

Unit

3



Physical Assessment

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She must have a respect for her own calling, because God's precious gift of life is often literally placed in her hands; she must be a sound, and close, and quick observer.

—Florence Nightingale

Physical Assessment Techniques

Chapter

8

COMPETENCIES

1. Describe how to maintain standard precautions during the physical assessment.
2. Establish an environment suitable for conducting a physical assessment.
3. Describe how to perform inspection, palpation, percussion, and auscultation, and which areas of the body are assessed with each technique.
4. Demonstrate inspection, palpation, percussion, and auscultation in the clinical setting.

Inspection, palpation, percussion, and auscultation are the techniques used by the nurse to assess the patient during a physical examination. This chapter introduces the assessment techniques and equipment used to conduct physical examinations.

ASPECTS OF PHYSICAL ASSESSMENT

Physical assessment of a patient serves many purposes:

1. Screening of general well-being. The findings will serve as baseline information for future assessments.
2. Validation of the complaints that brought the patient to seek health care.
3. Monitoring of current health problems.
4. Formulation of diagnoses and treatments.

The need for physical assessment depends on, among other factors, the patient's health status, concept of health care, and accessibility to health care. For example, a brittle diabetic with arthritis and glaucoma who has access to health care is likely to enter the health care delivery system more often than a healthy college student.

Reflective Thinking

Self-Evaluation of Standard Precaution Practices

Think back to the last day that you worked in the clinical setting.

- Did you consistently use standard precautions?
- If not, what was the occasion when you did not use standard precautions? What factors influenced this decision? What are the short-term ramifications of this decision? Long-term consequences?

Role of the Nurse

The professional nurse plays a vital role in the assessment of patient problems. Educational preparation and the clinical setting in part determine the extent to which the nurse participates in the assessment process. For example, a nurse in primary care may perform a comprehensive physical assessment of patients, while a critical care nurse may conduct selected patient assessments to monitor and evaluate current health problems. In either case, nurses are expected to be familiar with and comfortable using physical assessment skills. Today's nurses are sophisticated professionals who require information in order to make clinical decisions. The physical assessment findings provide this information.

Standard Precautions and Transmission-Based Precautions

The transmission of hepatitis, human immunodeficiency virus (HIV), and other infectious diseases is a primary concern for you and for the patient. **Standard precautions**, formerly known as universal precautions, were developed by the Centers for Disease Control and Prevention (CDC) to protect health care professionals and patients. The primary goal of standard precautions is to prevent the exchange of blood and body fluids. Standard precautions should be practiced with every patient throughout the entire encounter. Figure 8-1 illustrates the standard precautions recommended by the CDC.

The CDC has developed another level of precautions called **transmission-based precautions**. These precautions are to be used in conjunction with standard precautions. Contact, droplet, and airborne transmissions of microorganisms that are known to exist in a patient or are suspected in a patient are targeted. Contact transmission, such as in impetigo, scabies, and varicella zoster virus, are spread directly from person to person. They can also be spread indirectly from a contaminated inanimate object to a person. Droplet transmission occurs when microorganisms are deposited on susceptible body parts via sneezing and coughing. Suctioning a patient can also transmit droplets.

Nursing Alert

Latex Allergies

In accordance with standard precautions, nurses frequently use gloves when dealing with patients' body fluids. Be alert to the possibility that you, as well as your patients, may have latex allergies. Reactions range from eczematous contact dermatitis to anaphylactic shock. Ask patients if they have any known allergy to latex products prior to touching patients while wearing latex gloves and using other latex products.

Figure 8-1, a chart of standard precautions for infection control, appears in full color in the printed textbook. It has been intentionally omitted from this sample chapter.

Pertussis and *Haemophilus influenzae* are examples of this mode of transmission. Airborne transmission spreads microorganisms by air currents and inhalation. They can also be passed through ventilation systems. Measles and the varicella virus can spread in this mode. Additional information can be viewed on the CDC Web site. Search for “Guidelines for Isolation Precautions.”

Handwashing

The most important infection control practice is handwashing. You must begin every physical assessment with a thorough handwash. Some nurses perform this in the assessment area with the patient present. It is a nonthreatening way to start the physical assessment and allows the patient time to ask questions concerning the process.

The CDC has recently issued *Guideline for Hand Hygiene in Health-Care Settings* (Boyce & Pittet, 2002). These handwashing guidelines recommend the use of an alcohol-based hand rub, an antimicrobial soap and water, or a nonantimicrobial soap and water when the hands are visibly contaminated with body fluids. Your institution may provide some or all of these methods of handwashing; regardless, the most important factor is that you use them with every patient interaction.

Reflective Thinking

Defensive Nursing Practice

- You are inserting a vaginal speculum into a patient when she says, “I’ve changed my mind. I don’t want to do this.” How would you respond to this patient?
- While performing a breast exam on a patient, the patient shrieks, “What do you think you are doing?” How would you respond to this patient?
- During deep palpation of the abdomen, your patient responds, “Ouch, you hurt me!” How would you respond?
- You are auscultating the lungs of a 42-year-old man. He tells you that he is thinking of suing his previous health care provider. The patient tells you, “The real problem these days is that no one bothers to listen to the patient anymore.” What would be an appropriate response?
- What strategies can you incorporate into your practice to decrease your legal liability?

Legal Issues

In today’s litigious society, you must be ever vigilant when engaging in nursing practice. Documentation issues have previously been addressed. Equally important is how you execute the nursing assessment. Establishing a trusting and caring relationship is the primary element in avoiding malpractice claims. While performing each step in the physical assessment process, you need to inform the patient of what to expect, where to expect it, and how it will feel. Protests by the patient need to be addressed prior to continuing the examination. Otherwise, the patient may claim insufficient informed consent, sexual abuse, or physical harassment.

All assessments and procedures, including any injury that was caused during the physical assessment, must be completely documented. The institutional policy regarding patient injury in the workplace must be followed.

ASSESSMENT TECHNIQUES

Physical assessment findings, or objective data, are obtained through the use of four specific diagnostic techniques: inspection, palpation, percussion, and auscultation. Usually, these assessment techniques are performed in this order when body systems are assessed. An exception is in the assessment of the abdomen, when auscultation is performed prior to percussion and palpation, as the latter two can alter bowel sounds. These four techniques validate information provided by a patient in the health history, or they can verify a suspected physical diagnosis.

Usually, the easiest assessment skills to master are inspection and basic auscultation. Percussion and palpation may take more time and practice to perfect. With time and practice, the physical assessment techniques become second nature and you will develop your own rhythm and style. You may not perform all assessment skills in the same order as they are presented in this text. This practice is acceptable as long as basic guidelines are observed.

Reflective Thinking

Testing Accuracy of Observation

Walk into a patient's room with a colleague and observe the patient and environment for 30 seconds. Leave the room and record your observations. Compare your findings with those of your colleague's. Were your lists similar? Reenter the patient's room and validate the accuracy of your observations.

Inspection

“A conscientious nurse is not necessarily an observing nurse; and life or death may lie with the good observer.” This statement by Florence Nightingale provides inspiration and direction for inspection, which is usually the first assessment technique used during the assessment process. Inspection is an ongoing process that you use throughout the entire physical assessment and patient encounter. **Inspection** is the use of one's senses of vision and smell to consciously observe the patient.

Vision

Use of sight can reveal many facts about a patient. Visual inspection of a patient's respiratory status, for example, might reveal a rate of 38 breaths per minute and cyanotic nailbeds. In this case, the patient is tachypneic and possibly hypoxic and would need a more thorough respiratory assessment. The process of visual inspection necessitates full exposure of the body part being inspected, adequate overhead lighting, and, when necessary, **tangential lighting** (light that is shone at an angle on the patient to accentuate shadows and highlight subtle findings).

Smell

The nurse's olfactory sense provides vital information about a patient's health status. The patient may have a fruity breath odor characteristic of diabetic ketoacidosis. The classic odor that is emitted by a *Pseudomonas* infection is another well-recognized smell to the experienced nurse.

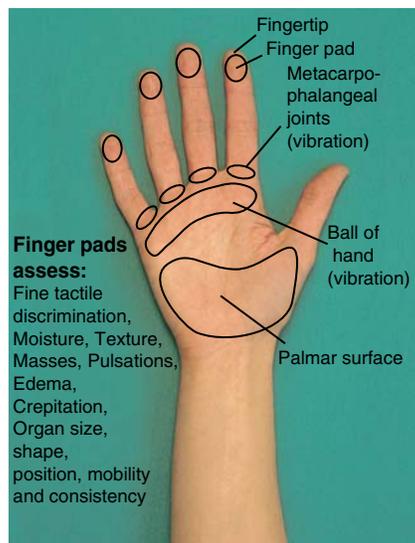
Palpation

The second assessment technique is **palpation**, which is the act of touching a patient in a therapeutic manner to elicit specific information. Prior to palpating a patient, some basic principles need to be observed. You should have short fingernails to avoid hurting the patient as well as yourself. Also, you should warm your hands prior to placing them on the patient; cold hands can make a patient's muscles tense, which can distort assessment findings. Encourage the patient to continue to breathe normally throughout the palpation. If pain is experienced during the palpation, discontinue the palpation immediately. Most significantly, inform the patient where, when, and how the touch

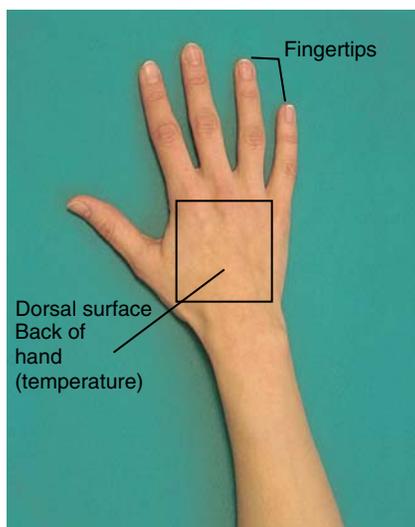
Nursing Tip

Order of Assessment Procedures

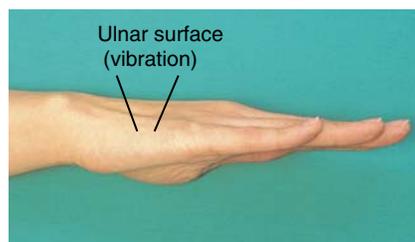
A good rule of thumb to follow when sequencing assessment procedures is to progress from the least intrusive to the most intrusive. That is, assessments that may cause discomfort should be performed last whenever possible in order to prevent patient anxiety, fear, and muscle guarding, which could affect the assessment process. For example, palpation of a tender area in the abdomen should be performed last. In the pediatric patient, the assessment of the ears and throat is usually performed last because these are the most uncomfortable for the child and may cause crying.



A. Palmar Surface



B. Dorsal Surface



C. Ulnar Surface

Figure 8-2 Parts of the Hand Used in Palpation

will occur, especially when the patient cannot see what you are doing. In this way, the patient is aware of what to expect in the assessment process.

Your hands are the tools used to perform the palpation process. Different sections of the hands are best used for assessing certain areas of the body. The dorsum of the hand is most sensitive to temperature changes in the body. Thus, it is more accurate to place the dorsum of the hand on a patient's forehead to assess the body temperature than it is to use the palmar surface of the hand. The palmar surface of the fingers at the metacarpophalangeal joints, the ball of the hand, and the ulnar surface of the hand best discriminate vibrations, such as a cardiac thrill and fremitus. The finger pads are the portion of the hand used most frequently in palpation. The finger pads are useful in assessing fine tactile discrimination, skin moisture, and texture; the presence of masses, pulsations, edema, and crepitation; and the shape, size, position, mobility, and consistency of organs (Figure 8-2).

Remember to observe standard precautions when you are performing palpation. Gloves must be worn when examining any open wounds, skin lesions, a body part with discharge, as well as internal body parts such as the mouth and rectum.

There are two distinct types of palpation: light and deep palpation. Each of these techniques is briefly described here and covered in greater detail in chapters describing body systems where palpation is specifically used.

Light Palpation

Light palpation is done more frequently than deep palpation and is always performed before deep palpation. As the name implies, **light palpation** is superficial, delicate, and gentle. In light palpation, the finger pads are used to gain information on the patient's skin surface to a depth of approximately 1 centimeter (cm) below the surface. Light palpation reveals information on skin texture and moisture; overt, large, or superficial masses; and fluid, muscle guarding, and superficial tenderness. To perform light palpation:

1. Keeping the fingers of your dominant hand together, place the finger pads lightly on the skin over the area that is to be palpated. The hand and forearm will be on a plane parallel to the area being assessed.
2. Depress the skin 1 cm in light, gentle, circular motions.
3. Keeping the finger pads on the skin, let the depressed body surface rebound to its natural position.
4. If the patient is ticklish, lift the hand off the skin before moving it to another area.
5. Using a systematic approach, move the fingers to an adjacent area and repeat the process.
6. Continue to move the finger pads until the entire area being examined has been palpated.
7. If the patient has complained of tenderness in any area, palpate this area last. Figure 8-3 shows how light palpation is performed.

Deep Palpation

Deep palpation can reveal information about the position of organs and masses, as well as their size, shape, mobility, consistency, and areas of discomfort. Deep palpation uses the hands to explore the body's internal structures to a depth of 4 to 5 cm or more (Figure 8-4). This technique is most often used for the abdominal and male and female reproductive assessments. Variations in this technique are single-handed and bimanual palpation and are discussed in Chapter 17.



Figure 8-3 Technique of Light Palpation



Figure 8-4 Technique of Deep Palpation

Percussion

Percussion is the technique of striking one object against another to cause vibrations that produce sound. The density of underlying structures produces characteristic sounds. These sounds are diagnostic of normal and abnormal findings. The presence of air, fluid, and solids can be confirmed, as can organ size, shape, and position. Any part of the body can be percussed, but only limited information can be obtained in specific areas such as the heart. The thorax and abdomen are the most frequently percussed locations.

Percussion sound can be analyzed according to its intensity, duration, pitch (frequency), quality, and location. **Intensity** refers to the relative loudness or softness of the sound. It is also called the amplitude. **Duration** of percussed sound describes the time period over which a sound is heard when elicited. Frequency describes the concept of **pitch**. Frequency is caused by the sound's vibrations, or the highness or lowness of a sound. Frequency is measured in cycles per second (cps) or hertz (Hz). More rapidly occurring vibrations have a pitch that is higher than that of slower vibrations. Figure 8-5 illustrates this concept. The **quality** of a sound is its timbre, or how one perceives it musically. Location of sound refers to the area where the sound is produced and heard.

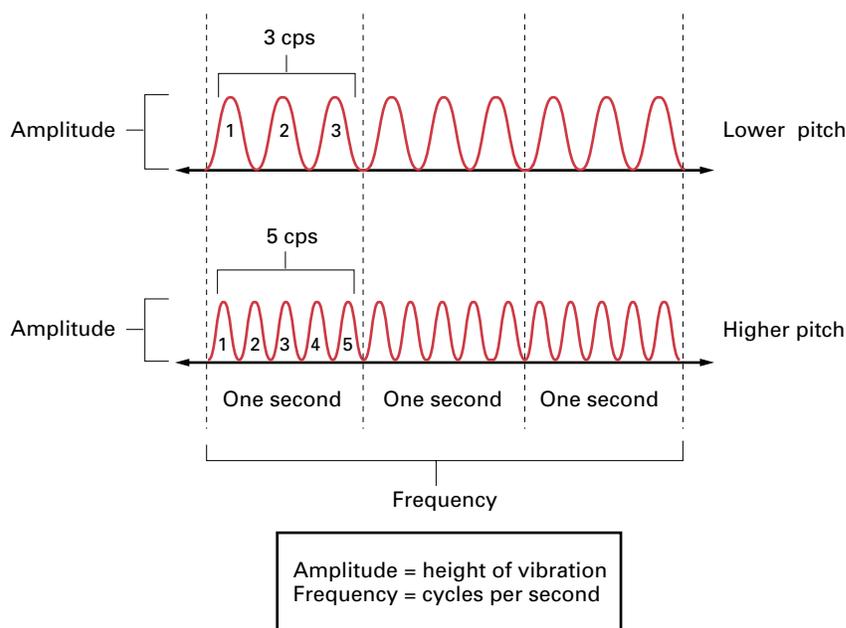


Figure 8-5 Percussion Pitch

TABLE 8-1 Characteristics of Percussion Sounds

SOUND	INTENSITY	DURATION	PITCH	QUALITY	NORMAL LOCATION	ABNORMAL LOCATION	DENSITY
Flatness	Soft	Short	High	Flat	Muscle (thigh) or bone	Lungs (severe pneumonia)	Most dense ↓ Least dense
Dullness	Moderate	Moderate	High	Thud	Organs (liver)	Lungs (atelectasis)	
Resonance	Loud	Moderate-long	Low	Hollow	Normal lungs	No abnormal location	
Hyperresonance	Very loud	Long	Very low	Boom	No normal location in adults; normal lungs in children	Lungs (emphysema)	
Tympany	Loud	Long	High	Drum	Gastric air bubble	Lungs (large pneumothorax)	

The process of percussion can produce five distinct sounds in the body: **flatness**, **dullness**, **resonance**, **hyperresonance**, and **tympany**. Specific parts of the body elicit distinct percussable sounds. Therefore, when an unexpected sound is heard in a particular part of the body, the cause must be further investigated.

Table 8-1 illustrates each of the five percussion sounds in relation to its respective intensity, duration, pitch, quality, location, and relative density. In addition, examples are provided of normal and abnormal locations of percussed sounds.

Sound waves are better conducted through a solid medium than through an air-filled medium because of the increased concentration of molecules. The basic premises underlying the sounds that are percussed are:

1. The more solid a structure, the higher its pitch, the softer its intensity, and the shorter its duration.
2. The more air-filled a structure, the lower its pitch, the louder its intensity, and the longer its duration.

There are four types of percussion techniques: immediate, mediate, direct fist percussion, and indirect fist percussion. It is important to keep in mind that the sounds produced from percussion are generated from body tissue up to 5 cm below the surface of the skin. If the abdomen is to be percussed, the patient should have the opportunity to void before the assessment.

Immediate Percussion

Immediate or **direct percussion** is the striking of an area of the body directly. To perform immediate percussion:

1. Spread the index or middle finger of the dominant hand slightly apart from the rest of the fingers.
2. Make a light tapping motion with the finger pad of the index finger against the body part being percussed.
3. Note what sound is produced.

Percussion of the sinuses (Figure 8-6) illustrates the use of immediate percussion in the physical assessment.



Figure 8-6 Technique of Immediate Percussion



A. Position of Hands for Posterior Thorax Percussion



B. Percussion Strike

Figure 8-7 Technique of Mediate Percussion

Mediate Percussion

Mediate percussion is also referred to as **indirect percussion**. This is a skill that takes time and practice to develop and to use effectively. Most sounds are produced using mediate percussion. Follow these steps to perform mediate percussion (Figure 8-7):

1. Place the nondominant hand lightly on the surface to be percussed.
2. Extend the middle finger of this hand, known as the **pleximeter**, and press its distal phalanx and distal interphalangeal joint firmly on the location where percussion is to begin. The pleximeter will remain stationary while percussion is performed in this location.
3. Spread the other fingers of the nondominant hand apart and raise them slightly off the surface. This prevents interference and, thus, dampening of vibrations during the actual percussion.
4. Flex the middle finger of the dominant hand, called the **plexor**. The fingernail of the plexor finger should be very short to prevent undue discomfort and injury to the nurse. The other fingers on this hand should be fanned.
5. Flex the wrist of the dominant hand and place the hand directly over the pleximeter finger of the nondominant hand.
6. With a sharp, crisp, rapid movement from the wrist of the dominant hand, strike the pleximeter with the plexor. At this point, the plexor should be perpendicular to the pleximeter. The blow to the pleximeter should be between the distal interphalangeal joint and the fingernail. Use the finger pad rather than the fingertip of the plexor to deliver the blow. Concentrate on the movement to create the striking action from the dominant wrist only.
7. As soon as the plexor strikes the pleximeter, withdraw the plexor to avoid dampening the resulting vibrations. Do not move the pleximeter finger.
8. Note the sound produced from the percussion.
9. Repeat the percussion process one or two times in this location to confirm the sound.
10. Move the pleximeter to a second location, preferably the contralateral location from where the previous percussion was performed. Repeat the percussion process in this manner until the entire body surface area being assessed has been percussed.

Recognizing Percussion Sound

When using mediate and immediate percussion, the change from resonance to dullness is more easily recognized by the human ear than is the change from dullness to resonance. It is often helpful to close your eyes and concentrate on the sound in order to distinguish if a change in sounds occurs. This concept has implications for patterns of percussion in areas of the body where known locations have distinct percussable sounds. For example, the techniques of diaphragmatic excursion and liver border percussion can proceed in a more defined pattern because percussion can be performed from an area of resonance to an area of dullness. Another helpful hint is to validate the change in sounds by percussing back and forth between the two areas where a change is noted to confirm this change.

As stated earlier, the percussion technique can take considerable time to develop and perfect. Practicing the technique in the home environment can be a helpful learning experience; see the Nursing Tip, At-Home Practice of Percussion.

Nursing Tip

At-Home Practice of Percussion

- Percuss two glasses—one filled with water, the other empty. Compare the sounds.
- Percuss the wall of a room and listen for the change in tones when a studboard is reached.
- Percuss your thigh. Puff your cheeks and percuss them. Compare the sounds.



Figure 8-8 Technique of Direct Fist Percussion: Left Kidney

Direct Fist Percussion

Direct fist percussion is used to assess the presence of tenderness and pain in internal organs, such as the liver or the kidneys. To perform direct fist percussion (Figure 8-8):

1. Explain this technique thoroughly so the patient does not think you are hitting him or her.
2. Draw the dominant hand up into a fist.
3. With the ulnar aspect of the closed fist, directly hit the area where the organ is located. The strike should be of moderate force, and it may take some practice to achieve the right intensity.

The presence of pain in conjunction with direct fist percussion indicates inflammation of that organ or a strike of too high an intensity.

Nursing Alert

Safe Percussion

Caution must be exercised when direct or indirect fist percussion is used. Avoid hitting the patient too hard because this may injure the patient.

Indirect Fist Percussion

The purpose of **indirect fist percussion** is the same as direct fist percussion. In fact, the indirect method is preferred over the direct method. It is performed in the following manner (Figure 8-9):

1. Place the palmar side of the nondominant hand on the skin's surface over the organ to be examined. Place the fingers adjacent to one another and in straight alignment with the palm.
2. Draw up the dominant hand into a closed fist.
3. With the ulnar aspect of the closed fist, use moderate intensity to hit the outstretched nondominant hand on the dorsum.

The nondominant hand absorbs some of the force of the striking hand. The resulting intensity should be of sufficient force to produce pain in the patient if organ inflammation is present.

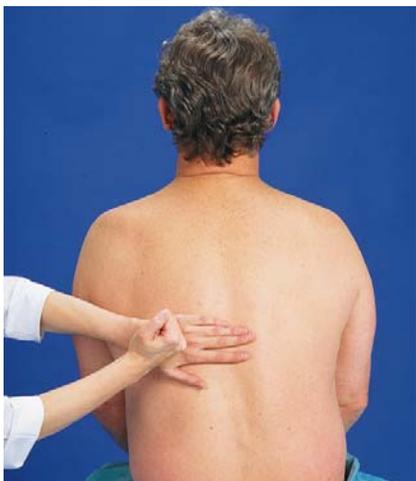


Figure 8-9 Technique of Indirect Fist Percussion: Left Kidney

Auscultation

Auscultation is the act of active listening to body organs to gather information on a patient's clinical status. Auscultation includes listening to sounds that are voluntarily and involuntarily produced by the body. A deep inspiration a patient takes with the lung assessment illustrates a voluntary sound, and heart sounds illustrate involuntary sounds. A quiet environment is necessary for auscultation. Auscultated sounds should be analyzed in relation to their relative intensity, pitch, duration, quality, and location. There are two types of auscultation: direct and indirect.

Direct Auscultation

Direct or **immediate auscultation** is the process of listening with the unaided ear. This can include listening to the patient from some distance away or placing the ear directly on the patient's skin surface. An example of immediate

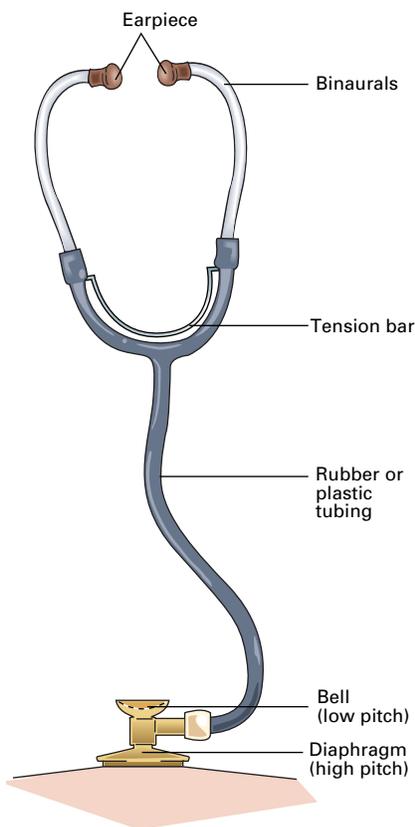


Figure 8-10 Acoustic Stethoscope



Figure 8-11 Doppler Ultrasonic Stethoscope

auscultation is the wheezing that is audible to the unassisted ear in a person having a severe asthmatic attack.

Indirect Auscultation

Indirect or **mediate auscultation** describes the process of listening with some amplification or mechanical device. The nurse most often performs mediate auscultation with an acoustic stethoscope, which does not amplify the body sounds, but instead blocks out environmental sounds. Amplification of body sounds can also be achieved with the use of a Doppler ultrasonic stethoscope. This text describes the use of an acoustic stethoscope.

Figure 8-10 illustrates the acoustic stethoscope. The earpieces come in various sizes. Choose an earpiece that fits snugly in the ear canal without causing pain. The earpieces block out noises in the environment. The earpieces and binaurals should be angled toward the nose. This angle permits the natural direction of the ear canal to be accessed. In this manner, sounds will be directed toward the adult tympanic membrane. The rubber or plastic tubing should be between 30.5 and 40 cm (12–18 in.). Stethoscopes with longer tubing will diminish the body sounds that are auscultated.

The acoustic stethoscope has two listening heads: the bell and the diaphragm. The diaphragm is flat and the bell is a concave cup. The diaphragm transmits high-pitched sounds and the bell transmits low-pitched sounds. Breath sounds and normal heart sounds are examples of high-pitched sounds. Bruits and some heart murmurs are examples of low-pitched sounds. Another commonly used stethoscope has a single-sided, dual-frequency listening head. This stethoscope has a single chestpiece. The nurse applies different pressures on the chestpiece to auscultate high- and low-pitched sounds.

Prior to auscultating, remove dangling necklaces or bracelets that can move during the examination and cause false noises. Warm the headpieces of the stethoscope in your hands prior to use, because shivering and movement can obscure assessment findings. To use the diaphragm, place it firmly against the skin surface to be auscultated. If the patient has a large quantity of hair in this area, it may be necessary to wet the hair to prevent it from interfering with the sound that is being auscultated. Otherwise, a grating sound may be heard. To use the bell, place it lightly on the skin surface that is to be auscultated. The bell will stretch the skin and act like a diaphragm and transmit high-pitched sounds if it is pressed too firmly on the skin. In both instances, auscultation requires a great deal of concentration. It may be helpful to close your eyes during the auscultation process to help you isolate the sound. Sometimes you can hear more than one sound in a given location. Try to listen to each sound and concentrate on each separately. It is important to clean your stethoscope after each patient to prevent the transfer of pathogens. Remember, auscultation is a skill that requires practice and patience. Don't expect to become an expert overnight!

Amplification of body sounds can also be achieved with the use of a Doppler ultrasonic stethoscope (Figure 8-11). Water-soluble gel is placed on the body part being assessed, and the Doppler ultrasonic stethoscope is placed directly on the patient. The device amplifies the sounds in that region. Fetal heart tones and unpalpable peripheral pulses are frequently assessed via Doppler ultrasonic stethoscope.

Nursing Tip

Headpiece Mnemonic

The word “bellow” can be used to remember which frequency is transmitted by the headpiece of the stethoscope. The “bell” transmits “low” sounds.

EQUIPMENT

The physical assessment will proceed in an efficient manner if you have gathered all of the necessary equipment beforehand. The equipment needed to perform a complete physical examination of the adult patient includes:

- Pen and paper
- Marking pen
- Tape measure
- Clean gloves
- Penlight or flashlight
- Scale (You may need to walk the patient to a central location if a scale cannot be brought to the patient's room.)
- Thermometer
- Sphygmomanometer
- Gooseneck lamp
- Tongue depressor
- Stethoscope
- Otoscope
- Nasal speculum
- Ophthalmoscope
- Transilluminator
- Visual acuity charts
- Tuning fork
- Reflex hammer
- Sterile needle
- Cotton balls
- Odors for cranial nerve assessment (coffee, lemon, flowers, etc.)
- Small objects for neurological assessment (paper clip, key, cotton ball, pen, etc.)
- Lubricant
- Various sizes of vaginal speculums
- Cervical brush
- Cotton-tip applicator
- Cervical spatula
- Slide and fixative
- Guaiac material
- Specimen cup
- Goniometer

The use of these items is discussed in the chapters describing the assessments for which they are used. Figure 8-12 illustrates some of the equipment used in the physical assessment.

Figure 8-12 Equipment Used in Physical Assessment

1. Tuning Fork
2. Visual Occluder
3. Ruler
4. Visual Acuity Chart
5. Reflex Hammer (brush at bottom)
6. Reflex Hammer
7. Pen and Marking Pen
8. Penlight
9. Thermometer
10. Sphygmomanometer
11. Slide and Fixative
12. Specimen Cup
13. Vaginal Speculum
14. Lubricant
15. Goniometer
16. Clean Gloves
17. Cervical Spatula (Ayre Spatula)
18. Cervical Brush (Cytobrush)
19. Cotton-tip Applicator
20. Tongue Depressor
21. Guaiac Material
22. Tape Measure
23. Acoustic Stethoscope
24. Ophthalmoscope
25. Otoscope with Speculum
26. Objects for Neurological Examination (key and cotton ball)
27. Sterile Needle



NURSING CHECKLIST

Preparing for a Physical Assessment

- Always dress in a clean, professional manner; make sure your name pin or workplace identification is visible.
- Remove all bracelets, necklaces, or earrings that can interfere with the physical assessment.
- Be sure that your fingernails are short and your hands are warm for maximum patient comfort.
- Be sure your hair will not fall forward and obstruct your vision or touch the patient.
- Arrange for a well-lit, warm, and private room.
- Ensure that all the necessary equipment is ready for use and within reach.
- Introduce yourself to the patient: “My name is Veronica Rojas. I am the nurse who is caring for you today. I need to assess how your lungs are today.”
- Clarify with the patient how he or she wishes to be addressed: Miss Jones, José, Dr. Casy, Rev. Grimes, etc.
- Explain what you plan to do and how long it will take; allow the patient to ask questions.
- Instruct the patient to undress; the underpants can be left on until the end of the assessment; provide a gown and drape for the patient and explain how to use them.
- Allow the patient to undress privately; inform the patient when you will return to start the assessment.
- Have the patient void prior to the assessment.
- Wash your hands in front of the patient to show your concern for cleanliness.
- Observe standard precautions and transmission-based precautions, as indicated.
- Ensure that the patient is accessible from both sides of the examining bed or table.
- If a bed is used, raise the height so that you do not have to bend over to perform the assessment.
- Position the patient as dictated by the body system being assessed; see Figure 8-13 for positioning and draping techniques.
- Enlist the patient’s cooperation by explaining what you are about to do, where it will be done, and how it may feel.
- Warm all instruments prior to their use (use your hands or warm water).
- Examine the unaffected body part or side first if a patient’s complaint is unilateral.
- Explain to the patient why you may be spending a long time performing one particular skill: “Listening to the heart requires concentration and time.”
- If the patient complains of fatigue, continue the assessment later (if possible).
- Avoid making crude or negative remarks; be cognizant of your facial expression when dealing with malodorous and dirty patients or with disturbing findings (infected wounds, disfigurement, etc.).
- Conduct the assessment in a systematic fashion every time. (This decreases the likelihood of forgetting to perform a particular assessment.)
- Thank the patient when the physical assessment is concluded; inform the patient what will happen next.
- Document assessment findings in the appropriate section of the patient record.

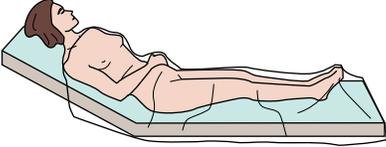
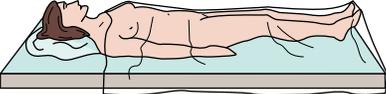
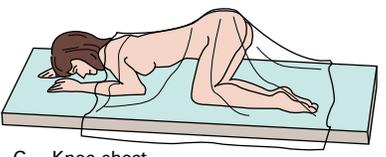
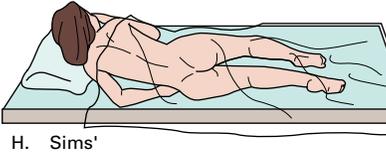
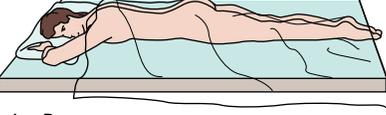
Position	System Assessed
 <p>A. Semi-Fowler's 45° angle</p>	<p>Skin, head, and neck; eyes, ears, nose, mouth, and throat; thorax and lungs; heart and peripheral vasculature; musculoskeletal; neurological; patients who cannot tolerate sitting up at a 90° angle</p>
 <p>B. Sitting (High Fowler's) 90° angle</p>	<p>Skin, head, and neck; eyes, ears, nose, mouth, and throat; back; posterior thorax and lungs; anterior thorax and lungs; breast; axillae; heart; peripheral vasculature; musculoskeletal; neurological</p>
 <p>C. Horizontal recumbent (supine)</p>	<p>Breasts; heart and peripheral vasculature; abdomen; musculoskeletal</p>
 <p>D. Dorsal recumbent</p>	<p>Female genitalia; patients who cannot tolerate knee flexion</p>
 <p>E. Side Lying</p>	<p>Skin; thorax and lungs; bedridden patients who cannot sit up</p>
 <p>F. Lithotomy</p>	<p>Female genitalia and rectum</p>
 <p>G. Knee-chest</p>	<p>Rectum and prostate</p>
 <p>H. Sims'</p>	<p>Rectum and female genitalia</p>
 <p>I. Prone</p>	<p>Skin; posterior thorax and lungs; hips</p>

Figure 8-13 Positioning and Draping Techniques

Nursing Tip

Golden Rules for Physical Assessment

- Stand on the right side of the patient; establishing a dominant side for assessment will decrease your movement around the patient.
- Perform the assessment in a head-to-toe approach.
- Always compare the right- and left-hand sides of the body for symmetry.
- Proceed from the least invasive to the most invasive procedures for each body system.
- Always perform the physical assessment using a systematic approach; if it is performed the same way each time, you are less likely to forget some part of the assessment.

NURSING CHECKLIST

Physical Assessment Techniques

Inspection

- Vision
- Smell

Palpation

- Light palpation
- Deep palpation

Percussion

- Immediate, or direct, percussion
- Mediate, or indirect, percussion
- Direct fist percussion
- Indirect fist percussion

Auscultation

- Immediate, or direct, auscultation
- Mediate, or indirect, auscultation

REVIEW QUESTIONS

1. A physical assessment is best conducted:
 - a. In a toe-to-head approach
 - b. When comparing right- and left-hand sides of the patient's body
 - c. While standing at the foot of the patient's bed or examination table
 - d. Proceeding from the most invasive to the least invasive procedures

The correct answer is (b).

2. The CDC developed standard precautions to:
 - a. Protect the patient and health care professional
 - b. Prevent litigious action against HIV transmission
 - c. Ensure the health care providers with a cleaner environment
 - d. Reduce the number of annual needlestick contaminations

The correct answer is (a).

Questions 3 and 4 refer to the following situation:

A 59-year-old woman with emphysema is admitted to your unit.

3. In what order would you conduct the physical assessment of the thorax and lungs?
 - a. Inspection, palpation, percussion, auscultation
 - b. Inspection, auscultation, palpation, percussion
 - c. Auscultation, palpation, percussion, inspection
 - d. Palpation, percussion, inspection, auscultation

The correct answer is (a).

4. What position best facilitates this assessment?
 - a. Sims'
 - b. Lithotomy
 - c. Dorsal recumbent
 - d. High Fowler's

The correct answer is (d).

5. Vibration is best palpated with which section of the hand?
 - a. Fingertips
 - b. Finger pads
 - c. Ulnar surface
 - d. Dorsal surface

The correct answer is (c).

6. Which percussion sound is loud in intensity, moderate-long in duration, low in pitch, and has a hollow quality?
 - a. Flatness
 - b. Dullness
 - c. Resonance
 - d. Tympany

The correct answer is (c).

7. Which percussion technique is usually used to assess the maxillary sinuses?
 - a. Immediate percussion
 - b. Mediate percussion
 - c. Direct fist percussion
 - d. Indirect fist percussion

The correct answer is (a).

8. Which characteristics best describe tympany?
- Soft intensity, short duration, high pitch
 - Moderate intensity, moderate duration, high pitch
 - Loud intensity, long duration, high pitch
 - Very loud intensity, long duration, very low pitch

The correct answer is (c).

9. The bell of the stethoscope is used to assess what characteristic?
- High-pitched sounds

- High-amplitude sounds
- Low-pitched sounds
- Low-amplitude sounds

The correct answer is (c).

10. Which of these positions is best for assessing the rectum?

- Semi-Fowler's
- Horizontal recumbent
- Side-lying
- Prone

The correct answer is (c).

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