



Overview of Nursing Health Assessment

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Purpose and Objectives

This course will provide the nurse with the knowledge needed to provide a complete health assessment for an adult patient.

After successful completion of this course, you will be able to:

1. Ask appropriate questions when conducting a comprehensive health history to elicit data that will be used to guide a physical examination
2. List the components of the comprehensive physical examination and review of systems based on significant findings identified in the patient history
3. Determine when to perform four different types of health assessments:
 - Complete or comprehensive
 - Interval or abbreviated
 - Focused
 - Special populations

Introduction

Health assessment of patients falls under the scope of practice of both physicians and nurses. While some nurses practice in extended roles (Advanced Practice Registered Nurse), others maintain a more traditional role in the acute or primary care setting. Assessment of patients varies based on both role and setting. A cardiac care nurse will be more familiar with and attuned to cardiac issues. A nurse on a neurologic unit will be more familiar with a more complex neuro exam.

As you progress through this course, keep in mind that exposure to a detailed health assessment may lead you to a more comprehensive and thorough exam. For instance, if you note a patient has leukoplakia (coated tongue) as you perform your general assessment, you may wonder about hygiene issues, underlying diseases, or medications that may cause this. Documenting the information, talking with the patient about it, and communicating the findings with the physician adds to your value as a healthcare team member, and ultimately a better patient care provider.

As you progress through the course, note which parts of the exam are applicable in your practice, don't fit into your practice, or you might want to include in your practice.

General Health Assessment

The nursing health assessment is an incredibly valuable tool nurses have in their arsenal of skills. A thorough and skilled assessment allows you, the nurse, to obtain descriptions about your patient's symptoms, how the symptoms developed, and a process to discover any associated physical findings that will aid in the development of differential diagnoses. Assessment uses both subjective and objective data. Subjective assessment factors are those that are reported by the patient. Objective assessment data includes that which is observable and measurable (Jarvis, 2016).

During the assessment period, you are given an opportunity to develop a rapport with your patient and their family. The nurse is often the first person the patient sees when admitted to your unit, returns from testing, or at the beginning of a new shift. Your interactions with the patient give the patient and family lasting impressions about you, other nurses, the facility you are working in, and how care will be delivered (Jarvis, 2016).

All assessments should consider the patient's privacy and foster open, honest communications.

Test Yourself

Nurses use physical assessment skills to:

- A. Obtain baseline data
- B. Enhance the nurse-patient relationship
- C. **Both of the above**

Rationale: A thorough and skilled assessment allows you, the nurse, to obtain descriptions about your patient's symptoms, how the symptoms developed, and a process to discover any associated physical findings that will aid in the development of differential diagnoses. During the assessment period, you are given an opportunity to develop a rapport with your patient and their family.

Types of General Health Assessments

In general, there are four fundamental types of assessments that nurses perform:

- A comprehensive or complete health assessment
- An interval or abbreviated assessment
- A problem-focused assessment
- An assessment for special populations

A comprehensive or complete health assessment usually begins with obtaining a thorough health history and physical exam. This type of assessment is usually performed in acute care settings upon admission, once your patient is stable, or when a new patient presents to an outpatient clinic.

If the patient has been under your care for some time, a complete health history is usually not indicated. Nurses perform an **interval or abbreviated assessment** at this time. These assessments are usually performed at subsequent visits in an outpatient setting, at change of shift, when returning from tests, or upon transfer to your unit from another in-house unit. This type of assessment is not as detailed as the complete assessment that occurs at admission. The advantage of an abbreviated assessment is that it allows you to thoroughly assess your patient in a shorter period of time (Jarvis, 2016).

The third type of assessment that you may perform is a **problem-focused assessment**. This assessment is usually indicated after a comprehensive assessment has identified a potential health problem. The problem-focused assessment is also indicated when an interval or abbreviated assessment shows a change in status from the most current previous assessment or report you received. An advantage of the focused assessment is that it directs you to ask about symptoms and move quickly to conducting a focused physical exam (Jarvis, 2016).

The fourth type of assessment is the assessment for **special populations**, including: pregnant patients, infants, children, and the elderly. The sequence of the assessment, positioning of the patient, time required, and relevant health history will need to be adjusted in each of these unique patient populations.

The special assessment should not replace the comprehensive or interval assessments, but should augment both the complete and interval assessments. These will not be specifically addressed in this course.

Baseline Assessment

If there is any indication to perform a problem-focused or special population assessment during the comprehensive assessment, the assessment should occur after obtaining a baseline comprehensive assessment. Based upon the results of the problem-focused or special population assessment, you can decide how often to perform interval assessments to monitor your patient's identified problem (Jarvis, 2016).

A systematic physical assessment remains one of the most vital components of patient care. A thorough physical assessment can be completed within a time frame that is practical and should never be dismissed due to time constraints (Zambas, 2010).

Assessment Techniques: Inspection

Whether you are performing a comprehensive assessment or a focused assessment, you will use at least one of the following four basic techniques during your physical exam: inspection, auscultation, percussion, and palpation. These techniques should be used in an organized manner from least disturbing or invasive to most invasive to the patient (Jarvis, 2016).

INSPECTION is the most frequently used assessment technique. When you are using inspection, you are looking for conditions you can observe with your eyes, ears, or nose. Examples of things you may inspect are skin color, location of lesions, bruises or rash, symmetry, size of body parts and abnormal findings, sounds, and odors. Inspection can be an important technique as it leads to further investigation of findings (Jarvis, 2016).

Please note!

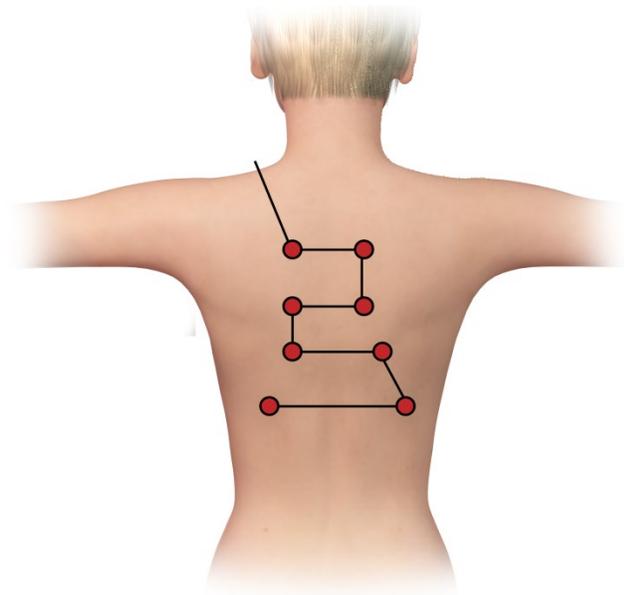
Inspection is a critical observation that should always occur first during an assessment (Jarvis, 2016).

Assessment Techniques: Auscultation

AUSCULTATION is usually performed following inspection, especially with abdominal assessment. The abdomen should be auscultated before percussion or palpation to prevent production of false bowel sounds.

When auscultating, ensure the exam room is quiet and auscultate over bare skin, listening to one sound at a time. Auscultation should never be performed over patient clothing or a gown, as it can produce false sounds or diminish true sounds. The bell or diaphragm of your stethoscope should be placed on your patient's skin firmly enough to leave a slight ring on the skin when removed.

Be aware that your patient's hair may also interfere with true identification of certain sounds. Remember to clean your stethoscope between patients.



The diaphragm is used to listen to high pitched sounds and the bell is best used to identify low pitched sounds (Jarvis, 2016).

Assessment Techniques: Palpation

PALPATION, another commonly used physical exam technique, requires you to touch your patient with different parts of your hand using different strength pressures. During light palpation, you press the skin about $\frac{1}{2}$ inch to $\frac{3}{4}$ inch with the pads of your fingers. When using deep palpation, use your finger pads and compress the skin approximately $1\frac{1}{2}$ inches to 2 inches. Light palpation allows you to assess for texture, tenderness, temperature,



moisture, pulsations, and masses. Deep palpation is performed to assess for masses and internal organs (Jarvis, 2016).

Assessment Techniques: Percussion

PERCUSSION is used to elicit tenderness or sounds that may provide clues to underlying problems. When percussing directly over suspected areas of tenderness, monitor the patient for signs of discomfort. Percussion requires skill and practice.

The method of percussion is described as follows: Press the distal part of the middle finger of your non-dominant hand firmly on the body part. Keep the rest of your hand off the body surface. Flex the wrist, but not the forearm, of your dominant hand. Using the middle finger of your dominant hand, tap quickly and directly over the point where your other middle finger contacts the patient's skin, keeping the fingers perpendicular. Listen to the sounds produced (Jarvis, 2016).

These sounds may include:

- Tympany
- Resonance
- Hyperresonance
- Dullness
- Flatness

Tympany sounds like a drum and is heard over air pockets.

Resonance is a hollow sound heard over areas where there is a solid structure and some air (like the lungs).

Hyperresonance is a booming sound heard over air such as in emphysema.

Dullness is heard over solid organs or masses.

Flatness is heard over dense tissues including muscle and bone (Jarvis, 2016).

Test Yourself

The most frequently used assessment technique is:

- A. Palpation
- B. Inspection**
- C. Percussion
- D. Auscultation

Rationale: When you are using inspection, you are looking for conditions you can observe with your eyes, ears, or nose. Inspection can be an important technique as it leads to further investigation of findings

Health History

The purpose of obtaining a health history is to provide you with a description of your patient's symptoms and how they developed. A complete history will serve as a guide to help identify potential or underlying illnesses or disease states. In addition to obtaining data about the patient's physical status, you will obtain information about many other factors that impact your patient's physical status including spiritual needs, cultural idiosyncrasies, and functional living status. There are many factors that affect the health and well-being of individuals as well as communities as a whole. The circumstances and environment in which people live affect the status of their health, in addition to more common factors such as gender, socioeconomic status, and

genetics (World Health Organization, 2018). The basic components of the complete health history (other than biographical information) include:

- Chief complaint
- Present health status
- Past health history
- Current lifestyle
- Psychosocial status
- Family history
- Review of systems

Communication during the history and physical must be respectful and performed in a culturally-sensitive manner. Privacy is vital, and the healthcare professional needs to be aware of posture, body language, and tone of voice while interviewing the patient (Jarvis, 2016).

Test Yourself

Factors that impact your patient's physical status include spiritual needs, cultural idiosyncrasies, and functional living status.

- A. True
- B. False

Rationale: There are many factors that affect the health and well-being of individuals as well as communities as a whole. The circumstances and environment in which people live affect the status of their health, in addition to more common factors such as gender, socioeconomic status, and genetics (World Health Organization, 2018)

Chief Complaint

In your patient's own words, document the chief complaint. The chief complaint may be elicited by asking one of the following questions:

- So, tell me why you have come here today?
- Tell me what your biggest complaint is right now?
- What is bothering you the most right now?
- If we could fix any of your health problems right now, what would it be?
- What is giving you the most problems right now?

If your patient has more than one complaint, discuss which one is the most troublesome for them and document the complaints in order of importance as determined by the patient (Jarvis, 2016).

Present Health Status

Obtaining information about a patient's present health status allows the nurse to investigate current complaints. The mnemonic, PQRST, utilizes a structured format for information gathering, including evaluation of pain, and provides an efficient methodology to communicate with other healthcare providers. Use PQRST to assess each symptom and after any intervention to evaluate any changes or responses to treatment (Jarvis, 2016).

PQRST

P = Provocative or Palliative

- What makes the symptom(s) better or worse?

Q = Quality

- Describe the symptom(s).

R = Region or Radiation

- Where in the body does the symptom occur? Is there radiation or extension of the symptom(s) to another area of the body?

S = Severity

- On a scale of 1-10, (10 being the worst) how bad is the symptom(s)? Another visual scale may be appropriate for patients that are unable to identify with this scale.

T = Timing

- Does it occur in association with something else (i.e. eating, exertion, movement)?

Past Health History

It is important to ask questions about your patient's past health history. The past health history should elicit information about the patient's childhood illnesses and immunizations, accidents or traumatic injuries, hospitalizations, surgeries, psychiatric or mental illnesses, allergies, and chronic illnesses. For women, include history of menstrual cycle, how many pregnancies and how many births (Jarvis, 2016).

Childhood Illnesses: Data related to childhood illnesses is more pertinent to children than adults and the elderly. For adults, you want to know if they have ever had rheumatic fever and if their tetanus and hepatitis B vaccinations are current. For the elderly, you may want to ask if they ever had polio, rheumatic fever, or chicken pox. Pertinent vaccinations for the elderly would include tetanus, pneumonia and influenza (Jarvis, 2016).

Accidents or Traumatic Injuries: When assessing this area of the past health history, pay particular attention to patterns of injury, especially in infants, children, women and the elderly (Jarvis, 2016).

Hospitalizations: Be sure to ask the reason for the hospitalization and the nature of the treatments received while in the hospital such as blood transfusions, surgeries and any follow-up treatments. Remember to include hospitalizations for childbirth (Jarvis, 2016).

Surgeries: Many surgical procedures are performed on an outpatient basis. Questions regarding surgeries should also be asked in addition to hospitalizations, as patients may not discuss a surgery if there was no associated hospital stay (Jarvis, 2016).

Psychiatric or Mental Illnesses: If your patient has a past history of psychiatric or mental illnesses, ask what triggered the illness, if anything, and the course and the progression of the illness. This includes depression and anxiety, as well as diagnosed mental illness (Jarvis, 2016).

Allergies: Identify what your patient is allergic to (both food and medication), as well as the reaction and response to treatment. It is important to ask about any environmental allergies or sensitivities (such as latex) also (Jarvis, 2016).

Test Yourself

The PQRST mnemonic may assist you with obtaining the patient's:

- A. Chief Complaint
- B. Present health status**
 - Past health history

Rationale: The mnemonic, PQRST, utilizes a structured format for information gathering, including evaluation of pain, and provides an efficient methodology to communicate with other healthcare providers. Use PQRST to assess each symptom and after any intervention to evaluate any changes or responses to treatment (Jarvis, 2016).

Family History

Family history is important in identifying your patient's risk for certain disease states.

Applicable generations with whom to explore health status include grandparents, parents, and the children of your patient.

Chronic illnesses or known diseases with genetic components should also be screened for. Chronic illness or disease can include cancer, diabetes, autoimmune disorders, cholesterol, heart disease, hypertension, renal disease, and mental illness, among others (Jarvis, 2016).

Current Health Status:

Information collected should also include details about your patient's personal habits such as smoking or drinking, nutrition, cholesterol, and if there is a history of heart disease or hypertension.

Medications:

Obtain a list of current medications, including dose and frequency, as well as reason for taking them.

Remember to ask the patient about over the counter medications, vitamins, and herbal supplements (Jarvis, 2016).

Review of Systems and Physical Exam

The physical examination can be performed in a "head-to-toe" fashion, starting with the head and ending with the toes. Although some healthcare professionals have varied tactics to performing this skill, the key to assessment is to ensure a consistent, methodical approach to avoid missing any vital assessment areas.

A physical examination should include:

- Complete set of vital signs (blood pressure, heart rate, respiratory rate and temperature)
- Immediate pain level - Can use mnemonic "**PQRST**" for quick pain assessment:
 - **P**=provoking factors (what brought on the pain?);
 - **Q**=quality (describe the pain- i.e. stabbing, throbbing, burning);
 - **R**=radiation (does the pain radiate anywhere?);
 - **S**=severity/symptoms (how bad is the pain- rate it; are there other symptoms with the pain?);
 - **T**=timing (is it constant? What makes it better/worse?)

A review of systems can be incorporated during your physical exam. While examining each body system, it is appropriate to ask certain history questions that pertain to that system. The following sections list applicable questions and physical exam criteria to evaluate while exploring that system. The areas in parentheses are clues or details to note in each area.



Skin Assessment

Skin assessment can be performed throughout the physical examination. As each body system is examined, assessment of the skin can be incorporated into findings (Jarvis, 2016).



When assessing the skin, inspect and palpate the following:

- General pigmentation (evenness, appropriate for heritage)
- Systemic color changes (pallor, erythema, cyanosis, jaundice)
- Freckles and moles (symmetry, size, border, pigmentation)
- Temperature (hypothermia, hyperthermia)
- Moisture and texture (diaphoresis, dehydration, firm smooth texture)
- Edema (location and degree)
- Bruising (location, pattern, consistent with history – especially in at risk populations)
- Lesions (color, elevation, pattern or shape, size, location, exudates)
- Hair (normal color, texture, distribution)
- Nails (shape, contour, color) (Jarvis, 2016)

Images provided courtesy of the NIH, 2011

Remember that skin breakdown is a common problem with ill and hospitalized patients. Skin assessment is vital to identify areas of vulnerability in the prevention of pressure ulcers.

Neurological Assessment

It may not be necessary to perform the entire neurological exam on a patient with no suspicion of neurological disorders. You should perform a complete baseline neurological examination on any patient that has verbalized neurological concerns in their history, or if a noted neurological deficit is discovered.

Ask patient for relevant history:

- Any past history of head injury? (location, loss of consciousness)
- Do you have frequent or severe headaches? (when, where, how often)
- Any dizziness or vertigo? (frequency, precipitating factors, gradual or sudden)
- Ever had/or do you have seizures? (when did they start, frequency, course and duration, motor activity associated with, associated signs, postictal phase, precipitating factors, medications, coping strategies)
- Any difficulty swallowing? (solids or liquids, excessive saliva)
- Any difficulty speaking? (forming words or actually saying what you intended)
- Do you have any coordination problems? (describe)
- Do you have any numbness or tingling? (describe)
- Any significant past neurologic history? (cerebral vascular accident, spinal cord injuries, neurologic infections, congenital disorders)

- Environmental or occupational hazards? (insecticides, lead, organic solvents, illicit drugs, alcohol) (Jarvis, 2016)

The Complete Neurological Exam

Examine the following 12 Cranial Nerves: [Click here](#) for Cranial Nerve Functions Assessment Chart

- Cranial Nerve I: Olfactory
- Cranial Nerve II: Optic
- Cranial Nerves III, IV, & VI: Oculomotor, Trochlear, and Abducens
- Cranial Nerve V: Trigeminal
- Cranial Nerve VII: Facial Nerve
- Cranial Nerve VIII: Acoustic (Vestibulocochlear)
- Cranial Nerve IX & X: Glossopharyngeal and Vagus
- Cranial Nerve XI: Spinal Accessory
- Cranial Nerve XII: Hypoglossal

Cranial Nerve [Examination Video](#) for your reference

Test Yourself

Which cranial nerve are you testing if you ask the patient to stick out their tongue?

- a. CN I
- b. CN XII**
- c. CN VIII

Rationale: Cranial nerve XII is the hypoglossal nerve and has sensory and motor properties. CN XII controls tongue movements and proprioception. Testing CNXII includes asking the patient to stick out their tongue and push their tongue against both sides of their cheeks.

The Motor System Assessment

Inspect and palpate the motor system

(Tests muscle groups and for motor neuron disease)

- Muscles appropriate size for body (atrophy, hypertrophy)
- Muscle strength (asymmetric, weak for patient)
- Muscle tone (range of motion, pain, flaccidity, spasticity, rigidity)
- Involuntary movements (tic, tremor, fasciculation)

Cerebellar Function and the Sensory System Assessment

Assess cerebellar function

(Tests balance and coordination and skilled movements)

- Gait (stiff posture, staggering, wide base of support, lack of arm swing, unequal steps, dragging or slapping of foot, ataxia)
- Romberg's test (loss of balance increases when eyes are closed)
- Rapid alternating movements (lack of coordination, slow, clumsy)
- Finger to finger test (misses mark)
- Finger to nose test (misses mark)

- Heel to shin test (misses mark, lower extremity coordination impaired)

Assess the sensory system

(Tests intactness of peripheral nerves, sensory tracts, and higher cortical discrimination)

- Superficial pain
- Light touch
- Vibration

Assess the spinothalamic tract

(Tests for ability to sense pain, temperature, and light touch)

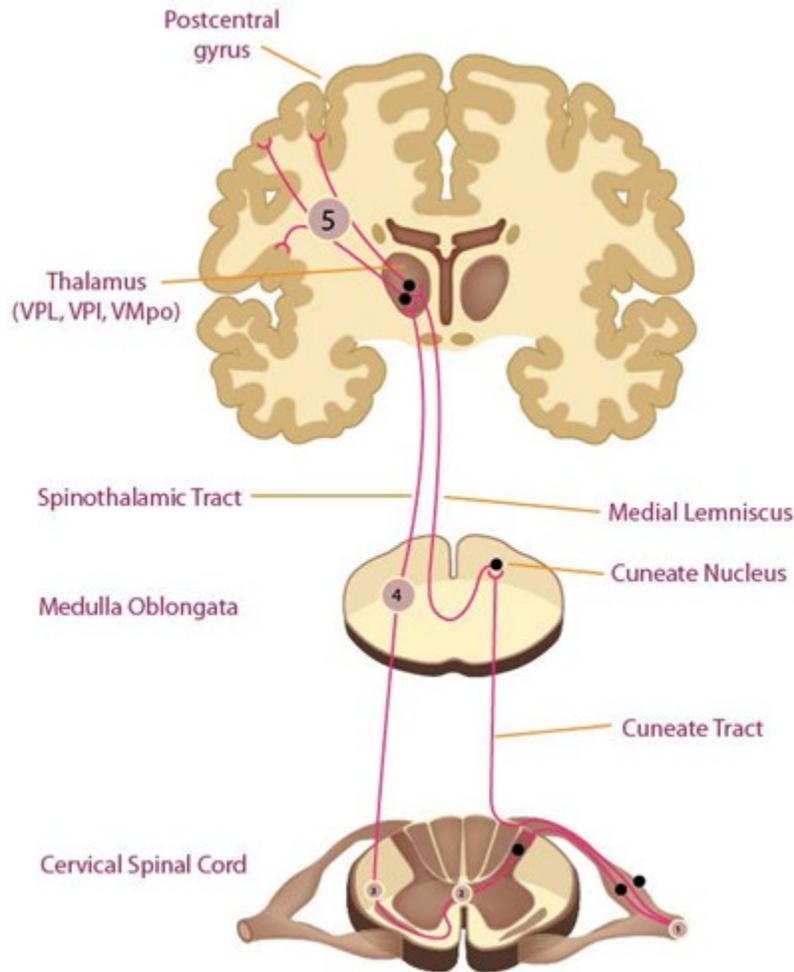
- Presence of pain (hypoalgesia, hyperalgesia, analgesia)
- Temperature (test only if pain test is normal)
- Light touch (hypoesthesia, anesthesia, hyperesthesia)

Assess posterior column tract

(May identify lesions of the sensory cortex or vertebral column)

- Vibration
- Position
- Tactile discrimination (stereognosis, graphesthesia)
- Two-point discrimination

Image of the Spinothalamic Tract



Assessing Reflexes

Checking the reflexes may identify upper motor neuron disease, diseases of the pyramidal tract, or spinal cord injury

- Stretch or deep tendon reflexes (clonus, hyporeflexia, hyperreflexia)
- Superficial reflexes (Abdominal, cremasteric, plantar) (Jarvis, 2016)

The Neurological Recheck or Abbreviated Neurological Exam

Perform the neurological recheck exam at periodic intervals with your patient who has a neurologic deficit. This exam is also useful for your inpatient with a head injury or systemic disease process that may be manifesting as a neurologic symptom (Jarvis, 2016).

Assess Level of Consciousness

(Monitors for signs of increasing intracranial pressure)

- Is your patient oriented to person, place, and time? Are they oriented to the situation?
- Is your patient alert? If not, what does it take to get them alert - calling their name, light touch, vigorous touch, pain?

Assess Motor Function

- Ask your patient to squeeze your fingers with their hands and let go (tests for strength and symmetry of strength in the upper extremities)
- Ask your patient to push and pull their arms toward and away from you when their elbows are bent. Provide some resistance (tests for strength and symmetry of strength in upper extremities)
- Ask your patient to dorsiflex and plantarflex their feet, while providing some resistance (tests for strength and symmetry of strength in lower extremities)
- Ask your patient to perform straight leg raises with and without resistance (tests for strength and symmetry of strength in lower extremities)

Assess Pupillary Response

- Size, shape, and symmetry of both pupils should be the same
- Each pupil should constrict briskly when a light is shined into the eyes
- Each pupil should have consensual light reflex

Test Yourself

When checking pupillary response, size, shape, and _____ of both pupils should be the same.

The correct answer is: Symmetry.

Glasgow Coma Scale

The Glasgow Coma Scale was developed as a tool to standardize the assessment of patients with traumatic brain injury as well as provide consistent communication between medical providers regarding these patients. (Teasdale et al., 2014).

The scale assesses three major brain functions:

- Eye opening
- Motor response
- Verbal response

A completely normal person will score 15 on the scale overall. Scores of less than 7 reflect coma.

Using the scale consistently in the healthcare setting allows healthcare providers to share a common language and monitor for trends across time (Jarvis, 2016).

To refresh your skills in neurological assessment, visit RN.com's course "Focused Neurological Assessment."

Glasgow Coma Scale

Glasgow Coma Scale	
Best Eye Opening Response	1 = No response
	2 = To pain
	3 = To speech
	4 = Spontaneously
Best Motor Response	1 = No response
	2 = Extension – abnormal
	3 = Flexion - abnormal
	4 = Flexion – withdrawal
	5 = Localizes pain
	6 = Obeys verbal commands
Best Verbal Response	1 = No response
	2 = Sounds - incomprehensible
	3 = Speech - inappropriate
	4 = Conversation - confused
	5 = Oriented X 3

Head, Face and Throat Assessment

When assessing the head, face and throat, focus on assessment of suspected deficits as indicated by the history, patient complaints, or disease process the patient is exhibiting. Some of the following points fall outside of the general scope of nursing practice but may be observed by the nurse, or practiced in advanced nursing roles. A complete exam of the head, face and throat is not warranted in every patient.

Ask patient for relevant history:

- Do you get frequent or severe headaches?
- Any past history of head injury?
- Do you frequently get dizzy?
- Do you have any neck pain, swelling, or lumps?
- Do you have a history of head or neck surgery (Jarvis, 2016)?

Assess for:

- General facial symmetry
- Hair distribution
- General facial expressions
- Lymph nodes or lesions (Jarvis, 2016)

Assessment of the Eyes

Ask patient for relevant history:

- Any vision changes or difficulty?
- Any eye pain?
- Do you have double vision?
- Any redness, swelling or discharge?
- Do you have a history of glaucoma?
- Do you wear glasses or contacts (Jarvis, 2016)?

Assess for:

- Visual acuity
- Visual fields (confrontation test)
- Extraocular muscle function (nystagmus, abnormal corneal light reflex)
- Conjunctiva and sclera (redness, irritation)
- Pupil (shape, symmetry, light reflexes, accommodation)
- Ocular fundus (red reflex, optic disc, retinal vessels, macula) (Jarvis, 2016)

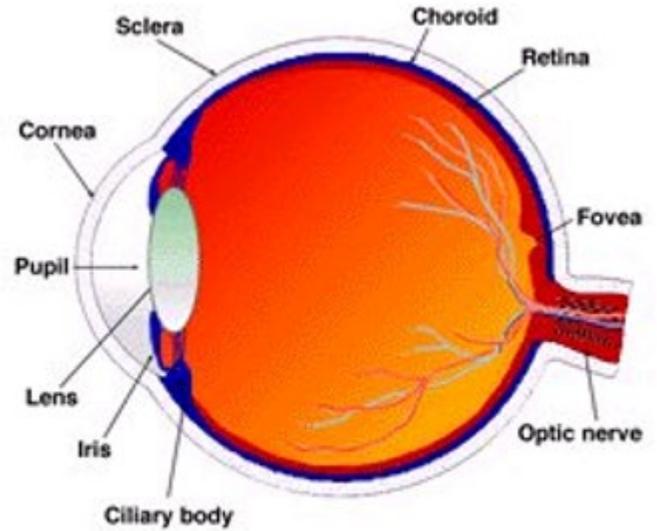


Image courtesy of NASA

Assessment of the Ears

Ask patient for relevant history:

- Have you had many ear infections?
- Do you have any discharge from your ears?
- Do you have any hearing difficulty?
- Do you have any environmental or occupational exposure to loud noises?
- Any ringing in your ears (tinnitus)?
- Any dizziness (vertigo) (Jarvis, 2016)?

Asses for:

- Size, shape, skin condition, and tenderness
- External canal (redness, swelling, discharge)
- Tympanic membrane [color & characteristics (amber, redness), air/fluid levels]
- Hearing acuity (also examined as you collect the patient's history)

Assessment of the Nose

Ask patient for relevant history:

- Any nasal discharge?
- Do you get frequent colds?
- Do you have sinus pain?
- Do you get nose bleeds?
- Do you have allergies?
- Have you had a change in sense of smell (Jarvis, 2016)?

Assess for:

- Nasal cavity (discharge, rhinorrhea, swollen, boggy, mucosa)
- Sinuses (tenderness and transillumination) (Jarvis, 2016)

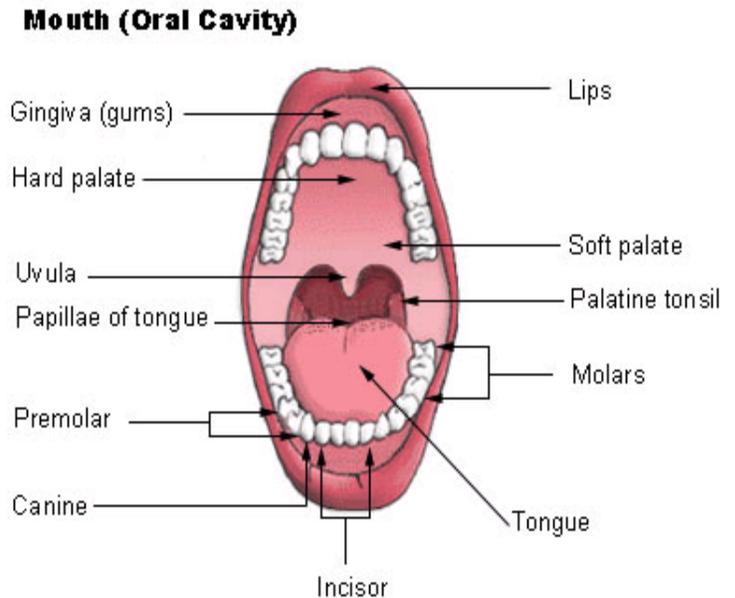
Assessment of the Mouth and Throat

Ask patient for relevant history:

- Do you have any sores or lesions in your mouth or throat?
- Do you have a sore throat and hoarseness?
- Do you have a toothache or get bleeding gums?
- Any difficulty swallowing?
- Do things taste differently than usual? Do you smoke, drink or chew tobacco (Jarvis, 2016)?

Assess For:

- Skin integrity (lesions or blisters)
- Teeth (discoloration, bleeding or swollen gums)
- Tongue (color, surface characteristics, moisture, lesions)
- Buccal mucosa (discoloration, Koplik's spots, leukoplakia)
- Uvula (midline)
- Throat (tonsils, Cranial Nerve XII by sticking out tongue) (Jarvis, 2016)



Cardiovascular Assessment

Cardiovascular disease is the United States' leading killer for both men and women; although there are some variation among ethnicities, it remains the leading cause of death among African Americans, Hispanics, and Caucasians (Centers for Disease Control and Prevention, 2017). Heart disease is estimated to cost \$200 billion per year, including healthcare services, medications, and lost productivity (CDC, 2017). Key risk factors of heart disease include: high blood pressure, high LDL cholesterol, and smoking; and it is estimated that approximately half of Americans have at least one of these risk factors (CDC, 2017). Therefore, a complete cardiovascular exam should be a part of every abbreviated and complete assessment.

Ask patient for relevant history:

- Any chest pain? (use PQRST mnemonic)
- Do you ever get short of breath? (associated with what)
- How many pillows do you sleep on at night? (orthopnea)
- Do you have a cough? (describe, frequency, timing, severity, sputum production)
- Are you frequently fatigued? (morning or night)
- Do you have any swelling or skin color changes? (edema, cyanosis, pallor)
- How often do you get up at night to urinate? (nocturia)
- Do you have a past history of cardiac or cardiovascular events or disorders?
- Do you have a family history of cardiovascular disease?
- Do you have a personal history of smoking, high blood pressure, or high cholesterol? (Jarvis, 2016; CDC, 2017)

Assess for:

- Palpate and auscultate the carotid artery (strength of pulsation, bruits, murmurs)
- Inspect and palpate the jugular veins (jugular vein distention)
- Inspect the precordium (heaves, lifts)
- Palpate the precordium (location of apical impulse, presence of thrill)
- Percuss cardiac borders
- Auscultate heart sounds in a Z-pattern (listening over the aortic, pulmonic, mitral, and tricuspid valves and over Erb's point).
- Identify S1 and S2
- Listen to S1 and S2 separately (split S1 or S2)
- Listen for any extra heart sounds (S3, S4, clicks, rubs)
- Listen for murmurs (note timing, loudness, pitch, pattern, quality, location, radiation, position)
- Palpate peripheral pulses: brachial, radial, femoral, popliteal, dorsalis pedis, posterior tibial (strength and symmetry)
- Inspect extremities (color, capillary refill, edema, ulcerations) (Jarvis, 2016)

To listen to normal sinus rhythm and cardiac murmurs, click here:

[The Auscultation Assistant](#)

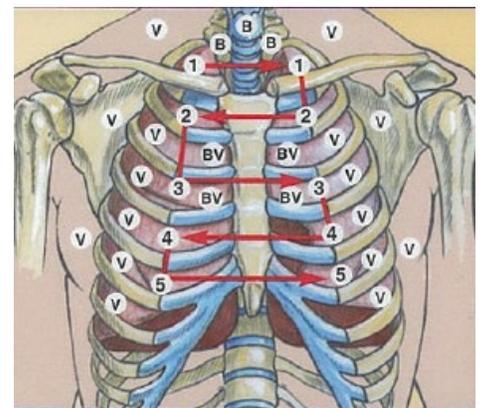
Pulmonary Assessment

Ask patient relevant history:

- Do you have a cough? (use PQRST mnemonic)
- Do you frequently get short of breath? (position, associated night sweats, related to any triggering event)
- Pain with breathing? (constant or periodic, describe the quality, treatment)
- Any past history of breathing trouble or lung disease? (frequency and severity of colds, allergies, asthma family history, smoking, environmental or occupational risk factors)

Assess for the following as indicated by your patient's history, symptoms or disease processes they are exhibiting:

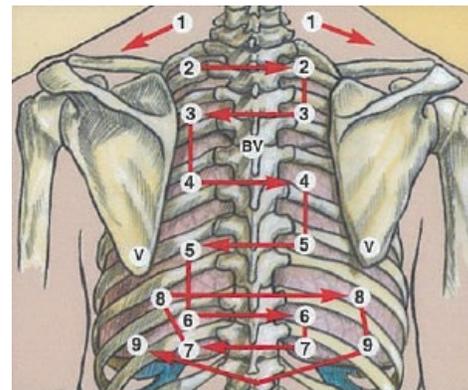
- Inspect the thoracic cage (symmetry of expansion, anterior-posterior diameter, any areas of retractions) (See appendix for retraction sites)
- Palpate the thoracic cage (tactile fremitus)
- Percuss the thoracic cage (hyperresonance, dullness, diaphragmatic excursion)
- Auscultate the anterior and posterior chest:
- Have patient breath slightly deeper than normal through their mouth
- Auscultate from C-7 to approximately T-8, in a left to right comparative sequence. You should auscultate between every rib.
- Listen for bronchial, bronchovesicular, and vesicular breath sounds
- Identify any adventitious breath sounds, their location, and timing in relation to the cardiac cycle (crackles, or rales and wheezes or rhonchi) (See appendix for auscultation landmarks)
- Auscultate voice sounds including bronchophony, egophony and whispered pectoriloquy (Jarvis, 2016).



To listen to normal lung sounds, crackles and wheezes, click here:

[The Auscultation Assistant](#)

To refresh your skills in performing lung auscultation, visit RN.com's course "Focused Physical Examination for The Acute Care Setting."



Abdomen/Gastrointestinal System Assessment

Ask patient for relevant history:

- Any change in appetite?
- Any difficulty swallowing? (dysphagia)
- Any abdominal pain? (use PQRST mnemonic)
- Any nausea or vomiting? (color, odor, presence of blood, food intake in past 24 hours)
- Any change in bowel habits? (constipation, diarrhea, blood in stool, or dark, tarry stools)
- Do you have any hemorrhoids? (bleeding, treatment)
- Any past history of abdominal problems? (gall bladder, liver, pancreas, digestion, elimination)

Organs of the Digestive System

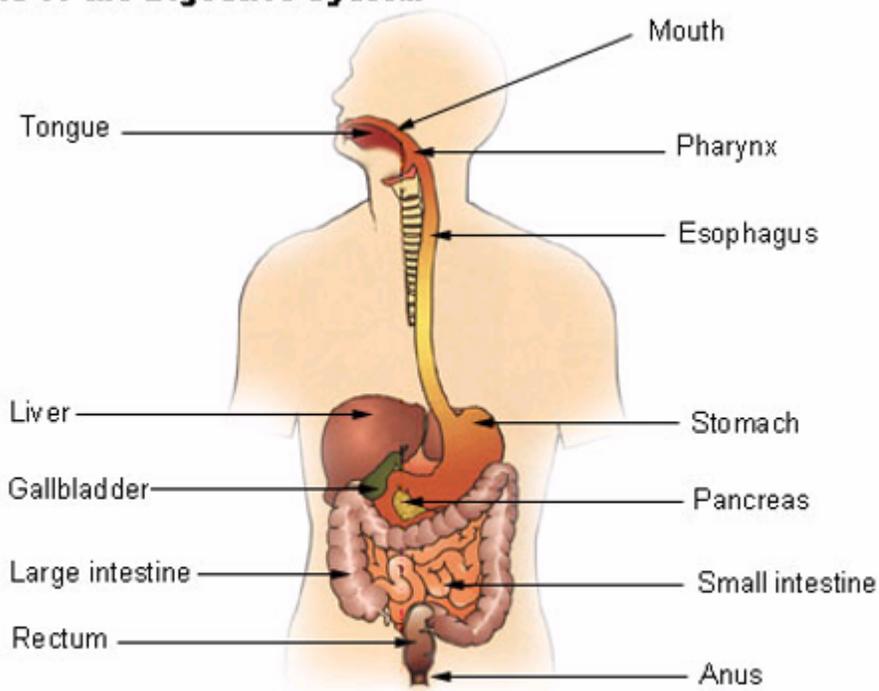


Image courtesy of The National Cancer Institute

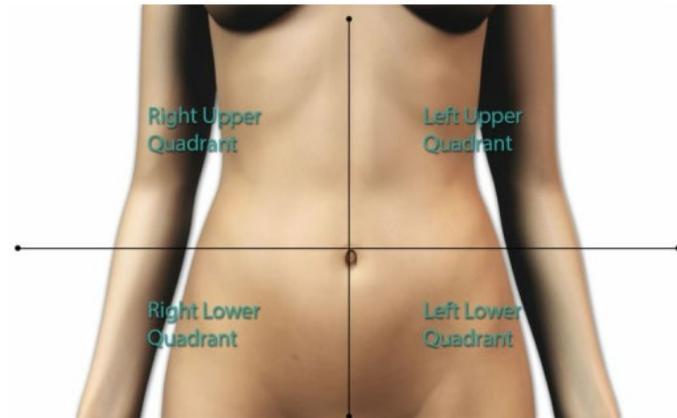
Inspection:

- For bulges, masses, hernias, ascites, spider nevi, veins, pulsations or movements, or a patient's inability to lie flat.

Auscultation:

- Auscultate after inspection so you do not produce false bowel sound through percussion or palpation; auscultate for bowel sounds (normal, hyper- or hypo-active) and bruits. Begin by dividing the abdomen into 4 quadrants, by drawing an imaginary line vertically and horizontally across the abdomen, to intersect at the umbilicus. This will divide the abdomen into:
 - Right Upper Quadrant (RUQ)
 - Left Upper Quadrant (LUQ)
 - Right Lower Quadrant (RLQ)
 - Left Lower Quadrant (LLQ)

(Jarvis, 2016).



Auscultation should begin in the right lower quadrant. If bowel sounds are not heard, listen for a total of five minutes, to determine if bowel sounds are truly absent (Jarvis, 2016).

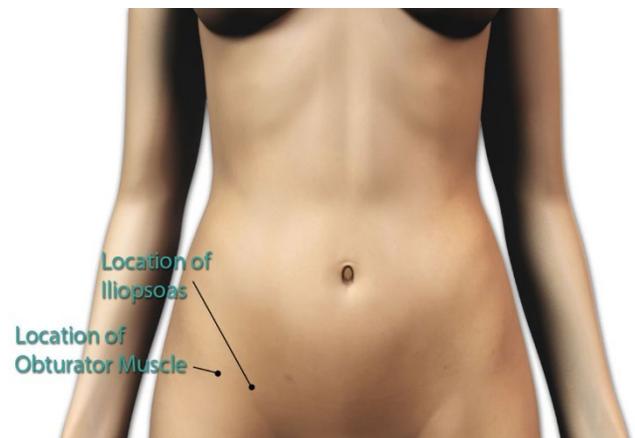
To listen to bowel sounds, [click here](#) for a YouTube video.

Percussion:

- Percuss for general tympany, liver span, splenic dullness (dullness over the spleen), costovertebral angle tenderness, presence of fluid wave and shifting dullness with ascites

Palpation:

- Palpate lightly then deeply noting any muscle guarding, rigidity, masses or tenderness (tender areas last)
- Palpate the liver margins (often it is not palpable)
- Palpate the spleen (enlargement occurs with mononucleosis and trauma)
- Palpate the kidneys (enlargement may indicate a mass)
- Assess for rebound tenderness (pain on release of pressure to the abdomen usually indicates peritoneal irritation)
- When acute abdominal pain is present perform the iliopsoas muscle test and obturator test (Jarvis, 2016)



Test Yourself

What is the correct sequence of assessment techniques for an abdominal exam?

- a. Palpation, percussion, auscultation, inspection
- b. Inspection, palpation, percussion, auscultation
- c. **Inspection, auscultation, palpation, percussion**

Rationale: Auscultate after inspection so you do not produce false bowel sound through percussion or palpation; auscultate for bowel sounds. Answer *b* is the normal sequence of assessment for the remainder of the body systems.

Musculoskeletal System Assessment

Ask patient for relevant history:

- What type of activity does your occupation include?
- Do you participate in sports or other physical activity?
- Do you have any history of injury?
- Do you have any history of any musculoskeletal condition or cancer?
- Do you have any current pain, feeling of instability or weakness, swelling, redness, or stiffness of muscles or joints?

Assess for:

- Inspect the size and shape of any problem joints (color, swelling, masses, deformities)
- Palpate each joint for temperature and range of motion (heat, tenderness, swelling, masses, limitation in range of motion, crepitation)
- Test muscle strength and strength against resistance of the major muscle groups of the body
- Assess the temporomandibular joint (swelling, crepitus, pain)
- Assess the cervical spine (alignment of head and neck, symmetry of muscles, tenderness, spasms, range of motion)
- Inspect and assess upper extremity strength and range of motion for the shoulders, elbows, wrists, and hands
- Inspect and assess lower extremity strength and range of motion for the hips, knees, ankles and feet (Jarvis, 2016)

Test Yourself

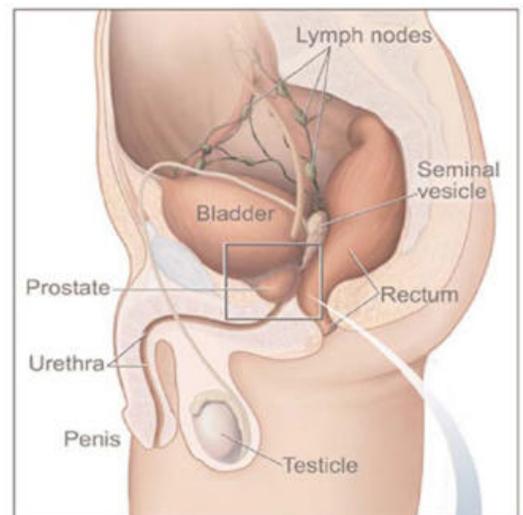
When assessing the musculoskeletal system you should test muscle strength and strength against resistance of the major muscle groups.

- A. True
- B. False

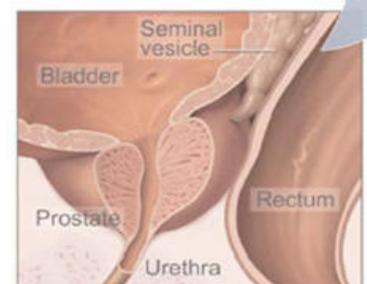
Male Genitourinary System Assessment

Ask patient for relevant history:

- Do you urinate more than usual? (frequency, urgency, nocturia)
- Any pain or burning with urination?
- Any difficulty starting or maintaining the stream of urine?
- Any difficulty controlling your urine?
- Any blood in your urine?
- Any problems with your penis? (pain, lesions, discharge)
- Any problems with your scrotum? (lumps, tenderness, swelling)
- Are you in a sexually active relationship and if so any difficulties in this relationship related to the physical act of intercourse?
- Do you use contraceptives? (what type, questions or concerns)
- Any history of sexual contact with a partner whom may have had a sexually transmitted disease?



This shows the prostate and nearby organs.



This shows the inside of the prostate, urethra, rectum, and bladder.

- Do you perform self-testicular examinations monthly? (Jarvis, 2016)

Assess:

- Inspect and palpate the penis (inflammation, lesions, freely moveable foreskin in uncircumcised male, location of urinary meatus, pubic lice or nits, narrowed urethral opening)
- Inspect and palpate the scrotum (scrotal edema, lesions or inflammation, absent, atrophied or fixed testes, tenderness of testicle or spermatic cord)
- Inspect and palpate for hernia
- Inspect and palpate inguinal lymph nodes
- Discuss and encourage self-testicular exams monthly (Jarvis, 2016)

Female Genitourinary System Assessment

Ask patient for relevant history:

- Do you urinate more than usual? (frequency, urgency, nocturia); Any pain or burning upon urination?
- Any difficulty starting or maintaining the stream of urine?
- Any blood in your urine? Any difficulty controlling your urine?
- Any unusual vaginal discharge?
- Are you sexually active? Any difficulties related to the physical act of intercourse?
- Do you use contraceptives? (what type, questions or concerns).
- Any history of sexual contact with a partner whom may have had a sexually transmitted disease?
- Tell me about your menstrual history (onset, length, amount of flow, cramps, bloating, PMS, age of first period, age of menopause).
- Have you ever been pregnant? (if so how many times, how many live births, any miscarriages or abortions, any complications).
- Have your periods slowed down or stopped? (associated symptoms of menopause, estrogen replacement therapy, psychological well-being).
- Any breast tenderness, lumps, discharge or concerns? Do you perform self-breast examinations monthly?
- Do you have regular PAP smears? (Jarvis, 2016).

Assessing the Female External Genitalia:

The complete female reproductive system examination is usually only performed by specially trained nurses or a physician. Please consider the following when examining the female reproductive system:

In the lithotomy position examine the external genitalia:

- Skin color
- Hair distribution
- Labia and clitoris (swelling, lesions)
- Urethral opening (stricture, inflammation)
- Vaginal opening (foul-smelling discharge, inflammation, lesions)
- Palpate the vagina (tenderness, swelling, discharge, Bartholin's glands)

Assessing the Female Internal Genitalia

The internal genitalia are only examined by specially trained healthcare providers, but you may be requested to assist with a vaginal examination. This would include assisting with the speculum to visualize the cervix (color, position, size, cervical os, surface of cervix, cervical secretions), and obtaining cervical smears and cultures. A bimanual (rectal - vaginal) exam may be performed to rule out rectal disease.

Cervix should be smooth, firm, round, and mobile. Uterus and adnexa should not be enlarged, tender, fixed, or nodular. Ovaries are often not palpable, but if they are, they should be small, round and smooth. Your patient may feel a slight pang or twinge upon palpation and should resolve quickly (Jarvis, 2016).

Assessing the Female Breasts & Axilla

Examine the breasts and axilla:

- Inspect the breasts for size, symmetry, and nipple dimpling
- Palpate the breasts and axilla in a circular pattern, covering all areas (note inconsistencies and tenderness)
- If you palpate a mass, note its size, shape, consistency, mobility, degree of tenderness, and location (Jarvis, 2016)

Nutritional Assessment

Assessing nutritional status of your patients is important for several reasons. A thorough nutritional assessment will identify individuals at risk for malnutrition and provide baseline information for nutritional assessments in the future. A nutritional screening is indicated for all patients. A complete nutritional assessment is indicated for only those individuals at risk for malnutrition and should be individualized based on medical history. A screening assessment includes:

Biographical data

- Age
- Height
- Weight

Lab Data

- Albumin
- Hemoglobin
- Hematocrit
- Total lymphocytes
- Other abnormal labs?

Nutritional Assessment

When performing your physical exam, OBSERVE for the following signs and symptoms of nutritional deficiency:

- Eyes dry
- Pale or red conjunctivae
- Blepharitis
- Cheilosis
- Cracks at the side of mouth
- Tongue pale
- Bleeding gums
- Dry, flaky skin
- Petechiae
- Bruising
- Dry, bumpy skin
- Cracked skin
- Eczema
- Xanthomas
- Dull, dry, thin hair
- Hair color changes
- Brittle nails
- Joint pain
- Muscle wasting
- Pain in calves
- Splinter hemorrhages of nails
- Peripheral neuropathy
- Hyporeflexia
- Confusion or irritability

Malnutrition and Lab Values

Abnormal laboratory values consistent with malnutrition include:

- Hemoglobin < 12 g/dl in adult females & < 14 g/dl in adult males
- Hematocrit < 36-46% in adult females and < 37-49% in adult males
- Total lymphocyte count of < 1800 cell/mm³
- Serum Albumin < 3.5 g/dl
- Serum Transferrin < 170 mg/dl (Jarvis, 2016)

A complete nutritional exam is warranted if you suspect your patient is malnourished or is at risk for malnourishment. Usually, a dietary consult is warranted for hospitalized patients in this situation.

Putting it All Together

Once nurses are familiar with the health assessment of the adult, it is necessary to adapt the assessment for specific patients such as infants, children, and the elderly. Knowledge of age-specific considerations will allow the nurse to evaluate the significance of the health history and exam results and individualize the plan of care.

Conclusion

Obtaining a concise and effective health history and physical exam takes practice. It is not enough to simply ask questions and perform a physical exam. As the patient's nurse, you must critically analyze all of the data you have obtained, synthesize the data into relevant problem focuses, and identify a plan of care for your patient based upon this synthesis.

As the plan of care is being carried out, reassessments must occur on a periodic basis. The frequency of reassessments is unique to each patient based upon their diagnosis.

The ability of the nurse to efficiently and effectively obtain the health history and physical exam will ensure that appropriate plan of care will be enacted for all patients (Jarvis, 2016; Zambas, 2010).

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