

Physical Assessment

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Physical Health Assessment

- Nursing history and physical examination
- Nurses use physical assessment skills to:
 - Develop (obtain baseline data) and expand the data base from which subsequent phases of the nursing process can evolve
 - To identify and manage a variety of patient problems (actual and potential)
 - Evaluate the effectiveness of nursing care
 - Enhance the nurse-patient relationship
 - Make clinical judgments

- Except for those occasions when you see a patient specifically to conduct a nursing assessment, the assessment must be integrated into routine nursing care

- Example: the bath is a perfect time to incorporate assessment skills

- framework that is used for assessment

- Subjective data - **Said** by the client
 - (S)














- Objective data - **Observed** by the nurse
 - (O)

- Nursing Process
 - SOAPIER

Preparing for the assessment

- Explain when, where and why the assessment will take place
- Help the client prepare (empty bladder, change clothes)
- Prepare the environment (lighting, temperature, equipment, drapes, privacy)
 - See Table 28-2 for equipment used during assessment

TABLE 28-3 Equipment and Supplies Used for a Health Examination







Guidelines	Example	
Flashlight or penlight		To assist viewing of the pharynx and cervix or to determine the reactions of the pupils of the eye
Laryngeal or dental mirror		To observe the pharynx and oral cavity
Nasal speculum		To permit visualization of the lower and middle turbinates; usually, a penlight is used for illumination
Ophthalmoscope		A lighted instrument to visualize the interior of the eye
Otoscope		A lighted instrument to visualize the eardrum and external auditory canal (a nasal speculum may be attached to the otoscope to inspect the nasal cavities)
Percussion (reflex) hammer		An instrument with a rubber head to test reflexes
Tuning fork		A two-pronged metal instrument used to test hearing acuity and vibratory sense
Vaginal speculum (various sizes)		To assess the cervix and the vagina
Cotton applicators		To obtain specimens
Disposable pads		To absorb liquid
Gloves (sterile and unsterile)		To protect the nurse
Lubricant		To ease insertion of instruments (e.g., vaginal speculum)
Tongue blades (depressors)		To depress the tongue during assessment of the mouth and pharynx

Note: From Fundamentals of Nursing: Concepts, Process, and Practice, 6th ed., by B. Kozier, G. Erb, A. Berman, & K. Burke, 2000, Upper Saddle River, NJ: Prentice Hall Health.

Positioning

- Positions used during nursing assessment, medical examinations, and during diagnostic procedures:
 - Dorsal recumbent
 - Supine
 - Sims
 - Prone
 - Lithotomy
 - Genupectoral
- See Table 28-2 for client positions

TABLE 28-2 Client Positions and Body Areas Assessed

Position	Description	Areas Assessed	Cautions
<p>Dorsal recumbent</p> 	<p>Back-lying position with knees flexed and hips externally rotated; small pillow under the head; soles of feet on the surface</p>	<p>Head and neck, axillae, anterior thorax, lungs, breasts, heart, extremities, peripheral pulses, vital signs, and vagina</p>	<p>May be contraindicated for clients who have cardiovascular problems. Not used for abdominal assessment because of the increased tension of abdominal muscles.</p>
<p>Supine (Horizontal recumbent)</p> 	<p>Back-lying position with legs extended; with or without pillow under the head</p>	<p>Head, neck, axillae, anterior thorax, lungs, breasts, heart, abdomen, extremities, peripheral pulses</p>	<p>Tolerated poorly by clients with cardiovascular and respiratory problems.</p>
<p>Sitting</p> 	<p>A seated position, back unsupported and legs hanging freely</p>	<p>Head, neck, posterior and anterior thorax, lungs, breasts, axillae, heart, vital signs, upper and lower extremities, reflexes</p>	<p>Elderly and weak clients may require support.</p>
<p>Lithotomy</p> 	<p>Back-lying position with feet supported in stirrups; the hips should be in line with the edge of the table.</p>	<p>Female genitals, rectum, and female reproductive tract</p>	<p>May be uncomfortable and tiring for elderly people and often embarrassing.</p>
<p>Sims'</p> 	<p>Side-lying position with lowermost arm behind the body, uppermost leg flexed at hip and knee, upper arm flexed at shoulder and elbow</p>	<p>Rectum, vagina</p>	<p>Difficult for the elderly and people with limited joint movement.</p>
<p>Prone</p> 	<p>Lies on abdomen with head turned to the side, with or without a small pillow</p>	<p>Posterior thorax, hip joint movement</p>	<p>Often not tolerated by the elderly and people with cardiovascular and respiratory problems.</p>

Assessment Techniques

- Inspection - critical observation
 - Take time to “observe” with eyes, ears, nose
 - Use good lighting
 - Look at color, shape, symmetry, position
 - Odors from skin, breath, wound
 - Develop and use nursing instincts
- Inspection is done alone and in combination with other assessment techniques



TABLE 16–5 Using the Senses to Observe Client Data

Sense | Example of Client Data

Vision	Overall appearance (e.g., body size, general weight, posture, grooming); signs of distress or discomfort; facial and body gestures; skin color and lesions; abnormalities of movement; nonverbal demeanor (e.g., signs of anger or anxiety); religious or cultural artifacts (e.g., books, icons, candles, beads)
Smell	Body or breath odors
Hearing	Lung and heart sounds; bowel sounds; ability to communicate; language spoken; ability to initiate conversation; ability to respond when spoken to; orientation to time, person, and place; thoughts and feelings about self, others, and health status
Touch	Skin temperature and moisture; muscle strength (e.g., hand grip); pulse rate, rhythm, and volume; palpatory lesions (e.g., lumps, masses, nodules)

Assessment Techniques

- Palpation - light and deep touch
 - Back of hand to assess skin temperature
 - Fingers to assess texture, moisture, areas of tenderness
 - Assess size, shape, and consistency of lesions
 - See Box 28-4, p. 529 to describe characteristics of masses

Assessment Techniques

- Percussion - sounds produced by striking body surface
 - Produces different notes depending on underlying mass (dull, resonant, flat, tympani)
 - Used to determine size and shape of underlying structures by establishing their borders and indicates if tissue is air-filled, fluid-filled, or solid
 - See table 28-4, page 530 for percussion notes

Assessment Techniques

- Auscultation - listening to sounds produced by the body
 - Direct auscultation – sounds are audible without stethoscope
 - Indirect auscultation – uses stethoscope
 - Know how to use stethoscope properly (practice)
 - Fine-tune your ears to pick up subtle changes (practice)
 - Describe sound characteristics (frequency, pitch intensity, duration, quality) (practice)
 - Flat diaphragm picks up high-pitched respiratory sounds best
 - Bell picks up low pitched sounds such as heart murmurs
 - Practice using BOTH diaphragms
- PRACTICE

Complete History and Physical

- Nursing history is ***subjective*** - includes things like biographic data, the chief complaint, source of the data, history of present illness, past medical history, immunization history, allergies, habits , stressors, family history including genogram, patterns of health care, and a review of the body's systems

History of Present Illness

- HPI is a chronological story of what has been happening
 - Must get details of the problem, therefore must be systematic
 - OLFQQAAT (one system – there are others): onset, location, frequency, quality, quantity, aggravating factors, alleviating factors, associated symptoms, treatments tried (include all treatments - Rx, OTC, herbal, folk)
 - Lots of systems – find one that works, and use it

- Use whatever system works for you, but use a system pain intensity scales, etc

- Pain, quality/quantity, radiation, setting, timing
- Rate pain from 1 to 10
- Use age appropriate tools (faces)

- Culturally appropriate care

Exam Order and Documentation

- Date and identifying data - name, age, sex, race, place of birth (if pertinent), marital status, occupation, religion
- Source and reliability of history
- Chief complaint = reason for visit

Order & Documentation

- FH - age and health of parents and siblings or cause of death (genogram); HTN, DM, CVD, Ca, HA, arthritis, addictions
- ROS (subjective head-to-toe review)
 - General - recent wt. change, fatigue, fever
 - Skin - rashes, lesions, changes, dryness, itching, color change, hair loss, change in hair or nails
 - Eyes - change in vision, floaters, glasses, HA, pain

Order & Documentation

■ ROS

- Ears - pain, loss of hearing, vertigo, ringing, discharge, infections
- Nose and sinuses - frequent colds, congestion, HA, nosebleed
- Mouth and throat - condition of teeth and gums, last dental visit, hoarseness, frequent sore throats
- Neck - lumps, stiffness, goiter
- Breasts - lumps, pain, discharge, BSE

Order & Documentation

■ ROS

- Respiratory - cough, sputum, wheezing, asthma, COPD, last PPD, last CXR, smoking history (can do here, or with “habits”)
- Cardiac - heart trouble, chest pain, SOB, murmur, h/o rheumatic fever, past EKG, FH of heart disease <50 yrs of age
- GI - problems swallowing, heartburn, vomiting, bowel habits, pain, jaundice
- Urinary - frequency, incontinence, pain, burning, hesitancy, nocturia, polyuria

Order & Documentation

■ ROS

- Genitalia - lesions, discharge, sexual orientation, sexual function, menstrual history, contraception, pregnancy history, TSE
- Peripheral vascular - intermittent claudication, varicose veins, blood clots
- MS - muscle or joint pain, redness, stiffness, warmth, swelling, family history
- Neuro - fainting, blackouts, seizures, weakness

Order & Documentation

■ ROS

- Endocrine - sweats, skin change, heat or cold intolerance, excessive thirst (polydipsia), excessive urination (polyuria), weight change, menstrual changes
- Psychiatric - mental illness, thoughts of harming self or others

■ All of ROS is subjective; PE is **objective**

Complete H&P - Objective

- History is **subjective**; Physical assessment is **objective**
 - Objective portion of exam begins with the general survey; Each body system reviewed in text has nursing history at the beginning of the procedure for the objective exam
 - In actual practice, you get most of the history before ever touching the client, but there are usually additional history questions to ask during the exam

- Order of exam - head to toe in systematic order
- Order of techniques - IPPA (Inspection, Palpation, Percussion, Auscultation)
- Be systematic, but be flexible based on patient's needs
 - When might you change order of exam?
- In practice, you often will do “focused” PE - examine only the pertinent parts
- PRIORITIZE (ABC's, Maslow)

General Survey

- General appearance, gait, nutrition status (NOT to be confused with nutrition history), state of dress, body build, obvious disability, speech patterns, affect (mood), hygiene, body odor, posture, race, gender, height, weight, vital signs
- Height up to age 2 is recumbent
 - Add head circumference if child is less than 2 years old

Integumentary System

Integument includes skin, hair, and nails –

- **Inspect:** skin color and uniformity of color, moisture, hair pattern, rashes, lesions, pallor, edema
- **Palpate:** temperature, turgor, lesions, edema
- **Percussion and auscultation:** rarely used on skin
- **Terminology:** pallor, cyanosis, edema, ecchymosis, macule, papule, cyanosis, jaundice, types of edema, vitiligo, hirsutism, alopecia, etc.

Integumentary System

- Hair - texture, distribution, scalp, critters
- Nails - inspect and palpate
 - Why palpate?
 - Cyanosis - is it true or d/t cold?
 - Blanch test (aka capillary refill or CFT): delayed return of color indicates poor arterial circulation
 - Clubbing - loss of normal angle between nail and nail bed d/t chronic oxygen deprivation
- Skin – know terminology, draw diagrams, take pictures

HEENT

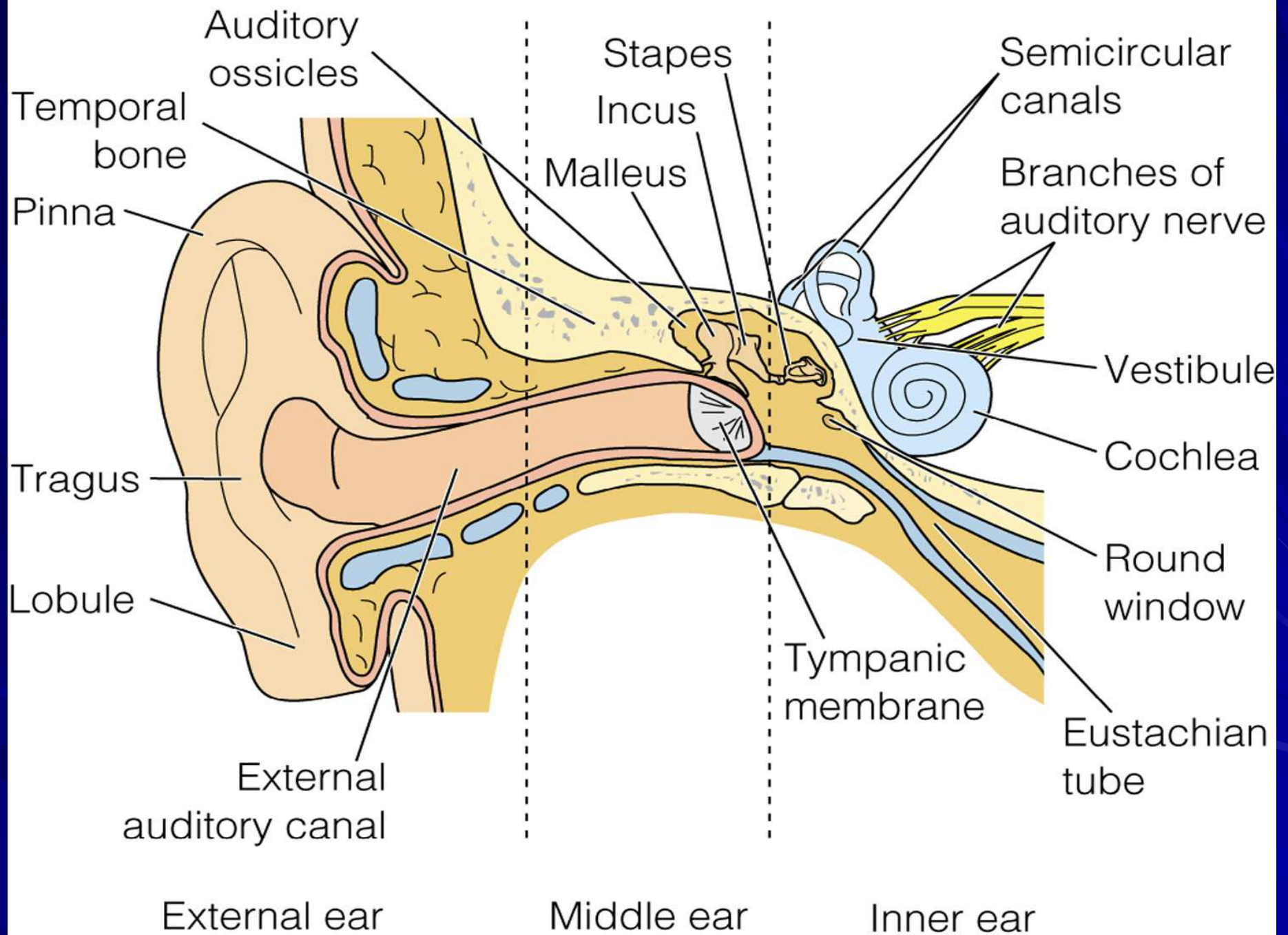
- Head - inspection and palpation
 - Size, shape, symmetry
- Eyes - inspection and palpation
 - Inspect and palpate lids, lashes, inspect eye position and symmetry and position, symmetry and size of pupils
 - Visual acuity with Snellen chart
 - 20/20 - first number (numerator) is distance from chart
 - Second number is distance at which a normal eye could have read that line (OU, OD, OS)
 - Always record if tested cc (with correction)

Eyes

- Visual acuity (Snellen for distance, Rosenbaum for near vision)
- Visual fields - assess peripheral vision
- EOMs - checks 6 ocular movements; tests CN 3, 4, and 6
- Pupil response to light and accommodation;
- Pupils constrict to light, and also to accommodate for near vision (dilate for dimness and distance)
- Direct and consensual pupil response
- Corneal light reflex - checks eye alignment
- Fundoscopic exam - ophthalmoscope
- Terminology - myopia, presbyopia, ptosis, etc

Ears

- Inspection and palpation
 - Inspect size, shape, position, discharge, lesions
 - Palpate for tenderness, any lesions
- Review anatomy of ear and inner ear
- Gross hearing acuity: normal voice, whisper test, Weber and Rinne
- Internal ear (behind tympanic membrane) – otoscope can look through TM

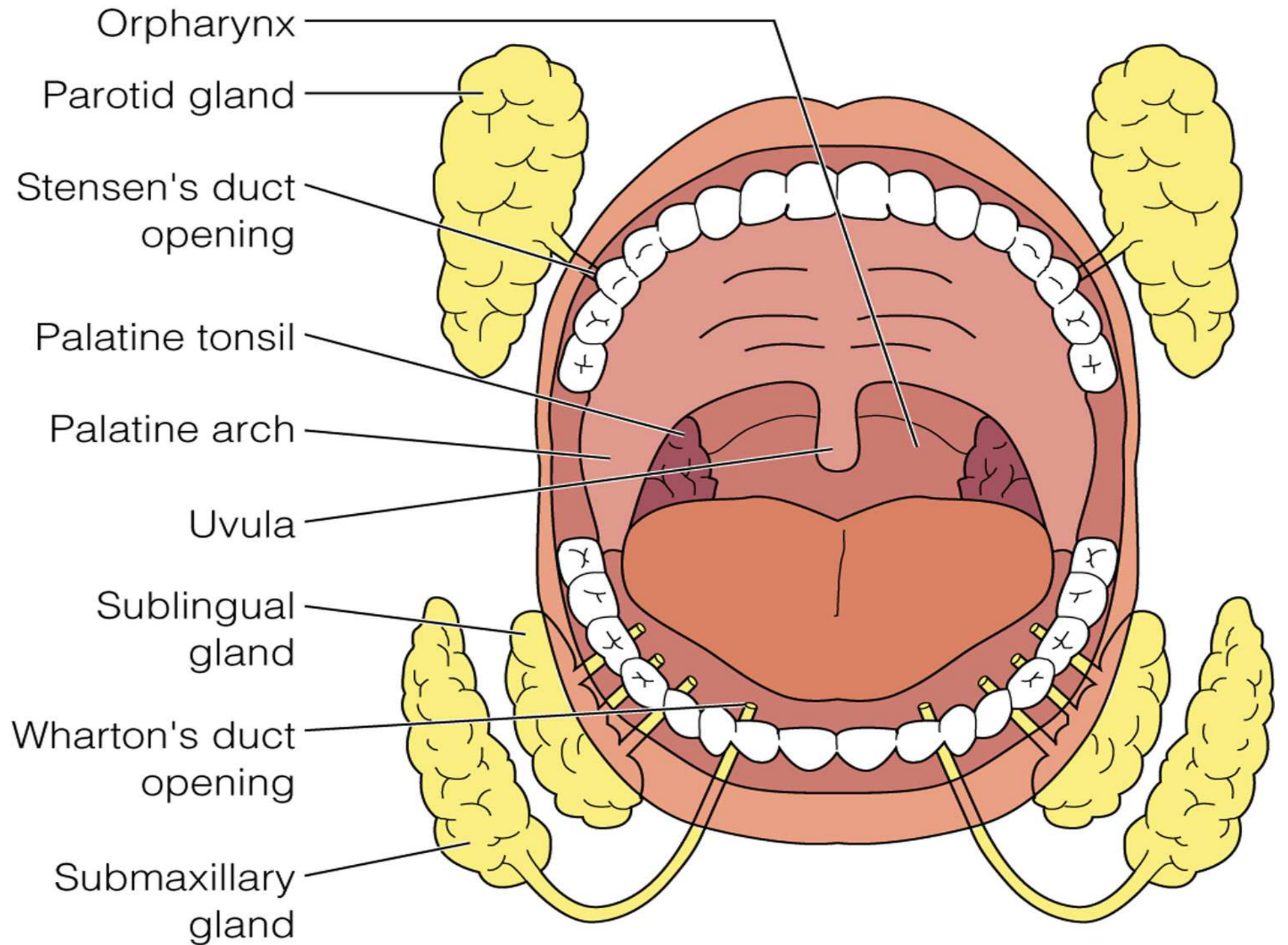


Nose and Sinuses

- Inspection, palpation, percussion
- Inspect color of mucosa, presence of discharge
 - There is a nasal speculum – most people don't like it
 - Assess for patency
- Palpate for tenderness
- Percuss for tenderness over frontal and maxillary sinuses (Procedure 28-8)

Mouth and Throat

- Inspection, palpation, auscultation
- Inspect and palpate lips, tongue, oral cavity, tonsils, pharynx (color, moisture), teeth, breath, presence of exudate, erythema, lesions, palate
 - Read differences in oral exam for elderly clients
 - Enlarged tonsils are graded
 - Grade 1 – wnl
 - Grade 2 – tonsils b/w pillars and uvula
 - Grade 3 – tonsils touching uvula
 - Grade 4 – tonsils touching each other (kissing tonsils)



Throat and Neck

- Inspect and palpate neck for trachea (should be at midline), thyroid, lymph nodes
- Auscultate carotids for bruits (bell)
 - If bruit is heard, palpate for carotid thrill
 - Palpate one side at a time
- Perform ROM on neck (active and passive)

Occipital

Postauricular

Preauricular

Sternocleidomastoid muscle

Submandibular

Submental

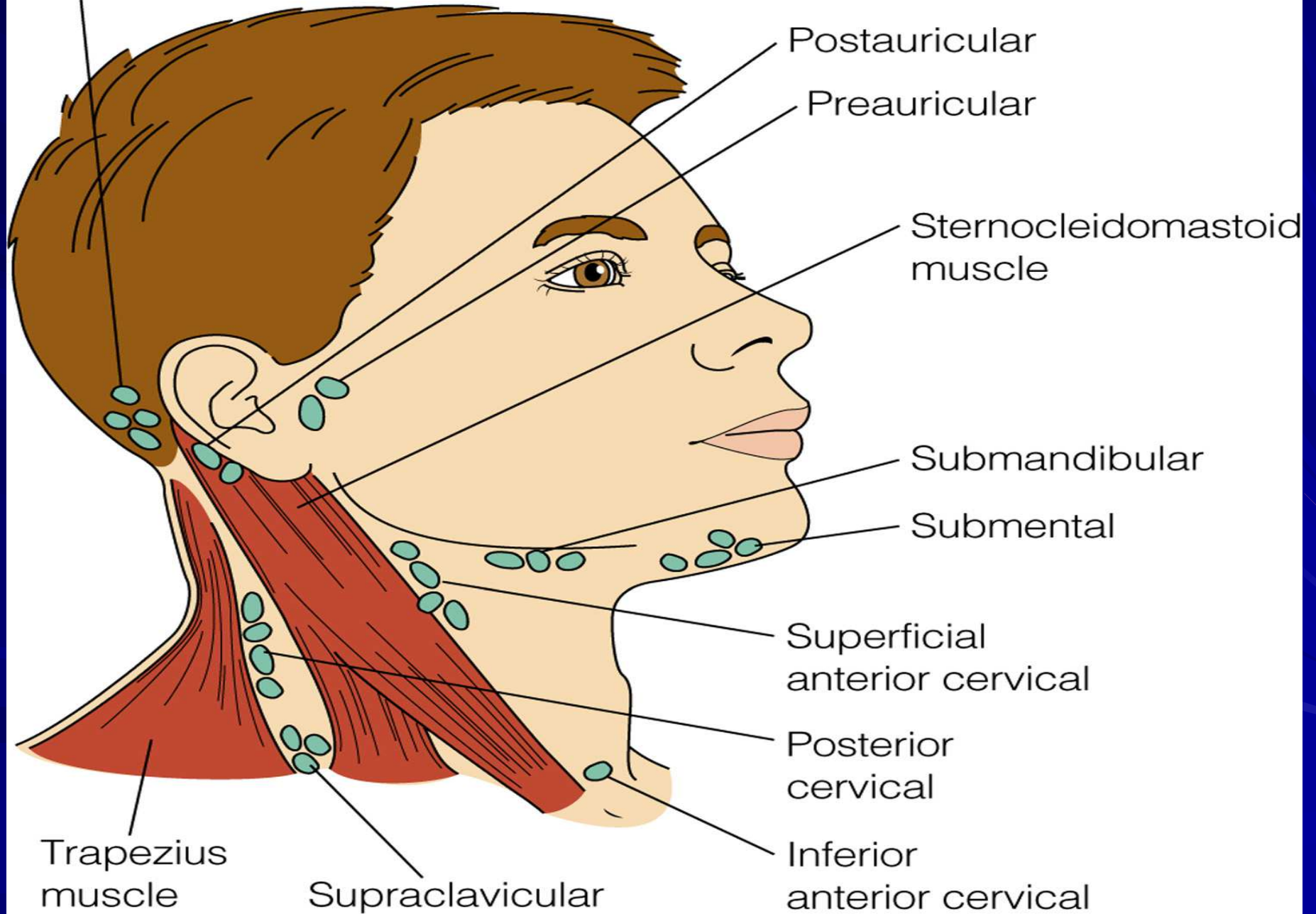
Superficial anterior cervical

Posterior cervical

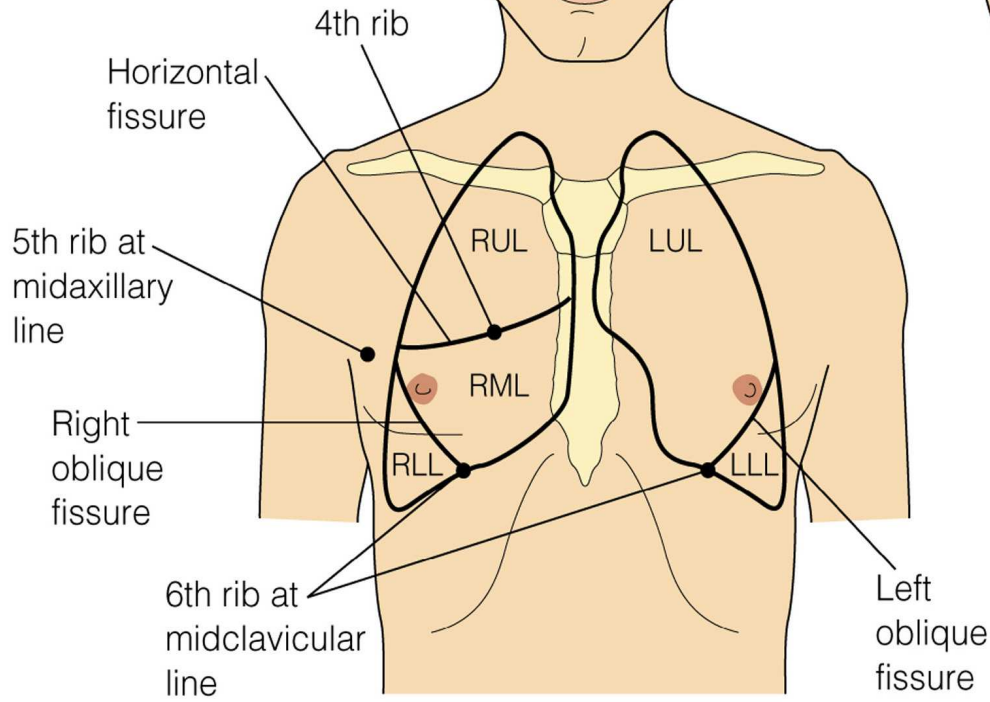
Inferior anterior cervical

Trapezius muscle

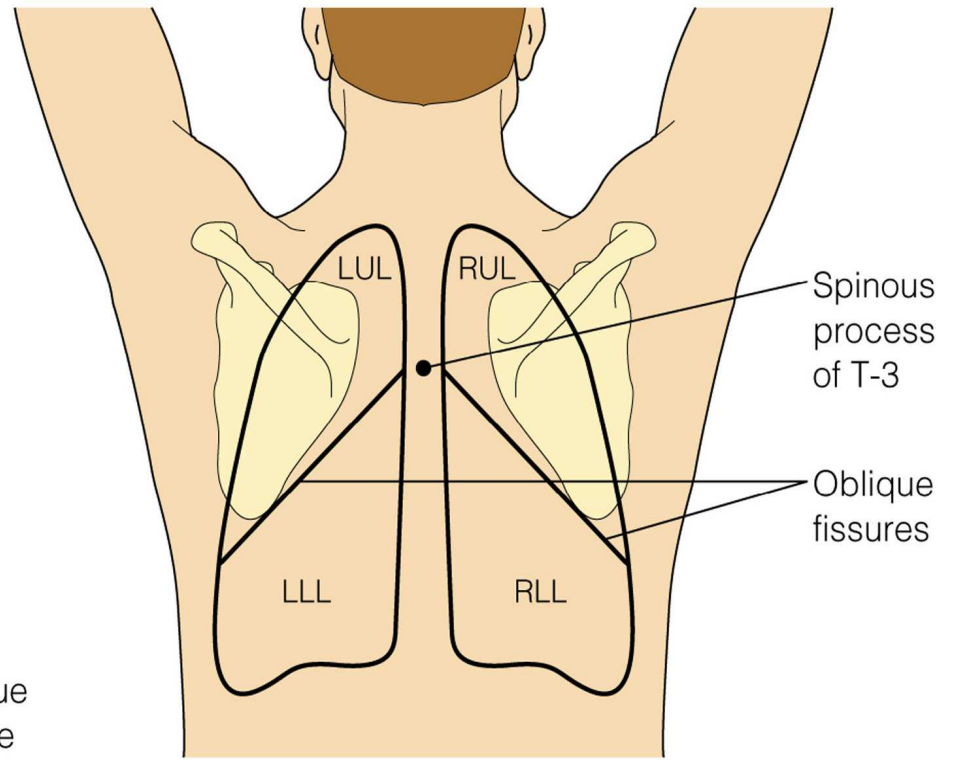
Supraclavicular



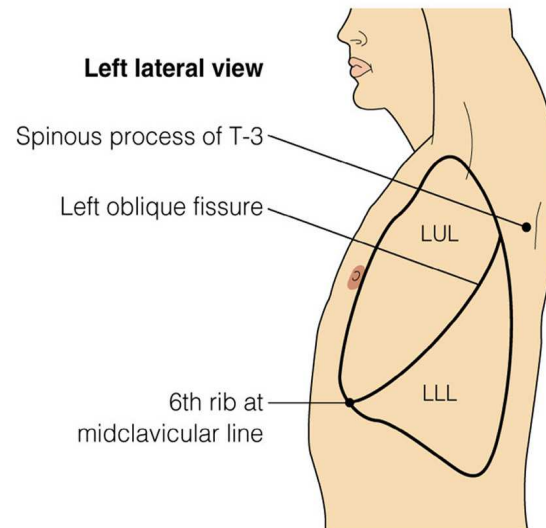
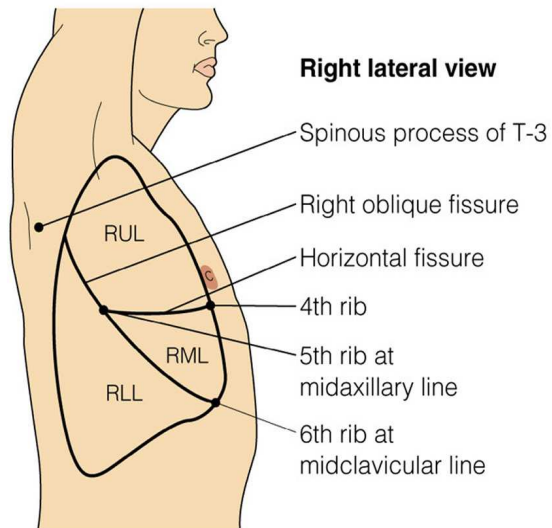
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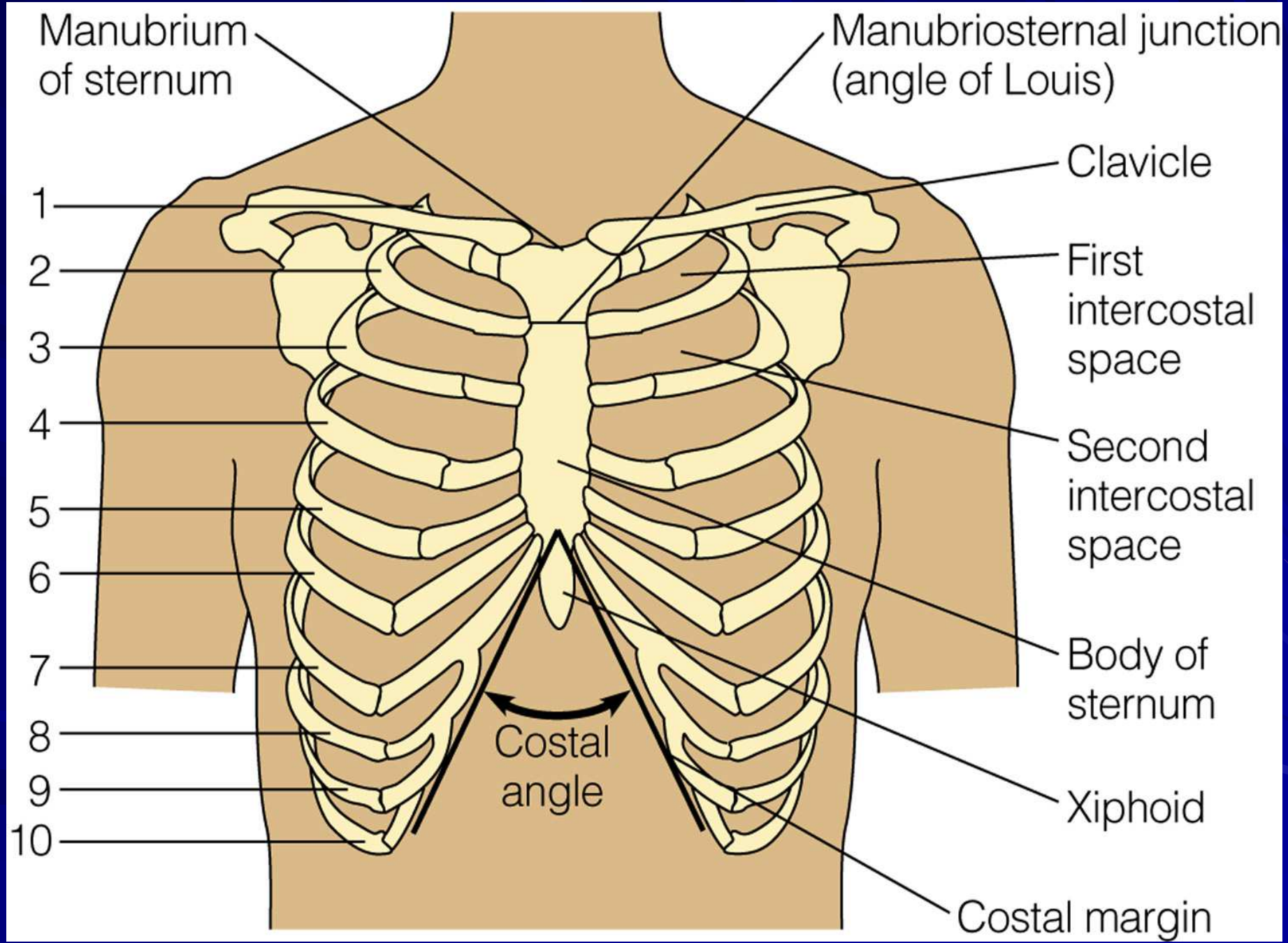
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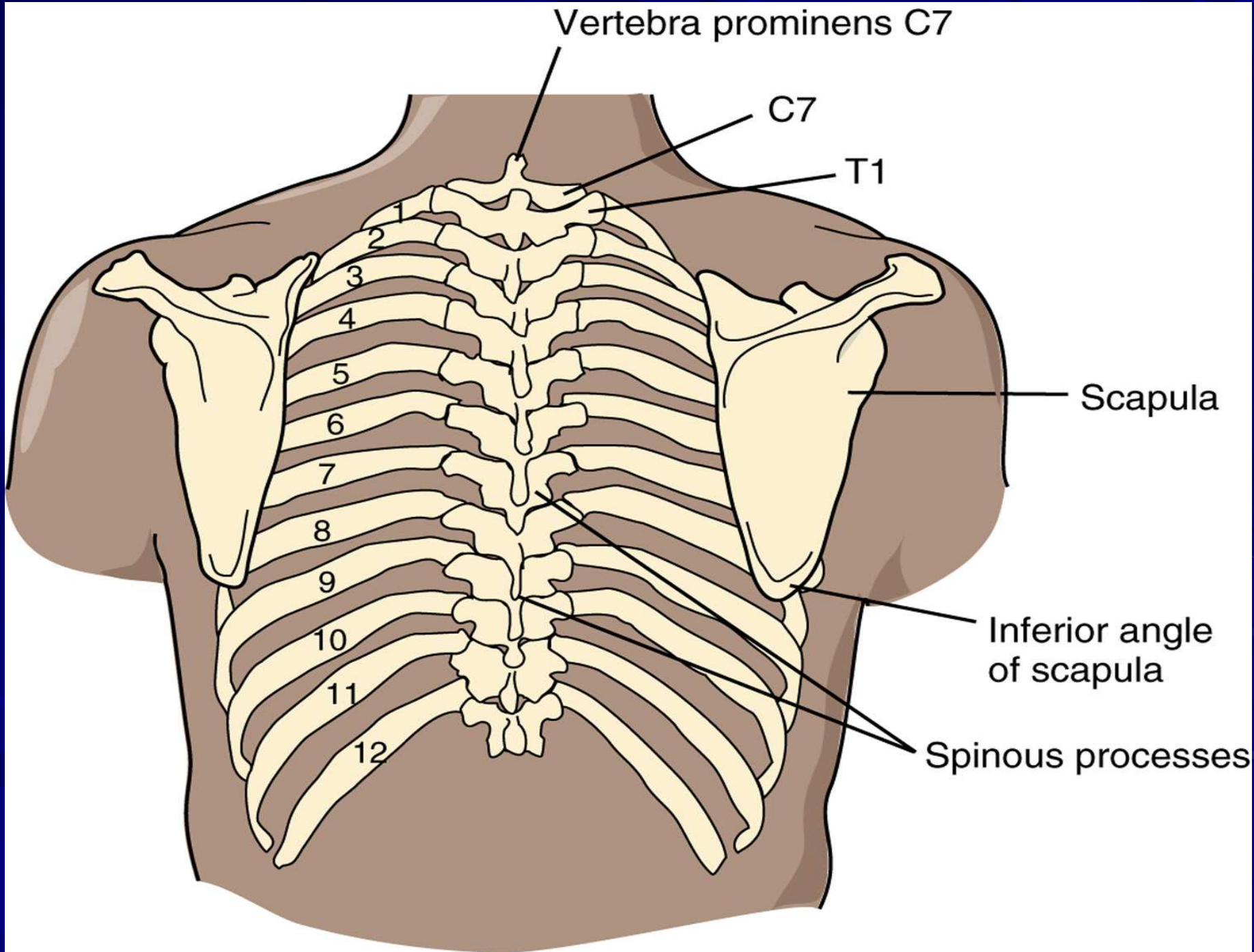


C



- Assess size and shape of thorax
 - Look for deformities (Fig. 28-52, p. 574)
 - Barrel chest from asthma or COPD
- Presence of supernumerary nipples
- For efficiency, you usually assess posterior chest first
- Intercostal spaces (ICS) are names according to the rib they lie beneath
 - 4th rib lies superior to 4th ICS
 - Posterior, you have to count spinous processes to name ribs and ICSs





Lungs

- Inspect, Palpate, Percuss (normal note is resonance), Auscultate (normal is clear and equal bilaterally)
 - Auscultate using diagram
- Assess and document respiratory rate, rhythm, and effort

Respiratory Terminology

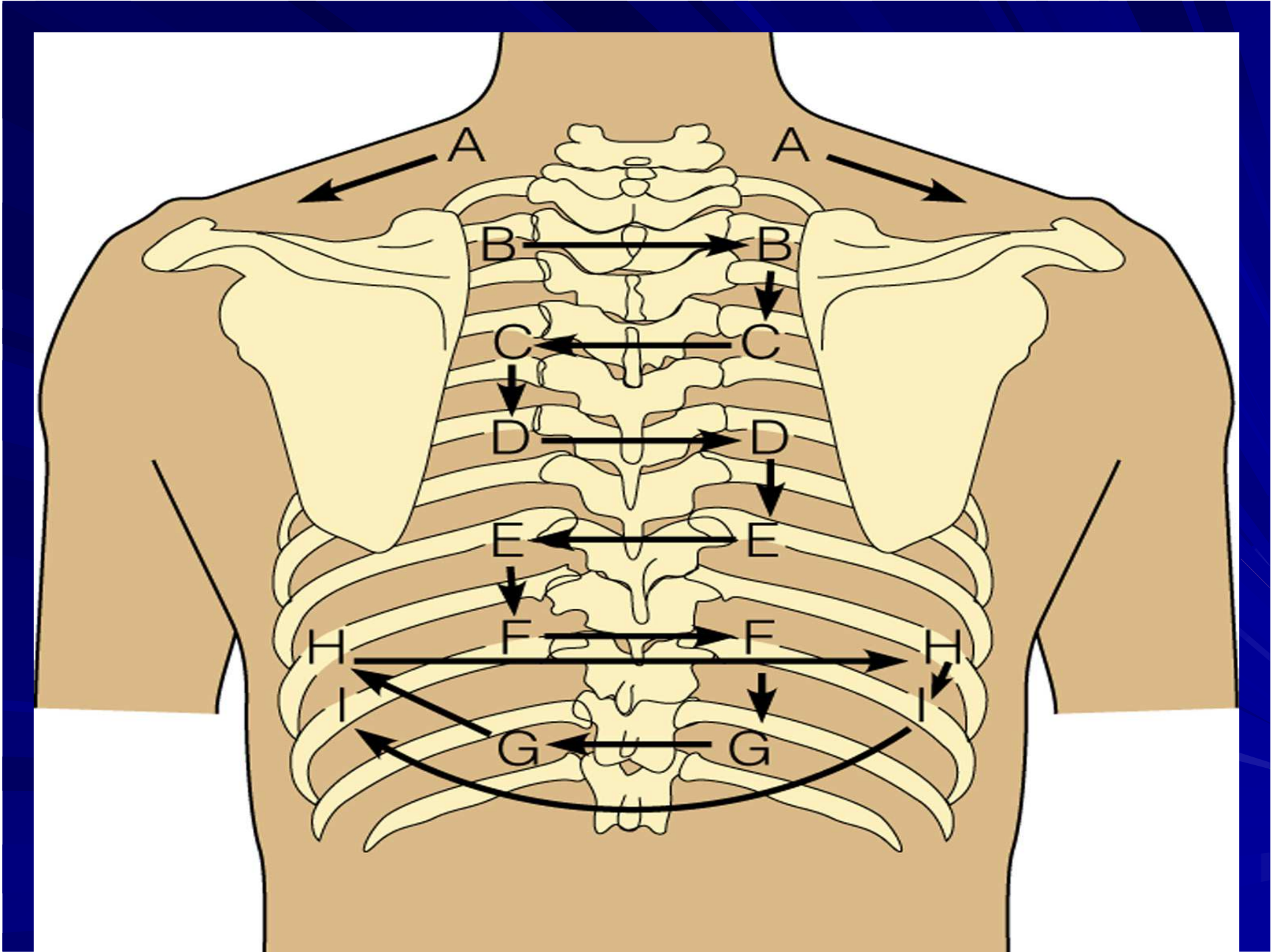
- Eupnea
- Tachypnea
- Bradypnea
- Apnea
- Hyperventilation
- Hypoventilation
- Dyspnea

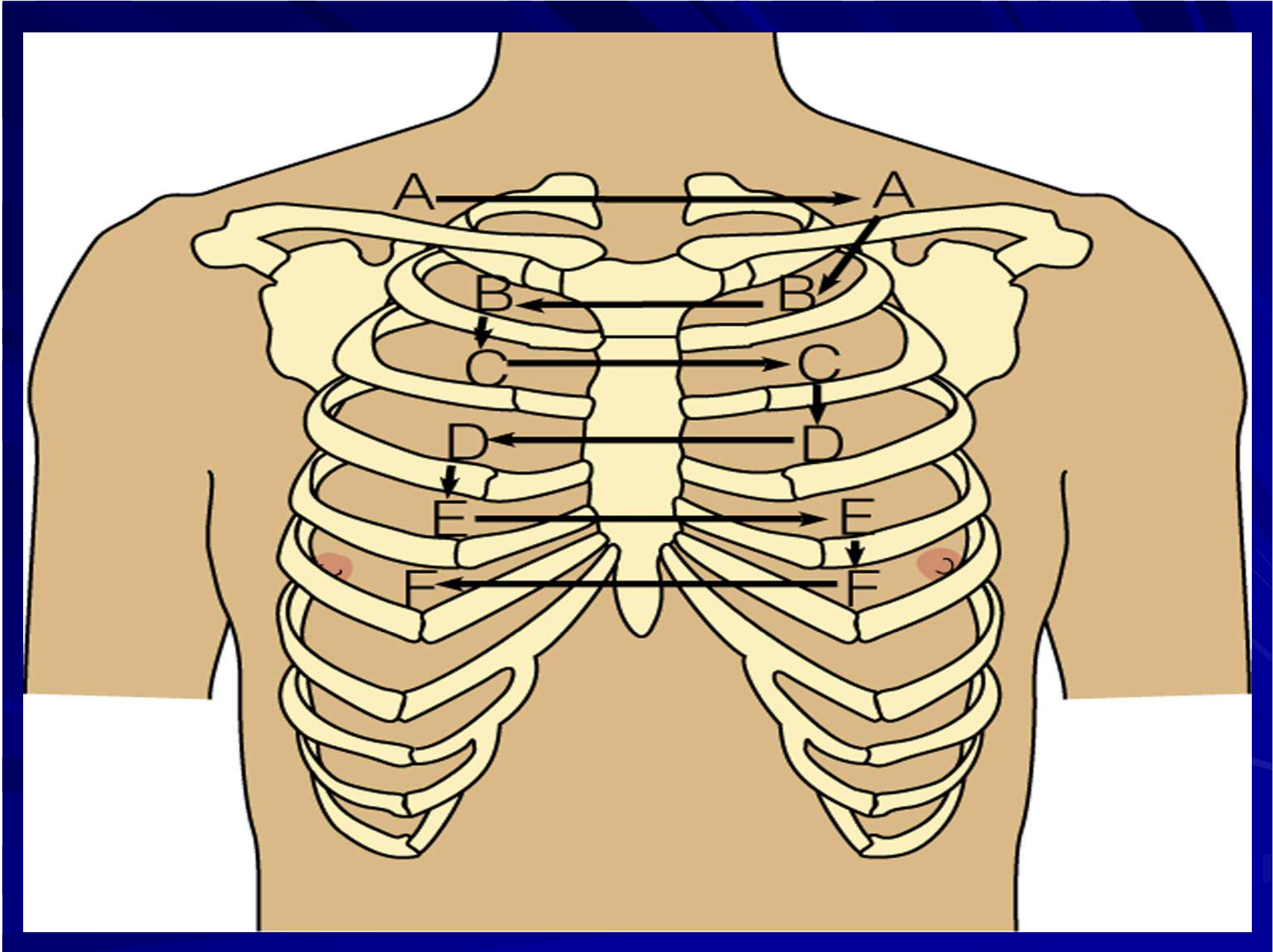
Respiratory Warning Signs

- Anxious expression
- Suprasternal & intercostal retractions
- Nasal flaring
- Circumoral cyanosis
- Hyperexpanded chest
 - ALWAYS REMEMBER YOUR ABCs

Breath Sounds

- Auscultate using diaphragm, use a systematic approach, compare each side to the other, document when and where sounds are heard
- Normal breath sounds:
bronchovesicular, bronchial, and vesicular
 - Abnormal breath sounds are called adventitious sounds





Breath Sounds

- Stridor - may be heard without stethoscope, shrill harsh sound on inspiration d/t laryngeal obstruction
- Wheeze - may be heard with or without stethoscope (document which), high-pitched squeaky musical sound; usually not changed by coughing; Document if heard on inspiration, expiration, or both; May clear with cough
 - Noise is caused by air moving through narrowed or partially obstructed airway
 - Heard in asthma or FBA

Breath Sounds

- Crackles - heard only with stethoscope (formerly called rales): fine, medium, coarse short crackling sounds (think hair); May clear with cough
 - Most commonly heard in bases; easier to hear on inspiration (but occurs in both inspiration and expiration)

Breath Sounds

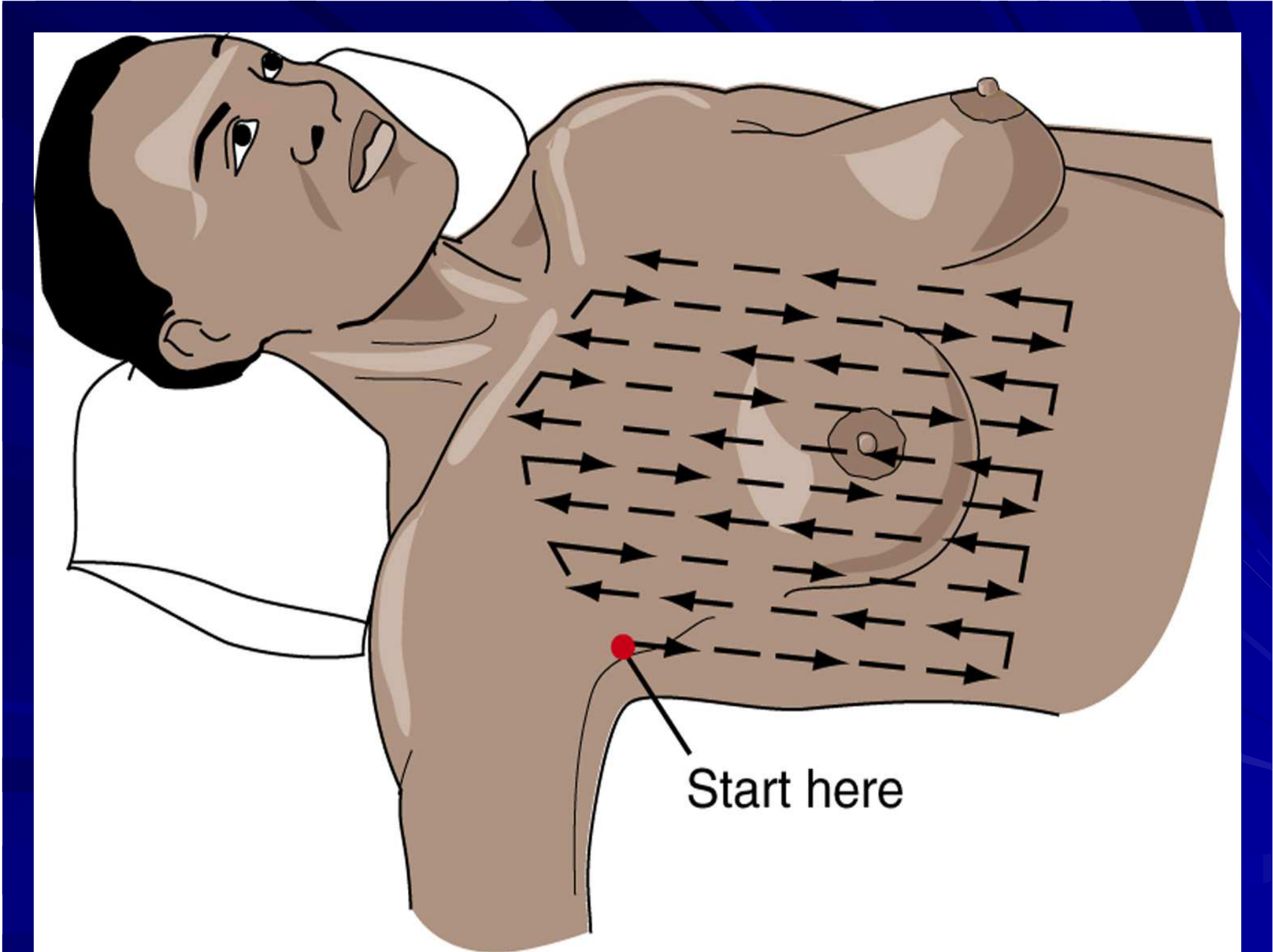
- Gurgles - heard only with stethoscope (formerly called rhonchi): Low pitched, coarse wheezy or whistling sound - usually more pronounced during expiration when air moves through thick secretions or narrowed airways – sounds like a moan or snore; best heard on expiration (but occur both in and out)

- Friction rub – Grating, creaking, or rubbing sound heard on both inspiration and expiration; not relieved by coughing; due to pleural inflammation
- Document breath sounds as clear, decreased or absent, compare right to left, and describe type and location of any adventitious sounds
 - CTAB or BBS cl + =
 - **NOT** BS clear (BS could be bowel sounds .)

Breasts and Axillae

■ Inspection and palpation

- Instruct female clients to perform BSE q month
- Men have some glandular tissue beneath nipple; women have glandular tissue throughout breast and into axilla
 - Largest portion of glandular tissue in women in in upper outer quadrant
 - See breast health guidelines
- Inspect for symmetry, contour (shape), look for any areas of hyperpigmentation, retraction or dimpling, edema
- Palpate breasts, areolae, nipples and axillary lymph nodes in both men and women
 - Be sure to include tail of Spence



Start here

Any Questions?



Thank You