SIXTH EDITION

Taylor's Clinical Nursing Skills

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In honor of nurses and nursing students everywhere who continue to care with compassion and respect for the dignity and individuality of each person—thank you, you are an inspiration!
—Pam Lynn

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PREFACE

Taylor's Clinical Nursing Skills aims to help nursing students and graduate nurses incorporate cognitive, technical, interpersonal, and ethical/legal skills into safe, effective, thoughtful person-centered care. This book is written to meet the needs of novice to advanced nurses. Many of the skills shown in this book may not be encountered by the student while in school, but may be encountered once the graduate nurse has entered the workforce.

Because it emphasizes the basic principles of patient care, we believe this book can easily be used with any Fundamentals text. However, this Skills book was specifically designed to accompany *Fundamentals of Nursing: The Art and Science of Person-Centered Care,* Tenth Edition, by Taylor, Lynn, and Bartlett, to provide a seamless learning experience. Some of the Skills and Guidelines for Nursing Care from the Taylor *Fundamentals* book may also be found in this book, but its content has been embellished here to:

- Highlight the nursing process.
- Emphasize unexpected situations that the nurse may encounter, along with related interventions for how to respond to these unexpected situations.
- Draw attention to critical actions within skills.
- Illustrate specific actions within a skill through the use of nearly 1,000 four-color photographs and illustrations.
- Highlight available evidence for practice: best practice guidelines, research-based evidence, and support from appropriate professional literature.
- Reference appropriate case study or studies included at the end of the book, emphasizing which case studies utilize and enhance the content of each chapter.

In addition, this book contains several higher-level skills that are not addressed in the Taylor *Fundamentals* book.

Learning Experience

This text and the entire Taylor Suite have been created with the student's experience in mind. Care has been taken to appeal to all learning styles. The student-friendly writing style ensures that students will comprehend and retain information. The extensive art program enhances understanding of important actions. Accompanying skill videos clearly demonstrate and reinforce important skill steps; as students watch and listen to the videos, comprehension increases. In addition, each element of the Taylor Suite, which is described later in the preface, coordinates to provide a consistent and cohesive learning experience.

In Units I and II, the unexpected situations and special considerations content at the end of each skill challenges students to think critically, consider the context and multiple needs of patients, and prioritize care appropriately—supporting development of clinical judgment.

Organization

Taylor's Clinical Nursing Skills is organized into three units. Ideally, the text will be followed sequentially, but every effort has been made to respect the differing needs of diverse curricula and students. Thus, each chapter stands on its own merit and may be read independently of others.

Unit I: Actions Basic to Nursing Care

This unit introduces the foundational skills used by nurses: maintaining asepsis, measuring vital signs, assessing health, promoting safety, administering medication, and caring for surgical patients.

In Chapter 3, Health Assessment, physical assessment content reflects the practice needs of beginning and general nurses. Assessment procedures performed by advanced practice professionals are clearly identified. Assessments identified as advanced procedures and skills are available in the online resources for students.

Unit II: Promoting Healthy Physiologic Responses

This unit focuses on the physiologic needs of patients: hygiene; skin integrity and wound care; activity; comfort and pain management; nutrition; urinary elimination; bowel elimination; oxygenation; perfusion and cardiovascular care; fluid, electrolyte, and acid–base balance; neurologic care; and laboratory specimen collection.

Unit III: Integrated Case Studies

Although nursing skills textbooks generally present content in a linear fashion for ease of understanding, in reality, many nursing skills are performed in combination for patients with complicated health needs. The integrated case studies in this unit are designed to challenge the reader to think critically, consider the context and multiple needs of patients, and prioritize care appropriately—supporting development of clinical judgment, preparing the student and graduate nurse for complex situations that arise in everyday practice.

Teaching/Learning Package

To facilitate mastery of this text's content, a comprehensive teaching/learning package has been developed to assist faculty and students.

Resources for Instructors

Tools to assist you with teaching your course are available upon adoption of this text online at https://thepoint.lww.com/Lynn6e.

- The **Test Generator** has 450 NCLEX®-Style questions to help you put together exclusive new tests from a bank with questions spanning the book's topics, which will assist you in assessing your students' understanding of the material.
- **PowerPoint Presentations**, provided for each book chapter, enhance teaching by providing key visuals and reinforcing content. These provide an easy way for you to integrate the textbook with your students' learning experience, either via slide shows or handouts.
- **Skills Lab Teaching Plans** walk you through each chapter, objective by objective, and provide a lecture outline and teaching guidelines. In addition to one teaching plan for each chapter, there is one bonus teaching plan to assist with lab simulations.
- A **Master Checklist for Skills Competency** is provided to help you track your students' progress on all the skills in this book.
- **NEW! AACN Essentials Content Mapping**, which are competency-based and include expected competencies for entry-level nurses and advanced-level nurses.
- A **QSEN Competency Map** shows where in the text to find the Knowledge, Skills, and Attitudes (KSAs) that students will need to develop so they can ensure quality and safety in patient care.
- A sample **Syllabus** is provided to help you organize your course.
- **Journal Articles** offer access to current research available in Wolters Kluwer journals.
- The **Image Bank** provides free access to illustrations and photos from the textbook for use in PowerPoint presentations and handouts.

Resources for Students

Valuable learning tools for students are available online at https://thepoint.lww.com/Lynn6e, including:

- **Watch & Learn Videos**, **Practice & Learn Case Studies**, and **Concepts in Action Animations** demonstrate important concepts related to skills.
- **Journal Articles** offer access to current research available in Wolters Kluwer journals.
- A **Spanish–English Audio Glossary** provides helpful terms and phrases for communicating with patients who speak Spanish.
- **Dosage Calculation Quizzes** provide opportunities for students to practice math skills and calculate drug dosages.

Taylor Suite Resources

With expert authored content and engaging learning solutions, the Taylor Fundamentals/Skills suite is tailored to fit every learning style. This integrated suite of products offers students a seamless learning experience not found elsewhere. To learn more about any solution with the Taylor suite, please contact your local Wolters Kluwer representative.

- ***Fundamentals of Nursing: The Art and Science of Person-Centered Care*, 10th Edition**, by Carol Taylor, Pamela Lynn, and Jennifer Bartlett. This Fundamentals text promotes nursing as an evolving art and science, directed to human health and well-being. It challenges students to cultivate the Quality and Safety Education for Nurses (QSEN) and blended competencies they will need to serve patients and the public well. The aim is to prepare nurses who combine the highest level of scientific knowledge and technologic skill with responsible, caring practice. The text challenges students to identify and master the cognitive and technical skills as well as the interpersonal and ethical/legal skills they will need to effectively nurse the patients in their care. The text includes engaging features to promote critical thinking, clinical reasoning, and clinical judgment.
- ***Skill Checklists for Taylor's Clinical Nursing Skills*, 6th Edition**. This collection of checklists with convenient perforated pages is designed to accompany this Skills textbook and promote proper technique while increasing students' confidence.
- ***Taylor's Video Guide to Clinical Nursing Skills***. With more than 12 hours of video footage and more than 170 videos, these videos—developed consistently with the written skill instructions—follow nursing students and their instructors as they perform a range of essential nursing procedures. Students can now access the full set of videos as part of Lippincott Skills for Nursing Education (see below.)

A Comprehensive, Digital, Integrated Skills Solution

Experience the content you love from this book in a new way in ***Lippincott® Skills for Nursing Education***, an unparalleled nursing education skills solution to help student nurses develop skill competency and clinical judgment.

Available anytime, anywhere, ***Lippincott Skills for Nursing Education*** is designed specifically to empower nursing faculty and students to support teaching, learning, and reporting on nursing skills across the curriculum. Expert-authored skill instructions, evidence-based rationales, videos and case studies help the novice nursing student master new skills and confidently prepare for skills lab and clinical settings.

Used alone or integrated with *Lippincott® CoursePoint*, ***Lippincott Skills for Nursing Education*** offers an efficient learning experience backed with tools to monitor and motivate student preparedness and skill competency.

Taylor's Clinical Nursing Skills Collection, authored by Pamela Lynn, EdD, MSN, RN, delivers a robust set of essential skills for the undergraduate nurse and meets the needs of students throughout the curriculum.

Features include:

- A new **web-based user interface** goes beyond a traditional eBook, delivering essential pedagogy, nursing process approach and skill instruction optimized for online reading and on-the-go learning.
- **Trusted content** from *Taylor's Clinical Nursing Skills* and *Taylor's Video Guide to Clinical Nursing Skills* equips students with education-focused skill instructions and pedagogy.
- ***Skill Overviews*** use a consistent framework for each skill, with step-by-step implementation guidance and rationales.
- ***Videos*** bring skill instructions to life, with more than 170 videos showing nursing students and their instructors performing a range of essential nursing procedures, carefully matching written skill instructions.
- ***Quizzes*** for each skill assess students' understanding and preparedness for skills lab or clinical.
- ***Case Studies*** help students develop clinical judgment skills and apply their knowledge in the context of patient care, with two types of cases:
  - **Practice & Learn Interactive Case Studies** engage today's active learners in content review, case study practice application and assessment.
  - **Integrated Case Studies** reflect the complex combination of skills typically performed in nursing practice, challenging students to think critically and prioritize care.
- ***Online Skill Checklists*** allow instructors to customize student evaluation and easily track skill performance, enter comments, and save and share checklist records with students electronically.
- **Skill-based organization** of all resources ensures an efficient learning experience.
- **Enhanced reporting** provides in-depth dashboards with key data points to help instructors track student progress and identify strengths and weaknesses.

Pamela Lynn, EdD, MSN, RN

HOW TO USE

TAYLOR'S CLINICAL NURSING SKILLS

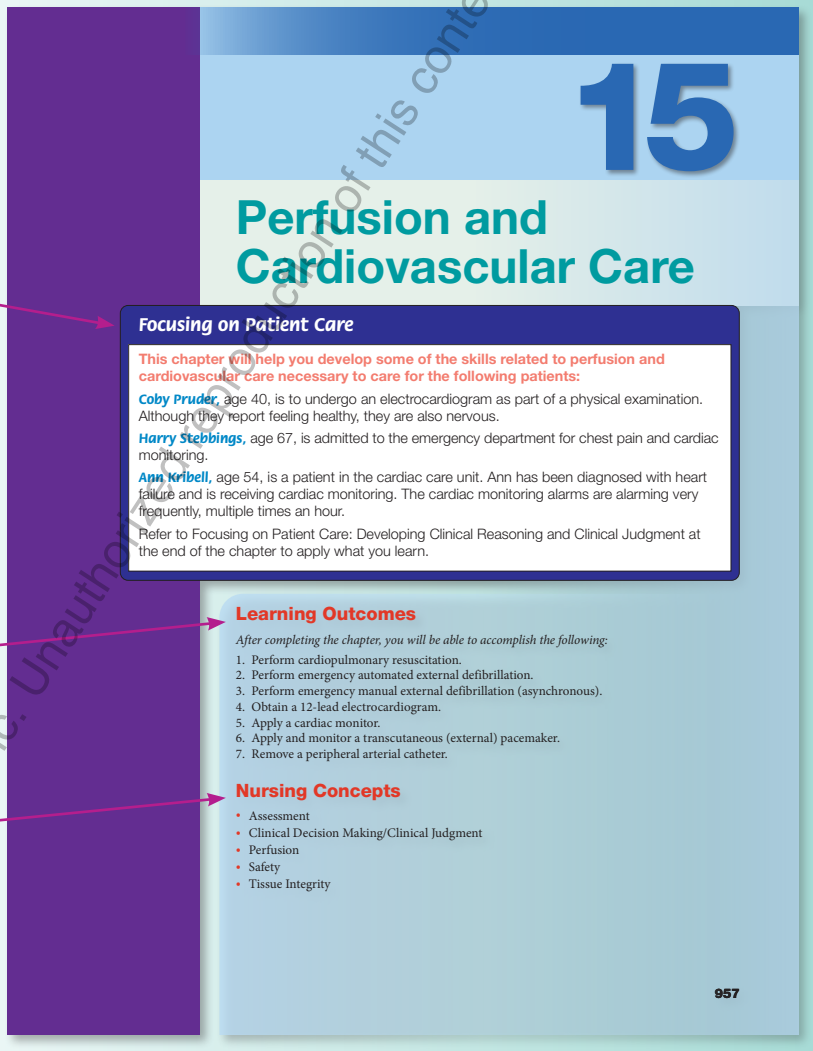
FOCUS ON PATIENT CARE!

Each chapter in Units I and II begins with a description of three real-world case scenarios that put the skills into context. These scenarios provide a framework for the chapter content to be covered.

GET READY TO LEARN!

Before reading the chapter content, read the **Learning Outcomes**. These roadmaps help you understand what is important and why. Create your own learning outline or use them for self-testing.

Review the **Nursing Concepts** list in the chapter opener that highlight connections to nursing concepts for ease of identification. **Key Terms** are bolded throughout the narrative; explanations to help you become familiar with new vocabulary are presented online at https://thepoint.lww.com/lynn6e.



15

Perfusion and Cardiovascular Care

Focusing on Patient Care

This chapter will help you develop some of the skills related to perfusion and cardiovascular care necessary to care for the following patients:

Coby Pruder, age 40, is to undergo an electrocardiogram as part of a physical examination. Although they report feeling healthy, they are also nervous.

Harry Stebbings, age 67, is admitted to the emergency department for chest pain and cardiac monitoring.

Ann Kribell, age 54, is a patient in the cardiac care unit. Ann has been diagnosed with heart failure and is receiving cardiac monitoring. The cardiac monitoring alarms are alarming very frequently, multiple times an hour.

Refer to Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment at the end of the chapter to apply what you learn.

Learning Outcomes

After completing the chapter, you will be able to accomplish the following:

1. Perform cardiopulmonary resuscitation.
2. Perform emergency automated external defibrillation.
3. Perform emergency manual external defibrillation (asynchronous).
4. Obtain a 12-lead electrocardiogram.
5. Apply a cardiac monitor.
6. Apply and monitor a transcutaneous (external) pacemaker.
7. Remove a peripheral arterial catheter.

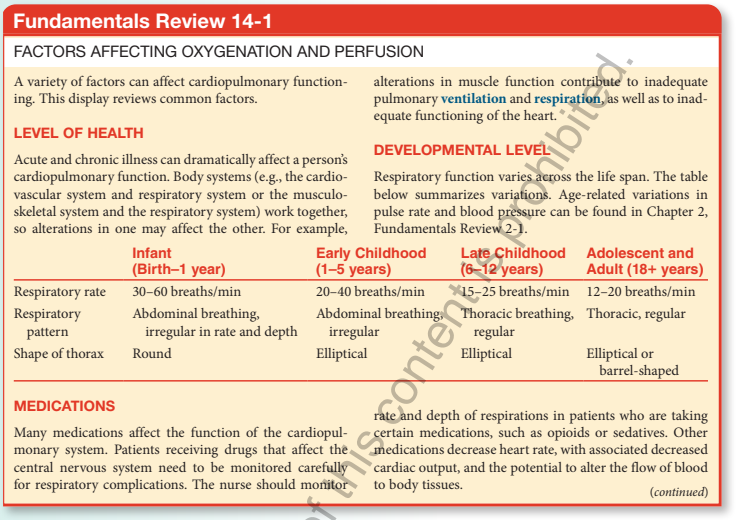
Nursing Concepts

- Assessment
- Clinical Decision Making/Clinical Judgment
- Perfusion
- Safety
- Tissue Integrity

957

DEVELOP CLINICAL REASONING AND CLINICAL JUDGMENT!

Fundamentals Review. Because of the breadth and depth of nursing knowledge that must be absorbed, nursing students and graduate nurses can easily become overwhelmed. Thus, this book is designed to eliminate excessive content and redundancy and to better focus the reader's attention. To this end, each chapter in Units I and II includes several boxes, tables, or figures that summarize important concepts that should be understood before performing a skill. For a more in-depth study of these concepts, readers are encouraged to refer to their Fundamentals textbook.



Fundamentals Review 14-1

FACTORS AFFECTING OXYGENATION AND PERFUSION

A variety of factors can affect cardiopulmonary functioning. This display reviews common factors.

LEVEL OF HEALTH

Acute and chronic illness can dramatically affect a person's cardiopulmonary function. Body systems (e.g., the cardiovascular system and respiratory system or the musculoskeletal system and the respiratory system) work together, so alterations in one may affect the other. For example, alterations in muscle function contribute to inadequate pulmonary ventilation and respiration, as well as to inadequate functioning of the heart.

DEVELOPMENTAL LEVEL

Respiratory function varies across the life span. The table below summarizes variations. Age-related variations in pulse rate and blood pressure can be found in Chapter 2, Fundamentals Review 2-1.

	Infant (Birth–1 year)	Early Childhood (1–5 years)	Late Childhood (6–12 years)	Adolescent and Adult (18+ years)
Respiratory rate	30–60 breaths/min	20–40 breaths/min	15–25 breaths/min	12–20 breaths/min
Respiratory pattern	Abdominal breathing, irregular in rate and depth	Abdominal breathing, irregular	Thoracic breathing, regular	Thoracic, regular
Shape of thorax	Round	Elliptical	Elliptical	Elliptical or barrel-shaped

MEDICATIONS

Many medications affect the function of the cardiopulmonary system. Patients receiving drugs that affect the central nervous system need to be monitored carefully for respiratory complications. The nurse should monitor rate and depth of respirations in patients who are taking certain medications, such as opioids or sedatives. Other medications decrease heart rate, with associated decreased cardiac output, and the potential to alter the flow of blood to body tissues.

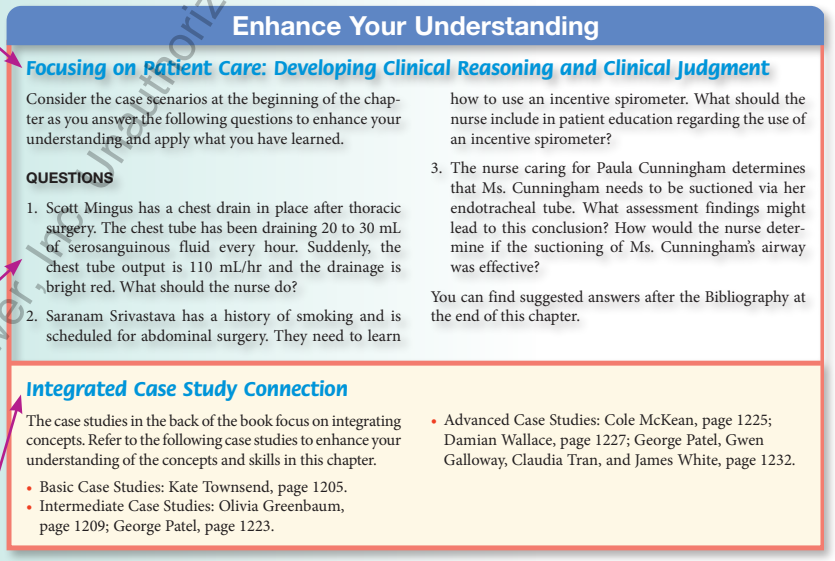
(*continued*)

Enhance Your Understanding, located at the end of each chapter, gives readers an opportunity to further their understanding and apply what they have learned. It includes three sections:

Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment asks readers to consider questions that reflect back to the opening scenarios for added cohesion throughout the chapters. Readers are challenged to apply the skills and use the new knowledge they have gained to "think through" learning exercises designed to show how critical thinking and clinical reasoning can result in a clinical judgment, leading to a possible change in outcomes and an impact on patient care.

Suggested Answers for Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment represent possible nursing care solutions to the problems. The answers can be found after the bibliography section at the end of the chapter.

Integrated Case Study Connection refers readers to the appropriate case study or studies discussion in Unit III, emphasizing which case studies utilize and enhance the content of that chapter.



Enhance Your Understanding

Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment

Consider the case scenarios at the beginning of the chapter as you answer the following questions to enhance your understanding and apply what you have learned.

QUESTIONS

1. Scott Mingus has a chest drain in place after thoracic surgery. The chest tube has been draining 20 to 30 mL of serosanguinous fluid every hour. Suddenly, the chest tube output is 110 mL/hr and the drainage is bright red. What should the nurse do?
2. Saranam Srivastava has a history of smoking and is scheduled for abdominal surgery. They need to learn how to use an incentive spirometer. What should the nurse include in patient education regarding the use of an incentive spirometer?
3. The nurse caring for Paula Cunningham determines that Ms. Cunningham needs to be suctioned via her endotracheal tube. What assessment findings might lead to this conclusion? How would the nurse determine if the suctioning of Ms. Cunningham's airway was effective?

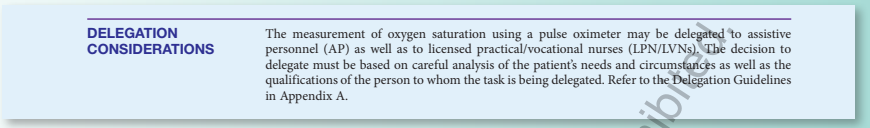
You can find suggested answers after the Bibliography at the end of this chapter.

Integrated Case Study Connection

The case studies in the back of the book focus on integrating concepts. Refer to the following case studies to enhance your understanding of the concepts and skills in this chapter.

- Basic Case Studies: Kate Townsend, page 1205.
- Intermediate Case Studies: Olivia Greenbaum, page 1209; George Patel, page 1223.
- Advanced Case Studies: Cole McKean, page 1225; Damian Wallace, page 1227; George Patel, Gwen Galloway, Claudia Tran, and James White, page 1232.

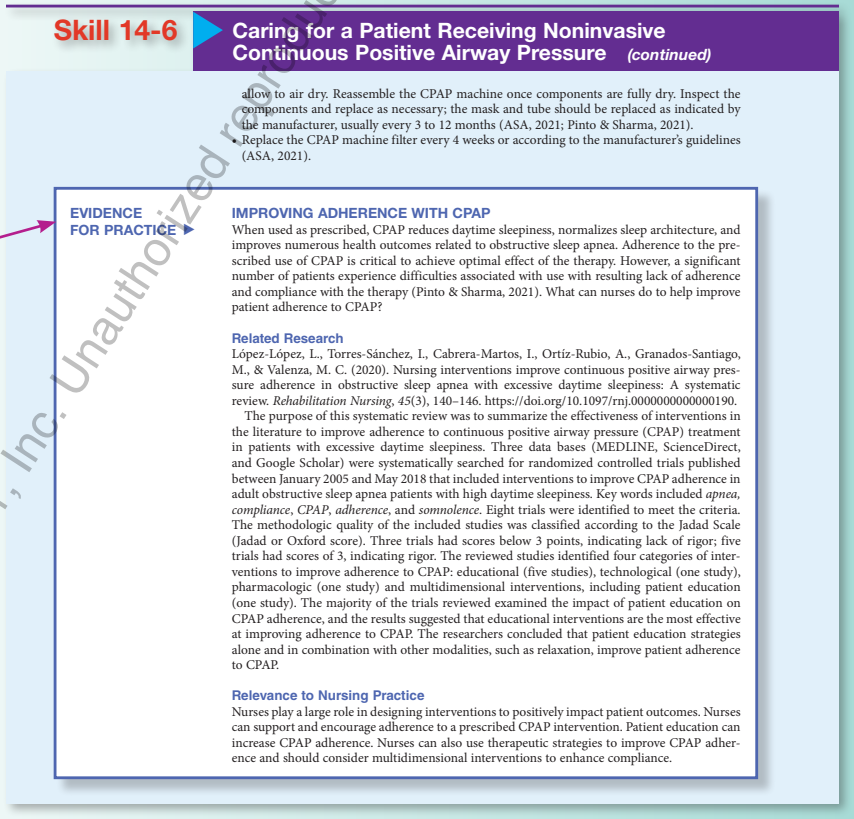
Delegation Considerations assist students and graduate nurses in developing the critical decision-making skills necessary to transfer responsibility for the performance of an activity to another person and to ensure safe and effective nursing care. Delegation decision-making information is provided in each skill and Appendix A, using delegation guidelines based on American Nurses Association (ANA) and National Council of State Boards of Nursing (NCSBN) principles and recommendations.



DELEGATION CONSIDERATIONS

The measurement of oxygen saturation using a pulse oximeter may be delegated to assistive personnel (AP) as well as to licensed practical/vocational nurses (LPN/LVNs). The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

Evidence for Practice highlights available evidence for practice—best practice guidelines, research-based evidence, and support from appropriate professional literature.



Skill 14-6 Caring for a Patient Receiving Noninvasive Continuous Positive Airway Pressure *(continued)*

allow to air dry. Reassemble the CPAP machine once components are fully dry. Inspect the components and replace as necessary; the mask and tube should be replaced as indicated by the manufacturer, usually every 3 to 12 months (ASA, 2021; Pinto & Sharma, 2021).

- Replace the CPAP machine filter every 4 weeks or according to the manufacturer's guidelines (ASA, 2021).

EVIDENCE FOR PRACTICE

IMPROVING ADHERENCE WITH CPAP

When used as prescribed, CPAP reduces daytime sleepiness, normalizes sleep architecture, and improves numerous health outcomes related to obstructive sleep apnea. Adherence to the prescribed use of CPAP is critical to achieve optimal effect of the therapy. However, a significant number of patients experience difficulties associated with use with resulting lack of adherence and compliance with the therapy (Pinto & Sharma, 2021). What can nurses do to help improve patient adherence to CPAP?

Related Research

López-López, L., Torres-Sánchez, I., Cabrera-Martos, I., Ortíz-Rubio, A., Granados-Santiago, M., & Valenza, M. C. (2020). Nursing interventions improve continuous positive airway pressure adherence in obstructive sleep apnea with excessive daytime sleepiness: A systematic review. *Rehabilitation Nursing*, *45*(3), 140–146. https://doi.org/10.1097/rnj.0000000000000190.

The purpose of this systematic review was to summarize the effectiveness of interventions in the literature to improve adherence to continuous positive airway pressure (CPAP) treatment in patients with excessive daytime sleepiness. Three data bases (MEDLINE, ScienceDirect, and Google Scholar) were systematically searched for randomized controlled trials published between January 2005 and May 2018 that included interventions to improve CPAP adherence in adult obstructive sleep apnea patients with high daytime sleepiness. Key words included *apnea, compliance*, *CPAP*, *adherence*, and *somnolence*. Eight trials were identified to meet the criteria. The methodologic quality of the included studies was classified according to the Jadad Scale (Jadad or Oxford score). Three trials had scores below 3 points, indicating lack of rigor; five trials had scores of 3, indicating rigor. The reviewed studies identified four categories of interventions to improve adherence to CPAP: educational (five studies), technological (one study), pharmacologic (one study) and multidimensional interventions, including patient education (one study). The majority of the trials reviewed examined the impact of patient education on CPAP adherence, and the results suggested that educational interventions are the most effective at improving adherence to CPAP. The researchers concluded that patient education strategies alone and in combination with other modalities, such as relaxation, improve patient adherence to CPAP.

Relevance to Nursing Practice

Nurses play a large role in designing interventions to positively impact patient outcomes. Nurses can support and encourage adherence to a prescribed CPAP intervention. Patient education can increase CPAP adherence. Nurses can also use therapeutic strategies to improve CPAP adherence and should consider multidimensional interventions to enhance compliance.

MASTER NURSING PROCESS!

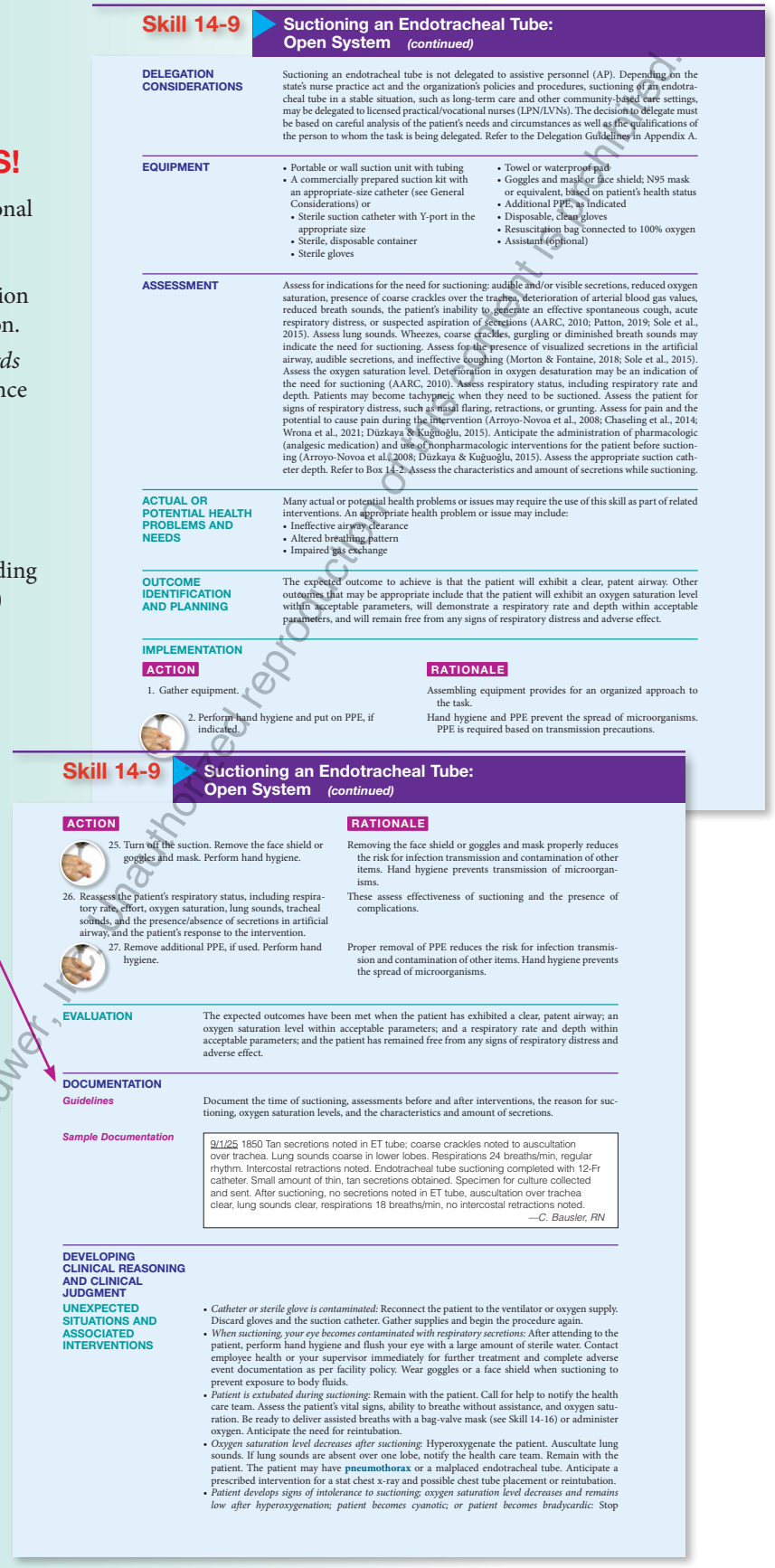
The **nursing process** provides the organizational framework to integrate related nursing responsibilities for each of the five steps: Assessment, Diagnosis*, Outcome Identification and Planning, Implementation, and Evaluation.

The ANA's (2021). *Nursing Scope and Standards of Practice* highlights the continuing importance of nursing process,

> "Regardless of the theoretical knowledge base upon which nursing and its practice are derived, that knowledge fits within the multidimensional nursing process, the analytical, critical-thinking framework guiding professional thinking and activities." (p. 11)

Documentation Guidelines direct students and graduate nurses in accurate documentation related to implementation of the skill and related findings. **Sample Documentation** demonstrates proper documentation.

*The outcome of data interpretation related to a skill is presented as appropriate actual or potential health problems and needs identified in conjunction with diagnosing. This change reflects a balance between the educational value of teaching using the nursing process and the recognition that education needs to mirror clinical practice and the move away from the use of nursing diagnoses. Material related to identification of actual or potential health problems and needs is from the International Council of Nurses (ICN, 2019). *Nursing diagnosis and outcome statements*. ***ICNP® is owned and copyrighted by the International Council of Nurses (ICN). Reproduced with permission of the copyright holder***. https://www.icn.ch/sites/default/files/inline-files/ICNP2019-DC.pdf; and *Problem-based care plans.* (2020). In *Lippincott Advisor*. Wolters Kluwer. https://advisor.lww.com/lna/home.do



Skill 14-9 Suctioning an Endotracheal Tube: Open System *(continued)*

DELEGATION CONSIDERATIONS

Suctioning an endotracheal tube is not delegated to assistive personnel (AP). Depending on the state's nurse practice act and the organization's policies and procedures, suctioning of an endotracheal tube in a stable situation, such as long-term care and other community-based care settings, may be delegated to licensed practical/vocational nurses (LPN/LVNs). The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Portable or wall suction unit with tubing
- A commercially prepared suction kit with an appropriate-size catheter (see General Considerations) or
  - Sterile suction catheter with Y-port in the appropriate size
  - Sterile, disposable container
  - Sterile gloves
- Towel or waterproof pad
- Goggles and mask or face shield; N95 mask or equivalent, based on patient's health status
- Additional PPE, as indicated
- Disposable, clean gloves
- Resuscitation bag connected to 100% oxygen
- Assistant (optional)

ASSESSMENT

Assess for indications for the need for suctioning: audible and/or visible secretions, reduced oxygen saturation, presence of coarse crackles over the trachea, deterioration of arterial blood gas values, reduced breath sounds, the patient's inability to generate an effective spontaneous cough, acute respiratory distress, or suspected aspiration of secretions (AARC, 2010; Patton, 2019; Sole et al., 2015). Assess lung sounds. Wheezes, coarse crackles, gurgling or diminished breath sounds may indicate the need for suctioning. Assess for the presence of visualized secretions in the artificial airway, audible secretions, and ineffective coughing (Morton & Fontaine, 2018; Sole et al., 2015). Assess the oxygen saturation level. Deterioration in oxygen desaturation may be an indication of the need for suctioning (AARC, 2010). Assess respiratory status, including respiratory rate and depth. Patients may become tachypneic when they need to be suctioned. Assess the patient for signs of respiratory distress, such as nasal flaring, retractions, or grunting. Assess for pain and the potential to cause pain during the intervention (Arroyo-Novoa et al., 2008; Chaseling et al., 2014; Wrona et al., 2021; Düzkaya & Kuğuoğlu, 2015). Anticipate the administration of pharmacologic (analgesic medication) and use of nonpharmacologic interventions for the patient before suctioning (Arroyo-Novoa et al., 2008; Düzkaya & Kuğuoğlu, 2015). Assess the appropriate suction catheter depth. Refer to Box 14-2. Assess the characteristics and amount of secretions while suctioning.

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or issues may require the use of this skill as part of related interventions. An appropriate health problem or issue may include:
- Ineffective airway clearance
- Altered breathing pattern
- Impaired gas exchange

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve is that the patient will exhibit a clear, patent airway. Other outcomes that may be appropriate include that the patient will exhibit an oxygen saturation level within acceptable parameters, will demonstrate a respiratory rate and depth within acceptable parameters, and will remain free from any signs of respiratory distress and adverse effect.

IMPLEMENTATION

ACTION	RATIONALE
1. Gather equipment.	Assembling equipment provides for an organized approach to the task.
2. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.

Skill 14-9 Suctioning an Endotracheal Tube: Open System *(continued)*

ACTION	RATIONALE
25. Turn off the suction. Remove the face shield or goggles and mask. Perform hand hygiene.	Removing the face shield or goggles and mask properly reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents transmission of microorganisms.
26. Reassess the patient's respiratory status, including respiratory rate, effort, oxygen saturation, lung sounds, tracheal sounds, and the presence/absence of secretions in artificial airway, and the patient's response to the intervention.	These assess effectiveness of suctioning and the presence of complications.
27. Remove additional PPE, if used. Perform hand hygiene.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms.

EVALUATION

The expected outcomes have been met when the patient has exhibited a clear, patent airway; an oxygen saturation level within acceptable parameters; and a respiratory rate and depth within acceptable parameters; and the patient has remained free from any signs of respiratory distress and adverse effect.

DOCUMENTATION

Guidelines

Document the time of suctioning, assessments before and after interventions, the reason for suctioning, oxygen saturation levels, and the characteristics and amount of secretions.

Sample Documentation

9/1/25 1850 Tan secretions noted in ET tube; coarse crackles noted to auscultation over trachea. Lung sounds coarse in lower lobes. Respirations 24 breaths/min, regular rhythm. Intercostal retractions noted. Endotracheal tube suctioning completed with 12-Fr catheter. Small amount of thin, tan secretions obtained. Specimen for culture collected and sent. After suctioning, no secretions noted in ET tube, auscultation over trachea clear, lung sounds clear, respirations 18 breaths/min, no intercostal retractions noted.
—C. Bausler, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *Catheter or sterile glove is contaminated:* Reconnect the patient to the ventilator or oxygen supply. Discard gloves and the suction catheter. Gather supplies and begin the procedure again.
- *When suctioning, your eye becomes contaminated with respiratory secretions:* After attending to the patient, perform hand hygiene and flush your eye with a large amount of sterile water. Contact employee health or your supervisor immediately for further treatment and complete adverse event documentation as per facility policy. Wear goggles or a face shield when suctioning to prevent exposure to body fluids.
- *Patient is extubated during suctioning:* Remain with the patient. Call for help to notify the health care team. Assess the patient's vital signs, ability to breathe without assistance, and oxygen saturation. Be ready to deliver assisted breaths with a bag-valve mask (see Skill 14-16) or administer oxygen. Anticipate the need for reintubation.
- *Oxygen saturation level decreases after suctioning:* Hyperoxygenate the patient. Auscultate lung sounds. If lung sounds are absent over one lobe, notify the health care team. Remain with the patient. The patient may have **pneumothorax** or a malplaced endotracheal tube. Anticipate a prescribed intervention for a stat chest x-ray and possible chest tube placement or reintubation.
- *Patient develops signs of intolerance to suctioning; oxygen saturation level decreases and remains low after hyperoxygenation; patient becomes cyanotic; or patient becomes bradycardic:* Stop

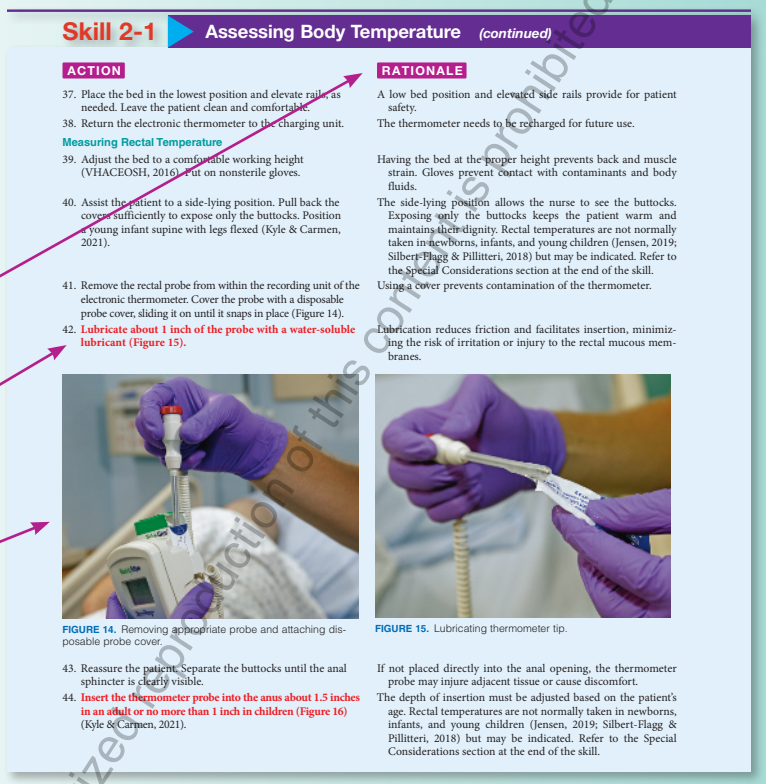
DEVELOP THE NECESSARY SKILLS!

Step-by-Step Skills. Each chapter presents numerous related step-by-step skills. The skills are presented in a concise, straightforward, and simplified two-column format to facilitate competent performance of nursing skills.

Scientific Rationales accompany each nursing action to promote a deeper understanding of the basic principles supporting nursing care.

Nursing Alerts draw attention to crucial information.

Photo Atlas Approach. When learning a new skill, it is often overwhelming to only *read* how to perform a skill. With nearly 1,000 photographs, this book offers a pictorial guide to performing each skill. The skill will not only be learned but also remembered through the use of text with pictures.



Skill 2-1 Assessing Body Temperature *(continued)*

ACTION	RATIONALE
37. Place the bed in the lowest position and elevate rails, as needed. Leave the patient clean and comfortable.	A low bed position and elevated side rails provide for patient safety.
38. Return the electronic thermometer to the charging unit.	The thermometer needs to be recharged for future use.
Measuring Rectal Temperature	
39. Adjust the bed to a comfortable working height (VHACEOSH, 2016). Put on nonsterile gloves.	Having the bed at the proper height prevents back and muscle strain. Gloves prevent contact with contaminants and body fluids.
40. Assist the patient to a side-lying position. Pull back the covers sufficiently to expose only the buttocks. Position a young infant supine with legs flexed (Kyle & Carmen, 2021).	The side-lying position allows the nurse to see the buttocks. Exposing only the buttocks keeps the patient warm and maintains their dignity. Rectal temperatures are not normally taken in newborns, infants, and young children (Jensen, 2019; Silbert-Flagg & Pillitteri, 2018) but may be indicated. Refer to the Special Considerations section at the end of the skill.
41. Remove the rectal probe from within the recording unit of the electronic thermometer. Cover the probe with a disposable probe cover, sliding it on until it snaps in place (Figure 14).	Using a cover prevents contamination of the thermometer.
42. **Lubricate about 1 inch of the probe with a water-soluble lubricant (Figure 15).**	Lubrication reduces friction and facilitates insertion, minimizing the risk of irritation or injury to the rectal mucous membranes.

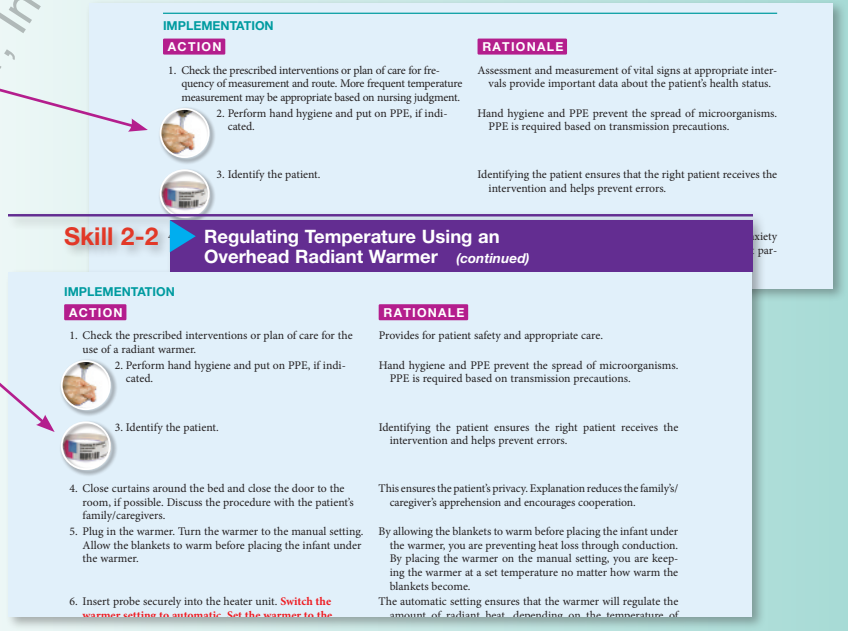
FIGURE 14. Removing appropriate probe and attaching disposable probe cover.

FIGURE 15. Lubricating thermometer tip.

43. Reassure the patient. Separate the buttocks until the anal sphincter is clearly visible.	If not placed directly into the anal opening, the thermometer probe may injure adjacent tissue or cause discomfort.
44. **Insert the thermometer probe into the anus about 1.5 inches in an adult or no more than 1 inch in children (Figure 16)** (Kyle & Carmen, 2021).	The depth of insertion must be adjusted based on the patient's age. Rectal temperatures are not normally taken in newborns, infants, and young children (Jensen, 2019; Silbert-Flagg & Pillitteri, 2018) but may be indicated. Refer to the Special Considerations section at the end of the skill.

Hand Hygiene icons alert you to this crucial step that is the best way to prevent the spread of microorganisms. Important information related to this icon is included inside the back cover.

Patient Identification icons alert you to this critical step ensuring the right patient receives the intervention, to help prevent errors. Important information related to this icon is included inside the back cover.



IMPLEMENTATION

ACTION	RATIONALE
1. Check the prescribed interventions or plan of care for frequency of measurement and route. More frequent temperature measurement may be appropriate based on nursing judgment.	Assessment and measurement of vital signs at appropriate intervals provide important data about the patient's health status.
2. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
3. Identify the patient.	Identifying the patient ensures that the right patient receives the intervention and helps prevent errors.

Skill 2-2 Regulating Temperature Using an Overhead Radiant Warmer *(continued)*

IMPLEMENTATION

ACTION	RATIONALE
1. Check the prescribed interventions or plan of care for the use of a radiant warmer.	Provides for patient safety and appropriate care.
2. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
3. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
4. Close curtains around the bed and close the door to the room, if possible. Discuss the procedure with the patient's family/caregivers.	This ensures the patient's privacy. Explanation reduces the family's/caregiver's apprehension and encourages cooperation.
5. Plug in the warmer. Turn the warmer to the manual setting. Allow the blankets to warm before placing the infant under the warmer.	By allowing the blankets to warm before placing the infant under the warmer, you are preventing heat loss through conduction. By placing the warmer on the manual setting, you are keeping the warmer at a set temperature no matter how warm the blankets become.
6. Insert probe securely into the heater unit. **Switch the warmer setting to automatic. Set the warmer to the**	The automatic setting ensures that the warmer will regulate the amount of radiant heat, depending on the temperature of

Skill Variations, listed in the Table of Contents and the Skill title for ease of access, provide clear instructions for variations in equipment or technique.

Skill 2-1 Assessing Body Temperature *(continued)*

Skill Variation

Assessing Body Temperature with a Temporal Artery Thermometer When the Temporal Artery and Behind the Ear Locations Are Not Accessible

If the temporal artery and behind the ear locations are not accessible, the femoral artery, lateral thoracic artery, and axillary sites may be used to assess body temperature using a temporal artery thermometer (Exergen, n.d.b).

1. Assess the appropriateness and need for measurement at an alternate site using a temporal artery thermometer.
2. Refer to Steps 1–8 in Skill 2-1.
3. Refer to Steps 23–27 in Skill 2-1, with the following modifications for each specific alternate site: Femoral artery: Slide the probe across the groin.
   Lateral thoracic artery: Scan side to side in the area, about midway between the axilla and nipple.
   Axilla: Insert probe in the apex of the axilla for about 2 to 3 seconds.
4. Release the button and read the thermometer measurement.
5. Hold the thermometer over a waste receptacle. Gently push the probe cover with your thumb against the proximal edge to dispose of the probe cover.
6. The instrument will automatically turn off in 30 seconds, or press and release the power button.

EVIDENCE FOR PRACTICE ▶

FEVER AND ANTIPYRESIS

Temperature increase and fever are common clinical symptoms. Fever is an important part of a person's defense mechanisms against infection. Findings about antipyretic treatment have further challenged the need for routine or aggressive fever suppression. Unfortunately, many health care professionals continue to be "fever phobic," while their attitudes toward fever and antipyresis considerably affect antipyretic practice (Ludwig & McWhinnie, 2019). What are health care professionals' awareness of fever and antipyresis? Is nursing practice based on appropriate treatment for fever?

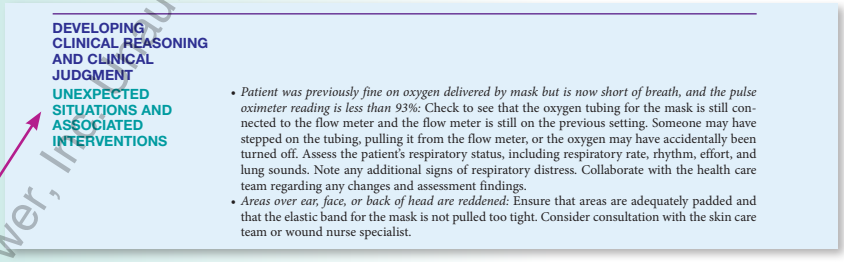
Related Evidence

Ludwig, J., & McWhinnie, H. (2019). Antipyretic drugs in patients with fever and infection: Literature review. *British Journal of Nursing, 28*(10), 610–618. https://doi.org/10.12968/bjon.2019.28.10.610

This literature review examined whether the administration of antipyretic drugs to adult patients with infection and fever, in secondary care, improves or worsen patient outcomes. Keywords, including fever, pyresis, infection, and antipyresis, were searched in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medline databases for the years 2010–2017. The target population for the review was hospitalized adult patients with fever and infection. Discussion of antipyretics in patients with infection and fever and/or discussion of the benefits/disadvantages of fever during infection were identified as criteria for inclusion in the review. Outcomes measured in the studies included patient mortality/morbidity, patient experiences and perceptions of fever/antipyretics, and professionals' attitudes toward fever/antipyretics. The database searches identified 1,523 articles; based on title and abstract review, 1,501 were excluded. Twenty-two articles were selected for full text review; after evaluation, 13 articles were chosen for inclusion in the final review. These final studies included randomized-controlled trials (3), cross-sectional survey/questionnaires (2), a qualitative interview (1), prospective observational studies (2), and retrospective observational studies (5). Each study was examined against the Critical Appraisal Skills Programme (CASP) quality checklists, and overall methodologic quality of the studies was deemed satisfactory. Two key themes identified included "antipyretics, fever and patient outcomes" and "professionals' and patients' experiences and perceptions of antipyretics and fever." Contrasting results were reported; two studies demonstrated improved patient outcomes following antipyretic administration, while several studies demonstrated increased mortality risk associate with antipyretics and/or demonstrated fever's benefits during infection. Results also demonstrated that health professionals continue to view fever as deleterious. The authors concluded the evidence does not support routine antipyretic administration. In addition, the researchers suggested health care providers should consider patients' comorbidities and symptoms of their underlying illness to promote safe, evidence-based, and appropriate administration of antipyretics.

Developing Clinical Reasoning and Clinical Judgment provides insight into prioritization and evidence-based practice and supports students' development of clinical reasoning and clinical judgment skills. This section includes:

Unexpected Situations are provided after the explanation of expected outcomes. Each situation is followed by an explanation of suggested possible intervention, with rationales. This feature serves as a starting point for group discussion.

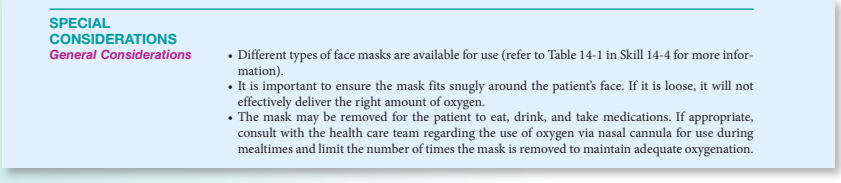


DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *Patient was previously fine on oxygen delivered by mask but is now short of breath, and the pulse oximeter reading is less than 93%:* Check to see that the oxygen tubing for the mask is still connected to the flow meter and the flow meter is still on the previous setting. Someone may have stepped on the tubing, pulling it from the flow meter, or the oxygen may have accidentally been turned off. Assess the patient's respiratory status, including respiratory rate, rhythm, effort, and lung sounds. Note any additional signs of respiratory distress. Collaborate with the health care team regarding any changes and assessment findings.
- *Areas over ear, face, or back of head are reddened:* Ensure that areas are adequately padded and that the elastic band for the mask is not pulled too tight. Consider consultation with the skin care team or wound nurse specialist.

Special Considerations, including **Infant, Child, Older Adult**, and **Community-Based Care Considerations** (e.g., modifications and home care), appear throughout to explain the varying needs of patients across the lifespan and in various care settings.



SPECIAL CONSIDERATIONS

General Considerations

- Different types of face masks are available for use (refer to Table 14-1 in Skill 14-4 for more information).
- It is important to ensure the mask fits snugly around the patient's face. If it is loose, it will not effectively deliver the right amount of oxygen.
- The mask may be removed for the patient to eat, drink, and take medications. If appropriate, consult with the health care team regarding the use of oxygen via nasal cannula for use during mealtimes and limit the number of times the mask is removed to maintain adequate oxygenation.

CONTENTS

UNIT III Integrated Case Studies

Resources available on thePoint®

ACKNOWLEDGMENTS

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Finally, I would like to gratefully acknowledge my family, for their love, understanding, and encouragement. Their support was essential during the long hours of research and writing.

—Pamela Lynn

3

Health Assessment

Focusing on Patient Care

This chapter will help you develop some of the assessment skills related to health assessment necessary to care for the following patients:

William Lincoln, age 54, comes to the clinic for a routine checkup.

Lois Felker, age 30, has a history of type 1 diabetes. She is a patient in the hospital.

Bobby Williams, age 14, has been brought to the emergency department by his parents and is suspected of having appendicitis.

Refer to Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment at the end of the chapter to apply what you learn.

Learning Outcomes

After completing the chapter, you will be able to accomplish the following:

1. Describe the components of a health assessment.
2. Describe and perform the components of a general survey.
3. Weigh a patient using a bed scale.
4. Describe and conduct a health history and physical assessment.
5. Use appropriate equipment while performing health assessment.
6. Position the patient correctly to perform a systematic physical assessment.
7. Verbalize the appropriate rationales for performing the specific systematic assessment techniques.
8. Assess the skin, hair, and nails.
9. Assess the head and neck.
10. Assess the thorax, lungs, and breasts.
11. Assess the cardiovascular system.
12. Assess the abdomen.
13. Assess female genitalia.
14. Assess male genitalia.
15. Assess the neurologic, musculoskeletal, and peripheral vascular systems.

Nursing Concepts

- Assessment
- Clinical Decision Making/Clinical Judgment
- Communication
- Therapeutic communication

Health assessment involves gathering information about the health status of the patient, the overall level of physical, psychological, sociocultural, developmental, functional, and spiritual health of a patient. A nursing health assessment is a holistic collection of information about how a person's health status is affecting activity levels and abilities to perform tasks. A nursing health assessment also explores how patients are coping with their health issues and any related loss of function or change in ability to function (Jensen, 2019). The nurse gathers, evaluates, and synthesizes information (**data**). The type and amount of information obtained vary and are determined based on the patient's needs, health care setting, and circumstances. The nurse identifies actual or potential health problems and/or needs that require nursing care based on evaluation of the gathered data. Assessment data are used to plan and implement nursing interventions and evaluate patient care outcomes to deliver the best possible care for each patient. A health assessment includes a health history and a physical assessment.

A **health history** is a collection of subjective data that provides information about the patient's health status. Information is ideally collected during an interview with the patient. However, the patient's family members and/or caregivers may also be an important source of data. If available, the health records of the patient can be a source of additional information. Components of the health history include biographical data, the reason the patient is seeking health care, present health concerns or history of those health concerns, past health history, family health history, functional health, and a review of systems. Questions should be adapted to the individual patient, based on the setting, situation, and ongoing information as the health assessment proceeds. Be sure to use language the patient can understand; avoid using medical terms and jargon. Nurses use therapeutic communication skills, including interviewing techniques, during the health history to gather data to identify actual and potential health problems as well as sources of patient strength. In addition, during the health history, the nurse begins to establish an effective nurse–patient relationship. Fundamentals Review 3-1 summarizes major components of a health history.

Physical assessment is a collection of objective data that provides information about changes in the patient's body systems. These data are obtained through direct observation or elicited through examination techniques, such as **inspection**, **palpation**, **percussion**, and **auscultation** (Fundamentals Review 3-2). The use of percussion and deep palpation are advanced physical assessment skills, usually performed by advanced practice professionals, health care providers with advanced education. *Percussion and deep palpation will not be discussed as part of physical assessment in this chapter. Refer to information on a health assessment text for details of these advanced assessment skills*. To perform a physical examination, the nurse requires knowledge of anatomy and physiology, the equipment used for assessing body systems, and proper patient positioning and draping.

Nurses should be familiar with the general health beliefs of various cultural and ethnic groups to improve the effectiveness of health care services and provide care within a cultural context. Nurses should know risk factors for alterations in health that are based on racial inheritance and ethnic backgrounds. They should also be aware of the normal variations that occur within races, and should understand how cultural characteristics, such as religion and spirituality, may impact health. When working with a patient from an unfamiliar culture, inquire about preferences and practices before beginning the examination (Jensen, 2019).

Laboratory tests and diagnostic procedures provide crucial information about a patient's health. These results become a part of the total health assessment. Nurses assist before, during, and after some diagnostic tests, and complete other testing as prescribed. Refer to Chapter 18 for information related to laboratory specimen collection for commonly prescribed laboratory testing.

For a comprehensive assessment, the nurse integrates individual assessments following a systematic head-to-toe format. *However, not all assessments included in a comprehensive physical assessment are covered in this chapter*. Advanced practice professionals (health care providers with advanced education) typically perform some of the assessments included in a comprehensive or focused exam, such as an internal eye examination, a vaginal examination, or a rectal examination. *Refer to information on a health assessment text for details of these advanced assessment skills*.

It is often not necessary to perform a comprehensive assessment during each patient encounter. Assessment focused on the circumstances and the needs of a particular patient can help to prioritize care. A short, focused general assessment can be used to establish a baseline to prioritize nursing care. This basic assessment is based on the patient's diagnosis, health problems, individual circumstances, and potential complications helps to quickly identify changes in the patent's clinical status (Henley Haugh, 2015). Nursing knowledge, expertise, and clinical reasoning and judgment guide the nurse in decisions about which assessments are a priority for an individual patient. This prioritized initial assessment may also identify specific findings to follow up on later. Fundamentals Review 3-3 provides an example of a brief, general assessment to gather pertinent data to provide a basis for prioritizing nursing care. Nurses should use clinical judgment to adapt this generic assessment to the individual circumstances of an individual patient and to monitor for changes that might require further intervention (Henley Haugh, 2015).

Fundamentals Review 3-1

COMPONENTS OF A HEALTH HISTORY

BIOGRAPHIC DATA

Biographic information is often collected during admission to a health care facility or agency and documented on a specific form; it helps to identify the patient. Depending on the health care setting, some biographic data may be collected by people other than the nurse.

Biographic data include the patient's name, address, billing, and insurance information. Additional biographical information may include sex assigned at birth, sexual orientation, gender identity, age and birth date, marital status, occupation, race, ethnic origin, religious preference, presence of an advance directive/living will, and the patient's primary health care provider.

The source of the information is also recorded. Differences in language and culture may have an effect on the quality and safety of health care. Language has been identified as contributing to health disparities, as a significant barrier to access to health care, and a barrier to quality health care and appears to increase the risks to patient safety (Ali & Watson, 2018; Chung et al., 2020; Kersey-Matusiak, 2019; Ku & Jewers, 2013). It is important to note the patient's preferred language for discussing health care as well as any sensory or communication needs.

REASON FOR SEEKING HEALTH CARE

The reason for seeking care is a statement in the patient's own words that describes the patient's reason for seeking care. This can help to focus the rest of the assessment. Ask an open-ended question, such as, "Tell me why you are here today." Record whatever it is the person says, their description in exact words. Avoid paraphrasing or interpreting.

HISTORY OF PRESENT HEALTH CONCERN

When taking the patient's history of present health concern, be sure to explore the symptoms thoroughly. Encourage the patient to describe and explain any symptoms. The description should include information regarding the onset of the problem; location; duration; intensity; quality/description; relieving/exacerbating factors; associated factors; past occurrences; any treatments; and how the problem has affected the patient.

PAST HEALTH HISTORY

A patient's past health history may provide insight into causes of current symptoms. It also alerts the nurse to certain risk factors. A past health history includes childhood and adult illnesses, chronic health problems and treatment, and previous surgeries or hospitalizations. This history should also include accidents or injuries, obstetric history, allergies, and the date of most recent immunizations. Vaccine recommendations are updated each year by the Centers for Disease Control and Prevention (CDC). Current guidelines for different age groups can be found on the CDC's website at www.cdc.gov (CDC, n.d.). Ask the patient about health maintenance screenings, such as routine mammograms and colorectal tests, including dates and results, as well as the use of safety measures. Ask the patient about prescribed and over-the-counter medications, including vitamins, supplements, and any home or herbal remedies. Include the name, dose, route, frequency, and purpose for each medication.

FAMILY HEALTH HISTORY

A person's family history will provide insight into diseases and conditions for which a patient may be at increased risk. Certain disorders have genetic links. Information regarding contact with family members with communicable diseases or environmental hazards can provide clues to the patient's current health or risk factors for health issues. This information can also identify important topics for health teaching and counseling.

(*continued*)

Fundamentals Review 3-1 continued

COMPONENTS OF A HEALTH HISTORY

FUNCTIONAL HEALTH

Information about a patient's functional health helps to identify the effects of health or illness on a patient's self-care abilities and quality of life including the strengths of the patient and areas that need to improve (Jarvis & Eckhardt, 2020; Jensen, 2019). Psychosocial factors and lifestyle and health practices can contribute to and influence a patient's overall health and well-being. Social determinants of health, the conditions (social, economic, and physical) in the environments in which people live their lives, affect a wide range of health, functioning and quality-of-life outcomes and risks (USDHHS & ODPHP, 2020).

Obtain information about the patient's social support, interpersonal relationships, available care givers, resources, and supporters that are available to help the patient cope with alterations in health and related alterations in functioning and quality of life. Obtain information about the patient's values, beliefs, and spiritual resources; self-esteem and self-concept; and coping and stress management.

Question the patient regarding personal habits, including use of alcohol, illicit drugs, and/or tobacco; environmental and occupational hazards; and intimate partner and family/caregiver (domestic) violence.

Assess the patient's level of activity, ask about the patient's level of activity and exercise; sleep and rest; and nutrition. Ask about the patient's ability to perform **activities of daily living (ADLs)**. Eating, bathing, dressing, and toileting are examples of ADLs. Assess the patient's ability to perform **instrumental activities of daily living (IADLs)**. Housekeeping, meal preparation, management of finances, and transportation are examples of IADLs. Functional health may be further assessed using a formal tool, such as the Katz Index of Independence in Activities of Daily Living, which is used with older adults (Figure 3-1).

Obtain information about the patient's mental health. Regular screenings in primary care and other health care settings enable earlier identification of mental health and substance use disorders, leading to earlier treatment and care. Screenings should be provided to people of all ages, even the young and older adults (American Mental Health Counselors Association, 2017). There are many assessment tools available to assist with screening for mental health disorders. Specific tools are available to screen for depression or suicide, for example, and to be used with specific populations, such as adolescents or older adults. The Patient Health Questionnaire-9 (PHQ-9), the most common screening tool to identify depression, is one example of a mental health assessment tool (Figure 3-2).

ACTIVITIES POINTS (1 OR 0)	INDEPENDENCE: (1 POINT) **NO** supervision, direction, or personal assistance	DEPENDENCE: (0 POINTS) **WITH** supervision, direction, personal assistance, or total care
BATHING POINTS:_____	**(1 POINT)** Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area, or disabled extremity.	**(0 POINTS)** Needs help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing.
DRESSING POINTS:_____	**(1 POINT)** Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	**(0 POINTS)** Needs help with dressing self or needs to be completely dressed.
TOILETING POINTS:_____	**(1 POINT)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	**(0 POINTS)** Needs help transferring to the toilet, cleaning self, or uses bedpan or commode.
TRANSFERRING POINTS:_____	**(1 POINT)** Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable.	**(0 POINTS)** Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE POINTS:_____	**(1 POINT)** Exercises complete self-control over urination and defecation.	**(0 POINTS)** Is partially or totally incontinent of bowel or bladder.
FEEDING POINTS:_____	**(1 POINT)** Gets food from plate into mouth without help. Preparation of food may be done by another person.	**(0 POINTS)** Needs partial or total help with feeding or requires parenteral feeding.

TOTAL POINTS = _____ 6 = High (*patient independent*) 0 = Low (*patient very dependent*)

FIGURE 3-1. Katz Index of Independence in Activities of Daily Living. (*Source:* Slightly adapted from Katz, S., Down, T. D., Cash, H. R., & Grotz, R. C. [1970]. Progress in the development of the index of ADL. *The Gerontologist*, *10*[1], 20–30. Copyright © The Gerontological Society of America. Reproduced [Adapted] by permission of the publisher.)

Fundamentals Review 3-1 continued

COMPONENTS OF A HEALTH HISTORY

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Use "✓" to indicate your answer)*	Not At All	Several Days	More Than Half the Days	Nearly Every Day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
			FOR OFFICE CODING 0 + _____ + _____ + _____ = Total Score: _____	

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

How to Score PHQ-9

Major Depressive Syndrome is suggested if:

- Of the 9 items, 5 or more are checked as at least "More than half the days"
- Either item #1 or #2 is positive, that is, at least "More than half the days"

Other Depressive Syndrome is suggested if:

- Of the 9 items, 2, 3, or 4 are check as at least "More than half the days"
- Either item #1 or #2 is positive, that is, at least "More than half the days"

FIGURE 3-2. From Patient Health Questionnaire (PHQ) Screeners. Developed by Dr. Robert L. Spitzer, Dr. Janet B. W. Williams, Dr. Kurt Kroenke, and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display, or distribute. http://www.phqscreeners.com.

Use neutral and inclusive terms (e.g., partner) and a nonjudgmental manner to obtain information about the patient's sexual history, sexual activity, gender identity, and sexual orientation. This information will help identify the needs of individual patients and provide patient-centered, culturally considerate care (Altarum Institute, 2019; Cahill et al., 2020). Some suggested strategies and essential health questions related to assessment of sexual health are included here (Altarum Institute, 2019; Cahill et al., 2020).

- In a matter-of-fact manner, inform the patient that sexual health is important to overall health and these questions are asked of everyone.
- Allow the patient the opportunity to ask questions or voice concerns.
- Assure the patient that all information is confidential.
- Ask the following questions using neutral and inclusive terms:
  - Have you been sexually active in the last year? If yes, what types of sex do you have? With men, women, or both? How many partners have you had?
  - If no, have you ever been sexually active?
  - How do you think of yourself? Lesbian, gay, heterosexual/straight, bisexual; something else (specify); don't know
  - What is your current gender identity? Male, female, female-to-male/transgender male/transgender man, male-to-female/transgender female/transgender woman, nonbinary or nonconforming, genderqueer, additional category (specify), decline to answer

(*continued*)

Fundamentals Review 3-1 continued

COMPONENTS OF A HEALTH HISTORY

- What sex were you assigned at birth, as shown on your birth certificate? Male, female, decline to answer
- What are your pronouns? He/him, she/her, they/their; something else (specify)
- What do you do to protect yourself from STIs?
- Have you been vaccinated against human papillomavirus? Hepatitis A? Hepatitis B?
- What questions do you have about your body and/or sex?

Additional points related to assessment of sexual and reproductive health are included in Skills 3-8 and 3-9.

REVIEW OF SYSTEMS

A review of systems is a series of questions about all body systems that helps to reveal concerns or problems as part of the health history. Questions should be adapted to the individual patient, omitting questions that do not apply and adding questions that seem pertinent, based on the setting, situation, and ongoing information as the health assessment proceeds. The nurse should avoid using medical terms and jargon and use language the patient can understand. Examples of health history questions related to each body system (review of systems) are included in the discussion of each region of the physical examination discussed in this chapter.

Fundamentals Review 3-2

PHYSICAL ASSESSMENT TECHNIQUES

Inspection is the process of performing deliberate, purposeful observations in a systematic manner. The nurse closely observes visually, but also uses hearing and smell to gather data throughout the assessment. The nurse assesses details of the patient's appearance, behavior, and movement. Inspection begins with the initial patient contact and continues through the entire assessment. Adequate natural or artificial lighting is essential for distinguishing the color, texture, and moisture of body surfaces. The nurse inspects each area of the body for size, color, shape, position, movement, and symmetry, noting normal findings and any deviations from normal.

Palpation uses the sense of touch. The hands and fingers are sensitive tools that can assess skin temperature, turgor, texture, and moisture as well as vibrations within the body (e.g., the heart) and shape or structures within the body (e.g., the bones). Specific parts of the hand are more effective at assessing different qualities. The dorsum (back) surfaces of the hand and fingers are used for gross measure of temperature. The palmar (front) surfaces of the fingers and fingerpads are used to assess firmness, contour, shape, tenderness, and consistency. The fingerpads are best at fine discrimination. Use fingerpads to locate pulses, lymph nodes, and other small lumps, and to assess skin texture and edema. Vibration is palpated best with the ulnar, or outside, surface of the hand. For light palpation, apply pressure with the fingers together and lightly depressing the skin and underlying structures about 1 to 2 cm (0.5 to 0.75 inch). Light palpation is used to feel for pulses, tenderness, surface skin texture, temperature, moisture, and muscular resistance (Jarvis & Eckhardt, 2020; Jensen, 2019; Weber & Kelley, 2018). Advanced health care providers usually perform deep palpation. Deep palpation is used to assess organs, masses, structures that are covered by thick muscle, and tenderness (Jensen, 2019; Weber & Kelley, 2018). Refer to information on a health assessment text for details of this advanced assessment skill.

Percussion is the act of striking one object against another to produce sound. The fingertips are used to tap the body over body tissues to produce vibrations and sound waves. The characteristics of the sounds produced are used to assess the location, shape, size, and density of tissues. Abnormal sounds suggest alteration of tissues, such as an emphysematous lung, or the presence of a mass, such as an abdominal tumor. A quiet environment allows sounds to be heard. Advanced health care providers usually perform percussion. Refer to information on a health assessment text for details of this advanced assessment skill.

Auscultation is the act of listening with a stethoscope to sounds produced within the body. This technique is used to listen for blood pressure, and heart, lung, and bowel sounds. Four characteristics of sound are assessed by auscultation: (1) pitch (ranging from high to low); (2) loudness (ranging from soft to loud); (3) quality (e.g., gurgling or swishing); and (4) duration (short, medium, or long). When auscultating, use the proper part of the stethoscope (diaphragm or bell) for specific sounds. Use the bell of the stethoscope to detect low-pitched sounds (such as some heart murmurs). Hold the bell lightly against the body part being auscultated. Use the diaphragm of the stethoscope to detect high-pitched sounds (such as normal heart sounds, breath sounds, and bowel sounds). Hold the diaphragm firmly against the body part being auscultated.

Fundamentals Review 3-3

BRIEF GENERAL PHYSICAL ASSESSMENT

ASSESSMENT	COMPONENTS
Safety	Assess: bed position, call bell location, appropriate emergency equipment, assistive devices, fall risk/hazards
Vital signs	Assess: temperature, pulse, respirations, blood pressure, oxygen saturation, pain assessment
Mental status	Assess: level of consciousness; orientation to person, place, and time; speech
Psychosocial	Assess: behavior and affect
Head, eyes, ears, nose, throat, neck	Assess: eyes, pupils, mouth, carotid arteries, swallowing, facial color, moisture, lesions, wounds, glasses, hearing aid, ability to hear conversation, ability to see
Chest	Assess: chest color, moisture, lesions, wounds, quality of respirations, heart sounds, lung sounds, cough, sputum
Abdomen	Assess: abdomen color, moisture, lesions, wounds, bowel sounds, tenderness, distention, pain/discomfort, ability to eat, urine elimination pattern and urine characteristics, bowel elimination pattern and stool characteristics
Upper and lower extremities	Assess: skin, color, pulses, temperature, tenderness, edema, capillary refill, strength, sensation, range of motion, lesions, wounds
Activity	Assess: movement and ambulation, ability to move in bed, ability to get out of bed, ability to walk and distance, gait
Therapeutic devices	Assess: peripheral and central venous access devices, supplemental oxygen setting, pacemaker, cardiac monitor, urinary catheters, gastric tubes, chest tubes, dressings, braces, slings

Nurses should use clinical judgment to adapt this generic assessment to the individual circumstances of an individual patient and to monitor for changes that might require further intervention (Henley Haugh, 2015).

Source: Adapted from Henley Haugh, K. (2015). Head-to-toe: Organizing your baseline patient physical assessment. *Nursing*, *45*(12), 58–61. Used with permission; Anderson, B., Nix, E., Norman, B., & McPike, H. D. (2014). An evidence based approach to undergraduate physical assessment practicum course development. *Nurse Education in Practice*, *14*(3), 242–246.

Skill 3-1 Performing a General Survey

The **general survey** is the first component of the physical assessment, beginning with the first moment of patient contact and continuing throughout the nurse–patient relationship. The general survey helps to develop an overall impression of the patient. It includes observing the patient's overall appearance and behavior; taking vital signs; measuring height, weight, and waist circumference; head circumference (infants and children) and calculating the **body mass index (BMI)**. BMI and waist circumference are indicators of risk for developing obesity-associated diseases or conditions, such as cardiovascular disease, high blood pressure, and type 2 diabetes (National Heart, Lung, and Blood Institute, n.d.).

DELEGATION CONSIDERATIONS

Measurement of the patient's weight and height, and vital signs may be delegated to assistive personnel (AP). Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of the general survey. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

(*continued on page 104*)

Skill 3-1 Performing a General Survey *(continued)*

EQUIPMENT

- Adequate lighting
- Tape measure
- A scale with height attachment; chair scale; or bed scale
- PPE, as indicated

ASSESSMENT

Develop an overall impression of the patient, focusing on appearance and behavior, vital signs, height, and weight. Ask the patient about any changes in weight, pain or discomfort, sleeping patterns, and any difficulty sleeping.

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Bathing/hygiene ADL deficit
- Impaired comfort
- Coping impairment

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing a general survey is that the assessment is completed without the patient experiencing anxiety or discomfort, an overall impression of the patient is formulated, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close curtains around the bed and the door to the room, if possible. Explain the purpose of the health examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Assess the patient's overall appearance and behavior. Observe if the patient appears to be their stated age. Note the patient's mental status. Is the person alert and oriented, responsive to questions, and responding appropriately? Are the facial features symmetric? Note any signs of acute distress, such as shortness of breath, pain, or anxiousness.	Appearance provides information about various aspects of the patient's health. Changes in cognitive processes, asymmetry, and signs of distress can be indicators of health abnormalities.
5. Assess the patient's body structure. Does the person's height appear within normal range for stated age and genetic heritage? Does the person's weight appear within normal range for height and body build? Note if body fat is evenly distributed. Do body parts appear equal bilaterally and relatively proportionate? Is the patient's posture erect and appropriate for age?	Height that is excessively short or tall, asymmetry, one-sided atrophy or hypertrophy, abnormal posture, and abnormal body proportion can be indicators of health problems.
6. Assess the patient's mobility. Is the patient's gait smooth, even, well balanced, and coordinated? Is joint mobility smooth and coordinated with a general full range of motion (ROM)? Are involuntary movements evident?	Abnormalities in gait and ROM can indicate health concerns.

ACTION	RATIONALE
7. Assess the patient's behavior. Are facial expressions appropriate for the situation? Does the patient maintain eye contact, based on cultural norms? Does the person appear comfortable and relaxed with you? Is the patient's speech clear and understandable? Observe the person's hygiene and grooming. Is the clothing appropriate for climate, fit well, appear clean, and appropriate for the person's culture and age group? Does the person appear clean and well groomed, appropriate for age and culture?	Facial expressions, speech, eye contact, and other behaviors provide clues to mood and mental health. Deficits in hygiene and grooming may indicate alterations in health.
8. Assess for pain. (Refer to Chapter 10.)	Pain can indicate alterations in physical and psychological health.
9. Have the patient remove shoes and heavy outer clothing. Weigh the patient using a scale (Figure 1). Compare the measurement with previous weight measurements and recommended range for height.	Weight loss or gain may indicate health problems.
10. With shoes off, and standing erect, measure the patient's height using a wall-mounted measuring device or measuring pole (Figure 2).	Ratio of height and weight is a general assessment of overall health, hydration, and nutrition.

FIGURE 1. Weighing patient using scale. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

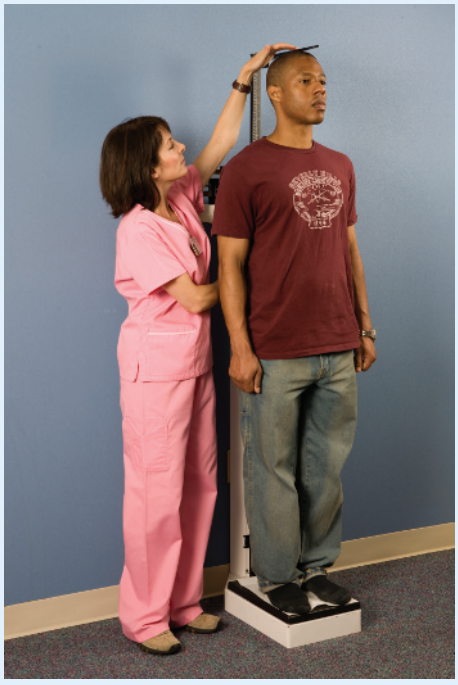


FIGURE 2. Measuring patient's height. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

11. Use the patient's weight and height measurements to calculate the patient's BMI. $\text{Body mass index} = \frac{\text{weight in kilograms}}{\text{height in meters}^2}$	BMI, an indicator of total body fat stores in the general population, provides a more accurate weight calculation than weight measurement alone. In addition, it provides an estimation of risk for diseases, such as heart disease, type 2 diabetes, and hypertension (National Heart, Lung, and Blood Institute, n.d.).

(*continued on page 106*)

Skill 3-1 Performing a General Survey *(continued)*

ACTION	RATIONALE
12. Using the tape measure, measure the patient's waist circumference. Place the tape measure snugly around the patient's waist at the level of the umbilicus.	Waist circumference is a good indicator of abdominal fat. It is thought to be an important and reliable indicator of risk for obesity-associated diseases or conditions (National Heart, Lung, and Blood Institute, n.d.).
13. Measure the patient's temperature, pulse, respirations, blood pressure, and oxygen saturation. (Refer to Chapter 2 and Chapter 14 for specific techniques.)	Vital signs and oxygen saturation are measured to establish a baseline for the database and to detect actual or potential health problems.
 14. Remove PPE, if used. Clean the equipment, based on facility policy. Perform hand hygiene. Continue with assessments of specific body systems as appropriate or indicated. Initiate appropriate referral to other health care providers for further evaluation as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Cleaning of equipment prevents transmission of microorganisms. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the assessment has been completed without the patient experiencing anxiety or discomfort; an overall impression of the patient has been formulated; the findings have been documented; and the appropriate referrals have been made to other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document findings related to assessment of the patient's physical appearance, body structure, mobility, and behavior. Document the patient's height, weight, BMI, and waist circumference. Document the presence or absence of pain as well as an initial pain assessment if present. Record the patient's temperature (T), pulse (P), respiration (R), and blood pressure (BP) measurements as well as the oxygen saturation measurement. Note any referrals.

Sample Documentation

Lippincott DocuCare

Practice documenting assessment techniques and findings in *Lippincott DocuCare.*

1/26/25 1015 Patient admitted to room 432. Patient is a 23-year-old Asian female graduate student at a local university, living in an apartment with three other female students. Appears well nourished, disheveled, clothing appropriate for age and season, and tired. Oriented, cooperative, with no signs of acute distress; patient denies pain at present. T 98.9°F, P 78, R 16, BP 114/58 mm Hg (left arm), sitting O_2 sat 96% on room air. Height 144 cm (5 ft). Weight 55 kg (121 lb). BMI 26.5. Waist circumference 32 inches. Information provided regarding use of call bell, lights, and phone, and location of bathroom. Patient verbalizes an understanding of information.

—R. Robinson, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *Patient is unable to tolerate standing for height or weight measurement:* Obtain a chair scale or bed scale to measure weight (refer to Skill 3-2). Obtain a measuring stick to measure height. Alternatively, use tape to mark the patient's length in the bed with the patient supine, the head in the midline position, and the legs extended flat on the bed. Measure the resulting length.

SPECIAL CONSIDERATIONS

General Considerations

- BMI may not be accurate for people, such as athletes, with a large muscle mass; people with **edema** or dehydration; older adults and others who have lost muscle mass (Dudek, 2018; National Institutes of Health [NIH], n.d.).
- According to the guidelines published by the National Heart, Lung, and Blood Institute, an adult with a BMI below 18.5 is underweight, a BMI of 25 to 29.9 indicates that a person is overweight, and a BMI of 30 or greater indicates obesity (National Heart, Lung, and Blood Institute, n.d.).
- Disease risk increases with a waist measurement of more than 40 inches in men and 35 inches in women (National Heart, Lung, and Blood Institute, n.d.).

Infant and Child Considerations

- Measure height (length) in children up to age 2 years in the recumbent position with legs fully extended (Kyle & Carman, 2021).
- Measure head circumference at birth and each physical examination for infants and children up to age 2 years to track the pattern of head growth (Bright Futures/American Academy of Pediatrics, 2021; Weber & Kelley, 2018). Circle the tape measure around the infant or child's head (not including the ears), beginning at the forehead just above the eyebrows, bringing the tape around the head just above the occipital prominence at the back of the head, using the widest span (Jarvis & Eckhardt, 2020; Kyle & Carmen, 2021).
- Weigh infants without clothing.
- Weigh children in their underwear.
- BMIs for children and teens use weight and height, and add sex assigned at birth and age into the calculation, listed as a percent. This percentage indicates a child's BMI in relation to the BMIs of other children of the same sex assigned at birth and age (NIH, n.d.).
- Children ages 2 years and older are considered at a healthy weight if their BMI falls between the 5th and 85th percentiles, overweight if their BMI is between the 85th and 95th percentiles, and obese if their BMI is at or higher than the 95th percentile (NIH, n.d.).
- Information about BMI-for-age and growth charts for children can be found at the Centers for Disease Control and Prevention (CDC)'s BMI-for-age calculator (CDC, 2018).

Skill 3-2 Using a Portable Bed Scale

Obtaining a patient's weight is an important component of assessment. In addition to providing baseline information of the patient's overall status, weight is a valuable indicator of nutritional status and fluid balance. Changes in a patient's weight can provide clues to underlying problems, such as nutritional deficiencies or fluid excess or deficiency, or it can indicate the development of new problems, such as fluid overload.

Typically, the nurse will measure weight by having the patient stand on an upright scale. However, doing so requires that the patient is mobile and can maintain their balance. Chair scales are available for patients who are unable to stand. For patients who are confined to the bed, have limited mobility, or cannot maintain a balanced upright or standing position for a short period of time, a bed scale can be used. With a bed scale, the nurse places the patient in a sling and raises the patient above the bed. To ensure safety, a second nurse should be on hand to assist with weighing the patient. Many facilities provide beds with built-in scales. The following procedure explains how to weigh the patient with a portable bed scale.

DELEGATION CONSIDERATIONS

Measurement of body weight may be delegated to assistive personnel (AP) as well as to licensed practical/vocational nurses (LPN/LVNs). The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Bed scale with sling
- Cover for sling
- Sheet or bath blanket
- PPE, as indicated

(*continued on page 108*)

Skill 3-2 Using a Portable Bed Scale *(continued)*

ASSESSMENT

Assess the patient's ability to stand for a weight measurement. If the patient cannot stand, assess the patient's ability to sit in a chair or to lie still for a weight measurement. Assess the patient for pain. If necessary, give medication for pain or sedation before placing the patient on a bed scale. Assess for the presence of any material, such as tubes, drains, or (intravenous) IV tubing, which could become entangled in the scale or pulled during the weighing procedure.

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Impaired Mobility
- Impaired Nutritional Status
- Overweight

OUTCOME IDENTIFICATION AND PLANNING

The expected outcomes to achieve when weighing a patient using a portable bed scale are that the patient's weight is measured accurately without injury to the patient, and the patient experiences minimal discomfort. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
1. Check the prescribed interventions or plan of care for frequency of weight measurement. More frequent measurement of the patient's weight may be appropriate based on nursing judgment. Obtain the assistance of a second caregiver, based on the patient's mobility and ability to cooperate with the procedure.	This provides for patient safety and appropriate care.
 2. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 3. Identify the patient.	Identifying the patient ensures that the right patient receives the intervention and helps prevent errors.
4. Close the curtains around the bed and close the door to the room if possible. Discuss the procedure with the patient and assess the patient's ability to assist with the procedure.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
5. Place a cover over the sling of the bed scale.	Using a cover deters the spread of microorganisms.
6. Attach the sling to the bed scale. Lay the sheet or bath blanket in the sling. Turn on the scale. **Balance the scale so that weight reads 0.0.**	Scale will add the sling, blanket, and cover into the weight unless it is zeroed with the sling, blanket, and cover.
7. Adjust the bed to a comfortable working position (VHACEOSH, 2016). Position one caregiver on each side of the bed, if two caregivers are present. Raise side rail on the opposite side of the bed from where the scale is located, if not already in place. Cover the patient with the sheet or bath blanket. Remove other covers and any pillows.	Having the bed at the proper height prevents back and muscle strain. Having one caregiver on each side of the bed provides for patient safety and appropriate care. Side rail assists patient with movement. Blanket maintains patient's dignity and provides warmth.
8. Turn the patient onto their side facing the side rail, keeping their body covered with the sheet or blanket. Remove the sling from the scale. Place the cover on the sling. Roll cover and sling lengthwise. Place rolled sling under the patient, making sure the patient is centered in the sling.	Rolling the patient onto their side facilitates placing the patient onto the sling. Blanket maintains patient's dignity and provides warmth.

ACTION	RATIONALE
9. Roll the patient back over the sling and onto the other side. Pull the sling through, as if placing sheet under patient, unrolling the sling as it is pulled through.	This facilitates placing the patient onto the sling.
10. Roll the scale over the bed so that the arms of the scale are directly over the patient. **Spread the base of the scale.** Lower the arms of the scale and place the arm hooks into the holes on the sling.	By spreading the base, you are giving the scale a wider base, thus preventing the scale from toppling over with the patient. Hooking sling to scale provides secure attachment to the scale and prevents injury.
11. Once the scale arms are hooked onto the sling, gradually elevate the sling so that the patient is lifted up off the bed (Figure 1). **Assess all tubes and drains, making sure that none have tension placed on them as the scale is lifted. Once the sling is no longer touching the bed, ensure that nothing else is hanging onto the sling (e.g., ventilator or IV tubing). If any tubing is connected to the patient, raise it up so that it is not adding any weight to the patient.**	The scale must be hanging free to obtain an accurate weight. Any tubing that is hanging off the scale will add weight to the patient.

FIGURE 1. Using a bed scale.

12. Note the weight reading on the scale. Slowly and gently, lower the patient back onto the bed. Disconnect the scale arms from the sling. Close the base of the scale and pull it away from the bed.	Lowering the patient slowly does not alarm the patient. Closing the base of the scale facilitates moving the scale.
13. Raise the side rail. Turn the patient to the side rail. Roll the sling up against the patient's backside.	Raising the side rail is a safety measure.
14. Raise the other side rail. Roll the patient back over the sling and up facing the other side rail. Remove the sling from the bed. Remove gloves, if used. Raise the remaining side rail. Perform hand hygiene.	The patient needs to be removed from the sling before it can be removed from the bed. Hand hygiene deters the spread of microorganisms.
15. Cover the patient and help them to a position of comfort. Place the bed in the lowest position.	Ensures patient comfort and safety.
16. Remove the disposable cover from the sling and discard in the appropriate receptacle.	Using a cover deters the spread of microorganisms.
17. Remove additional PPE, if used. Clean equipment based on facility policy. Perform hand hygiene.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Cleaning equipment prevents transmission of microorganisms. Hand hygiene deters the spread of microorganisms.
18. Replace the scale and sling in the appropriate spot. Plug the scale into the electrical outlet.	Scale should be ready for use at any time.

(*continued on page 110*)

Skill 3-2 Using a Portable Bed Scale *(continued)*

EVALUATION

The expected outcome has been met when the patient has been weighed accurately without injury, and the patient has experienced minimal discomfort.

DOCUMENTATION

Guidelines

Document weight, unit of measurement, and scale used.

Sample Documentation

> 10/15/25 0230 Patient reports pain in legs 5/10. Premedicated with oxycodone 5 mg and acetaminophen 325 mg 2 tabs PO before obtaining weight per order. Patient weighed using bed scale, 75.2 kg.
>
> —*M. Evans, RN*

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *As the patient is being lifted, the scale begins to tip over:* Stop lifting the patient. Slowly lower the patient back to the bed. Ensure that the base of the scale is spread wide enough before attempting to weigh the patient.
- *Weight differs from the previous day's weight by more than 1 kg:* Weigh the patient using the same scale at the same time each day. Check scale calibration. Make sure that the patient is wearing the same clothing. Make sure that no tubes or containers are hanging on the scale. If the patient is incontinent, make sure undergarments are clean and dry.
- *Patient becomes agitated as the sling is raised into the air:* Stop lifting the patient and reassure them. If the patient continues to be agitated, lower them back to the bed. Reevaluate necessity of obtaining weight at that exact time.

Skill 3-3 Assessing the Skin, Hair, and Nails

The integumentary system includes the skin, hair, nails, sweat glands, and sebaceous glands. Assessment of the skin, hair, and nails provides information about the nutritional and hydration status and overall health of the patient. This assessment can provide information associated with certain systemic diseases, infection, immobility, excessive sun exposure, and allergic reactions. It also provides information about self-care activities related to personal hygiene. Assessment often begins with an overall inspection of the skin's condition and skin assessment is integrated throughout the entire health assessment. Assessment of specific regions is usually integrated into specific body system assessments. Skin assessment is presented separately in this text for learning purposes.

DELEGATION CONSIDERATIONS

The assessment of the patient's skin, hair, and nails should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's skin, hair, and nails. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Gloves
- Additional PPE, as indicated
- Bath blanket or other drape
- Measuring tape or ruler
- Adequate light source

ASSESSMENT

Complete a health history, focusing on the integumentary system. Identify risk factors for altered health by asking about the following:

- History of rashes, lesions, change in color, or itching
- History of bruising or bleeding in the skin
- History of allergies to medications, plants, foods, or other substances
- History of bathing routines and products
- Exposure to the sun and sunburn history
- Presence of lesions (wounds, bruises, abrasions, or burns)
- Presence of body piercings and/or tattoos
- Change in the color, size, or shape of a mole
- Exposure to chemicals that may be harmful to the skin, hair, or nails
- Degree of mobility
- Types of food eaten and liquids consumed each day
- Cultural practices related to skin

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Altered skin integrity
- Altered body image perception
- Altered skin integrity risk

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing assessment of the skin, hair, and nails is that the assessment is completed without the patient experiencing anxiety or discomfort, the findings are documented, and the appropriate referral is made to the other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close curtains around the bed and the door to room, if possible. Explain the purpose of the integumentary examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Ask the patient to remove all clothing and put on an examination gown (if appropriate). The patient remains in the sitting position for most of the examination but will need to stand or lie on the side when the posterior part of the body is examined, exposing only the body part being examined.	Exposing only the body part being examined provides privacy for the patient. During the initial part of the examination, assess the skin areas that are exposed (e.g., face, arms, and hands). As the different assessments are completed, incorporate skin examination within these systems.
5. Use the bath blanket or drape to cover any exposed area other than the one being assessed. Inspect the overall skin coloration (Figure 1).	Use of a bath blanket or drape provides for comfort and warmth. Overall coloration is a good indication of health status. Skin color varies among races and people; individual skin color should be relatively consistent across the body. Abnormal findings include **cyanosis**, **pallor**, **jaundice**, and **erythema**.
6. Inspect skin for vascularity, bleeding, or **ecchymosis**.	These signs may relate to injury or cardiovascular, hematologic, or liver dysfunction.

(*continued on page 112*)

Skill 3-3 Assessing the Skin, Hair, and Nails *(continued)*

ACTION	RATIONALE
7. Inspect the skin for lesions. Note bruises, scratches, cuts, insect bites, and wounds. (Refer to General Wound Assessment [Fundamentals Review 8-1] in Chapter 8.) If present, note size, shape, color, exudates, and distribution/pattern, and presence of drainage or odor. Assess the location and condition of body piercings and/or tattoos.	Lesions can be normal variations, such as a macule or freckle, or an abnormal lesion, such as a melanoma.
8. Palpate skin using the back of your hands to assess temperature. Wear gloves when palpating any potentially open area of the skin (Figure 2).	The back of the hand is more sensitive to temperature. Increase in skin temperature may indicate elevated body temperature.

FIGURE 1. Inspecting overall skin coloration. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

FIGURE 2. Assessing skin temperature. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

9. Palpate for texture and moisture.	In a dehydrated patient, skin is dry, loose, and wrinkled. Elevated body temperature may result in increased perspiration.
10. Assess skin **turgor** by gently pinching the skin under the clavicle (Figure 3).	Provides information about the patient's hydration status as well as skin mobility and elasticity. Decreased elasticity may be present in dehydrated patients.

FIGURE 3. Assessing skin turgor. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

11. Palpate for edema, which is characterized by swelling, with taut and shiny skin over the edematous area.	Edema may be the result of overhydration, heart failure, kidney dysfunction, or peripheral vascular disease.
12. If lesions are present, put on gloves and palpate the lesion.	Palpation of lesions may result in drainage, which provides clues to the type or cause of the lesion. Gloves prevent contact with blood and body fluids.
13. Inspect the nail condition, including the shape, texture, and color as well as the nail angle; note if any clubbing is present.	Nail condition provides information about underlying illness and oxygenation status. Nails are normally convex, and the cuticle is pink and intact. The angle of nail attachment is 160 degrees. Clubbing is present when the nail angle base exceeds 180 degrees.

ACTION	RATIONALE
14. Palpate nails for texture and capillary refill.	Normally, nails are firm and smooth and capillary refill should be brisk, less than 3 seconds.
15. Inspect the hair and scalp for color, texture, and distribution (Figure 4). Wear gloves if lesions or infestation is suspected or if hygiene is poor.	Hair condition provides information about nutritional and oxygenation status. Hair should be evenly distributed over the scalp. There are variations in hair color.

FIGURE 4. Inspecting the scalp and hair. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

 16. Remove gloves and any additional PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in the integumentary assessment; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings are documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Describe specific findings, including coloration, texture, moisture, temperature, turgor, capillary refill, and edema. Note hair distribution and texture. Describe the condition of nails, including any abnormal findings. If lesions are present, document specifics, describing type, size, shape (use tape measure if necessary), elevation, coloring, location, drainage, distribution, and patterns.

Sample Documentation

5/2/25 1030 Skin assessment performed. Patient reports history of atopic dermatitis. Uniform skin coloring (tan) with pink undertones. Skin on all areas, but the hands, is soft and warm. Skin returns to position when pinched. Multiple lesions, consistent with dermatitis, observed on the hands. Lesions are red, scaly, and dry. Brown hair, shiny and evenly distributed. Nails are firm and the cuticle is pink and intact and without ridging or pitting.

—B. Gentzler, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *While assessing the skin of a patient with dark skin tone, you are unsure if the change in coloration in a particular area of the body is normal or abnormal:* It is especially important when assessing people with dark skin tones to conduct the assessment with natural light rather than artificial lighting. When an abnormal condition is present, first examining an area of the skin that is not

(*continued on page 114*)

Skill 3-3 Assessing the Skin, Hair, and Nails *(continued)*

affected by the dermatologic disorder provides a comparison for identifying abnormal color conditions. Skin temperature becomes important to detect erythema in people with dark skin tones; areas of erythema will feel warm compared with surrounding skin. Pallor in patients with dark skin tones is seen as an ashen gray or yellow tinge. Also, lesions that look red or brown on light skin may present as black or purple on dark skin.

SPECIAL CONSIDERATIONS

Older Adult Considerations

- In the older adult patient expect to find overall thinning of the skin, reduced sweating and oil, and reduced skin turgor.

Cultural Considerations

- Pallor in people with dark skin tones appears as ashen gray or yellow tinged. Brown-toned skin appears more yellowish brown, dull; darker skin looks ashen, gray, dull. Assess areas with least pigmentation, such as conjunctivae and mucous membranes (Jarvis & Eckhardt, 2020).
- Assess cyanosis in people with darker skin tones by examining the oral mucosa, nail beds, and the conjunctivae (Jarvis & Eckhardt, 2020).
- Assess jaundice in people with darker skin tones by observing the sclera of the eyes, the palms of the hands, and the junction of the hard and soft palate (Jarvis & Eckhardt, 2020).
- Congenital dermal melanocytosis is a common variation of hyperpigmentation in newborns of African American, Asian, Native American, Latino heritage. It is a blue black to purple macular area of hyperpigmentation that is usually located at the sacrum or buttocks, but sometimes occurs on the abdomen, thighs, shoulders, or arms. Mongolian spot gradually fades during the first year of life. It is important not to confuse these areas of hyperpigmentation with bruises (Jarvis & Eckhardt, 2020; Jensen, 2019; Weber & Kelly, 2018).
- Patients of Southeast Asian heritage may have a common variation of diminished body and facial hair (Jarvis & Eckhardt, 2020; Jensen, 2019).
- African American individuals and other people with curly hair may experience pseudofolliculitis barbae. This is a common condition in which tightly curved hairs grow back into the skin, causing a foreign-body reaction with inflammation (Jensen, 2019).

Skill 3-4 Assessing the Head and Neck

Examination of the head and neck region includes the assessment of multiple structures and body systems. The eyes, ears, nose, mouth, and throat are located within the facial structures. Anterior neck structures include the trachea, esophagus, and the thyroid gland as well as the arteries, veins, and lymph nodes. Posterior neck areas involve the upper portion of the spine. Assessment of the size and consistency of the thyroid gland is performed by advanced practice professionals. Refer to information on a health assessment text for details.

DELEGATION CONSIDERATIONS

Assessment of the patient's head and neck should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's head and neck. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Stethoscope
- Gloves
- Additional PPE, as indicated
- Bath blanket or other drape
- Lighting, including a penlight
- Tongue blades
- Visual acuity chart

ASSESSMENT

Complete a health history, focusing on the head and neck. Identify risk factors for altered health by asking about the following:

- Changes with aging in vision or hearing
- History of use of corrective lenses or hearing aids
- History of allergies
- History of disturbances in vision or hearing
- History of chronic illnesses, such as hypertension, diabetes mellitus, or thyroid disease
- Exposure to harmful substances or loud noises
- History of smoking, chewing tobacco, or cocaine use
- History of eye or ear infections
- Presence of body piercings and/or tattoos
- Oral and dental care practices

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Impaired Swallowing
- Impaired Dentition
- Impaired Hearing

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the structures in the head and neck region is that the assessment is completed without the patient experiencing anxiety or discomfort, the findings are documented, and the appropriate referral is made to the other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close the curtains around the bed and close the door to the room, if possible. Explain the purpose of the head and neck examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Inspect the head for size and shape. Inspect the face for color, symmetry, lesions, and distribution of facial hair. Note facial expression. Palpate the skull.	In general, the shape of the head is normocephalic and symmetric. Abnormal findings include a lack of symmetry or unusual size or contour of the head, which may be a result of trauma or disease. Facial expression is appropriate. The skull should be mobile and nontender.
5. Inspect the external eye structures (eyelids, eyelashes, eyeball, and eyebrows), cornea, conjunctiva, and sclera. Note color, edema, symmetry, and alignment.	Inspection detects abnormalities, such as ptosis, styes, conjunctivitis, or scleral color. Some abnormalities are associated with systemic disorders.

(*continued on page 116*)

Skill 3-4 Assessing the Head and Neck *(continued)*

ACTION	RATIONALE
6. Examine the pupils for equality of size and shape (Figure 1). Examine the pupillary reaction to light: a. Darken the room. b. Ask the patient to look straight ahead. c. Bring the penlight from the side of the patient's face and briefly shine the light on the pupil (Figure 2). d. Observe the pupil's reaction; it normally constricts rapidly (direct response). Note pupil size. e. Repeat the procedure and observe the other eye; it too normally will constrict (consensual reflex). f. Repeat the procedure with the other eye.	Testing pupillary response to light and accommodation assesses cranial nerve III, the oculomotor nerve. The pupils are normally black, equal in size, round, and smooth. The normal and consensual pupillary response is constriction.

FIGURE 1. Pupillary gauge measures pupils in millimeters (mm).

FIGURE 2. Assessing pupillary reaction to light.

7. Test for pupillary accommodation: a. Hold the forefinger, a pencil, or other straight object about 10 to 15 cm (4 to 6 inches) from the bridge of the patient's nose. b. Ask the patient to first look at the object, then at a distant object, and then back to the object being held. The pupil normally constricts when looking at a near object (Figure 3A) and dilates when looking at a distant object (Figure 3B).	Testing pupillary response to light and accommodation assesses cranial nerve III, the oculomotor nerve. The normal pupillary response is constriction when focusing on a near object.

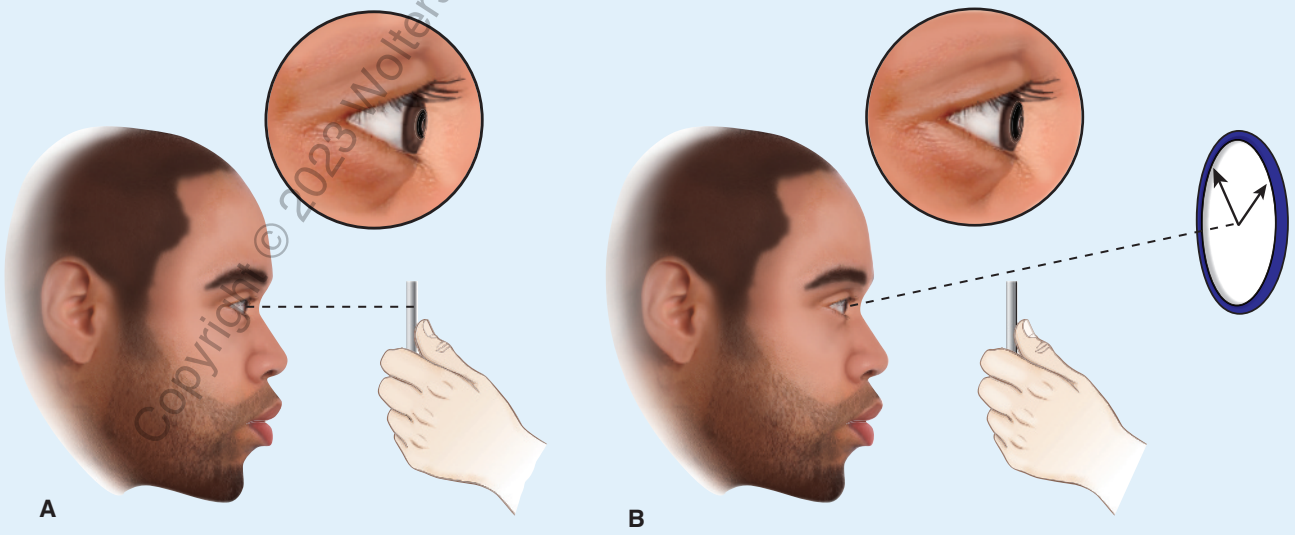
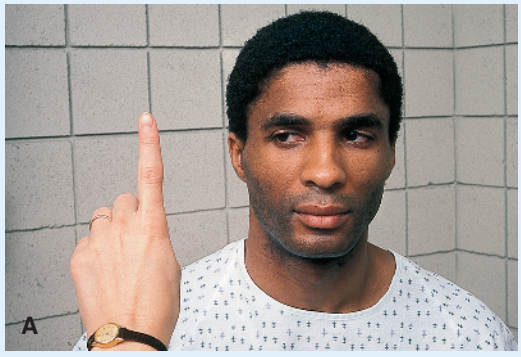


FIGURE 3. Assessing pupillary accommodation.

ACTION	RATIONALE
8. Assess extraocular movements. a. Ask the patient to hold the head still and follow the movement of your forefinger or a penlight with the eyes as you move the patient's eyes through the six cardinal positions of gaze. b. Keeping your finger or penlight about 1 ft from the patient's face, move it slowly through the cardinal positions: up and down, right and left, diagonally up and down to the left (Figure 4A), diagonally up and down to the right (Figure 4B).	This evaluates the function of each of the six extraocular eye muscles (EOMs) and tests cranial nerves III, IV, and VI (oculomotor, trochlear, and abducens nerves). Normally, both eyes move together, are coordinated, and are parallel.



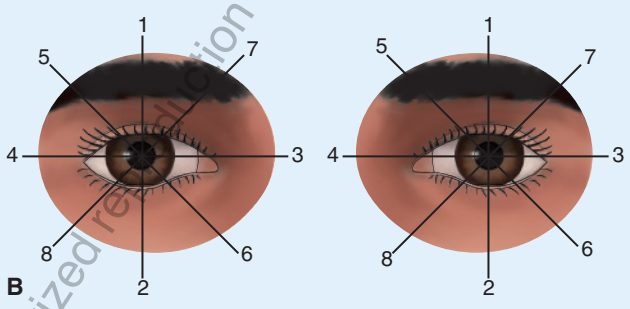


FIGURE 4. Assessing extraocular movements.

9. Test convergence: a. Hold your finger about 6 to 8 inches from the bridge of the patient's nose. b. Move your finger toward the patient's nose (Figure 5). The patient's eyes should normally converge (assume a cross-eyed appearance).	The patient's eyes should normally converge; converging eyes normally follow the object to within 5 cm of the nose (assume a cross-eyed appearance).
10. Test the patient's visual acuity with a Snellen chart. Have the patient stand 20 ft from the chart and ask the patient to read the smallest line of letters possible, first with both eyes and then with one eye at a time (with the opposite eye covered). Note whether the patient's vision is being tested with or without corrective lenses (Figure 6).	Evaluates the patient's distance vision and function of cranial nerve II (optic nerve). Additional tools are used to test for color perception.

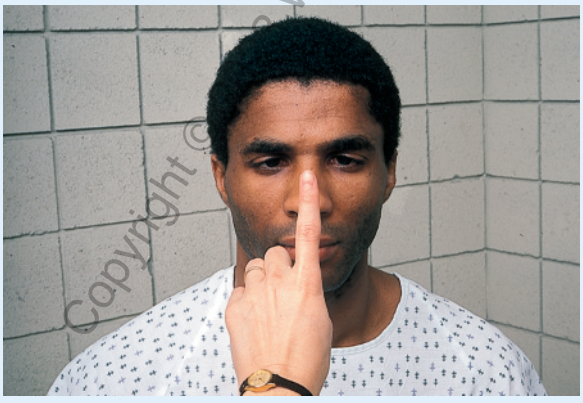


FIGURE 5. Assessing convergence.

FIGURE 6. Testing visual acuity with a Snellen chart.

(*continued on page 118*)

Skill 3-4 Assessing the Head and Neck *(continued)*

ACTION	RATIONALE
11. Inspect the external ear bilaterally for shape, size, and lesions. Palpate the ear and mastoid process. Inspect the visible portion of the ear canal. Note cerumen (wax), edema, discharge, or foreign bodies.	Inspection may reveal abnormalities, such as uneven color, size, drainage, or lesions; inflammation (edema) or infection; nodules, lesions, or tenderness. Cerumen may normally be dark orange, brown, yellow, gray, or black and soft, moist, dry, or hard.
12. Use a whispered voice as a general hearing screening test. Stand about 1 to 2 ft away from the patient out of the patient's line of vision. Ask the patient to cover the ear not being tested. Determine whether the patient can hear a whispered sentence or group of numbers from 1 to 2 ft. away. Perform the test on each ear.	Provides a gross assessment of cranial nerve VIII (acoustic nerve) and provide clues to the need for further evaluation. The patient should repeat what has been said.
13. Put on gloves. Inspect and palpate the external nose (Figure 7).	Gloves prevent contact with blood and body fluids. These actions assess for the color, shape, consistency, and tenderness of the nose.
14. Palpate over the frontal and maxillary sinuses (Figure 8).	Sinus palpation is used to elicit tenderness, which may indicate sinus congestion or infection. Normally, the sinuses are not painful when palpated.

FIGURE 7. Palpating the nose. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

FIGURE 8. Palpating the sinuses. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

15. Occlude one nostril externally with a finger while patient breathes through the other; repeat for the other side.	This technique checks the patency of the nasal passages.
16. Inspect each anterior naris and the turbinates by tipping the patient's head back slightly and shining a light into the nares. Examine the mucous membranes for color and the presence of lesions, exudate, or growths.	This technique can detect edema, inflammation, and excessive drainage. The nasal mucosa is moist and darker red than the oral mucosa.
17. Inspect the lips, oral mucosa, hard and soft palates, gingivae, teeth, and salivary gland openings. Ask the patient to open the mouth wide and use a tongue blade and penlight to visualize structures.	Evaluates the condition of the oral structures and hydration level of the patient. The lips should be pink, moist, and smooth. The gums should be pink and smooth. The teeth should be regular and free of cavities or have dental restoration. The tonsils, if present, are small, pink, and symmetric in size.

ACTION	RATIONALE
18. Inspect the tongue. Ask the patient to stick out the tongue. Place a tongue blade at the side of the tongue while patient pushes it to the left and right with the tongue. Inspect the uvula by asking the patient to say "ahh" while sticking out the tongue (Figure 9). Palpate the tongue for muscle tone and tenderness. Remove gloves. Sticking out the tongue evaluates the function of cranial nerve XII (hypoglossal nerve). Saying "ahh" checks for movement of the uvula and soft palate.	The tongue and mucous membranes are normally pink, moist, and free of swelling or lesions. The uvula is normally centered and freely movable. The tongue should feel soft with positive muscle tone and be nontender.

FIGURE 9. Inspecting the mouth using a tongue blade and penlight. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

19. Inspect and palpate the lymph nodes (Figure 10) for enlargement, tenderness, and mobility, using the fingerpads in a slow, circular motion (Figure 11).	Palpation can determine size, shape, mobility, consistency, and/or tenderness of enlarged lymph nodes.

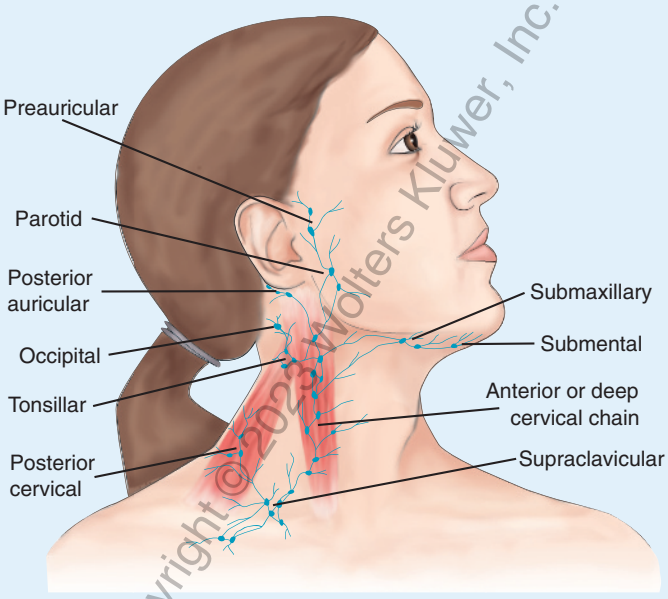


FIGURE 10. Location of lymph nodes in neck.

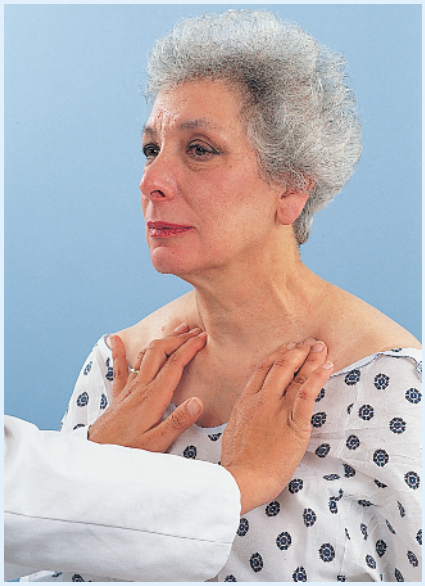


FIGURE 11. Palpating lymph nodes. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

(*continued on page 120*)

Skill 3-4 Assessing the Head and Neck *(continued)*

ACTION	RATIONALE
20. Inspect and palpate (Figure 12A) the left and then the right carotid arteries. **Palpate only one carotid artery at a time.** Note the strength of the pulse and grade it as with peripheral pulses. Use the bell of the stethoscope to auscultate the carotid arteries (Figure 12B).	This is part of the assessment of the peripheral vascular system in Skill 3-10. However, some health care providers include this assessment here for organizational convenience and time management. Palpation of this area assesses flow of blood through the arteries. Palpating both arteries at once can reduce blood flow to the brain, potentially causing dizziness or loss of consciousness (Jensen, 2019). Auscultation can detect a **bruit**.

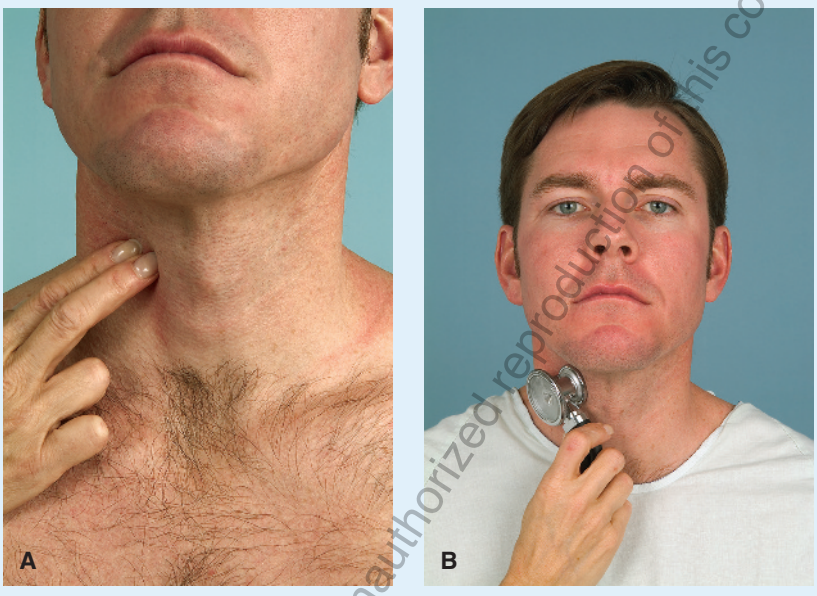


FIGURE 12. Palpating (**A**) and auscultating (**B**) the carotid arteries. (*Source:* Used with permission from Shutterstock. *Photos by B. Proud.*)

21. Inspect and palpate the trachea (Figure 13).	Inspection and palpation of the trachea evaluate its midline position.
22. Assess the thyroid gland with the patient's neck slightly hyperextended. Observe the lower portion of the neck overlying the thyroid gland (Figure 14). Ask the patient to swallow. Observe the area while the patient swallows. Offer a glass of water, if necessary, to make it easier for the patient to swallow. Assess for symmetry and visible masses.	Abnormal findings include asymmetry, enlargement, lumps, and bulging. These findings may indicate the presence of enlargement of the thyroid (a goiter), inflammation of the thyroid (thyroiditis), or cancer of the thyroid.

FIGURE 13. Palpating to determine position of trachea. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

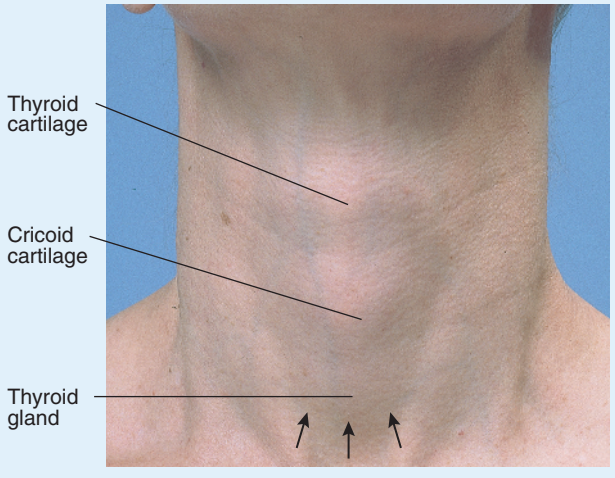


FIGURE 14. Assessing the thyroid gland. (*Source:* From Hogan-Quigley et al. [2017]. *Bates' nursing guide to physical examination and history taking* [2nd ed., p. 223]. Wolters Kluwer.)

ACTION	RATIONALE
23. Inspect the ability of the patient to move the neck. Ask the patient to touch chin to chest and to each shoulder, each ear to the corresponding shoulder, and then tip the head back as far as possible.	These actions assess neck ROM, which is normally smooth and controlled.
 24. Remove any additional PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in head and neck assessment; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Describe specific findings. For the head and face, document symmetry, coloration, and presence of lesions or edema. Note visual acuity, pupillary reaction, and condition of the external eye. Document results of tests for accommodation, convergence, and extraocular muscles. Describe condition of the ear, noting any lesions or discharge. Document results of any hearing tests. Note condition of the nose and sinuses. Describe condition of lips, gums, tongue, and buccal mucosa. Document quality of carotid pulse. Note position of trachea and any enlargement of the thyroid. Describe quality of any lymph nodes palpable. Note ROM of the neck. Document presence of pain or discomfort.

Sample Documentation

6/10/25 1545 Head and neck examination completed. Patient denies history of any sensory changes or sensory difficulties, but states, "I have some sores in my mouth." Overall skin coloring consistent, with pink undertones. Head symmetric and normal in size. Eyes are symmetric. No lesions or redness noted. Pupils equal and reactive to light; positive accommodation and convergence. Visual acuity 20/20 in both eyes. Eyes move smoothly through six fields of gaze. External ears and canal free of discharge, lesions, or tenderness. Whisper test negative for hearing loss. Nose and sinuses nontender. Minimal clear discharge present in the nostrils; nostrils patent. Lips free of lesions. Multiple white lesions approximately 1 cm in diameter noted on buccal mucosa and tongue. Uvula rise normal. No palpable lymph nodes. Carotid pulse strong bilaterally. Trachea midline. Thyroid does not appear enlarged.

—B. Gentzler, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *While you are testing a patient's visual acuity, the patient states that he can't see anything without his glasses:* Stop the test. Instruct the patient to put on his glasses, and then resume testing.
- *While performing an examination of the regional lymph nodes in the neck area, you palpate a lymph node that feels hard and fixed:* Ask the patient if he has felt this node before and, if so, for how long it has been present and if it is painful. Refer the patient to a primary health care provider for follow-up care.

(*continued on page 122*)

Skill 3-4 Assessing the Head and Neck *(continued)*

SPECIAL CONSIDERATIONS

General Considerations

- A patient who wears corrective lenses should have them on when visual acuity is being tested.
- A Snellen picture chart or Snellen E-chart can be used to test vision in children and in patients who are unable to read English. The E-chart uses the capital letter E in varying sizes pointing in different directions. The patient points their fingers in the direction the legs of the E are pointing.
- Near vision is tested with a handheld vision screen with varying sizes of print. A Jaeger card can be used for this measurement. The patient holds the card 14 inches from the eyes. Ask the patient to read the smallest line of letters possible, with one eye at a time (with the opposite eye covered), and corrective lenses in place, if used. The results are recorded as a fraction and written as 14 over the smallest line read by the patient. A normal result is 14/14.

Infant and Child Considerations

- When examining the neck of an infant or child, the preferred approach to assess ROM of the neck is to assess one movement at a time, rather than a full rotation of the neck, to avoid dizziness on movement.
- When examining the head of an infant, inspect and gently palpate the fontanels and sutures.
- Keep in mind that an infant's nose is usually slightly flattened.
- For a child younger than age 8 years, do not assess the frontal sinuses; they are usually too small to assess.
- Be aware that lymph nodes may be palpable in children younger than age 12 years, which is considered a normal variation.
- Note the number of teeth in a child; a child may have up to 20 temporary teeth.

Older Adult Considerations

- Look for a thin, grayish ring in the cornea (arcus senilis). This may be a normal finding in an older adult.
- When evaluating the older adult patient, expect to find normal age-related changes, such as a decrease in vision, hearing, smell, and taste.
- If the patient wears dentures, ask them to remove them for inspection of the gums and roof of the mouth.

Cultural Considerations

- Exophthalmos, protrusion of the eyeball, can be a normal finding in patients of African American heritage.

EVIDENCE FOR PRACTICE ▶

SCREENING FOR HEARING AND VISUAL IMPAIRMENT

Hearing impairment (hearing loss) is a common age-associated change in older adults. Despite being considered part of the normal aging process, age-related sensory impairment can have significant impact on the quality of life and functional status of older adults. These impacts are exacerbated when hearing impairment co-occurs with other conditions, such as visual or cognitive impairment (Meyer & Hickson, 2020). How can nurses best support older adults with hearing impairments and improve patient outcomes?

Related Evidence

Meyer, C., & Hickson, L. (2020). Evidence-based practice guideline. Nursing management of hearing impairment in nursing facility residents. *Journal of Gerontological Nursing*, *46*(7), 15–25. DOI: 10.3928/00989134-20200605-04

This guideline provides a summary of the evidence about the impacts of hearing impairment and the factors that are associated with increased risk of hearing impairment. The guideline also offers evidence-based assessment criteria for measuring impairment as well as evidence-based nursing interventions for the management of hearing impairment in older adults.

Relevance to Nursing Practice

Sensory impairment can have negative effects on communication and the functional abilities of older adults. Nurses and caregivers play a key role in recognizing sensory impairment in older adults and implementing interventions to support and improve their quality of life.

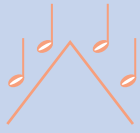
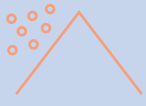
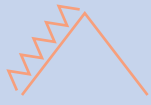
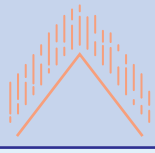
Skill 3-5 Assessing the Thorax, Lungs, and Breasts

The thorax is composed of the lungs, rib cage, cartilage, and intercostal muscles. A thorough examination of the respiratory system is essential because the primary purpose of this system is to supply oxygen to, and remove carbon dioxide from, the body. Recognizing and identifying normal and abnormal breath sounds, a crucial component of lung assessment, takes practice (Tables 3-1 and 3-2). Assessment of the breasts and axillae is also included in this assessment. Regular clinical breast exam and breast self-exam are not recommended; however, women should be familiar with how their breasts normally look and feel from everyday self-care and promptly report changes to a health care provider (American Cancer Society [ACS], 2020; U.S. Preventive Services Task Force and the American Congress of Obstetricians and Gynecologists, as cited in Johns Hopkins Medicine, n.d.).

Table 3-1 Normal Breath Sounds

TYPE, DESCRIPTION, AND LOCATION	RATIO OF INSPIRATION TO EXPIRATION
Bronchial or Tubular	
Blowing, hollow sounds; auscultated over the larynx and trachea	Sound on expiration is longer, lower, and higher-pitched than inspiration
Bronchovesicular	
Medium-pitched, medium intensity, blowing sounds; auscultated over the first and second intercostal spaces anteriorly and the scapula posteriorly	Inspiration and expiration sounds have similar pitch and duration
Vesicular	
Soft, low-pitched, whispering sounds; heard over most of the lung fields	Sound on inspiration is longer, louder, and higher-pitched than expiration

Table 3-2 Adventitious Breath Sounds

TYPE AND CHARACTERISTICS	ILLUSTRATION
Wheeze (Sibilant) • Musical or squeaking • High-pitched, continuous sounds • Auscultated during inspiration and expiration • Air passing through narrowed airways	
Rhonchi (Sonorous Wheeze) • Sonorous or coarse; snoring quality • Low-pitched, continuous sounds • Auscultated during inspiration and expiration • Coughing may somewhat clear the sound • Air passing through or around secretions	
Crackles • Bubbling, crackling, popping • Low- to high-pitched, discontinuous sounds • Auscultated during inspiration and expiration • Opening of deflated small airways and alveoli; air passing through fluid in the airways	
Stridor • Harsh, loud, high-pitched • Auscultated on inspiration • Narrowing of upper airway (larynx or trachea); presence of foreign body in airway	
Friction Rub • Rubbing or grating • Loudest over lower lateral anterior surface • Auscultated during inspiration and expiration • Inflamed pleura rubbing against chest wall	

(*continued on page 124*)

Skill 3-5 Assessing the Thorax, Lungs, and Breasts *(continued)*

DELEGATION CONSIDERATIONS

Assessment of the patient's thorax, breasts, axillae, and lungs should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's thorax, breasts, axillae, and lungs. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Bath blanket or other drape
- Examination gown
- Light source
- Stethoscope
- PPE, as indicated

ASSESSMENT

Complete a health history, focusing on the thorax and lungs. Identify risk factors for altered health by asking about the following:

- History of trauma to the ribs or history of lung surgery
- Number of pillows used when sleeping
- History of persistent cough with or without producing sputum
- History of allergies
- Environmental exposure to chemicals, asbestos, or smoke
- History of smoking (including pack-years)
- History of lung disease in family members or self
- History of frequent or chronic respiratory infections
- Breast discomfort, masses, or lumps, nipple discharge
- History of breast disease, biopsy, or surgeries
- Menstrual and pregnancy history, breastfeeding

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Ineffective airway clearance
- Impaired gas exchange
- Altered health maintenance

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the thorax, lungs, breasts, and axillae is that the assessment is completed without the patient experiencing anxiety or discomfort, the findings are documented, and the appropriate referral is made to the other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.

ACTION	RATIONALE
3. Close the curtains around the bed and close the door to the room, if possible. Explain the purpose of the thorax, lung, breast, and axillae examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a sitting position and expose the posterior thorax.	Having the patient wear a gown facilitates examination of the thorax while maintaining the patient's privacy.
5. Use the bath blanket to cover any exposed area other than the one being assessed.	Use of a bath blanket provides for comfort and warmth.
6. Inspect the posterior thorax. Examine the skin (Figure 1), bones, and muscles of the spine, shoulder blades, and back as well as symmetry of expansion and accessory muscle use during respirations.	Examination provides information about lung expansion and accessory muscle use during respiration. Inspection of skin reveals color, presence of lesions, rashes, or masses.
7. Assess the anteroposterior (AP) and lateral diameters of the thorax.	This assessment helps to detect deformities, such as a barrel chest. Normally, the AP is less than the transverse diameter (1:2 ratio).
8. Palpate over the spine and posterior thorax. Use the dorsal surface of the hand to palpate for temperature. Use the palmar surface of the hand to palpate in a sequential pattern for tenderness, muscle development, and masses (Figure 2).	Palpation may reveal abnormal findings, such as excessively dry or moist skin, muscle asymmetry, masses, tenderness, or vibrations.

FIGURE 1. Inspecting the skin for abnormalities and variations. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

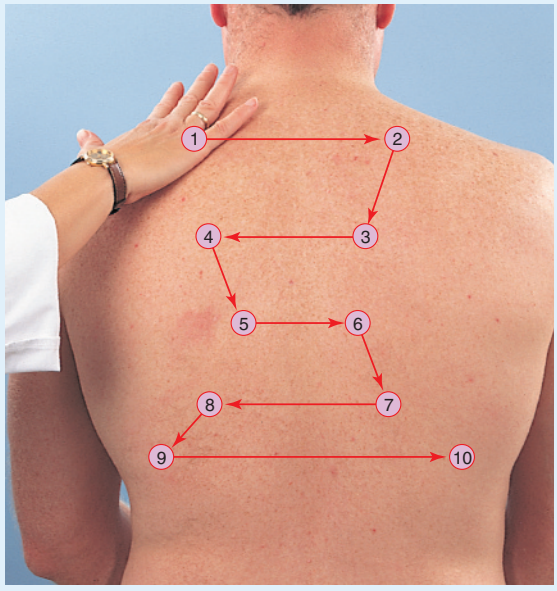


FIGURE 2. Palpating the posterior thorax.

9. Assess thoracic expansion by standing behind the patient and placing both thumbs on either side of the patient's spine at the level of T9 or T10 (Figure 3A). Ask the patient to take a deep breath and note movement of your hands (Figure 3B).	Movement should be symmetric bilaterally.

(*continued on page 126*)

Skill 3-5 Assessing the Thorax, Lungs, and Breasts *(continued)*

ACTION

RATIONALE

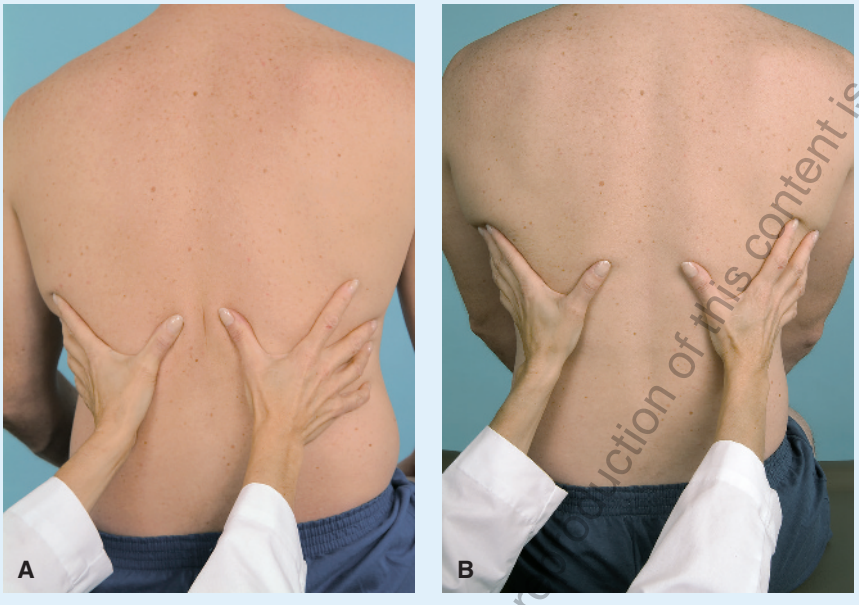


FIGURE 3. Palpating posterior thoracic excursion. **A.** The nurse's hands are placed symmetrically on the patient's back. **B.** As the patient inhales, the nurse's hands should move apart symmetrically. (*Source:* Used with permission from Shutterstock. *Photos by B. Proud.*)

10. As the patient breathes slowly and deeply through the mouth, auscultate the lungs across and down the posterior thorax to the bases of lungs in a sequential pattern, comparing sides (Figure 4).
11. Inspect the anterior thorax. With the patient sitting, rearrange the gown so the anterior chest is exposed. Inspect the skin, bones, and muscles as well as symmetry of lung expansion and accessory muscle use.
12. Palpate the anterior thorax across and down the anterior thorax to the bases of lungs in a sequential pattern (Figure 5). Use the palmar surface of the hand to palpate for temperature, tenderness, muscle development, and masses.

Lung auscultation assesses for normal breath sounds and for **adventitious breath sounds**. Abnormal breath sounds indicate respiratory compromise or diseases, such as asthma or bronchitis.

Examination of the anterior thorax provides information about lung expansion and accessory muscle use during respiration. Inspection of skin reveals color, presence of lesions, rashes, or masses.

Palpation may reveal abnormal findings, such as excessively dry or moist skin, muscle asymmetry, masses, tenderness, or vibrations.

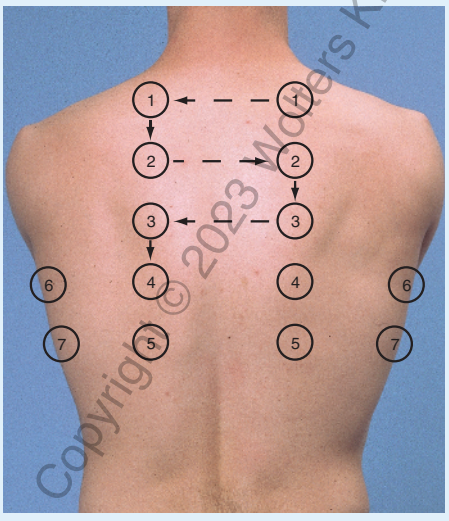


FIGURE 4. Auscultating the posterior thorax. (*Source:* From Hogan-Quigley et al. [2017]. *Bates' nursing guide to physical examination and history taking* [2nd ed., p. 344]. Wolters Kluwer.)

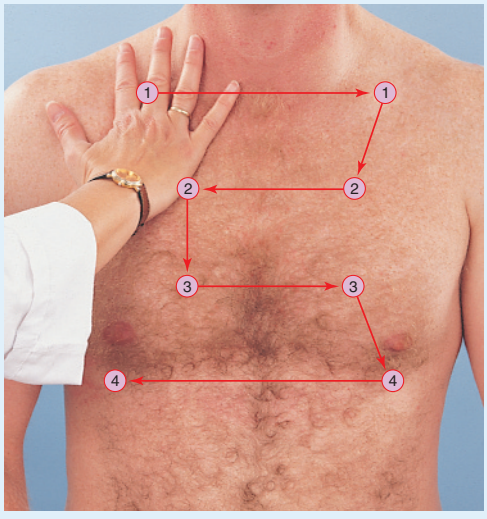


FIGURE 5. Palpating the anterior thorax.

ACTION	RATIONALE
13. As the patient breathes slowly and deeply through the mouth, auscultate the lungs across and down the anterior thorax to the bases of lungs in a sequential pattern, comparing sides (Figure 6).	Lung auscultation assesses for normal breath and abnormal (adventitious) breath sounds. Abnormal breath sounds indicate respiratory compromise or diseases, such as asthma or bronchitis.

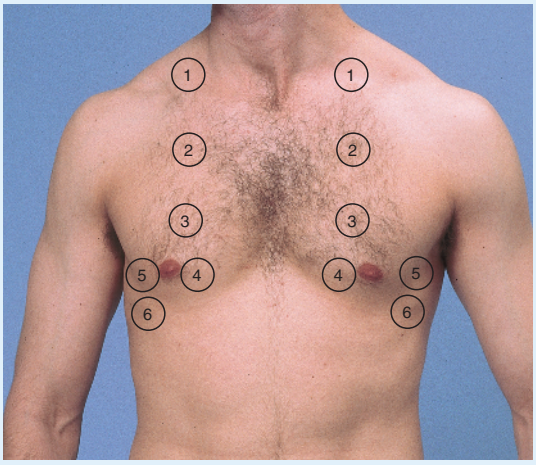


FIGURE 6. Auscultating the anterior thorax. (*Source:* From Hogan-Quigley et al. [2017]. *Bates' nursing guide to physical examination and history taking* [2nd ed., p. 351]. Wolters Kluwer.)

14. If assessment of the breasts is required, inspect the breasts. Ask the patient to rest hands on both sides of the body, then on the hips and finally above the head. With the patient holding each position, inspect the breasts for size, shape, symmetry, color, texture, and skin lesions. Inspect the areola and nipples for size and shape and the nipples for discharge, crusting, and inversion.	This technique evaluates the general condition of the breasts and helps to identify any abnormalities.
15. Palpate the axillae with the patient's arms resting against the side of the body. If any nodes are palpable, assess their location, size, shape, consistency, tenderness, and mobility.	Palpating the axillae helps to detect nodular enlargement, tenderness, and other abnormalities.
16. Assist the patient into a supine position. Place a small pillow or towel under the patient's back and ask the patient to place a hand on the side being examined under the head, if possible.	Positioning facilitates the exam.
 17. Wear gloves if there is any discharge from the nipples or if a lesion is present. Palpate each quadrant of each breast in a systematic method, using either the circular, wedge, or vertical strip technique (see Box 3-1). Palpate the nipple and areola and gently compress the nipple between the thumb and forefinger to assess for discharge. Remove gloves, if worn, and perform hand hygiene.	Gloves prevent contact with blood and body fluids. Palpating the breasts evaluates the consistency and elasticity of breast tissue and nipples and for presence of lumps, masses, or discharge. Proper removal of gloves reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms.
 18. Assist the patient into a comfortable position and in replacing the gown. Remove gloves and any additional PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Replacing the gown ensures patient comfort. Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

(*continued on page 128*)

Skill 3-5 Assessing the Thorax, Lungs, and Breasts *(continued)*

Box 3-1 Methods for Palpating the Breasts

Wedge Method
- Work in a clockwise direction and palpate from the periphery toward the areola.
- Use the pads of the first three fingers to gently compress the breast tissue against the chest wall.

Circular Method
- Start at the tail of Spence and move in increasing smaller circles, moving in toward areola.
- Use the pads of the first three fingers to gently compress the breast tissue against the chest wall.

Vertical Strip Method
- Start at the outer edge of the breast and palpate up and down the breast.
- Use the pads of the first three fingers to gently compress the breast tissue against the chest wall.

EVALUATION

The expected outcomes have been met when the patient has participated in the assessment of the thorax, lungs, breasts, and axillae; the patient has verbalized understanding of these assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Describe specific findings. Include specific findings for all assessment techniques performed. Note the location of elicited abnormalities. For breast assessment, clock position (using the positioning of the hands of an analog clock) is often used to describe the location of findings.

Sample Documentation

Lippincott DocuCare

Practice documenting assessment techniques and findings in *Lippincott DocuCare*.

6/10/25 2025 Patient states that she "has had a dry cough for the past week and feels weak." Skin pale. RR 30. Breathing effort moderately labored; right-sided intercostal retraction noted. Barrel-shaped chest. Vibrations palpated on right anterior and posterior chest. Rhonchi (sonorous wheezes) auscultated in RUL, RML, and RLL of lung fields. Breasts symmetric, skin smooth with even tone. Breasts and axillae without lumps, masses, dimpling, or discharge.

—B. Gentzler, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

UNEXPECTED SITUATIONS AND ASSOCIATED INTERVENTIONS

- *When assessing a patient's lungs, you hear short, high-pitched popping sounds on inspiration:* Ask the patient to cough and auscultate again. If the sounds remain, suspect fine crackles and ask the patient if they are experiencing any difficulty in breathing or shortness of breath. Crackles may indicate disease, such as pneumonia or heart failure. Document the findings. Continue to assess the patient and notify the appropriate health care providers, as indicated.

SPECIAL CONSIDERATIONS

General Considerations

- Warm equipment, such as a stethoscope, before using it to prevent chilling the patient.
- Warm hands before palpating thorax and breasts to prevent chilling the patient and causing any discomfort.
- Attempt to reduce the noise level in the room while auscultating for breath sounds to ensure accuracy in listening. Also, note that the presence of chest hair may mimic the sound of crackles and bumping the stethoscope against clothing may distort the sound.

Infant and Child Considerations

- Auscultate a child's lungs before performing other assessment techniques that may cause crying.
- Expect to hear breath sounds that are harsher or more bronchial than those of an adult.
- Expect use of abdominal muscles during respiration (infants and young children up to school-age).

Older Adult Considerations

- Expect to find a reduction in respiratory effort due to age-related changes.
- A common finding in the older adult is kyphosis, an exaggerated posterior curvature of the spine causing bowing out of the upper spine (Eliopoulos, 2018; Jensen, 2019).

Skill 3-6 Assessing the Cardiovascular System

The cardiovascular system transports oxygen, nutrients, and other substances to the body tissues and removes metabolic waste products to the kidneys and lungs. Careful assessment of this vital system is essential. In this skill, assessment data associated with the heart will be presented. The peripheral vascular system assessment is included in Skill 3-10, because peripheral vascular, neurologic, and musculoskeletal systems are usually combined when performing a head-to-toe assessment. Assessment of the carotid pulses is included in Skill 3-4, because this assessment is commonly included while assessing the neck as part of a head-to-toe assessment.

While assessing the heart, careful auscultation is important. Identifying heart sounds takes practice. Table 3-3 provides a review of normal heart sounds in relation to the cardiac cycle and information about abnormal heart sounds.

DELEGATION CONSIDERATIONS

Assessment of the patient's cardiovascular system should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's cardiovascular system. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- Bath blanket or other drape
- Examination gown
- Stethoscope
- Centimeter ruler
- PPE, as indicated

ASSESSMENT

Complete a health history, focusing on the heart. Identify risk factors for altered health by asking about the following:

- History of chest pain, tightness, palpitations, dizziness, or fatigue
- Swelling in the ankles and feet
- Number of pillows used to sleep
- Type and amount of medications taken daily

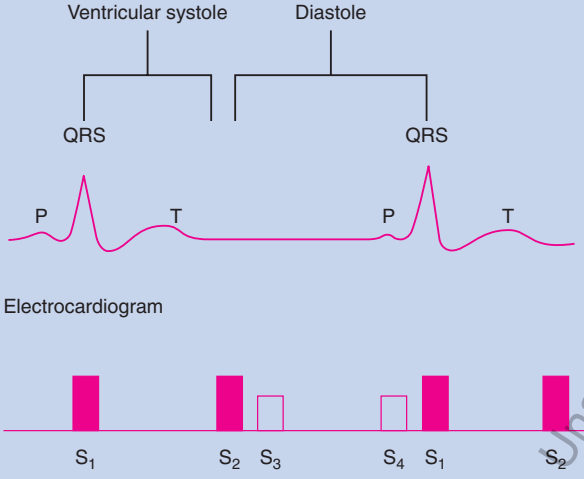
(*continued on page 130*)

Skill 3-6 Assessing the Cardiovascular System *(continued)*

Table 3-3 Heart Sounds

Normal Heart Sounds

During auscultation, the first heart sound, S_1, is heard as the "lub" of "lub-dub." This sound occurs when the mitral and tricuspid valves close, and it corresponds to the onset of ventricular contraction. The sound, low-pitched and dull, is heard best at the apical area. The second heart sound, S_2, occurs at the termination of systole and corresponds to the onset of ventricular diastole. The "dub" of "lub-dub," it represents the closure of the aortic and pulmonic valves. The sound of S_2 is higher-pitched and shorter than S_1. The two sounds occur within 1 second or less, depending on the heart rate. Normal findings include S_1 that is louder at the tricuspid and apical areas, with S_2 louder at the aortic and pulmonic areas.



A Electrocardiogram

B Heart sounds

Heart sounds in relation to the cardiac cycle and an electrocardiogram.

Abnormal Heart Sounds

Abnormal findings include extra heart sounds at any of the cardiac landmarks and abnormal rate or rhythm. A wide variety of conditions may alter the normal heart rate or rhythm, including serious infections, anemia, diseases of the heart muscle or conducting system, dehydration or overhydration, endocrine disorders, respiratory disorders, and head trauma. Extra heart sounds may be S_3, S_4, or murmurs.

- S_3, known as the third heart sound, follows S_2, and is often represented by a "lub-dub-dee" pattern ("dee" being S_3). This sound is best heard with the stethoscope bell at the mitral area, with the patient lying on the left side. S_3 is considered normal in children and young adults and abnormal in middle-aged and older adults.
- S_4 is the fourth heart sound, occurring right before S_1, and is often represented by a "dee-lub-dub" pattern ("dee" being S_4). S_4 is considered normal in older adults but abnormal in children and adults.
- Heart murmurs are extra heart sounds caused by some disruption of blood flow through the heart. The characteristics of a murmur and grading depend on the adequacy of valve function, rate of blood flow, and size of the valve opening. Usually, nurses are more concerned with recognizing changes in murmurs rather than in diagnosing and labeling them (Jensen, 2019, p. 467). Refer to information on a health assessment text for grading details and additional information related to assessment of heart sounds.

- History of heart defect, rheumatic fever, or chest or heart surgery
- Personal or family history of hypertension (high blood pressure), myocardial infarction (heart attack), coronary artery disease, high blood cholesterol levels, or diabetes mellitus
- History of smoking (including pack-years)
- Alcohol use
- Type and amount of exercise
- Usual foods eaten each day

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Impaired Cardiac Output
- Activity Intolerance
- Risk for Impaired Cardiac Function

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the cardiovascular structures is that the assessment is completed without causing the patient to experience anxiety or discomfort, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close the curtains around the bed and close the door to the room, if possible. Explain the purpose of the cardiovascular examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a supine position with the head elevated about 30 to 45 degrees, if possible, and expose the anterior chest. Use the bath blanket to cover any exposed area other than the one being assessed.	Having the patient wear a gown facilitates examination of the cardiovascular system. Use of a bath blanket provides for comfort and warmth.
5. If not performed previously with the assessment of the head and neck, inspect and palpate the left and then the right carotid arteries. **Palpate only one carotid artery at a time.** Note the strength of the pulse and grade it as with peripheral pulses.	Palpation of this area evaluates circulation through the arteries. Palpating both arteries at once can reduce blood flow to the brain, potentially causing dizziness or loss of consciousness (Jensen, 2019).
6. Inspect the neck for distention of the jugular veins.	Jugular venous distention (fullness) is associated with heart failure and fluid volume overload.
7. Inspect the **precordium** for contour, pulsations, and heaves (Figure 1). Observe for the apical impulse at the fourth to fifth intercostal space (ICS) at the left midclavicular line.	Precordium inspection helps detect pulsations. There are normally no pulsations, except for the apical impulse.
8. Using the palmar surface, with the four fingers held together, gently palpate the precordium for pulsations. Remember that hands should be warm. Palpation proceeds in a systematic manner, with assessment of specific cardiac landmarks—the aortic, pulmonic, tricuspid, and mitral areas and Erb's point (see Figure 1). Palpate the apical impulse in the mitral area (Figure 2). Note size, duration, force, and location in relationship to the midclavicular line.	Normal findings include no pulsation palpable over the aortic and pulmonic areas, with a palpable apical impulse. Abnormal findings include precordial thrills, which are fine, palpable, rushing vibrations over the right or left second ICS, and any lifts or heaves, which involve a rise along the border of the sternum with each heartbeat.

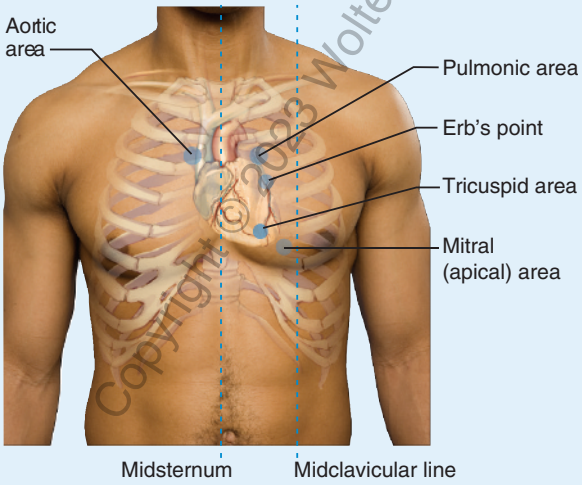


FIGURE 1. Precordium cardiac landmarks.

FIGURE 2. Palpating the apical impulse in the mitral area.

(*continued on page 132*)

Skill 3-6 Assessing the Cardiovascular System *(continued)*

ACTION	RATIONALE
9. Auscultate heart sounds at the cardiac landmarks (Figure 1). Ask the patient to breathe normally. Use the diaphragm of the stethoscope first to listen to high-pitched sounds. Then use the bell to listen to low-pitched sounds. Focus on the overall rate and rhythm of the heart and the normal heart sounds (Table 3-3). Begin at the aortic area, move to the pulmonic area, then to Erb's point, then the tricuspid area, and finally listen at the mitral area (Figure 3).	Auscultation evaluates heart rate and rhythm and assesses for normal sounds (the lub, S_1; the dub, S_2) and abnormal heart sounds. The normal heart sounds (S_1 and S_2) are generated by the closing of the valves (the aortic, pulmonic, tricuspid, mitral). Extra heart sounds are often heard when the patient has anemia or heart disease. A wide variety of conditions may alter the normal heart rate or rhythm, including serious infections, diseases of the heart muscle or conducting system, dehydration or overhydration, endocrine disorders, respiratory disorders, and head trauma. Extra heart sounds may be S_3, S_4, or murmurs.

FIGURE 3. Auscultating the mitral area. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

10. Assist the patient in replacing the gown. Remove PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems as appropriate or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Replacing the gown ensures patient comfort. Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed as indicated to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in the assessment of the cardiovascular system; the patient has verbalized understanding of these assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document assessment techniques performed, along with specific findings. Note assessment data related to color and temperature of the skin. Record inspection findings related to the carotid arteries, jugular veins, and anterior chest wall area. Document findings related to palpation of anterior chest wall for presence of pulsations, thrills, lifts, and heaves. Note auscultation findings, including rate, rhythm, pitch, and location of sounds. Record the normal heart sounds (S_1 and S_2) as well as the presence of any extra (abnormal) sounds.

Sample Documentation

Lippincott DocuCare

Practice documenting assessment techniques and findings in *Lippincott DocuCare*.

5/10/25 1015 Patient denies chest pain but states, "I have palpitations occurring about once a week." Skin pale, cool to touch, brisk capillary refill. Inspection and palpation of chest: no lifts, pulsations, or heaves were noted. Auscultation: S_1 loudest at the apex; S_2 loudest at the base; no extra sounds auscultated. Carotid pulse 88, regular rhythm, +2, equal bilaterally.

—S. Moses, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

SPECIAL CONSIDERATIONS

General Considerations

- Warm equipment, such as a stethoscope, before using it to prevent chilling the patient.

Infant and Child Considerations

- The presence of abnormal heart sound S_3 is considered normal in children and young adults.
- The presence of abnormal heart sound S_4 is considered abnormal in children.

Older Adult Considerations

- The presence of abnormal heart sound S_3 is considered abnormal in middle-aged and older adults.
- The presence of abnormal heart sound S_4 is considered normal in older adults.

Skill 3-7 Assessing the Abdomen

The abdominal cavity, the largest cavity in the body, contains the stomach, small intestine, large intestine, liver, gallbladder, pancreas, spleen, kidneys, urinary bladder, adrenal gland, and major blood vessels. In women, the uterus, fallopian tubes, and ovaries are also located in the abdomen. Not all of these organs can be assessed. For identification and documentation purposes, the abdomen can be divided into four quadrants (Figure 1).

The order of the techniques differs for the abdominal assessment from the other systems. Assessment of the abdomen starts with inspection, then auscultation, percussion, and palpation. The order of assessment differs for this system because palpation and percussion before auscultation may alter the sounds heard on auscultation. Advanced practice professionals perform percussion and deep palpation of the abdomen. Therefore, these techniques will not be discussed here. Before beginning the abdominal assessment, ask the patient to empty their bladder because a full bladder may cause discomfort during the examination.

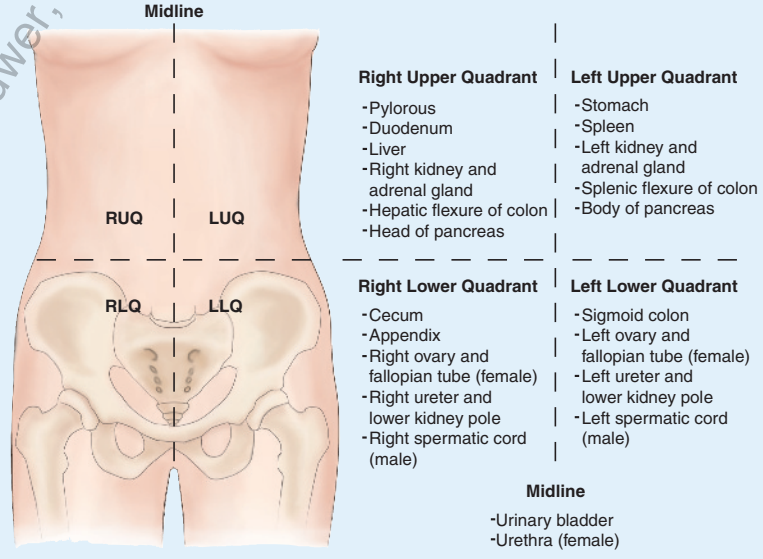


FIGURE 1. Abdominal quadrants and underlying organs.

(*continued on page 134*)

Skill 3-7 Assessing the Abdomen *(continued)*

DELEGATION CONSIDERATIONS

Assessment of the patient's abdomen should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's abdomen. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- PPE, as indicated
- Bath blanket or other drape
- Examination gown
- Stethoscope

ASSESSMENT

Complete a health history, focusing on the abdomen. Identify risk factors for altered health by asking about the following:

- History of abdominal pain
- History of indigestion, nausea or vomiting, constipation or diarrhea
- History of food allergies or lactose intolerance
- Appetite and usual food and fluid intake
- Usual bowel and bladder elimination patterns
- History of gastrointestinal disorders
- History of urinary tract disorders
- History of abdominal surgery or trauma
- Amount and type of alcohol ingestion
- For women, menstrual history

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Constipation
- Acute pain
- Diarrhea

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the abdomen is that the assessment is completed without causing the patient to experience anxiety or discomfort, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close the curtains around bed and close the door to the room, if possible. Explain the purpose of the abdominal examination and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.

ACTION	RATIONALE
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a supine position, if possible, and expose the abdomen. Use the bath blanket to cover any exposed area other than the one being assessed.	Having the patient wear a gown facilitates examination of the abdomen. Use of a bath blanket provides for comfort and warmth.
5. Inspect the abdomen for skin color, contour, pulsations, the umbilicus, and other surface characteristics (rashes, lesions, masses, scars).	The umbilicus should be centrally located and may be flat, rounded, or concave. The abdomen should be evenly rounded or symmetric, without visible peristalsis. In thin people, an upper midline pulsation may normally be visible. Abnormal findings include asymmetry (possibly from an enlarged organ or mass), distention (possibly indicating retained gas or air; obesity), swelling of the abdomen (possibly indicating **ascites**) and abdominal masses, or unusual pulsations.
6. Auscultate all four quadrants of the abdomen (Figure 1) for bowel sounds. Warm the stethoscope and, using light pressure, place the flat diaphragm on the right lower quadrant of the abdomen, then move to the right upper quadrant (Figure 2), left upper quadrant, and finally left lower quadrant. Listen carefully for bowel sounds (gurgles and clicks), and note their frequency and character.	Performing auscultation before percussion or palpation prevents percussion and palpation techniques from interfering with findings. Traditionally, bowel sounds are assessed in all four quadrants. Bowel sounds usually occur every 5 to 15 seconds. Before documenting bowel sounds as absent, listen for 1 minute or longer in each abdominal quadrant (Jensen, 2019; Weber & Kelley, 2018). Abnormal findings include increased bowel sounds (often heard with diarrhea or in early bowel obstruction), decreased bowel sounds (heard after abdominal surgery or late bowel obstruction), or absent bowel sounds (indicating peritonitis or paralytic ileus). Bowel sounds of high-pitched tinkling or rushes of high-pitched sounds indicate a partial bowel obstruction.
7. Auscultate the abdomen for vascular sounds. Using the bell of the stethoscope, auscultate over the abdominal aorta, femoral arteries, and iliac arteries for **bruits** (Figure 3).	A bruit may be heard in the presence of stenosis (narrowing) or occlusion of an artery. Bruits may also be caused by abnormal dilation of a vessel.

FIGURE 2. Auscultating the abdomen. (*Source:* From Jensen, S. [2019]. *Nursing health assessment* [3rd ed., p. 558]. Wolters Kluwer.)

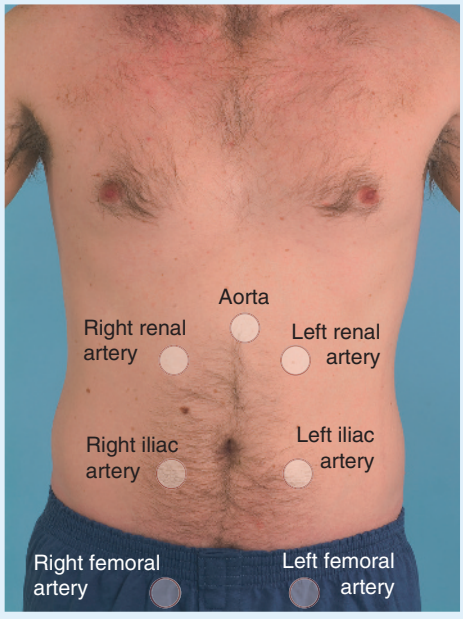


FIGURE 3. Locations to auscultate for vascular sounds. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

(*continued on page 136*)

Skill 3-7 Assessing the Abdomen *(continued)*

ACTION	RATIONALE
8. Palpate the abdomen lightly in all four quadrants. The pads of the fingers are used to apply pressure with the fingers together and lightly depressing the skin and underlying structures about 1 to 2 cm (0.5 to 0.75 inch) (Jarvis & Eckhardt, 2020; Jensen, 2019; Weber & Kelley, 2018). Watch the patient's face for nonverbal signs of pain during palpation. Palpate each quadrant in a systematic manner, noting muscular resistance, tenderness, enlargement of the organs, or masses (Figure 4). **If the patient reports pain or discomfort in a particular area of the abdomen, palpate that area last.**	Palpation provides information about the location, size, tenderness, and condition of the underlying structures. The abdomen should normally be soft, relaxed, and free of tenderness. Abnormal findings include involuntary rigidity, spasm, masses, and pain (which may indicate trauma, peritonitis, infection, tumors, or enlarged or diseased abdominal organs, such as appendicitis).

FIGURE 4. Palpating the abdomen lightly. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

9. Palpate and then auscultate the femoral pulses in the groin. Note the strength of the pulse and grade it as with peripheral pulses (see Skill 3-10). Use the bell of the stethoscope to auscultate the arteries.	This is part of the assessment of the peripheral vascular system in Skill 3-10. However, some health care providers include this assessment here for organizational convenience and time management. This technique assesses flow of blood through the arteries. Auscultation can detect a bruit.
 10. Assist the patient into a comfortable position and in replacing the gown. Remove PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate, or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Replacing the gown ensures patient comfort. Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient participated in the assessment of the abdomen; the patient verbalized understanding of the assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document assessment techniques performed, along with specific findings. Note assessment data related to color of the skin, presence of symmetry/asymmetry, distention, swelling, lesions, rashes, scars, or masses. Note the character of the bowel sounds and if any bruits are present. Note the overall softness or hardness of the abdomen, presence of palpable masses, the presence of pain or tenderness, and unusual pulsations.

Sample Documentation

Lippincott DocuCare

Practice documenting assessment techniques and findings in *Lippincott DocuCare*.

3/30/25 0930 Patient states, "I have been feeling sick to my stomach for the last 24 hours." Denies any abdominal pain. Abdomen symmetric; soft, slightly distended, umbilicus midline, no scars or pulsations, bowel sounds present in all four quadrants, but decreased.

—*B. Gentzler, RN*

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

SPECIAL CONSIDERATIONS

General Considerations

- Warm equipment, such as a stethoscope, before using it to prevent chilling the patient.
- Some sources suggest bowel sounds radiate widely over the abdomen, and listening in all four quadrants is not necessary; assessment of presence and hypoactivity (decreased)/hyperactivity (increased) is sufficient (Jarvis & Eckhardt, 2020; McGee, 2018).

Infant and Child Considerations

- Umbilical cord in newborns; dries and falls off within the first few weeks of life.
- In infants, expect a large abdomen in relation to the pelvis.
- The abdomen of a child is normally protuberant.

Older Adult Considerations

- Decreased bowel sounds are a normal finding in the older adult.
- Decreased abdominal tone is a normal finding in the older adult.
- Fat accumulation on the abdomen and hips is a common finding in the older adult.

Skill 3-8 Assessing the Female Genitalia

The external female genitalia consist of the mons pubis, labia majora and minora, clitoris, vestibular glands, vaginal vestibule, vaginal orifice, and urethral opening (Figure 1). During the physical assessment, examine the external genitalia by inspection and palpation. The internal pelvic examination is a skill most often performed by an advanced practice professional. Women from some cultures or those who practice certain religions may agree to a physical examination of the genitalia only if it is performed by a female nurse or female practitioner.

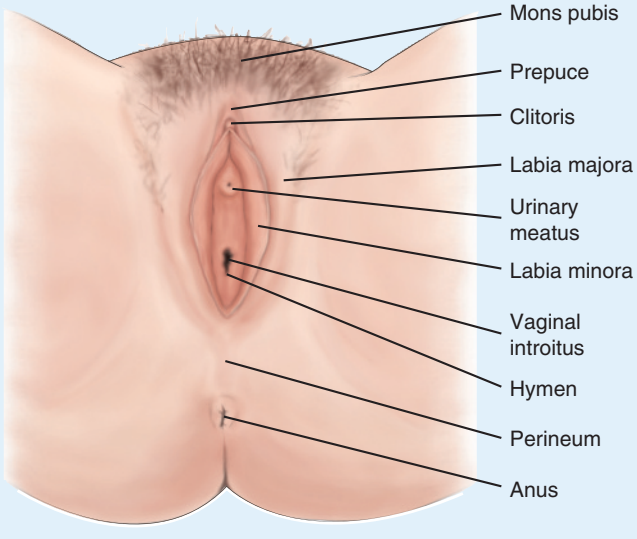


FIGURE 1. External female genitalia.

(*continued on page 138*)

Skill 3-8 Assessing the Female Genitalia *(continued)*

DELEGATION CONSIDERATIONS

Assessment of the patient's genitalia should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's genitalia. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- PPE, as indicated
- Bath blanket or other drape
- Examination gown
- Gloves

ASSESSMENT

Complete a health history, focusing on the female genital system. Identify risk factors for altered health by asking about the following:

- Menstrual history (age of first and last period, length of flow, type of flow, pain)
- Sexual history (age at which sexual activity began, number and sex of partners assigned at birth, practices)
- Pain with intercourse, difficulty achieving orgasm
- Number of pregnancies and live births
- History of sexually transmitted infection (STI)
- Use of contraceptives/protection from STIs
- Frequency of pelvic examinations and Pap smears
- History of vaginal discharge, itching, or pain on urination
- Use of hormones and tobacco (how long, how much, how many packs/day)

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Altered health maintenance
- Infection risk
- Impaired Sexual Functioning

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the female genitalia is that the assessments are completed without causing the patient to experience anxiety or discomfort, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close the curtains around bed and close the door to the room, if possible. Explain the purpose of the examination of genitalia and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a supine position, or lying on her side, if possible. Use the bath blanket to cover any exposed area other than the one being assessed.	Having the patient wear a gown facilitates examination of the genitalia. Use of a bath blanket provides for comfort and warmth.

ACTION	RATIONALE
5. Put on gloves. Inspect the external genitalia for color, size of the labia majora and vaginal opening, lesions, and discharge.	Gloves prevent contact with blood and body fluids. The vulva normally has more pigmentation than other skin areas, and the mucous membranes are dark pink and moist. The skin and mucosa should be smooth, without lesions or swelling. The labia should be symmetric without lesions or swelling. Lesions may be the result of infections (e.g., herpes or syphilis). There may normally be a small amount of clear or whitish vaginal discharge.
 6. Palpate the labia for masses. Remove gloves and perform hand hygiene.	The vulva should be without lumps or masses. Removal of gloves reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms.
7. Assist the patient to a comfortable position.	This ensures the patient's comfort.
 8. Remove additional PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate, or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in the assessment of the genitalia; the patient has verbalized an understanding of the assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document assessment techniques performed, along with specific findings. Note and record the color, size of the labia majora and vaginal opening, lesions, and presence of any discharge. Document any patient statements of pain and risk factors.

Sample Documentation

1/12/25 1645 Patient denies vaginal itching, pain, lumps, or discharge. Vulva with darker pigmentation than surrounding skin tone; mucous membranes are dark pink and moist. Skin and mucosa smooth, without lesions or swelling. Labia are symmetric without lesions or swelling. No discharge noted. Vulva is without lumps or masses.

—B. Holmes, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

SPECIAL CONSIDERATIONS

Infant and Child Considerations

- In newborns, enlargement of the labia and clitoris and breast enlargement occur, resulting from exposure to maternal hormones in utero and normally seen in the first week after birth, subsiding by the second week after birth.
- Pubic hair and breast development occur at puberty and follow a regular sequence of development.
- Menstruation begins about 2.5 years after puberty begins.
- Irregular menstrual cycle is common for first 2 years.

Older Adult Considerations

- Decreased size of labia is a common finding in older adults.
- Decreased amount of pubic hair is a normal finding in older adults.
- Decreased vaginal secretion is a common finding in older adults.

(*continued on page 140*)

Skill 3-9 Assessing the Male Genitalia

The external male genitalia (Figure 1) include the penis and scrotum. In addition, the inguinal area may be assessed as part of this assessment. During the physical assessment, the nurse examines the external genitalia by inspection and palpation, and the inguinal area by inspection. Examination of the prostate gland is a skill performed by an advanced practice professional.

The American Cancer Society (ACS, 2018) advises men to be aware of testicular cancer and to see a health care provider right away if they find a lump in a testicle. Routine testicular self-exams can give a patient greater awareness of the condition of their testicles and help detect changes (Mayo Clinic, 2018).

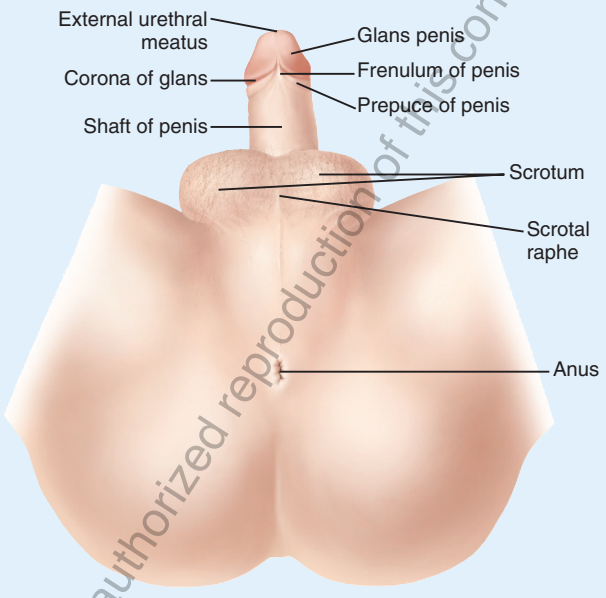


FIGURE 1. External male genitalia. (*Source:* From Pansky, B., & Gest, T. R. [2013]. *Lippincott's concise illustrated anatomy: Thorax, abdomen & pelvis* [p. 205]. Wolters Kluwer; Figure 3.1F.)

DELEGATION CONSIDERATIONS

The assessment of the patient's genitalia should not be delegated to assistive personnel (AP). However, the AP may notice some items while providing care. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's genitalia. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

EQUIPMENT

- PPE, as indicated
- Bath blanket or other drape
- Examination gown
- Gloves

ASSESSMENT

Complete a health history, focusing on the male genitalia. Identify risk factors for altered health by asking about the following:

- Frequency of digital rectal examinations
- Frequency of testicular self-examination
- Use of contraceptives/protection from sexually transmitted infections (STIs)
- Occupational exposure to chemicals (tire and rubber manufacturing, farming, mechanics)
- Sexual history (age at which sexual activity began, number and sex of partners assigned at birth, practices)
- History of STI
- History of discharge from the penis
- Difficulty with urination (incontinence, hesitancy, frequency, voiding at night)
- History of erectile dysfunction, pain with intercourse

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Altered health maintenance
- Infection risk
- Impaired Sexual Functioning

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the male genitalia is that the assessments are completed without causing the patient to experience anxiety or discomfort, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.
3. Close the curtains around the bed and close the door to the room, if possible. Explain the purpose of the examination of genitalia and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a supine or sitting position, if possible. Use a bath blanket to cover any exposed area other than the one being assessed.	Having the patient wear a gown facilitates examination of the genitalia. Use of a bath blanket provides for comfort and warmth.
5. Put on gloves. Inspect the external genitalia for size, placement, contour, appearance of the skin, redness, edema, and discharge. If the patient is uncircumcised, retract the foreskin for inspection of the glans penis and return foreskin back over the glans penis after inspection. Assess the location of the urinary meatus. Inspect the scrotum for symmetry.	Gloves prevent contact with blood and body fluids. The size and shape of the scrotum should be similar bilaterally. It is not unusual for the left testicle to lie lower in the scrotal sac than the right testicle. Normal findings include skin that is free of lesions, and a foreskin (if present) that is intact, uniform in color, and easily retracted. The urinary meatus is normally located in the center of the glans penis and is free of discharge. If the foreskin is left retracted, it may cause venous congestion in the glans of the penis, leading to edema. Abnormal findings include lesions, redness, edema, discharge, and displacement of the urinary meatus or difficulties with voiding. Lesions may be the result of infections (e.g., herpes or syphilis). Edema, redness, or discharge may indicate an infection. Voiding difficulties may result from scarring caused by infections or prostate enlargement.
6. Palpate the scrotum for consistency, nodules, masses, and tenderness.	The consistency of the scrotal contents (i.e., testes) should be similar bilaterally. The scrotum and testes should be free of masses and nontender. Pain may indicate an infection.
 7. Inspect the inguinal area. Ask the patient to bear down and look for bulging of the area. Remove gloves and perform hand hygiene.	Normally, the inguinal area is free of bulges. Removal of gloves reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms.

(*continued on page 142*)

Skill 3-9 Assessing the Male Genitalia *(continued)*

ACTION	RATIONALE
8. Assist the patient to a comfortable position.	This ensures the patient's comfort.
 9. Remove additional PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate, or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in the assessment of the genitalia; the patient has verbalized understanding of the assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document assessment techniques performed, along with specific findings. Note and record the size, placement, contour, appearance of the skin, presence of foreskin, redness, edema, location of urinary meatus, and discharge. Document any patient statements of pain and risk factors.

Sample Documentation

09/23/25 1730 Patient denies pain and discharge from penis; denies lumps or changes in scrotum. Patient reports no difficulty with urination. Scrotum of equal size and shape. Skin without lesions, edema, redness; foreskin present and intact, uniform in color, and easily retracted. Urinary meatus located in the center of the glans penis and is free of discharge. Scrotum and testes free of masses and nontender. Inguinal area is free of bulges.

—B. Holmes, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

SPECIAL CONSIDERATIONS

Infant and Child Considerations

- In newborns, breast enlargement occurs, resulting from exposure to maternal hormones in utero and normally seen in the first week after birth, subsiding by the second week after birth.
- Development of pubic hair and enlargement of the scrotum, testes, and penis occur at puberty and follow a regular sequence to adult configuration.
- Spontaneous nocturnal emission of seminal fluid occurs at puberty.

Older Adult Considerations

- Decreased penis size is a normal finding in older adults.
- Decreased pubic hair is a common finding in older adults.
- Decreased size and firmness of testes is a normal finding in older adults.

Skill 3-10 Assessing the Neurologic, Musculoskeletal, and Peripheral Vascular Systems

The following assessment integrates the findings from the neurologic, musculoskeletal, and peripheral vascular systems. These systems are usually combined when performing a head-to-toe assessment. In assessing the neurologic system, ask the patient to respond to a series of questions that will enable you to obtain data related to overall cognitive function. In addition, evaluate sensation in different areas of the body as well as selected cranial nerves. Musculoskeletal examination will provide information concerning the condition and functioning of certain muscles and joints throughout the body. The peripheral vascular system assessment will identify the condition of the arteries and veins in the extremities as gained through inspection and palpation of the skin and peripheral pulses.

Musculoskeletal trauma, crush injuries, orthopedic surgery, and external pressure from a cast or tight-fitting bandage can cause damage to blood vessels and nerves. This damage causes localized inflammation and tissue edema, which can lead to significantly diminished perfusion and severe ischemia, with resulting severe and permanent dysfunction of the affected area and/or loss of a limb. Assessment of neurovascular status is focused assessment and is an important nursing intervention leading to early identification of neurovascular impairment and timely intervention (Agency for Clinical Innovation, 2018; Johnston-Walker & Hardcastle, 2011; Turney et al., 2013). A neurovascular assessment includes assessing for changes in circulation, motor function, and sensation. Box 3-2 outlines the components of a neurovascular assessment.

Box 3-2 Components of a Neurovascular Assessment

- Pain: Extreme pain, especially on passive motion, is a significant sign of probable neurovascular impairment in an extremity. Subjective and objective assessments should be included. Opioid analgesia is unlikely to relieve the pain.
- Pallor (perfusion): Comparison between affected and unaffected limb is important. Color and temperature of the extremity: Pale skin, decreased tone, or white color may indicate poor arterial perfusion. Cyanosis may indicate venous stasis. Coolness or decreased temperature may indicate decreased arterial supply. Compare distal to proximal temperature variation in affected limb. Assess capillary refill. Using your thumb and forefinger, squeeze the patient's fingernail or toenail until it appears white. Release the pressure and observe the time it takes for normal color to return. Normally, color returns immediately, in less than 2 to 3 seconds.
- Peripheral pulses: Comparison between affected and unaffected limb is important. Assess the consistency of arterial blood flow (pulse presence, rate, quality) up to and past the affected area. Assess capillary refill, especially in patients whose pulses cannot be palpated due to casts or bandages and in nonverbal patients.
- Paresthesia (sensation): May be first symptom of changes in sensory nerves to appear. Compare sensation to touch between affected and unaffected limb. Numbness, tingling, or "pins and needles" sensations may be reported. Evaluate the areas above and below the affected area.
- Paralysis (movement): The ability of the patient to move the extremity distal to the injury. Paralysis of an extremity may be the result of prolonged nerve compression or irreversible muscle damage.
- Pressure: Comparison between affected and unaffected limb is important. Swelling occurs as a physiologic response to injury. Affected area may become taut and firm to the touch, with surrounding skin appearing shiny. The feeling of tightness or pressure may be present.
- Blood loss/ooze: Assess blood loss on dressings, casting materials, and any surgical drains.

Source: Adapted from Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical–surgical nursing* (14th ed.). Wolters Kluwer; Johnston-Walker, E., & Hardcastle, J. (2011). Neurovascular assessment in the critically ill patient. *Nursing in Critical Care*, *16*(4), 170–177.

DELEGATION CONSIDERATIONS

The assessment of the patient's neurologic, musculoskeletal, and peripheral vascular systems should not be delegated to assistive personnel (AP). Some items may be noticed while providing care and noted by the AP. The nurse must then validate, analyze, document, communicate, and act on these findings, as appropriate. Depending on the state's nurse practice act and the organization's policies and procedures, the licensed practical/vocational nurses (LPN/LVNs) may perform some or all the parts of assessment of the patient's neurologic, musculoskeletal, and peripheral vascular systems. The decision to delegate must be based on careful analysis of the patient's needs and circumstances as well as the qualifications of the person to whom the task is being delegated. Refer to the Delegation Guidelines in Appendix A.

(*continued on page 144*)

Skill 3-10 Assessing the Neurologic, Musculoskeletal, and Peripheral Vascular Systems *(continued)*

EQUIPMENT

- PPE, as indicated
- Bath blanket or other drape
- Tongue depressor
- Examination gown
- Gloves
- Containers of odorous materials (e.g., coffee or chocolate), as indicated
- Miscellaneous items (e.g., pin, cotton, paper clip)
- Cotton-tipped applicators

ASSESSMENT

Complete a health history, focusing on the neurologic, musculoskeletal, and peripheral vascular systems. Identify risk factors for altered health by asking about the following:

- History of numbness, tingling, or tremors
- History of seizures
- History of headaches or dizziness
- History of trauma to the head or spine
- History of high blood pressure or stroke
- Changes in the ability to hear, see, taste, or smell
- Loss of ability to control bladder and bowel
- History of smoking
- History of chronic alcohol use
- History of diabetes mellitus or cardiovascular disease
- Use of prescription and over-the-counter medications
- Frequency of blood cholesterol tests and results
- History of trauma, arthritis, or neurologic disorder
- History of pain or swelling in the joints or muscles
- Frequency and type of usual exercise
- Dietary intake of calcium
- Changes in color or temperature of the extremities
- History of pain in the legs when sleeping or pain that worsens by walking
- History of blood clots or sores on the legs that do not heal

ACTUAL OR POTENTIAL HEALTH PROBLEMS AND NEEDS

Many actual or potential health problems or needs may require the use of this skill as part of related interventions. An appropriate health problem or need may include:

- Fall risk
- Impaired Verbal Communication
- Risk for Impaired Peripheral Neurovascular Function

OUTCOME IDENTIFICATION AND PLANNING

The expected outcome to achieve in performing an examination of the neurologic, musculoskeletal, and peripheral vascular systems is that the assessments are completed without causing the patient to experience anxiety or discomfort, the findings are documented, and the appropriate referral is made to other health care professionals, as needed, for further evaluation. Other outcomes may be appropriate, depending on the specific diagnosis or patient problem identified for the patient.

IMPLEMENTATION

ACTION	RATIONALE
 1. Perform hand hygiene and put on PPE, if indicated.	Hand hygiene and PPE prevent the spread of microorganisms. PPE is required based on transmission precautions.
 2. Identify the patient.	Identifying the patient ensures the right patient receives the intervention and helps prevent errors.

ACTION	RATIONALE
3. Close the curtains around the bed and close the door to the room, if possible. Explain the purpose of the neurologic, musculoskeletal, and peripheral vascular examinations and what you are going to do. Answer any questions.	This ensures the patient's privacy. Explanation relieves anxiety and facilitates cooperation.
4. Help the patient undress, if needed, and provide a patient gown. Assist the patient to a supine position, if possible. Use the bath blanket to cover any exposed area other than the one being assessed.	Having the patient wear a gown facilitates examination of the neurologic, musculoskeletal, and peripheral vascular systems. Use of a bath blanket provides for comfort and warmth.
5. Begin with a survey of the patient's overall hygiene and physical appearance.	This provides initial impressions of the patient. Hygiene and appearance can provide clues about the patient's mental state and comfort level.
6. Assess the patient's mental status.	
a. Evaluate level of consciousness. Refer to Chapter 17 for standardized assessment tools to assess level of consciousness.	This helps identify the patient's level of awareness.
b. Evaluate the patient's orientation to person, place, and time.	The patient should be awake and alert. Patients with altered level of consciousness may be lethargic, stuporous, or comatose.
c. Assess memory (immediate recall and past memory).	Memory problems may indicate neurologic impairment.
d. Evaluate the patient's ability to understand spoken and written word.	Evaluation of the patient's ability to understand spoken and written word helps assess for aphasia.
7. Test cranial nerve (CN) function, as indicated.	It is not necessary to assess every cranial nerve for every patient. Assessment should be individualized based on the patient's needs and health care setting and circumstances (Jensen, 2019).
a. Ask the patient to close the eyes, occlude one nostril, and then identify the smell of different substances, such as coffee, chocolate, or alcohol. Repeat with the other nostril.	This action tests the function of CN I (olfactory nerve).
b. Test visual acuity and pupillary constriction. Refer to previous discussion in the assessment of the head and neck.	This tests function of CN II and CN III (optic and oculomotor nerves).
c. Move the patient's eyes through the six cardinal positions of gaze. Refer to previous discussion in the assessment of the head and neck.	This testing evaluates the function of tests CN III, CN IV, and CN VI (oculomotor, trochlear, and abducens nerves).
d. Ask the patient to smile, frown, wrinkle the forehead, and puff out cheeks (Figure 1).	This maneuver evaluates the motor function of CN VII (facial nerve).

FIGURE 1. Puffing out cheeks.

(*continued on page 146*)

Skill 3-10 Assessing the Neurologic, Musculoskeletal, and Peripheral Vascular Systems *(continued)*

ACTION	RATIONALE
e. Ask the patient to protrude tongue and push against the cheek with the tongue.	This evaluates function of CN XII (hypoglossal nerve).
f. Palpate the jaw muscles. Ask the patient to open and clench jaws. Stroke the patient's face with a cotton ball.	This evaluates function of CN V (trigeminal nerve).
g. Test hearing with the whispered voice test. Refer to previous discussion in the assessment of the head and neck.	This evaluates function of CN VIII (acoustic nerve).
h. Put on gloves. Ask patient to open mouth. While observing soft palate, ask patient to say "ah"; observe upward movement of the soft palate. Test the gag reflex by touching the posterior pharynx with the tongue depressor. Explain to patient that this may be uncomfortable. Ask the patient to swallow. Remove gloves.	Gloves prevent contact with blood and body fluids. An intact gag reflex and swallowing indicate normal functioning of CNs IX and X (glossopharyngeal and vagus nerves).
i. Place your hands on the patient's shoulders (Figure 2) while they shrug against resistance. Then place your hand on the patient's left cheek, then the right cheek, and have the patient push against it.	These actions check CN XI (spinal accessory nerve) function and trapezius and sternocleidomastoid muscle strength.
8. Check the patient's ability to move their neck. Ask the patient to touch their chin to the chest and to each shoulder, then move each ear to the corresponding shoulder (Figure 3), and then tip the head back as far as possible.	These actions assess neck ROM, which is normally smooth and controlled.

FIGURE 2. Assessing function of the spinal accessory nerve (CN XI) and muscular strength. (*Source:* From Weber, J. R., & Kelley, J. H. [2018]. *Health assessment in nursing* [6th ed., p. 585]. Wolters Kluwer.)

FIGURE 3. Moving each ear to the corresponding shoulder. (*Source:* From Jensen, S. [2019]. *Nursing health assessment* [3rd ed., p. 601]. Wolters Kluwer.)

9. Inspect the upper extremities. Observe for skin color, presence of lesions, rashes, and muscle mass. Palpate for skin temperature, texture, and presence of masses.	Examination of the upper extremities provides information about the circulatory, integumentary, and musculoskeletal systems.
10. Ask the patient to extend arms forward and then rapidly turn palms up and down.	This maneuver tests proprioception and cerebellar function.
11. Ask the patient to flex upper arm and to resist examiner's opposing force (Figure 4).	This technique assesses the muscle strength of the upper extremities.
12. Inspect and palpate the hands, fingers, wrists (Figure 5), and elbow joints.	Inspection and palpation provide information about abnormalities, tenderness, and ROM.

ACTION	RATIONALE
	
FIGURE 4. Assessing muscle strength of the upper extremities. (*Source:* From Jensen, S. [2019]. *Nursing health assessment* [3rd ed., p. 604]. Wolters Kluwer.)	**FIGURE 5.** Palpating the wrist. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)
13. Ask the patient to bend and straighten the elbow, and flex and extend the wrists and hands.	Tests ROM of elbow joint and wrists.
14. Palpate the skin and the radial and brachial pulses. Assess the pulse rate, quality or amplitude, and rhythm. Test capillary refill (Refer to "Pallor" in Box 3-2).	Pulse palpation and capillary refill evaluate the peripheral vascular status of the upper extremities.
15. Cross your index and middle fingers. Have the patient squeeze your index and middle fingers (Figure 6).	This maneuver tests the muscle strength of the hands.
16. Assist the patient to a supine position. Palpate (Figure 7A) and then use the bell of the stethoscope to auscultate the femoral pulses in the groin (Figure 7B), if not done during assessment of the abdomen. Note the strength of the pulse and grade it as with peripheral pulses.	This technique assesses flow of blood through the arteries. Auscultation can detect a bruit.
	 
FIGURE 6. Testing grip. Patient squeezes nurse's crossed index and middle fingers. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)	**FIGURE 7.** Palpating (**A**) and auscultating (**B**) the femoral pulses. (*Source:* Used with permission from Shutterstock. *Photos by B. Proud.*)

(*continued on page 148*)

Skill 3-10 Assessing the Neurologic, Musculoskeletal, and Peripheral Vascular Systems *(continued)*

ACTION	RATIONALE
17. Examine the lower extremities. Inspect the legs and feet for color, lesions, varicosities, hair growth, nail growth, edema, and muscle mass.	Inspection provides information about peripheral vascular function.
18. Assess for pitting edema in the lower extremities by pressing fingers into the skin at the pretibial area and dorsum of the foot (Figure 8A). If an indentation remains in the skin after the fingers have been lifted, pitting edema is present (Figure 8B).	This technique reveals information about excess interstitial fluid. Refer to an edema scale in assessing the amount of edema: 1+ about 2 mm deep to 4+ about 8 mm deep.

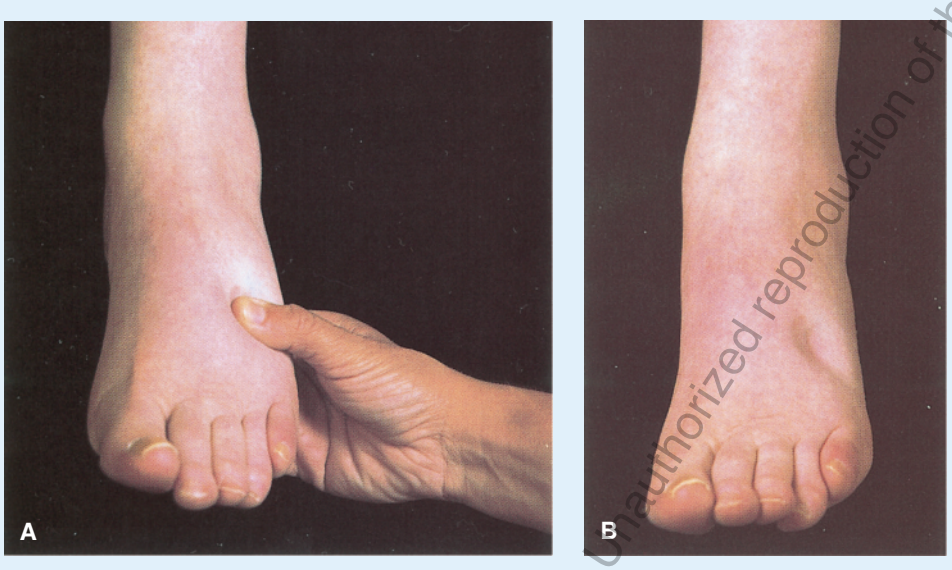


FIGURE 8. Assessing for pitting edema in lower extremities. (*Source:* From Hogan-Quigley et al. [2017]. *Bates' nursing guide to physical examination and history taking* [2nd ed., p. 453]. Wolters Kluwer.)

19. Palpate for pulses and skin temperature at the posterior tibial, dorsalis pedis, and popliteal areas. Assess the pulse rate, quality or amplitude, and rhythm. Test capillary refill (Refer to "Pallor" in Box 3-2).	Pulses, skin temperature, and capillary refill provide information about the patient's peripheral vascular status.
20. Ask the patient to move one leg laterally with the knee straight to test abduction of the hip. Keeping knee straight, move leg medially to test adduction of the hip. Repeat with other leg.	This maneuver assesses ROM and provides information about joint problems.
21. Ask the patient to raise the thigh against the resistance of your hand (Figure 9); next have the patient push outward against the resistance of your hand; then have the patient pull backward against the resistance of your hand. Repeat on the opposite side.	These measures assess motor strength of the upper and lower legs.

FIGURE 9. Testing motor strength of upper leg. Patient attempts to raise thigh against nurse's resistance. (*Source:* Used with permission from Shutterstock. *Photo by B. Proud.*)

ACTION	RATIONALE
22. Ask the patient to dorsiflex and then plantarflex both feet against opposing resistance (Figure 10).	These measure ankle flexion and dorsiflexion.

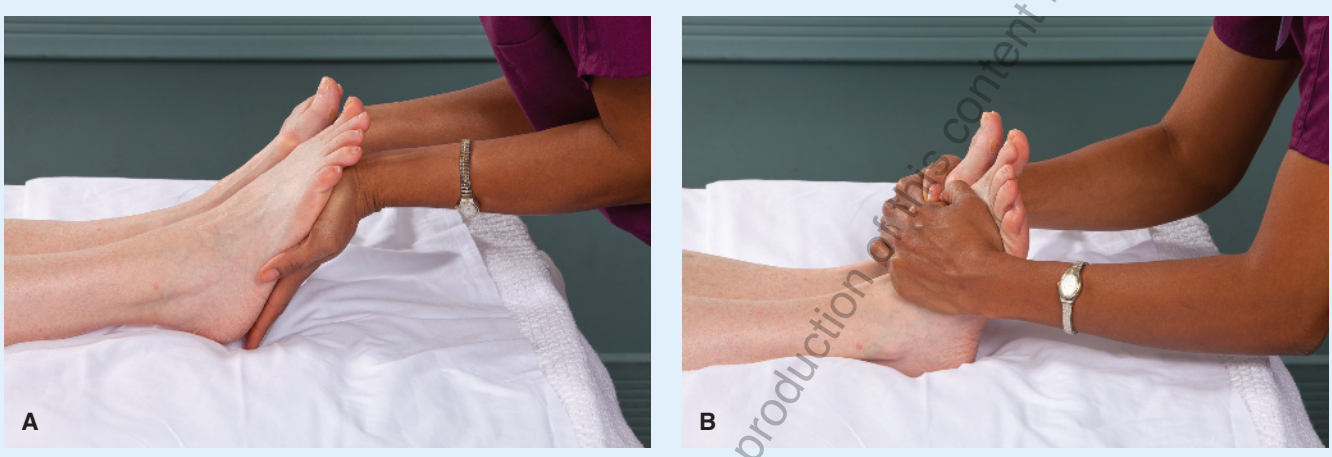


FIGURE 10. A. Testing ankle flexion and dorsiflexion. The patient first pushes the balls of the feet against resistance of the nurse's hands. **B.** Then attempts to pull against nurse's resistance. (*Source:* Used with permission from Shutterstock. *Photos by B. Proud.*)

23. As needed, assist the patient to a standing position. Observe the patient as they walk with a regular gait, on the toes, on the heels, and then heel to toe (Figure 11).	This procedure evaluates cerebellar and motor function.
24. Perform the Romberg's test; ask the patient to stand straight with feet together, both eyes closed with arms at side (Figure 12). Wait 20 seconds and observe for patient swaying and ability to maintain balance. Be alert to prevent a patient fall or injury related to losing balance during this assessment.	This test checks cerebellar functioning and evaluates balance, equilibrium, and coordination. Slight swaying is normal, but patient should be able to maintain balance.

FIGURE 11. Testing heel to toe walking. (*Source:* From Jensen, S. [2019]. *Nursing health assessment* [3rd ed., p. 652]. Wolters Kluwer.)

FIGURE 12. Positioning for the Romberg's test. (*Source:* From Jensen, S. [2019]. *Nursing health assessment* [3rd ed., p. 653]. Wolters Kluwer.)

(*continued on page 150*)

Skill 3-10 Assessing the Neurologic, Musculoskeletal, and Peripheral Vascular Systems *(continued)*

ACTION	RATIONALE
25. Assist the patient to a comfortable position.	This ensures the patient's comfort.
 26. Remove PPE, if used. Perform hand hygiene. Continue with assessments of specific body systems, as appropriate, or indicated. Initiate appropriate referral to other health care providers for further evaluation, as indicated.	Proper removal of PPE reduces the risk for infection transmission and contamination of other items. Hand hygiene prevents the spread of microorganisms. Additional assessments should be completed, as indicated, to evaluate the patient's health status. Intervention by other health care providers may be indicated to evaluate and treat the patient's health status.

EVALUATION

The expected outcomes have been met when the patient has participated in the assessment of the neurologic, musculoskeletal, and peripheral vascular systems; the patient has verbalized understanding of the assessment techniques as appropriate; the assessment has been completed without the patient experiencing anxiety or discomfort; the findings have been documented; and the appropriate referrals have been made to the other health care professionals, as needed, for further evaluation.

DOCUMENTATION

Guidelines

Document assessment techniques performed, along with specific findings. Note the cognitive responses of the patient, the tested cranial nerves, and sensation and motor responses. Document any patient statements of pain, muscle weakness, or joint abnormality. Record findings, including color, turgor, temperature, pulses, and capillary refill.

Sample Documentation

Lippincott DocuCare

Practice documenting assessment techniques and findings in *Lippincott DocuCare*.

4/4/25 Patient alert, oriented, cognitively appropriate. Full ROM of all joints. Muscles soft, firm, nontender, no atrophy. Patient states pain in right calf. Right calf skin paler tone and slightly cooler compared with left calf. Peripheral pulses 72, +2, regular rhythm, equal bilaterally; exception—right posterior tibial and dorsalis pedis pulses +1. Capillary refill right lower extremity sluggish, >3 seconds, +sensation in feet, equal bilaterally.

—S. Moses, RN

DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

SPECIAL CONSIDERATIONS

General Considerations

- Before performing the mental status examination, inform the patient that some of the questions may seem unusual, but that you are attempting to evaluate overall cognitive function.

Infant and Child Considerations

- In an infant, jerky and brief twitching of the extremities may be noted and considered a normal finding.
- The Babinski sign is a normal finding in children ages 24 months and younger (Jensen, 2019).
- The infant's extremities move symmetrically through ROM but lack full extension.
- Motor control develops in head, neck, trunk, and extremities in sequence.
- Coordination of movement varies according to the developmental level of the young child.

Older Adult Considerations

- Be aware that short-term memory, such as recall of recent events, may diminish with age. Older adults may also experience slowed reaction time as well.
- In the older adult patient, expect to find decreased musculoskeletal function, such as loss of muscle strength.
- Slower gait, with a wider base and flexed hips and knees.
- Keep in mind that older adults may take longer to perform certain actions, such as completing activities for testing coordination.

Enhance Your Understanding

Focusing on Patient Care: Developing Clinical Reasoning and Clinical Judgment

Consider the case scenarios at the beginning of the chapter as you answer the following questions to enhance your understanding and apply what you have learned.

QUESTIONS

1. When obtaining the history from Mr. Lincoln, he reports having a stuffed-up nose, postnasal drip, and a cough that sometimes produces mucus. He has smoked about one and a half packs of cigarettes a day for the past 20 years. Which areas of his physical examination would be most important?
2. Lois Felker, who has a history of type 1 diabetes mellitus, has arrived for her appointment with the health care provider. What systems will be most important to include in the physical assessment portion of the routine checkup related to this health problem?
3. Bobby Williams is suspected of having appendicitis. Which aspects of the health assessment are significant in relation to this health problem?

You can find suggested answers after the Bibliography at the end of this chapter.

Integrated Case Study Connection

The case studies in the back of the book focus on integrating concepts. Refer to the following case studies to enhance your understanding of the concepts and skills in this chapter.

- Basic Case Studies: James White, page 1196; Naomi Bell, page 1198; Joe LeRoy, page 1203; Kate Townsend, page 1205.
- Intermediate Case Studies: Olivia Greenbaum, page 1209; Victoria Holly, page 1211; Jason Brown, page 1215; Kent Clark, page 1217; Lucille Howard, page 1219; George Patel, page 1223.
- Advanced Case Studies: Cole McKean, page 1225; Damian Wallace, page 1227; Robert Espinoza, page 1230.

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SUGGESTED ANSWERS FOR FOCUSING ON PATIENT CARE: DEVELOPING CLINICAL REASONING AND CLINICAL JUDGMENT

1. Assessment of the patient's head and neck, as well as his thorax and lungs, would be most important. Examination of his head and neck will provide additional information related to his nasal symptoms as well as his cough. Assessment of his thorax and lungs will provide additional information related to his cough and possible effects of smoking.

2. Assessment of integumentary, neurologic, and peripheral vascular systems would be important to include when caring for a patient with diabetes. Major complications of diabetes include retinopathy, nephropathy, and neuropathy. Assessment of these systems would aid in identifying possible complications from diabetes that should be addressed.

3. Assessment of the patient's abdomen would be important to aid in confirming concerns related to appendicitis. In particular, you should assess for tenderness and pain, which can indicate peritoneal irritation, such as from appendicitis. Other symptoms may include nausea, vomiting, and lack of appetite.