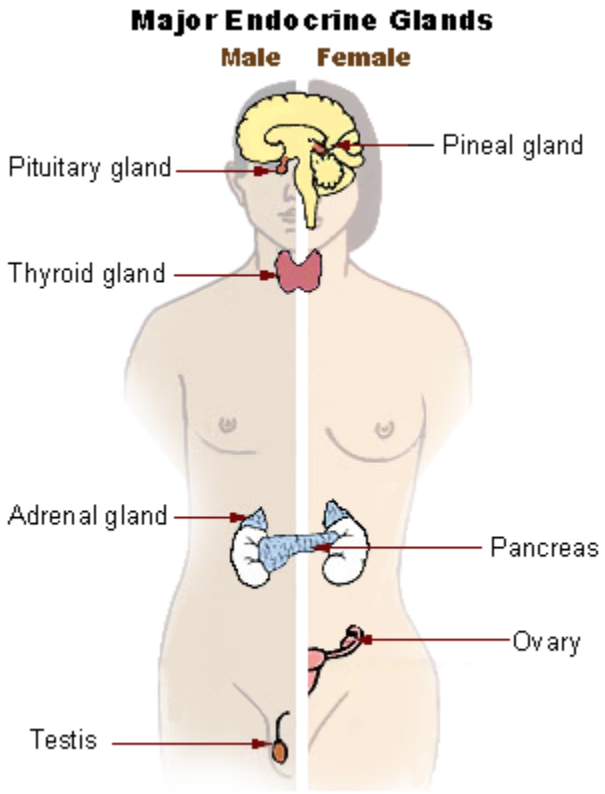

Figure 11.7 The Endocrine System

The functions of the endocrine system are connected to an individual's nutrition. The endocrine system is responsible for regulating appetite, nutrient absorption, nutrient storage, and nutrient usage, as well as contributing to other body functions such as reproduction. The most notable connection between nutrition and the functions of the endocrine system is

1. "Illu_endocrine_system_New.png" by US Government is in the Public Domain

how unhealthy dietary patterns are linked to obesity and the development of diabetes.[2]

The pancreas is an endocrine gland that makes insulin, the hormone that allows cells to use glucose for energy. Insulin is released after an individual eats a meal based on the amount of calories they consumed. The function of the pancreas is affected by a medical condition called diabetes. The Centers for Disease Control and Prevention (CDC) estimates that 11 percent of the U.S. population has diabetes, and 49 percent of adults over age 65 have prediabetes.[3]

> See maps of diabetes and obesity by county at CDC's Diabetes and Obesity Maps web page.

In type 1 diabetes, the pancreas becomes unable to make insulin. In type 2 diabetes, obesity causes changes in muscle, fat, and liver cells that leads to their diminished response to insulin, referred to as "insulin-resistance." When cells are resistant to insulin, they do not take in enough glucose to make energy, resulting in high levels of glucose in the blood. Chronically elevated blood glucose damages other tissues over time, increasing the individual's risk for cardiovascular disease, kidney disease, nerve damage, and eye disease. The nerve damage causes pain and numbness in the feet and lower legs that can increase risk for falls.[4]

Individuals with diabetes must frequently measure their blood glucose level to keep it in normal range with medications prescribed by their health care provider. Blood glucose levels are typically checked in individuals with

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3. Centers for Disease Control and Prevention. (2022, March 9). *Diabetes data and statistics.* https://www.cdc.gov/diabetes/data/index.html
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diabetes from one to four times per day. This measurement is typically performed by the nurse, but some states allow nursing assistants to receive additional training to complete this procedure.

People with diabetes are typically prescribed oral medications or injectable insulin to keep their blood glucose in a healthy range. Too much or not enough insulin can cause life-threatening reactions so it must be administered cautiously. In hospitals and long-term care centers, insulin is administered by a nurse.

Too much insulin or not enough carbohydrate intake results in very low blood sugar (referred to as **hypoglycemia**) that can cause a coma if it is not quickly addressed. Nursing assistants must observe for signs of low blood sugar in clients with diabetes and immediately report them to the nurse for follow-up. Signs of low blood sugar include confusion, irritability, shakiness, cold and clammy skin, sweating, hunger, and anxiety.[5]

When not enough insulin or other diabetic medications are administered for the amount of carbohydrates an individual consumes, blood glucose levels become elevated (i.e., **hyperglycemia**). Symptoms of elevated blood glucose include increased urination; increased thirst and hunger; a fruity breath odor; warm, dry skin; and fast, deep breathing. These symptoms should be immediately reported to the nurse.[6]

Because nutritional intake affects an individual's blood glucose, nursing assistants play a helpful role in encouraging healthy diet choices for individuals with diabetes. Encourage clients to avoid eating refined sugar and highly processed foods and increase their intake of whole grains and non-starchy vegetables such as broccoli, spinach, and green beans. Encouraging residents to be as active as possible can also help manage their blood glucose levels.[7]

If neuropathy occurs, the individual's skin should be diligently inspected daily,

5. Centers for Disease Control and Prevention. (2022, June 1). *Diabetes*. https://www.cdc.gov/diabetes/index.html
6. Centers for Disease Control and Prevention. (2022, June 1). *Diabetes*. https://www.cdc.gov/diabetes/index.html
7. Centers for Disease Control and Prevention. (2022, June 1). *Diabetes*. https://www.cdc.gov/diabetes/index.html

especially on the bottoms of their feet and in between their toes. Well-fitted shoes should be worn, and socks should be carefully placed so the seams do not cause irritation. Individuals with neuropathy do not feel skin irritations or open areas, and they can become infected quickly. If left untreated, severe infection can lead to amputation. Due to these risks, nursing assistants should not trim the nails of diabetic patients.

11.5 Integumentary System

Review information about the integumentary system in Chapter 5.5, "Skin Care" and Chapter 8.2, "Moving and Positioning Clients." These sections can be reviewed for age-related changes and interventions to promote skin integrity.

11.6 Musculoskeletal System

The musculoskeletal system includes muscles, bones, and connective tissues. The human skeleton consists of 206 bones and other connective tissues called ligaments, tendons, and cartilage. See Figure 11.8[1] for an illustration of the major bones of the body. Ligaments connect bones to other bones, tendons connect bones to muscles, and cartilage provides bones with flexibility and acts as a cushion in the joints between bones.

1. "701 Axial Skeleton-01.jpg" by OpenStax is licensed under CC BY 3.0

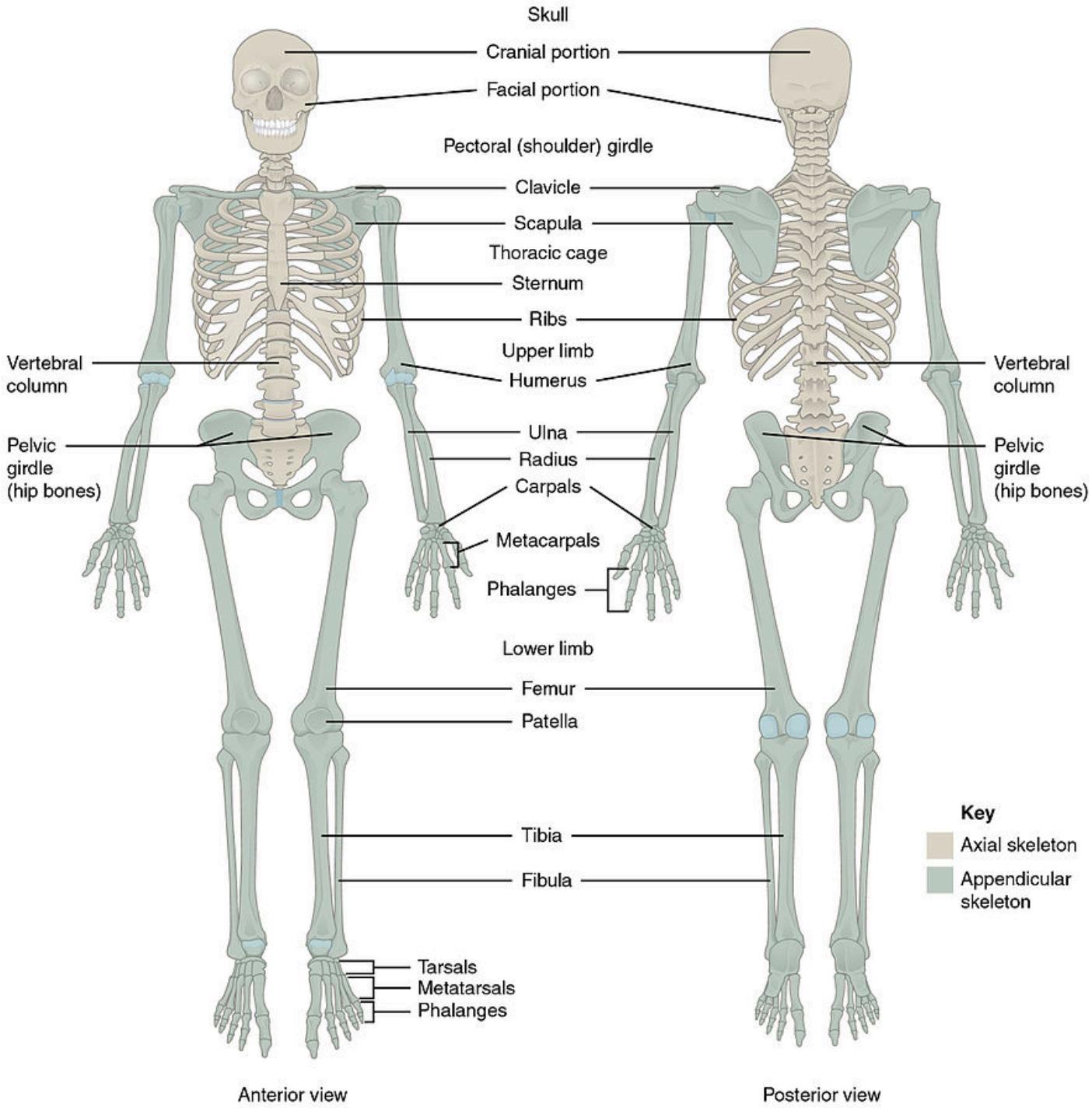

Figure 11.8 Major Bones of the Body

The skeleton's bones and connective tissues work together with muscles to provide a variety of functions and multiple types of movements. **Gross motor skills** are large movements controlled by the legs and trunk of the body. **Fine motor skills** are small movements such as those by the wrists and hands. The skeleton also provides structural support and protection for all the other organ systems in the body. The skull, or cranium, is like a helmet and protects

the eyes, ears, and brain. The ribs form a cage that surrounds and protects the lungs and heart.[2]

In addition to producing movement, protecting organs, and providing structural support, the bones have several other functions. Bone marrow synthesizes red blood cells, white blood cells, and platelets, and bones store minerals such as calcium, phosphorus, and magnesium. Although bone tissue may look inactive at first glance, bones are continuously breaking down and reforming at the microscopic level. Bones also contain a complex network of canals, blood vessels, and nerves that allow for nutrient transport and communication with other organ systems.[3]

There are three types of muscle tissue, including skeletal muscle, cardiac muscle, and smooth muscle. **Skeletal muscle** produces movement, assists in maintaining posture, protects internal organs, and generates body heat. Skeletal muscles are voluntary, meaning a person is able to consciously control them, but they also depend on signals from the nervous system to work properly. See Figure 11.9[4] for an illustration of skeletal muscle. To move the skeleton, the tension created by the contraction of the skeletal muscles is transferred to the **tendons**, strong bands of dense, regular connective tissue that connect muscles to bones.[5]

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3. This work is a derivative of Human Nutrition by University of Hawai'i at Mānoa Food Science and Human Nutrition Program and is licensed under CC BY NC SA 4.0
4. "1105 Anterior and Posterior Views of Muscles.jpg" by OpenStax is licensed under CC BY-SA 4.0
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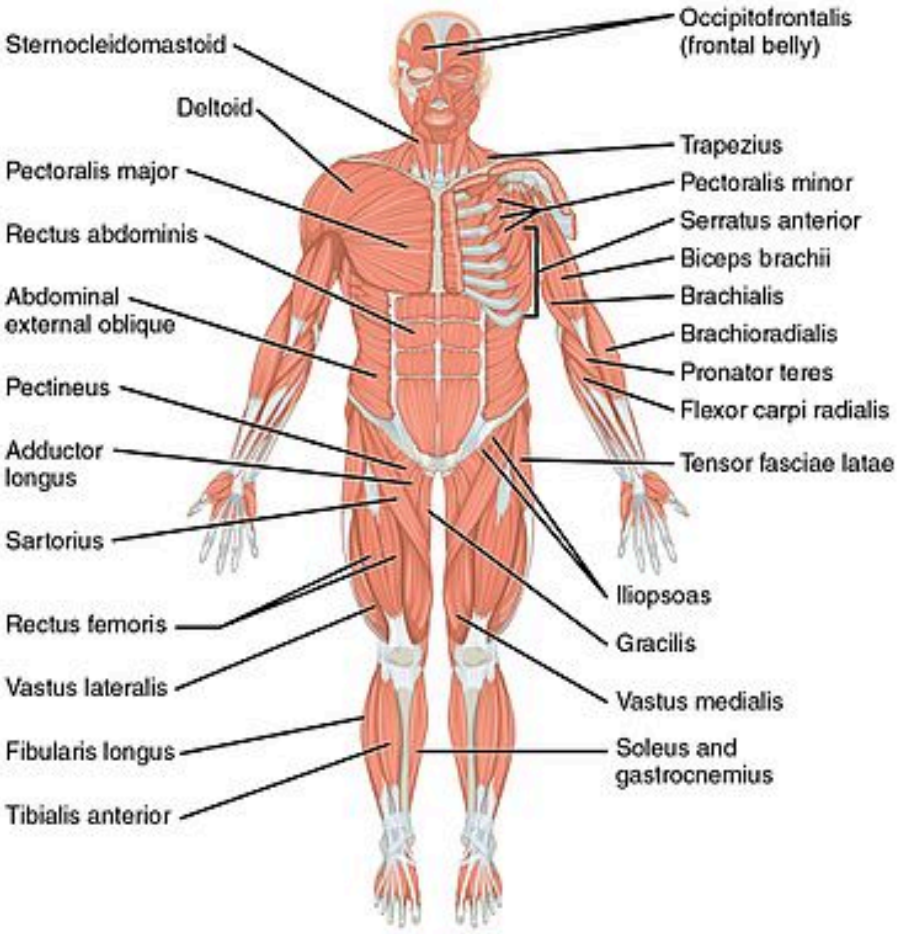

Major muscles of the body. Right side: superficial; left side: deep (anterior view)

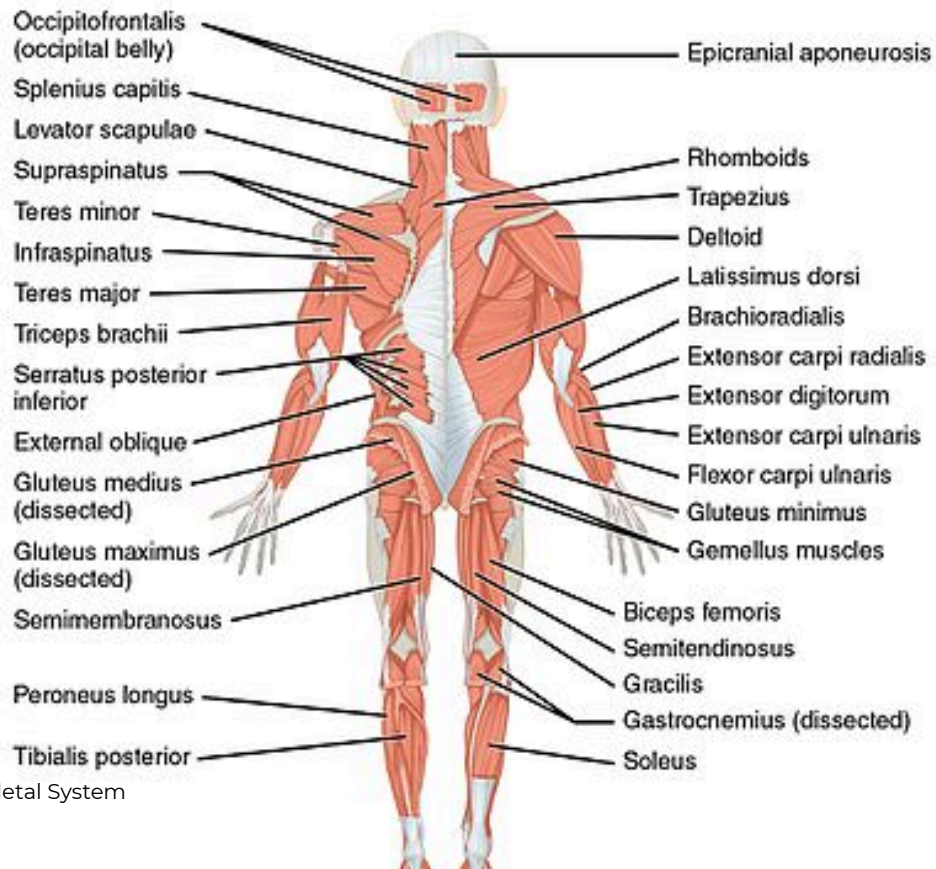

Figure 11.9 Major Muscles of the Body

Other types of muscles are involuntary and are controlled by the autonomic nervous system. **Involuntary muscle** includes the **smooth muscle** within the digestive system and respiratory system, as well as **cardiac muscle** in the heart that pumps blood throughout the body.[6]

Review sections Chapter 8.3, "Promoting Joint Mobility and Activity," Chapter 9.4, "Complications of Immobility," and Chapter 9.6, "Promoting Independence During ADLs" regarding problems that may occur in the musculoskeletal system, as well as how to assist clients in keeping the musculoskeletal system healthy. Remember that clients maintain range of motion, flexibility, and bone health by being as active as possible, especially with weight-bearing activity. Nursing assistants should promote ambulation as tolerated and encourage clients to move about independently as much as possible. Nursing assistants can also encourage protein diet choices to assist with tissue growth and repair and calcium to assist with bone health. Lean protein, such as low-fat meats and dairy products, are examples of healthy protein choices. Dairy products, soy milk, almond milk, and coconut milk are good sources of calcium, as well as green leafy vegetables like spinach, kale, and romaine.[7]

A common condition in the musculoskeletal system is **osteoarthritis**, a medical diagnosis that refers to inflammation of joints due to wear and tear throughout one's life. Interventions that nursing assistants can perform to help alleviate discomfort associated with osteoarthritis are discussed in section Chapter 6.4, "Comfort Measures" and include measures such as ice, heat, topical medications, repositioning, and massage. Effectiveness of measures will vary by individual, so it is important to allow each individual to choose what is most helpful to alleviate their arthritis.

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11.7 Urinary System

The urinary system includes the kidneys, ureters, bladder, and urethra. It has many functions including filtering the blood and eliminating wastes, regulating blood and urine pH levels, and working in collaboration with the cardiovascular system to regulate blood pressure. The urinary system also provides reproductive functions in the prostate for males. The kidneys also release a hormone that stimulates red blood cell production and synthesizes vitamin D to assist in bone health. Each of these functions is vital to well-being and survival.[1] See Figure 11.10[2] for an illustration of the structures of the urinary system.

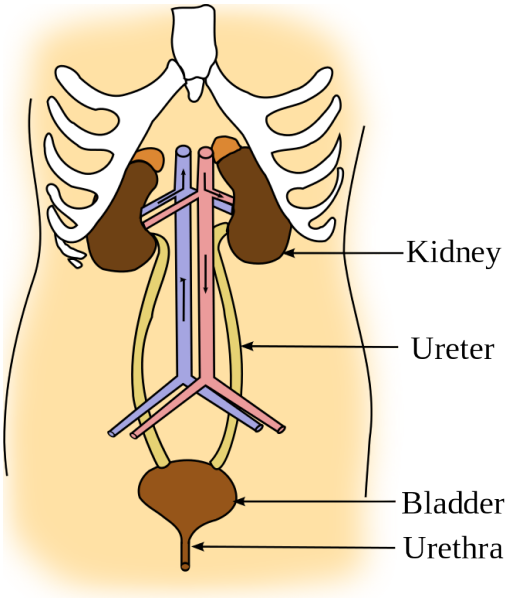

Figure 11.10 The Urinary System

Blood is filtered through the kidneys, and the filtrate is transformed into urine at a relatively constant rate throughout the day. The urine travels from the kidneys through the ureters to the bladder. The bladder stores urine and signals the brain when full (around 300 mL). It stores urine until a convenient time for elimination or voiding, and then the brain allows the urethra to release the urine.[3]

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2. "Illu_urinary_system.svg" by Thstehle is in the Public Domain
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Urine is a fluid of variable composition. Urine characteristics change depending on influences such as water intake, exercise, environmental temperature, nutrient intake, and other factors. Characteristics such as color and odor provide a rough estimate of a person's state of hydration. For example, after exercising or working outside on a hot day and sweating heavily, urine will become darker with a slight odor.[4] See Figure 11.11[5] for ranges of urinary color related to hydration status. Review the subsection "Observation and Documentation of Urinary Output" in Chapter 5.8 for other characteristics that nursing assistants should document when assisting clients to void.

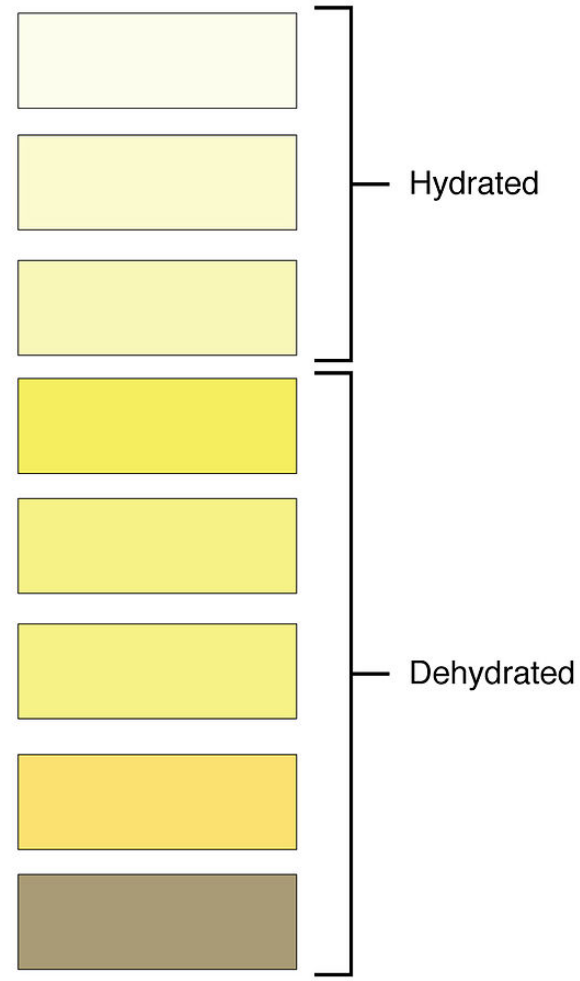

Figure 11.11 Urine Color Related to Hydration Status

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5. "2601_Urine_Color_Chart.jpg" by OpenStax College is licensed under CC BY 3.0

Urine volume varies considerably. The normal range of urine output for an adult is one to two liters per day. The kidneys must produce a minimum urine volume of about 500 mL/day to adequately eliminate wastes from the body. Output below this level can be caused by severe dehydration or kidney disease.[6]

The effects of failure of various parts of the urinary system can range from incontinence to kidney disease with a life-threatening loss of the ability to eliminate wastes. When the kidneys begin to fail, several symptoms may occur such as weakness, shortness of breath, widespread edema (swelling), rising potassium levels, and heart arrhythmias.[7]

Failure of voluntary control of urination is called **incontinence**. Incontinence may occur if the connection between the brain and the urethra is disrupted or there is loss of muscle tone in the urinary system. There are several types of incontinence. Incontinence in small amounts (i.e., leaking or dribbling) can occur from coughing, laughing, or moving when the bladder is full. Some people feel an urge to void and then must go immediately or incontinence may occur if they are not near a restroom. Some people have total loss of control of urination, resulting in the entire contents of their bladder being released involuntarily.[8] Refer to section Chapter 5.8, "Assisting With Toileting" to review appropriate interventions to help prevent incontinence.

The prostate gland encompasses the urethra in males. As males age, the prostate gland grows, known as benign prostate enlargement (BPE). Because prostate enlargement puts pressure on the urethra, the urine may become blocked. Older men may experience difficulty starting the stream of urine or become unable to completely empty their bladder. If the blockage becomes significant, it can cause infection when urine remains in the bladder for long periods of time. In these cases, a urinary catheter may be placed to reduce

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the retention of urine, or a surgical procedure may be completed to reopen the urethra.

See Table 11.7 for common chronic conditions, symptoms to report, and interventions nursing assistants can provide to promote urinary health.

Table 11.7 Common Chronic Conditions of the Urinary System and Related Interventions[9,10,11,12]

9. Mayo Clinic Staff. (2021, December 17). *Urinary incontinence*. https://www.mayoclinic.org/diseases-conditions/urinary-incontinence/symptoms-causes/syc-20352808
10. Mayo Clinic Staff. (2021, April 23). *Urinary tract infection (UTI).* https://www.mayoclinic.org/diseases-conditions/urinary-tract-infection/symptoms-causes/syc-20353447
11. Mayo Clinic Staff. (2022, June 3). *Kidney stones.* https://www.mayoclinic.org/diseases-conditions/kidney-stones/symptoms-causes/syc-20355755
12. Mayo Clinic Staff. (2021, September 3). *Chronic kidney disease.* https://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/symptoms-causes/syc-20354521

Diagnosis	Definition	Symptoms to Report	Nursing Assistant Interventions
Urinary Incontinence	Inability to control the elimination of urine.	Change in the frequency or amount of incontinence.	• Implement a toileting schedule. • Prompt residents to void before they feel the urge to do so. • If the client is unable to communicate the need to void, check their incontinence product at least every two hours to keep the skin dry and free of breakdown.

Urinary Tract Infection (UTI)	Infection of any part of the urinary system.	Increased frequency of voiding; pain, itching, or burning with voiding; voiding in small amounts; strong odor; dark or cloudy urine; and/or sediment or blood in the urine. A sudden increase in confusion can also indicate infection.	• Provide good perineal hygiene. • Implement a toileting schedule. • Encourage fluids for good hydration as appropriate. • Assist with activity as tolerated. • Wipe from front to back.
Kidney Stones	Deposits of minerals from concentrated urine that form a mass in the kidneys.	Increased pain in the abdomen or pain with voiding.	• Encourage fluids as appropriate. • Promote activity as tolerated. • Encourage prescribed diet to prevent formation of stones.

Chronic Kidney Failure	Kidneys are unable to adequately filter and remove wastes and fluids from the body.	Puffiness around the eyes, frequent urge to urinate, urination in increasingly smaller amounts, dry and itchy skin, and/or fatigue.	• Encourage prescribed renal diet (decreased amounts of sodium, potassium, protein, and phosphorus). • Follow prescribed fluid restrictions and provide comfort measures for associated dry mouth such as hard candy, ice chips, or breath spray. • Encourage quitting smoking. • Assist in maintaining healthy blood glucose levels in people with diabetes. • Encourage physical activity as tolerated.

11.8 Neurological System

The central nervous system consists of the brain, spinal cord, and other nerves in the body as seen in Figure 11.12.[1] The main function of the central nervous system is to utilize the senses of sight, touch, hearing, taste, and smell to detect changes in the external environment and create a reaction to them. For instance, if your finger comes into contact with a thorn on a rose bush, a sensory neuron transmits a signal from your finger up through the spinal cord and into the brain. Another neuron in the brain sends a signal that travels back to the muscles in your hand and stimulates muscles to contract so that you jerk your finger away. All this happens within a tenth of a second. Nerves communicate with each other via chemicals built from amino acids called **neurotransmitters**. Eating adequate protein from a variety of sources will ensure the body gets all the different amino acids that are important for central nervous system function.[2]

1. "Nervous system diagram.png " by unknown is licensed under CC BY-NC-SA 3.0. Access for free at https://med.libretexts.org/Bookshelves/Nursing/Book%3A_Clinical_Procedures_for_Safer_Patient_Care_(Doyle_and_McCutcheon)/02%3A_Patient_Assessment/2.07%3A_Focused_Assessments
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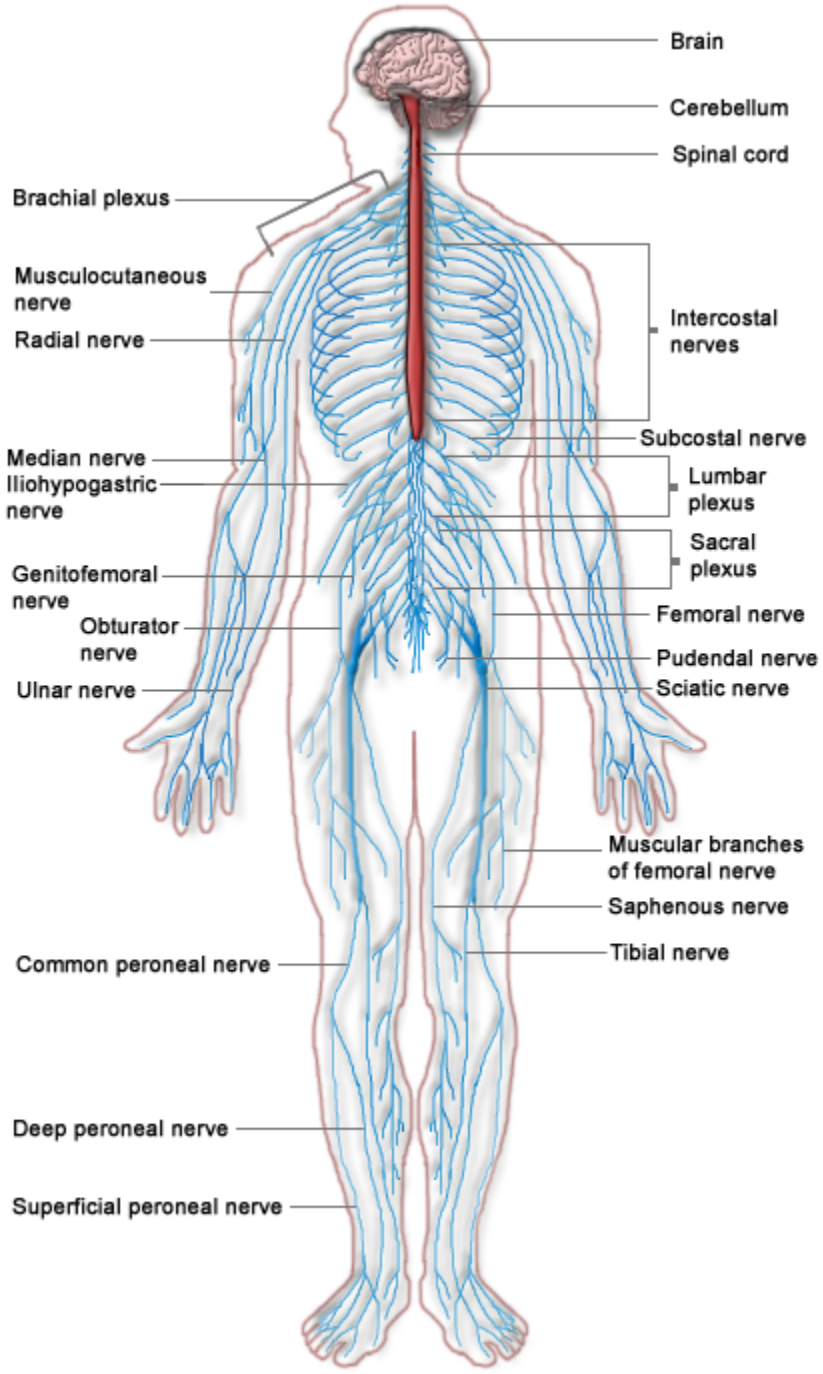

Figure 11.12 The Central Nervous System

The brain's cognitive functions include language processing, learning, perceiving, and thinking. The brain's main fuel for these functions is glucose. Too high or too low levels of blood glucose can cause sudden changes in cognitive functioning, and chronically elevated blood-glucose levels can damage brain cells as previously discussed in the "Endocrine System" section of this chapter.

As people age, the transmission of neurons slows, causing slower reactions to environmental stimuli. This longer reaction time can increase their risk for falls and other safety concerns. Functioning of the senses also declines, as previously discussed in section Chapter 9.7, "Assisting With Sensory Deficits." Nursing assistants can assist with this general decline and improve safety by ensuring residents have their glasses, hearing aids, and other adaptive aids in place. Healthy nutritional choices such as foods rich in omega-3 fatty acids and antioxidants can be encouraged to keep the neurosensory system healthy, and activity can be promoted. Having conversations with residents and promoting social interaction whenever possible is one of the easiest ways to encourage word recall and stimulate thinking. Assisting residents to attend activity department offerings, such as board, card, and word games, or looking at memorabilia can help clients maintain their neurological health.[3]

Common conditions related to the neurosensory system include strokes, seizures, and dementia. Refer to section Chapter 3.2, "Emergency Situations" to review the appropriate responses for individuals suspected of having a stroke or seizure. Refer to section Chapter 10.5, "Caring for Clients With Dementia" to review interventions for individuals with dementia. See Table 11.8 regarding two common chronic conditions of the neurosensory system and related nursing assistant interventions. Keep in mind that a difficult aspect of these neurological diagnoses is knowing that symptoms will continue to worsen, so individuals with these diagnoses and their loved ones should be supported emotionally and monitored for signs of depression.

Table 11.8 Common Chronic Conditions of the Neurosensory System and Related Interventions[4,5]

3. This work is a derivative of Human Nutrition by University of Hawai'i at Mānoa Food Science and Human Nutrition Program and is licensed under CC BY NC SA 4.0
4. Mayo Clinic Staff. (2022, March 24). *Parkinson's disease*. https://www.mayoclinic.org/diseases-conditions/parkinsons-disease/symptoms-causes/syc-20376055
5. Mayo Clinic Staff. (2022, February 22). *Amyotrophic lateral sclerosis (ALS)*. https://www.mayoclinic.org/diseases-conditions/amyotrophic-lateral-sclerosis/symptoms-causes/syc-20354022

Diagnosis	Definition	Symptoms to Report	Nursing Assistant Interventions
Parkinson's Disease	Decreased production of dopamine that causes slowed movement, impaired coordination and balance, tremors, and speech difficulties.	Changes in strength, gait, mobility, or cognition.	• Monitor safety and fall risk. • Keep assistive devices within reach. • Allow more time to complete ADLs. • Encourage physical activity as tolerated.

Amyotrophic Lateral Sclerosis (ALS or Lou Gehrig's Disease)	Decline in nerve cell function results in progressive muscle weakness. Loss of movement begins in extremities with eventual death from loss of function of respiratory muscles.	Increased difficulty breathing, swallowing, or speaking.	• Encourage healthy diet choices that are easy to swallow. • Promote activity as tolerated. • Assist with prescribed stretching activities. • Assist with prescribed mobility equipment to remain as independent as possible. • Provide emotional support as needed.

11.9 Immune System

See Figure 11.13[1] to review the various structures of the immune system. The immune system provides specific and nonspecific defense mechanisms to protect the body from infection. Examples of a specific defense are white blood cells that circulate in the blood and lymph. The function of these cells is to identify and destroy pathogens such as bacteria and viruses. Examples of nonspecific defenses are the skin and mucous membranes. These parts of the system act as barriers to block entrance of pathogens. For more information, refer to the "Defenses Against Transmission of Infection" section in Chapter 4.

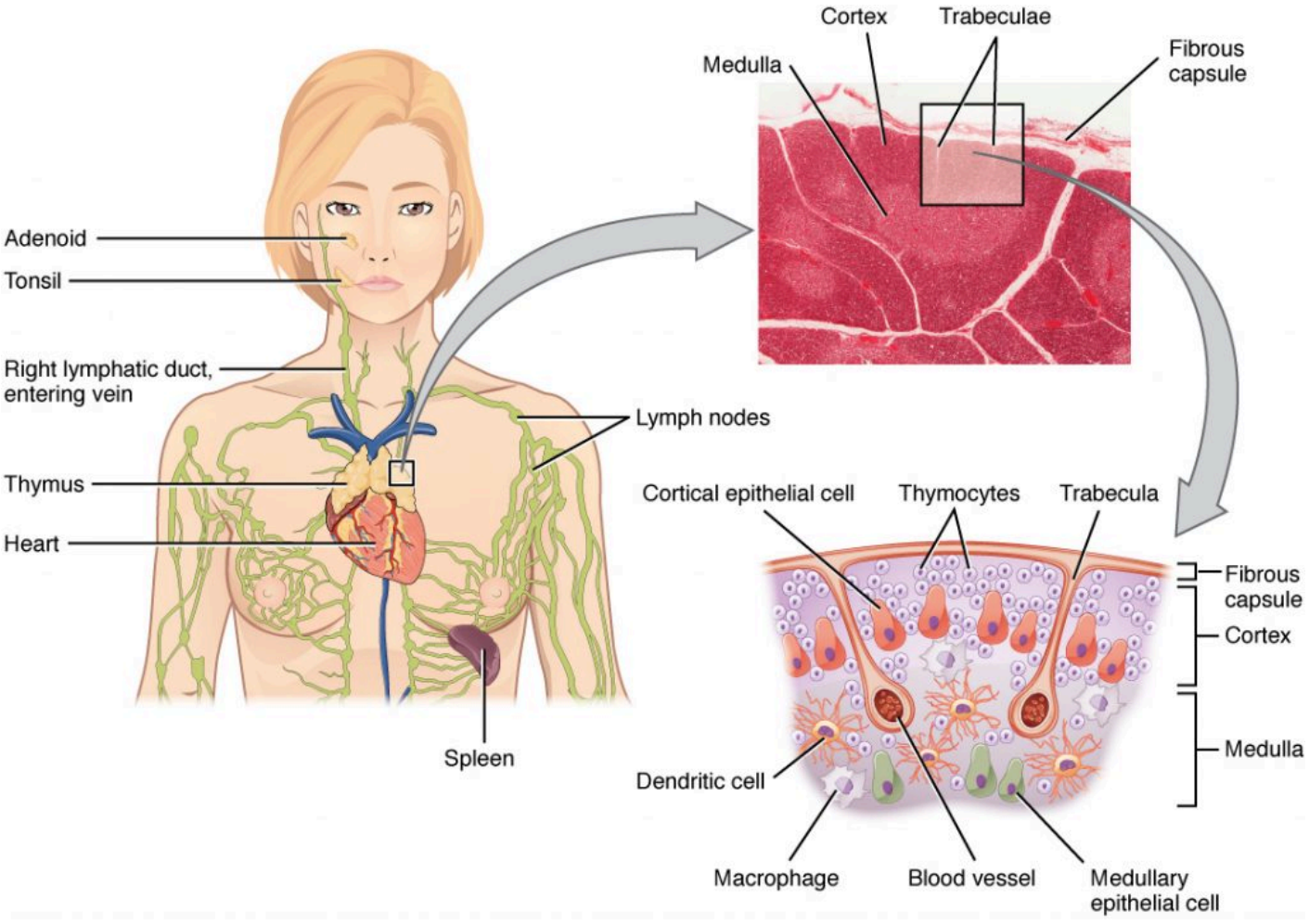

Figure 11.13 Structures of the Immune System

1. "2206_The_Location_Structure_and_Histology_of_the_Thymus.jpg" by OpenStax College is licensed under CC BY 3.0

Immune system function and decreasing the risk for infection depends on healthy nutrition. In fact, malnutrition is the leading cause of immune system deficiency worldwide. When immune system functions are inadequate, there is a marked increase in the chance of getting an infection. Children in many poor, developing countries who lack good sources of protein and carbohydrates often die from infections that their bodies would have normally fought off with proper nutritional intake. Because their protein and/or energy intake is so low, the immune system cannot perform its functions.[2]

Other nutrients, such as iron, zinc, selenium, copper, folate, and vitamins A, B6, C, D, and E, benefit immune system function. It is best to obtain minerals and vitamins from eating a variety of healthy foods. Deficiencies in these nutrients can cause an increased risk for infection and even death. Zinc deficiency results in suppression of the immune system's skin barrier functions and is also associated with a decrease in the number of circulating white blood cells. Taking zinc supplements has been found to be therapeutically beneficial for the treatment of leprosy, tuberculosis, pneumonia, and the common cold.[3]

Just as undernutrition compromises immune system health, so can overnutrition that causes obesity. People who are obese are at increased risk for developing diabetes, cardiovascular, and immune system disorders. High intake of saturated and trans fats negatively affects the immune system, whereas increasing intake of omega-3 fatty acids (found in salmon and other oily fish) reduces the risk of developing certain autoimmune disorders, such as rheumatoid arthritis. Rheumatoid arthritis affects the joints but is more severe in terms of pain and swelling than osteoarthritis. It can begin as early as age 18. Nursing assistant interventions for osteoarthritis also can be used to help manage the discomfort of rheumatoid arthritis.[4]

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Autoimmune disorders cause the body to view parts of itself as foreign, mistake those parts as pathogens, and launch an attack against those parts. It can affect certain parts of the body like skin, joints, or a specific organ, or it can affect the entire body. In the digestive system, it can cause food intolerances, celiac disease, or irritable bowel syndrome. Refer to the Chapter 6.2 subsection on "Modified Diets" for management. See Table 11.9 for common chronic conditions and the interventions nursing assistants can provide to assist with immune disorders. Review section Chapter 4.7, "Signs and Symptoms of Infection" for observations related to the immune system that should be reported to the nurse.

Table 11.9 Common Chronic Conditions of the Immune System and Related Interventions

Diagnosis	Definition	Symptoms to report	Nursing Assistant Interventions
Asthma	Airways become swollen and narrowed in response to an environmental trigger, making it difficult to breathe. Severe asthma attacks can be life-threatening.	Increased shortness of breath during activity or at rest.	• Avoid triggers specific to the affected person. • Encourage activity as tolerated between asthma attacks. • Obtain emergency assistance for severe asthma attacks.
Type 1 Diabetes	The immune system attacks the pancreas and reduces the production of insulin.	Excessive thirst, hunger, or urination; confusion; or hot/dry or cold/ clammy skin.	• Encourage low-carb and low-fat diet. • Promote activity as tolerated. • Monitor feet and skin condition daily and immediately report any skin breakdown or signs of infection.

Leukemia, Lymphoma, and Other Immune System Cancers	Ineffective white blood cells elevate the risk for life-threatening infection.	Fatigue, weakness, or signs and symptoms of infection.	• Diligent hand-hygiene and infection control practices. • Wear full PPE if indicated.
Human Immunodeficiency Virus (HIV)	The virus attacks white blood cells that identify pathogens in the body, and they are no longer able to fight infection.	Fatigue, weakness, or signs and symptoms of infection.	• Diligent hand-hygiene and infection control practices. • Wear full PPE if indicated.
Thyroid Disorders	As the thyroid is attacked by the immune system, the regulation of hormones that control metabolism, energy levels, body temperature, heart rate, and appetite are affected.	Increased fatigue or cold intolerance or changes in appetite or mood.	• Provide warm blankets and socks for clients with cold intolerance. • Manage room temperature and environmental stimulation for clients with heat intolerance.

Multiple Sclerosis (MS)	The immune system attacks the protective sheath around the spinal cord, causing disruption of signals from the brain to body parts. Functioning can vary from day-to-day.	Decreased mobility or cognition.	• Manage environmental temperature as appropriate because it can trigger symptoms. • Assist client with ADLs as needed. • Monitor mobility to reduce safety and fall risks.

11.10 Respiratory System

Most humans cannot survive without breathing for more than three minutes. If you experiment by trying to hold your breath longer, your autonomic nervous system will take over and resume a normal breathing pattern. This is because cells need to maintain a delicate balance of using oxygen for functioning and releasing carbon dioxide as a waste product.[1]

Although oxygen is critically needed for cell functioning, it is the accumulation of carbon dioxide that primarily drives the need to breathe. The major organs of the respiratory system function to provide oxygen to body tissues for cellular respiration, remove the waste product carbon dioxide, and help maintain an acid-base balance. Portions of the respiratory system are also used for nonvital functions, such as sensing odors, producing speech, and for straining, such as during childbirth or coughing. The respiratory system includes muscles that move air into and out of the lungs, the passageways through which air moves, and alveoli. Alveoli are microscopic gas exchange surfaces covered by capillaries. See Figure 11.14[2] for an image of the anatomy of the respiratory system.[3]

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2. "image1-2-1024x861.jpg" by unknown author is licensed under CC BY-NC-SA 4.0. Access for free at https://pressbooks.oer.hawaii.edu/humannutrition/chapter/the-respiratory-system/.
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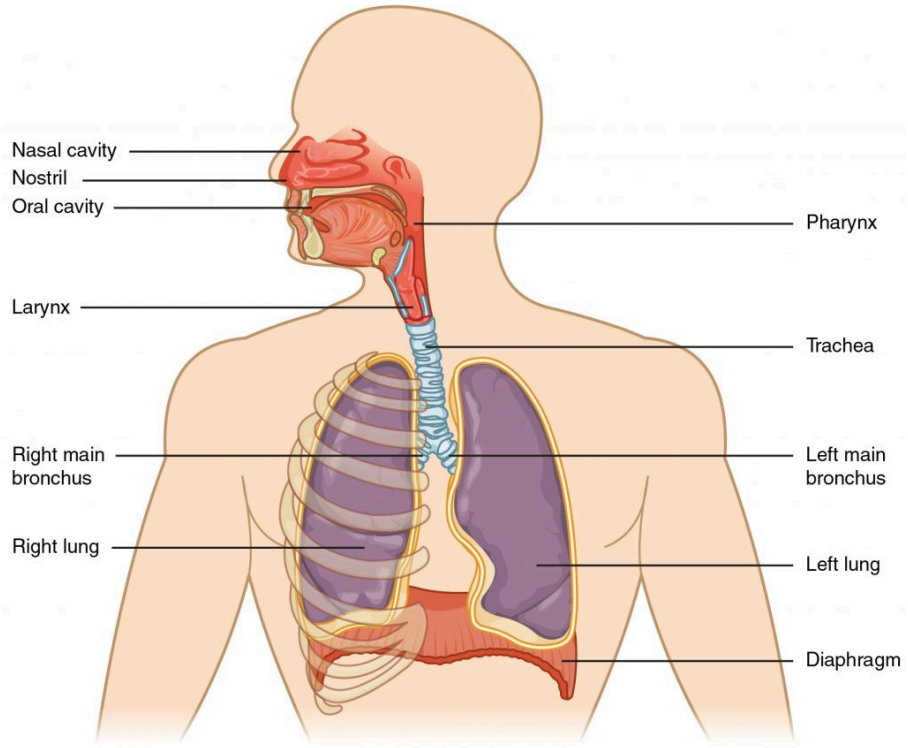

Figure 11.14 Anatomy of the Respiratory System

Capillaries carry deoxygenated blood to the alveoli, where carbon dioxide is released and oxygen is picked up by hemoglobin. The cardiovascular system transports oxygenated blood from the lungs to the tissues throughout the body where it picks up carbon dioxide and carries it back to the alveoli.[4]

A variety of diseases can affect the respiratory system, such as asthma, chronic obstructive pulmonary disorder (COPD), pneumonia, and lung cancer. These conditions affect the gas exchange process and can result in decreased oxygen saturation levels, increased respiratory rates, labored breathing, and other respiratory difficulties.[5]

Anatomy of the Lungs

The lungs are pyramid-shaped, paired organs that are connected to the trachea by the right and left bronchi. Below the lungs is the diaphragm, a flat,

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dome-shaped muscle located at the base of the lungs. Each lung is composed of smaller units called lobes. The right lung consists of three lobes and the left lung consists of two lobes to accommodate the positioning of the heart. As discussed previously, the respiratory system works in conjunction with the cardiovascular system to transport oxygen and nutrients to cells and remove waste from cells and out of the body during exhalation. See Figure 11.15[6] for an image of the anatomy of the lungs.[7]

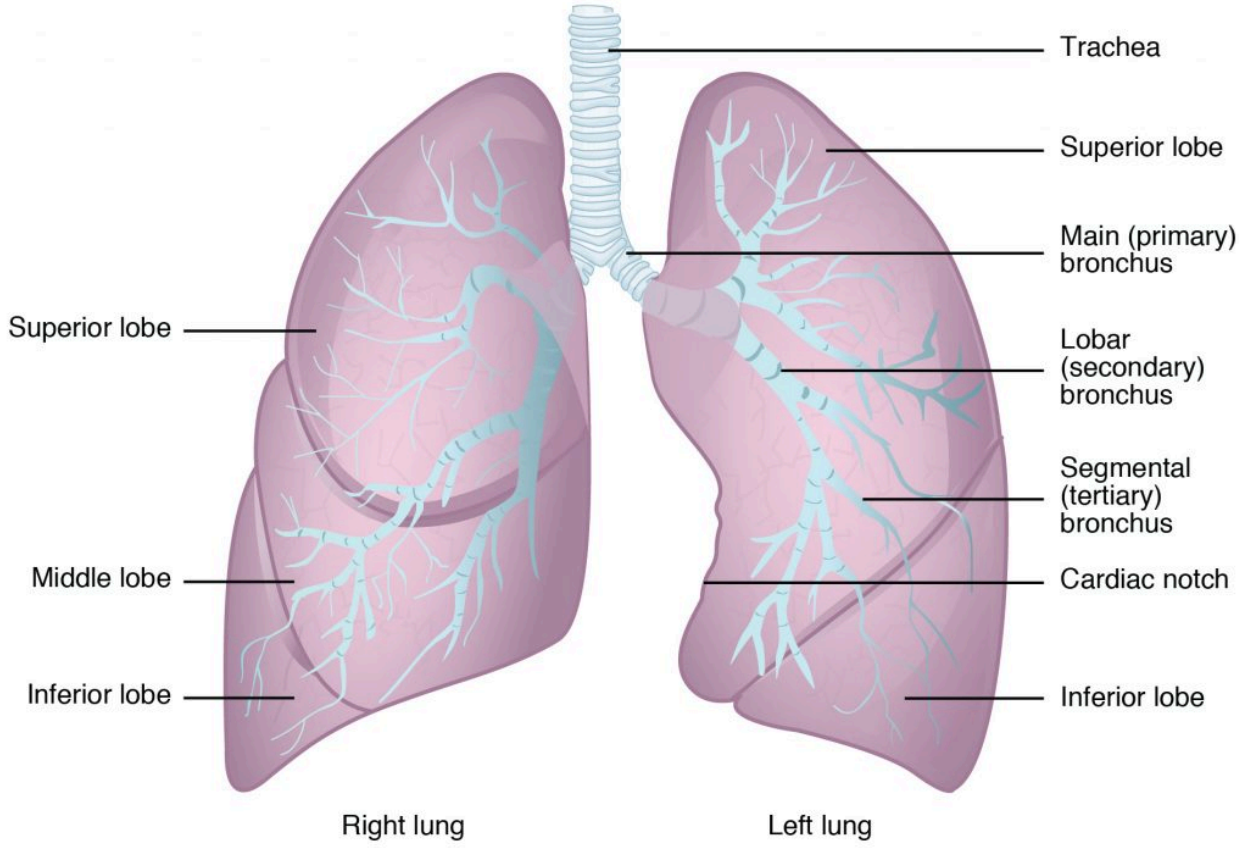

Figure 11.15 Anatomy of the Lungs

As the body ages, chest muscles lose their strength, and the smaller airways of the respiratory system, called the bronchioles, lose their elasticity and can collapse. These age-related changes decrease the ability of an older adult to inhale oxygen, resulting in fatigue and increased difficulty completing

6. "image22-1024x704.jpg" by unknown author is licensed under CC BY-NC-SA 4.0. Access for free at https://pressbooks.oer.hawaii.edu/humannutrition/chapter/the-respiratory-system/.
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activities of daily living. Although some respiratory function can be maintained or restored through exercise, the aging respiratory system leaves older adults more susceptible to acute respiratory illnesses such as influenza, pneumonia, and COVID-19.[8]

Because the respiratory system is necessary for life, if a nursing assistant notices any issues with breathing or a blocked airway, these concerns should be reported immediately to the nurse. See the section "Choking and Airway Clearance" in Chapter 3 for a review of interventions for a blocked airway.

Because the cardiovascular system transports oxygenated blood, some symptoms of respiratory distress are similar to cardiovascular complications such as cyanosis, fatigue, dizziness, and shortness of breath. Exercising and avoiding smoking are vital for maintaining or improving respiratory function. Table 11.10 outlines common respiratory diagnoses in the aging population, symptoms to report, and associated interventions provided by nursing assistants.

Table 11.10 Common Respiratory Conditions and Related Nursing Assistant Interventions[9]

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Condition	Definition	Symptoms to Report	Nursing Assistant Interventions
Bronchitis	Acute or chronic inflammation of the bronchioles (i.e., small airways)	Cough that produces mucus, fatigue, shortness of breath, and chest discomfort	Encourage fluids to thin the mucous, segment ADLs, and position the patient for breathing comfort.
Asthma	A chronic condition in which irritants cause inflammation and narrowing of the respiratory tract	Coughing, wheezing, chest tightness, difficulty breathing, and shortness of breath	Avoid exposure to known triggers (such as smoke, pet dander, pollen, mold, etc.). During an asthma attack, try to keep the patient calm and immediately report breathing difficulties.
Emphysema	A chronic condition in which alveoli hyperinflate, causing reduced air exchange and resulting in a lower amount of oxygenated blood in circulation	Shortness of breath that becomes increasingly more difficult as the disease progresses	Encourage healthy weight and activity as tolerated, segment ADLs, and encourage the use of supplemental oxygen if it is prescribed.
Chronic Obstructive Pulmonary Disease (COPD)	Chronic inflammation of the lungs, often caused by smoking, chronic bronchitis, asthma, or emphysema	Shortness of breath, labored breathing, dizziness, disorientation, and cyanosis	Encourage healthy weight, activity as tolerated, and smoking cessation.
Lung Cancer	Cancer in the lungs	Chronic cough, coughing up blood, shortness of breath, and chest pain	Encourage smoking cessation, healthy weight and activity as tolerated; segment ADLs; and position the patient for breathing comfort.
Bacterial Pneumonia	Bacterial infection of the lungs	Fever; chills; shortness of breath; productive cough with green, yellow, or bloody mucous; sharp chest pain; fatigue; and confusion or disorientation	Encourage healthy diet, activity as tolerated, rest, and taking antibiotics as prescribed.

View the following YouTube video[10] to learn more about the respiratory system: *Respiratory System, Part 1: Crash Course Anatomy & Physiology #31*.

10. CrashCourse. (2015, August 24). *Respiratory System, Part 1: Crash Course Anatomy & Physiology #31*. [Video]. YouTube. All rights reserved. https://youtu.be/bHZsvBdUC2I

11.11 Reproductive System

Reproduction is the process by which organisms make more organisms like themselves. Although the reproductive system is essential to keeping a species alive, unlike other body systems, it's not essential to keeping an individual alive. Because the endocrine system controls the hormone levels throughout the body, it has a large role in the functioning of the reproductive system. Hormone levels affect growth and development, appetite, mood, body temperature, and stress, along with sexual function and reproductive health. Both the male and female reproductive systems are necessary to reproduce. The organs that are part of both reproductive systems are referred to as genitals.[1]

Female Reproductive System

The external part of the female reproductive organs is called the vulva, which covers the opening to the vagina and other internal reproductive organs. Two pairs of skin flaps called the labia surround the vaginal opening. The clitoris, a small sensory organ, is located toward the front of the vulva where the folds of the labia join. Between the labia are openings to the urethra and vagina. When girls become sexually mature, called puberty, the outer labia and the mons pubis are covered by pubic hair. A female's internal reproductive organs are the vagina, uterus, Fallopian tubes, and ovaries. See Figure 11.16[2] for an illustration of the organs of the female reproductive system.

1. Hirsch, L. (2019, June). Female reproductive system. KidsHealth. https://kidshealth.org/en/teens/female-repro.html
2. "Blausen_0399_FemaleReproSystem_01.png" by Blausen.com staff (2014) at "Medical gallery of Blausen Medical 2014 is licensed under CC BY 3.0

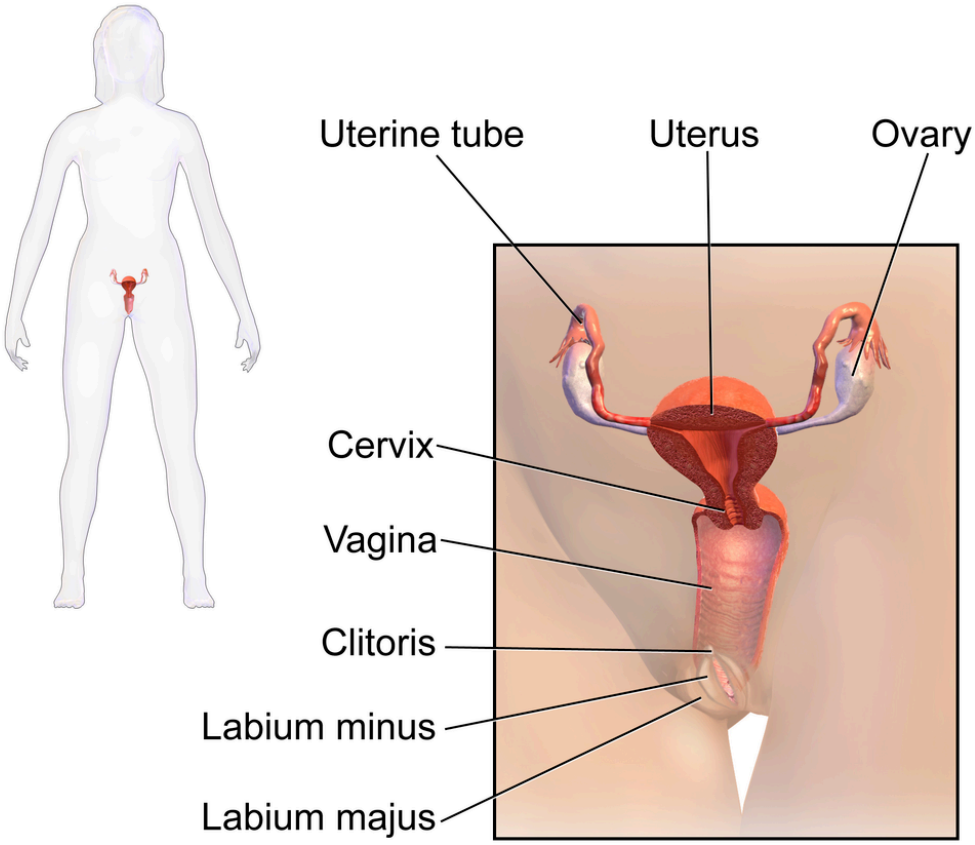

Figure 11.16 The Female Reproductive System

Toward the end of puberty, girls begin to release eggs as part of a monthly period called the **menstrual cycle**. About once a month, during ovulation, an ovary sends an egg into one of the Fallopian tubes. Unless the egg is fertilized by a male's sperm while in the Fallopian tube, the egg leaves the body about two weeks later through the uterus in a process called **menstruation**. During menstruation, blood and tissues from the inner lining of the uterus combine to form the menstrual flow, which in most women lasts from three to five days.[3]

The menstrual cycle continues until menopause, when levels of estrogen decline and the woman no longer releases eggs. This usually occurs

3. Hirsch, L. (2019, June). Female reproductive system. KidsHealth. https://kidshealth.org/en/teens/female-repro.html

sometime around the late forties to early fifties. As estrogen levels decrease, women may experience irregular periods, hot flashes, night sweats, mood swings, and changes in metabolism.[4]

Male Reproductive System

The external male genitals are the penis and scrotum. The urethra runs from the bladder through the penis to expel urine externally. Internally, the male reproductive system includes the testes, the duct system made up of the epididymis and the vas deferens, and the accessory glands that include the seminal vesicles and prostate gland. Testosterone is a hormone that increases during puberty and is produced in the testes. Testosterone is responsible for causing boys to develop deeper voices, larger muscles, and body and facial hair. It also stimulates the production of sperm that fertilizes the egg of a female.[5] See Figure 11.17[6] for an illustration of the male reproductive system.

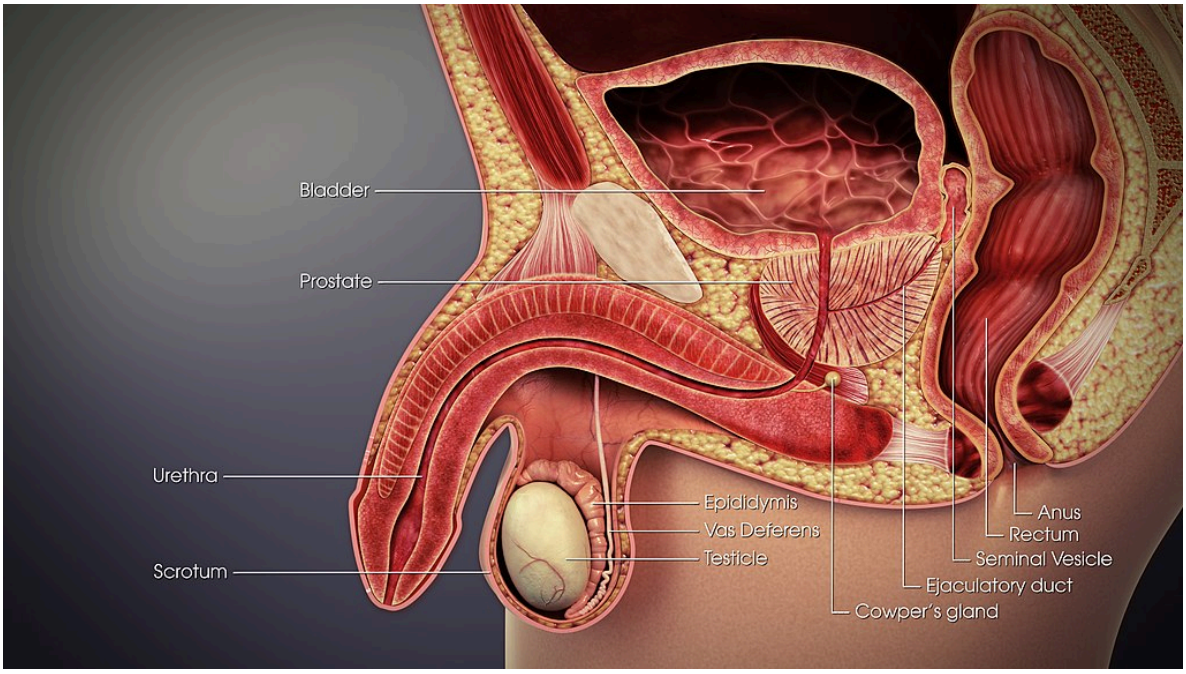

Figure 11.17 The Male Reproductive System

4. Hirsch, L. (2019, June). Female reproductive system. KidsHealth. https://kidshealth.org/en/teens/female-repro.html
5. Hirsch, L. (2019, June). *Male reproductive system.* KidsHealth. https://kidshealth.org/en/teens/male-repro.html
6. "3D_Medical_Animation_Vas_Deferens.jpg" by https://www.scientificanimations.com is licensed under CC BY-SA 4.0

All males are born with a foreskin, a fold of skin at the end of the penis. Some boys are circumcised, which means that a doctor or a clergy member cuts away the foreskin. Circumcision is typically performed during a baby's first few days of life based on parental religious beliefs, concerns about hygiene, or cultural or social reasons. There is no medical necessity for circumcision.

As men age, their prostate enlarges. Because the prostate surrounds the urethra, its enlargement often causes urinary issues such as the decreased ability to dispel urine, frequent urination, an intermittent stream of urine, and retention of urine in the bladder. Urinary retention and incomplete emptying of urine from the bladder increase the male resident's risk of urinary tract infections, so signs of infection should be monitored by nursing assistants.

11.12 Learning Activities

An interactive H5P element has been excluded from this version of the text. You can view it online here:
https://wtcs.pressbooks.pub/nurseassist/?p=1421#h5p-64

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https://wtcs.pressbooks.pub/nurseassist/?p=1421#h5p-65

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https://wtcs.pressbooks.pub/nurseassist/?p=1421#h5p-67

XI Glossary

Bolus: A slippery mass of partially broken-down food that moves down the digestive tract as you swallow.

Chemical digestion: Digestion of food by enzymes found in saliva that break down food particles into smaller components.

Colostomy: Surgery to create a stoma in the colon.

Cyanosis: Blue coloration around the mouth and in the extremities (i.e., feet and hands) that occurs when there is decreased oxygenated blood flow to the tissues.

Epiglottis: A small flap that closes over the trachea when swallowing to prevent food and fluids from going into the lungs.

Esophagus: The muscular tube from the mouth to the stomach.

Fine motor skills: Small movements such as those in the wrists and hands.

Gross motor skills: Large movements controlled by the legs and trunk of the body.

Incontinence: Failure of voluntary control of urination.

Involuntary muscle: Muscles controlled by the autonomic nervous system, including smooth muscle within the digestive system and respiratory system and the cardiac muscle in the heart that pumps blood throughout the body.

Large intestine: The long, tube-like organ that is connected to the small intestine at one end and the anus at the other.

Mechanical digestion: Digestion that begins with chewing when teeth crush and grind large food particles into smaller pieces that are easy to swallow.

Neurotransmitters: Chemicals in the body used for nerve communication.

Osteoarthritis: A medical diagnosis that refers to inflammation of joints due to wear and tear throughout one's life.

Peristalsis: Contractions that move the bolus through the esophagus, stomach, small intestine, and large intestine.

Pharynx: The hollow tube that starts behind the nose and ends at the trachea and esophagus.

Skeletal muscle: Muscle that produces movement, assists in maintaining posture, protects internal organs, and generates body heat.

Small intestine: A long tube-like organ that connects the stomach and the large intestine where nutrients are absorbed from a food bolus.

Stoma: A surgically created opening in the abdominal wall where a healthy part of the intestine is attached.

Tendons: Strong bands of dense, regular connective tissue that connect muscles to bones.

Trachea: The hollow tube, otherwise known as the windpipe, that leads to the lungs.

Voluntary muscle: Muscle that a person is able to consciously control.