

Patient Assessment

May 2022 CEU

Objectives

- Scene Size-Up
- Primary Assessment
- Effective Communication
- History Taking
- Secondary Assessment
- Patient Monitoring

Scene Size-Up

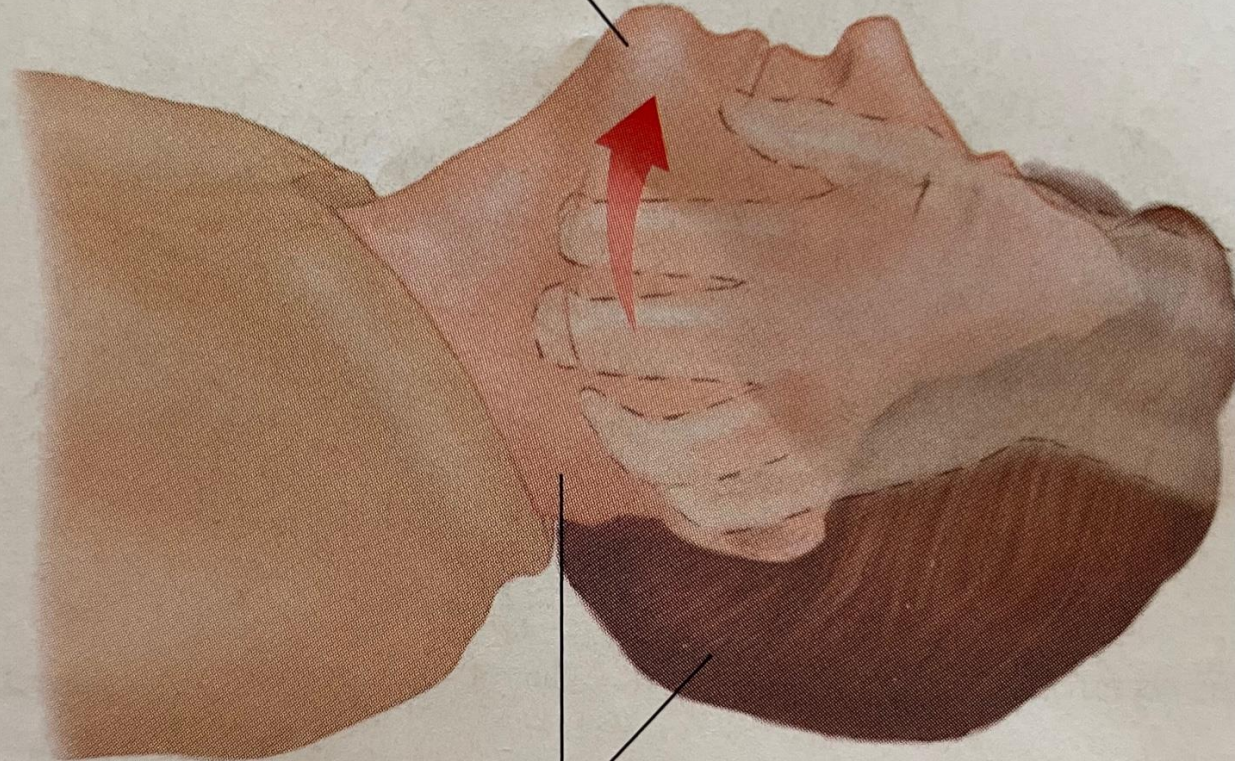
- On-going process, not once and done
- Dispatch
- Standard Precautions/PPE
- Scene Safety
- Resource Determination
- Location of Patients
- Mechanism of Injury/Nature of Illness

Scene Size-Up Example

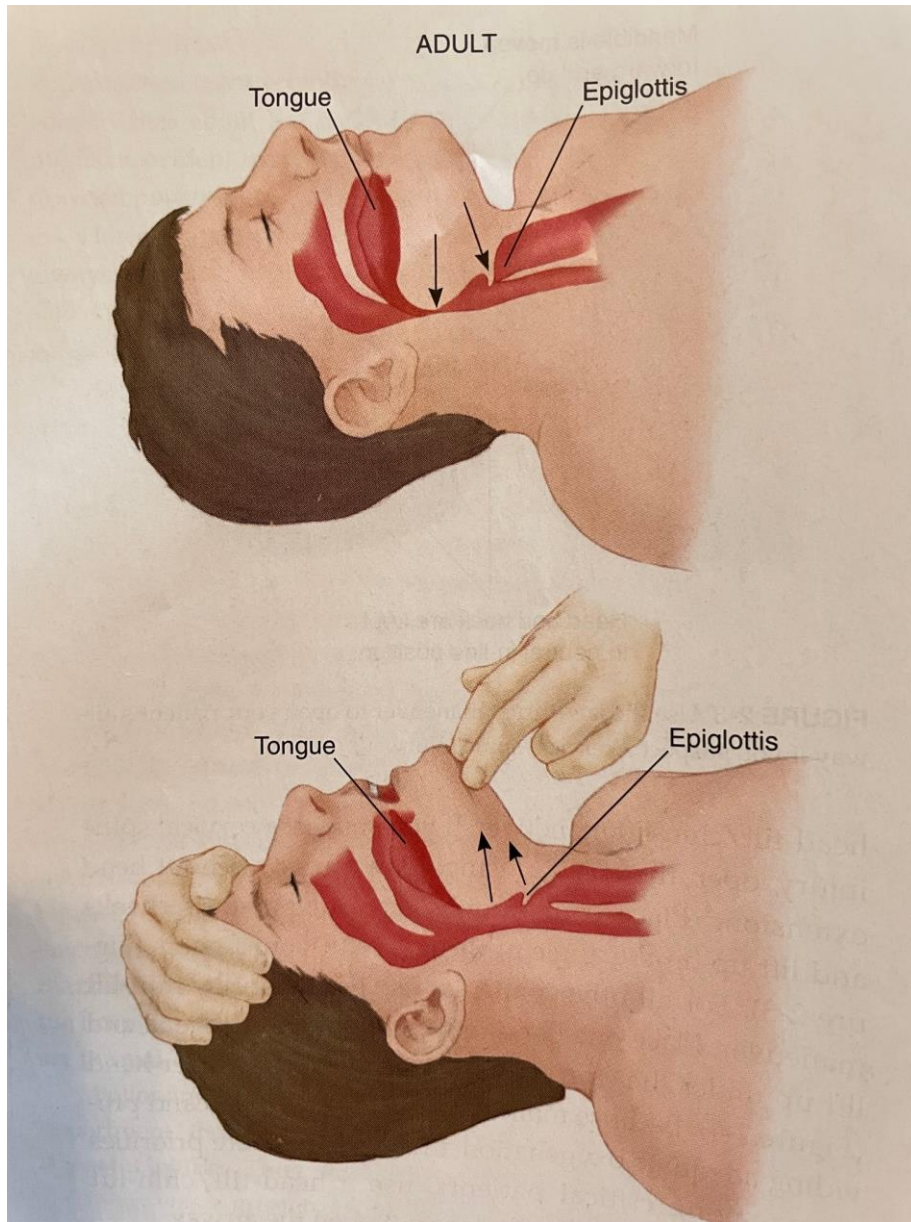
Primary Assessment

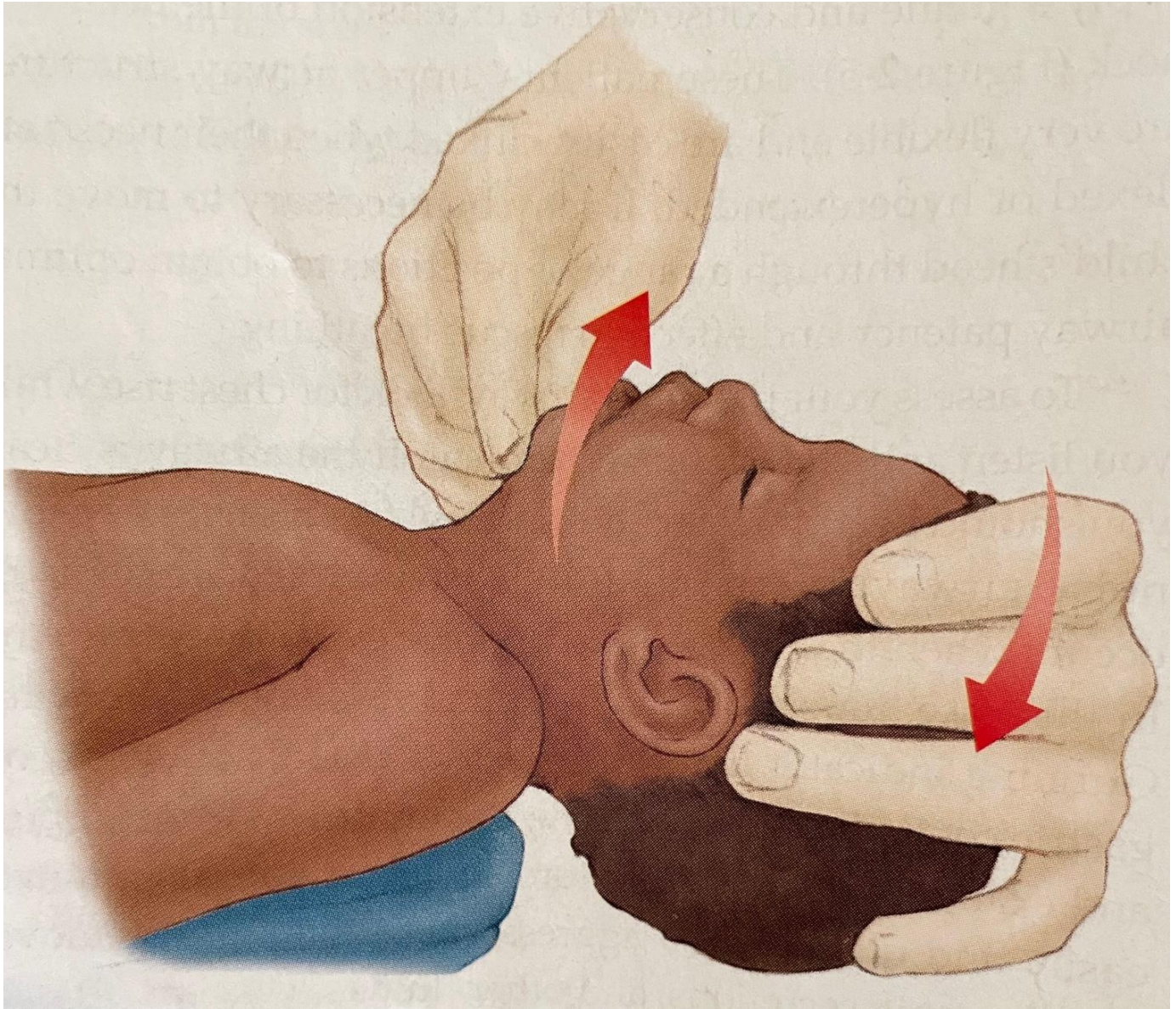
- Form a General Impression
- Stabilize the Cervical Spine
- Assess Mental Status
 - AVPU
- Assess the Airway
- Assess Breathing
- Assess Circulation
- Priority Determination

Mandible is moved forward and up.



Head and neck are kept in neutral in-line position.





Effective Communication

- Build Trust and Rapport
- Techniques
- Interviewing a Patient
- Special Needs and Challenges
- Transferring Patient Care

History Taking

- Develop and differential diagnosis!
- Preliminary Data
- Chief Complaint vs. Primary Problem
- Present Problem
 - OPQRST-ASPN
- Past Medical History
 - SAMPLE
- Family/Social History

History Taking

- Review of Body Systems (ROS)
 - General
 - HEENT
 - Chest and Lungs
 - Heart and Blood Vessels
 - Lymph Nodes
 - Gastrointestinal System
 - Genitourinary System
 - Genitalia
 - Musculoskeletal System
 - Neurologic System
 - Hematologic System
 - Endocrine System
 - Psychiatric History

History Taking

Clinical Reasoning

Secondary Assessment

- Physical Exam Techniques
 - Inspection
 - Palpation
 - Percussion
 - Auscultation

Secondary Assessment

- The General Survey
 - Mental Status
 - Level of Consciousness
 - Appearance and Behavior
 - Speech and Language
 - Mood
 - Thoughts and Perceptions
 - Insight and Judgement
 - Memory and Attention

Secondary Assessment

- The General Survey
 - General Appearance
 - Signs of Distress
 - Apparent State of Health
 - Vital Statistics
 - Broselow tape!
 - General Stature
 - Sexual Development
 - Skin Color and Obvious Lesions
 - Posture, Gait, and Motor Activity
 - Dress, Grooming, and Personal Hygiene
 - Breath or Body Odors
 - Facial Expressions

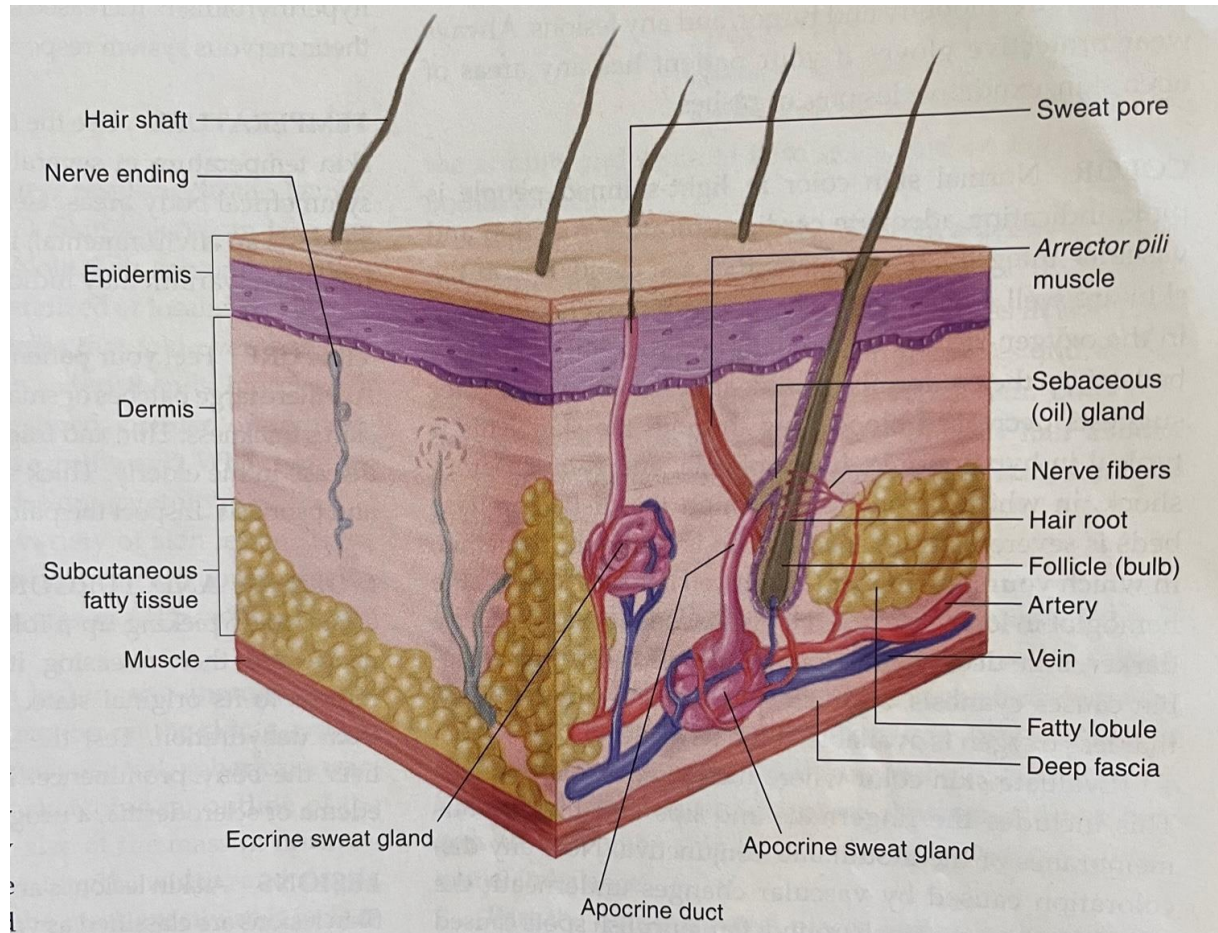
Secondary Assessment

- The General Survey
 - Vital Signs
 - Respiration
 - Rate
 - Effort
 - Quality
 - Pulse
 - Rate
 - Rhythm
 - Quality
 - Blood Pressure
 - Body Temperature
 - Capillary Refill
 - Oral Mucosa Color



Anatomic Region Assessment

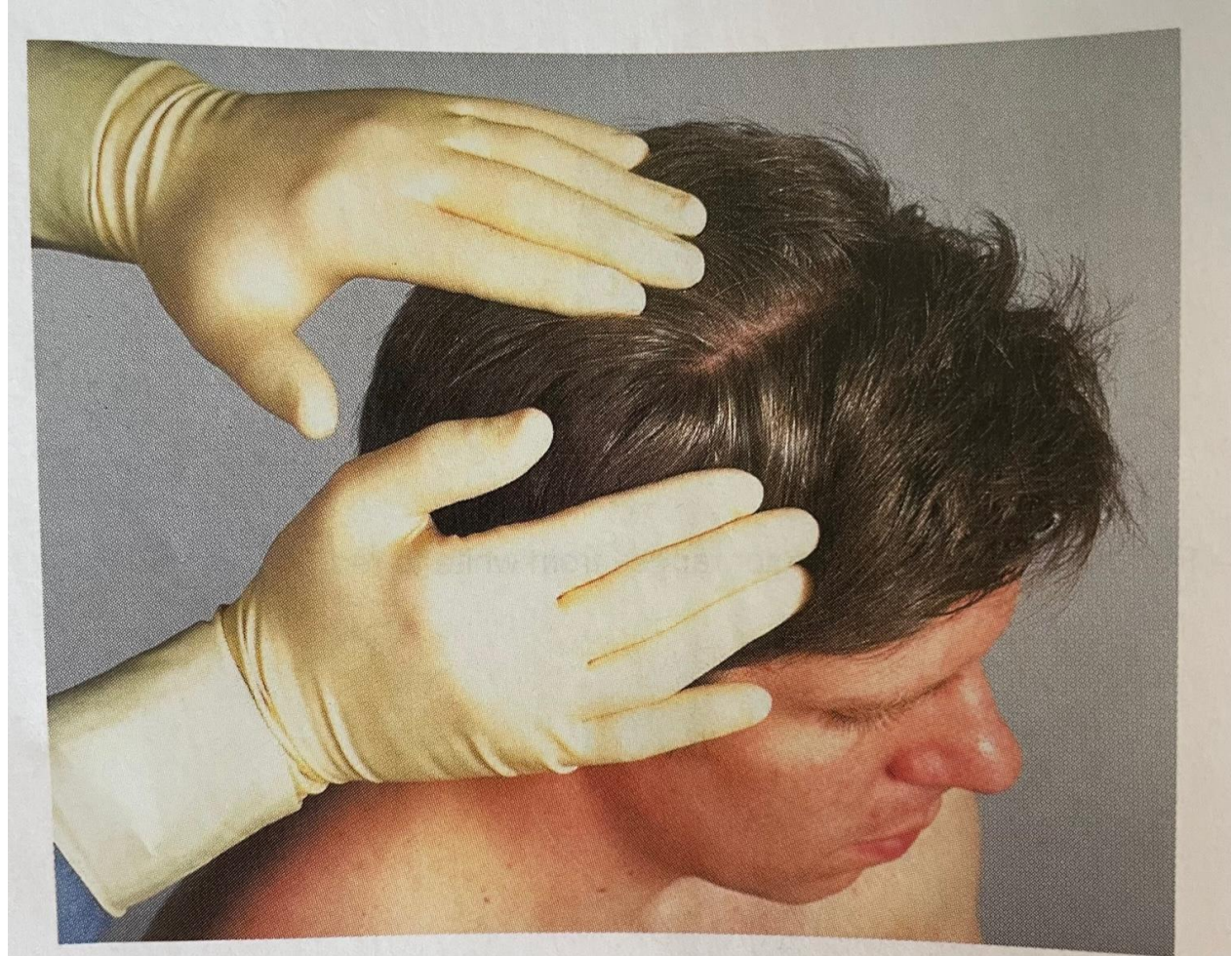
Skin



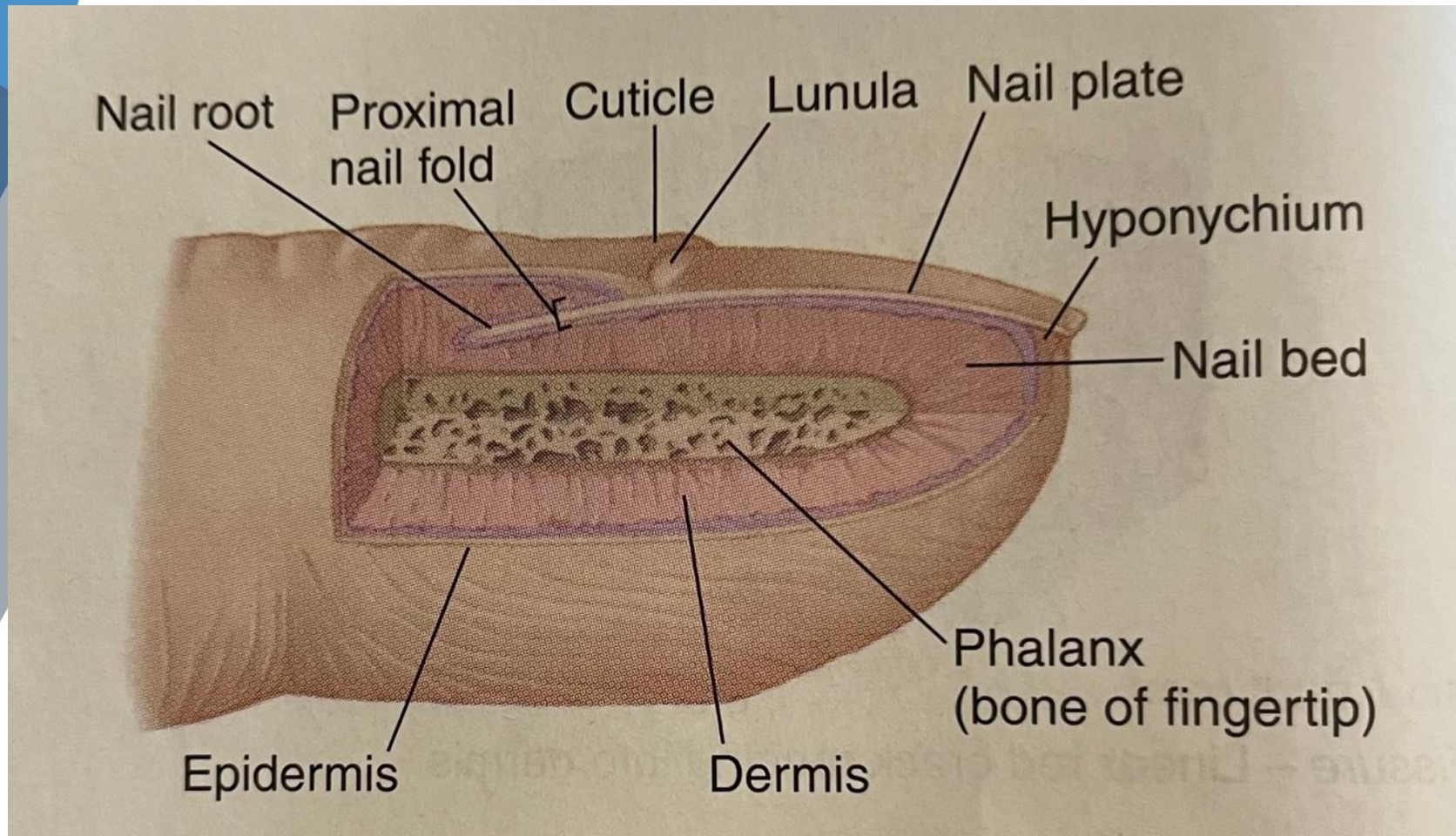
Skin Assessment

- Color
- Moisture
- Temperature
- Texture
- Mobility and Turgor
- Lesions

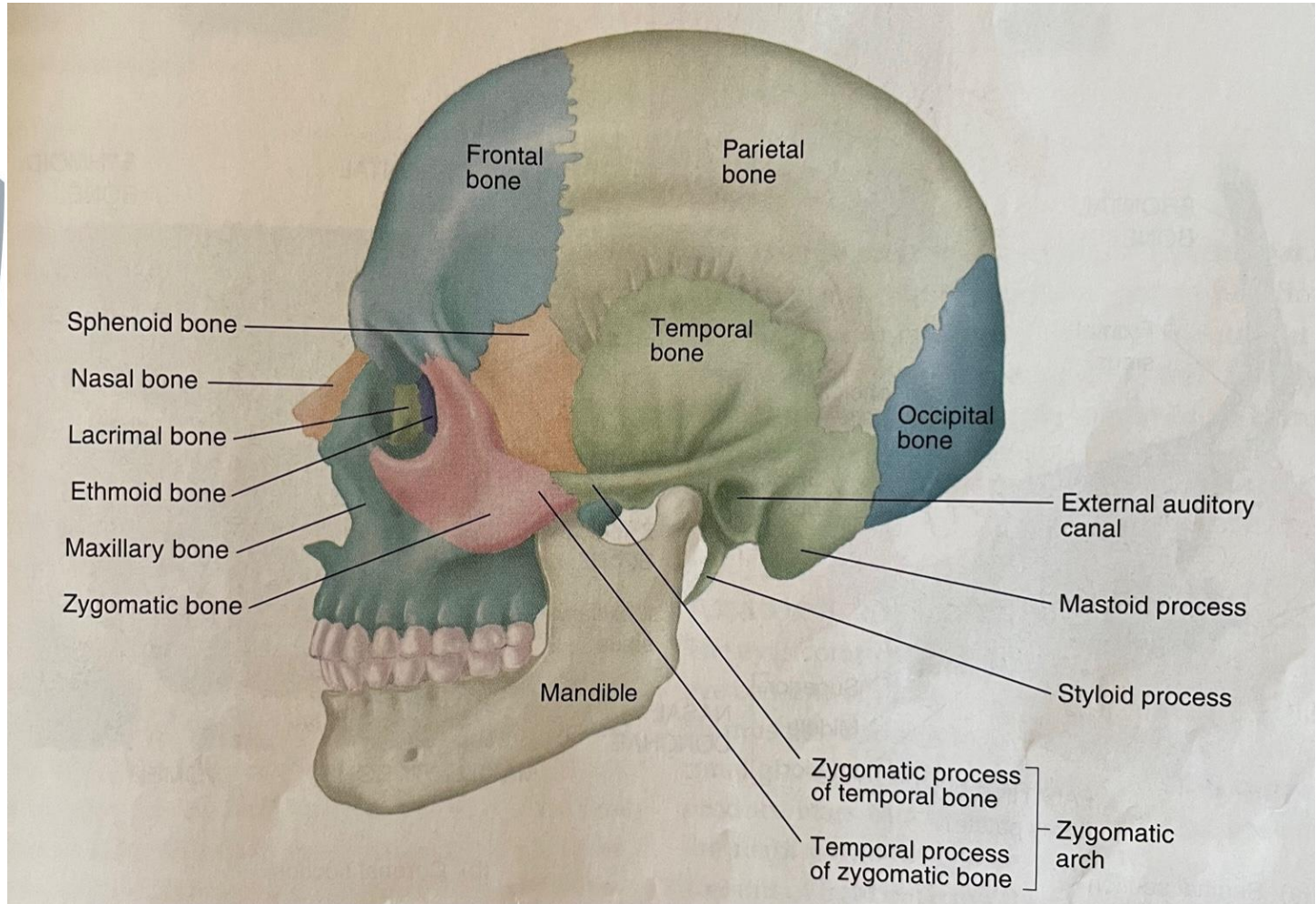
Hair Assessment



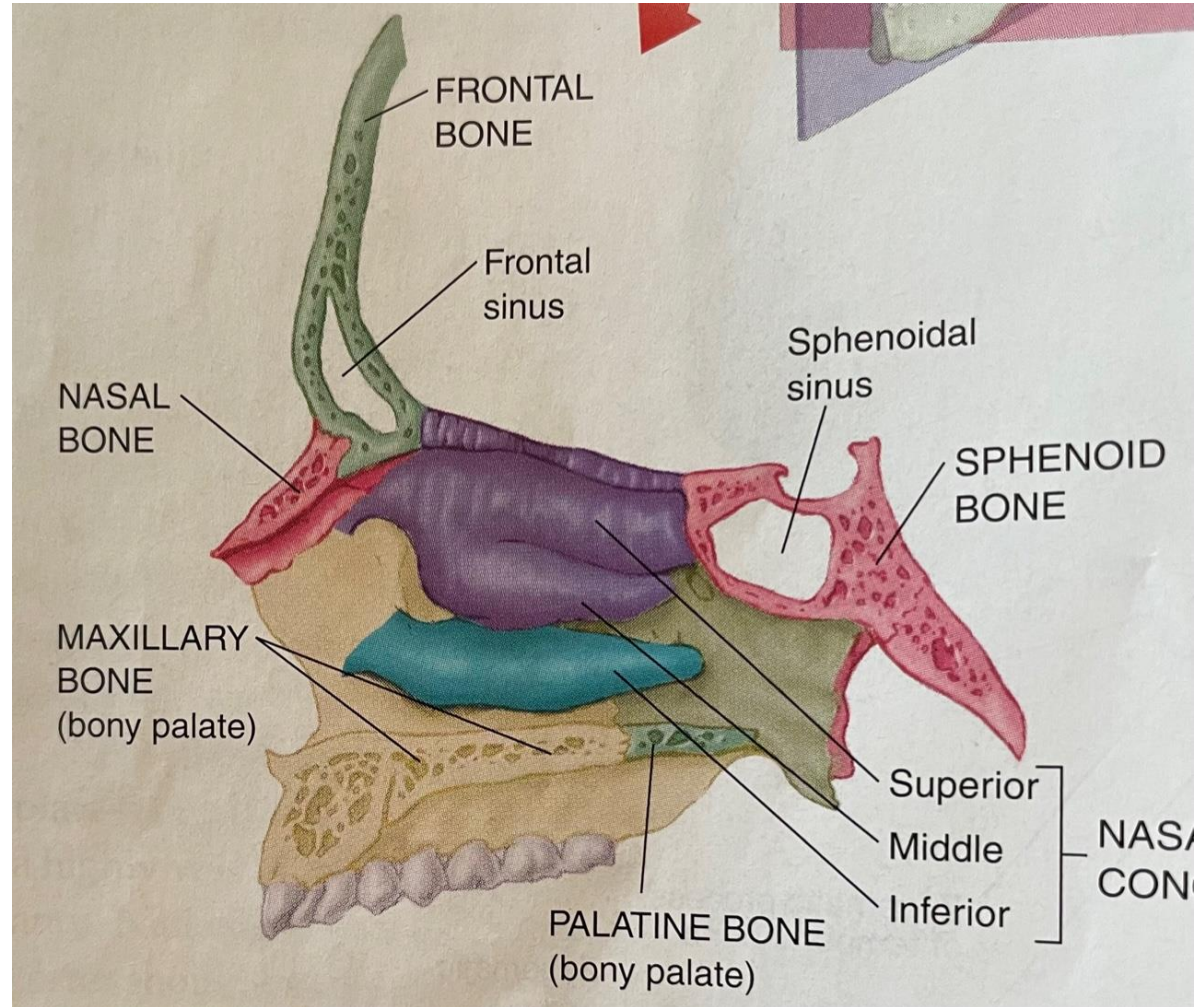
Nail Assessment



Head

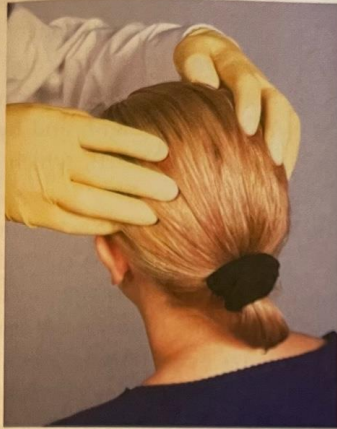


Head



Head Assessment

Procedure 5-2 Examining the Head



5-2a Palpate the cranium from front to back.



5-2b Inspect the mastoid process.



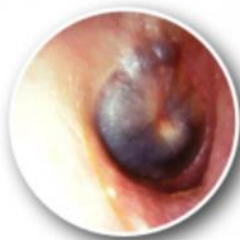
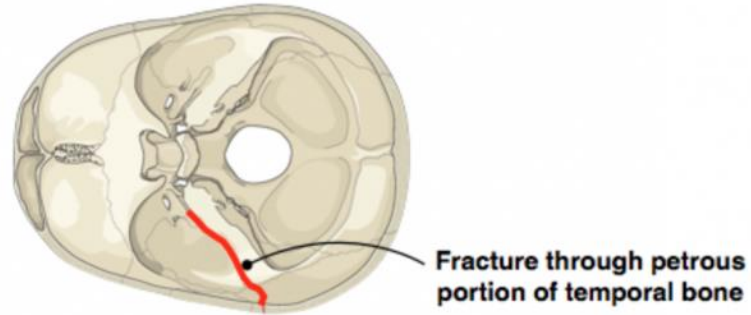
5-2c Palpate the facial bones.



5-2d Palpate the TMJ.

Head Assessment

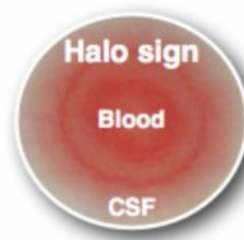
Basilar Skull Fracture



Hemotympanum

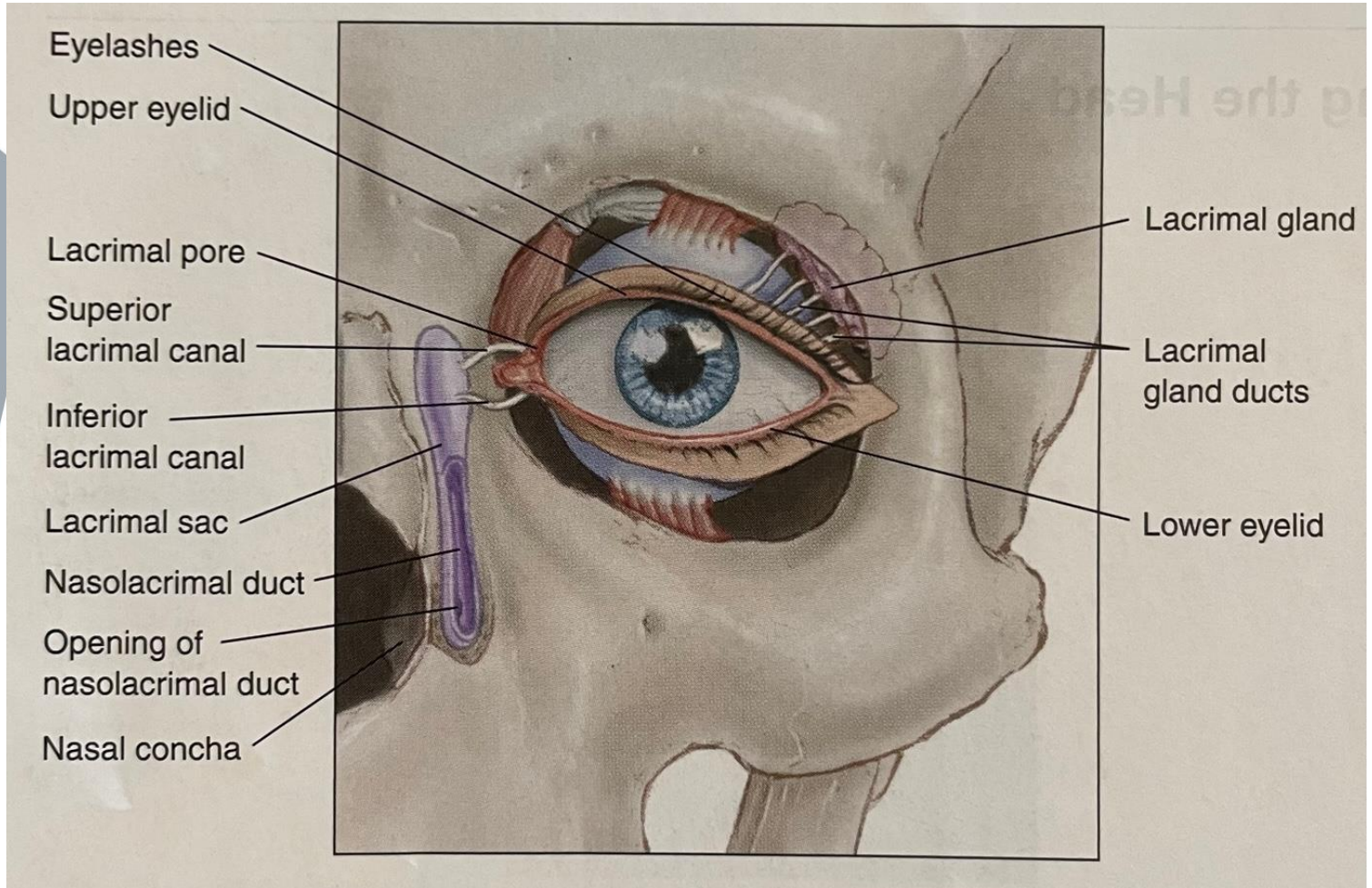


Postauricular ecchymosis (Battle sign)

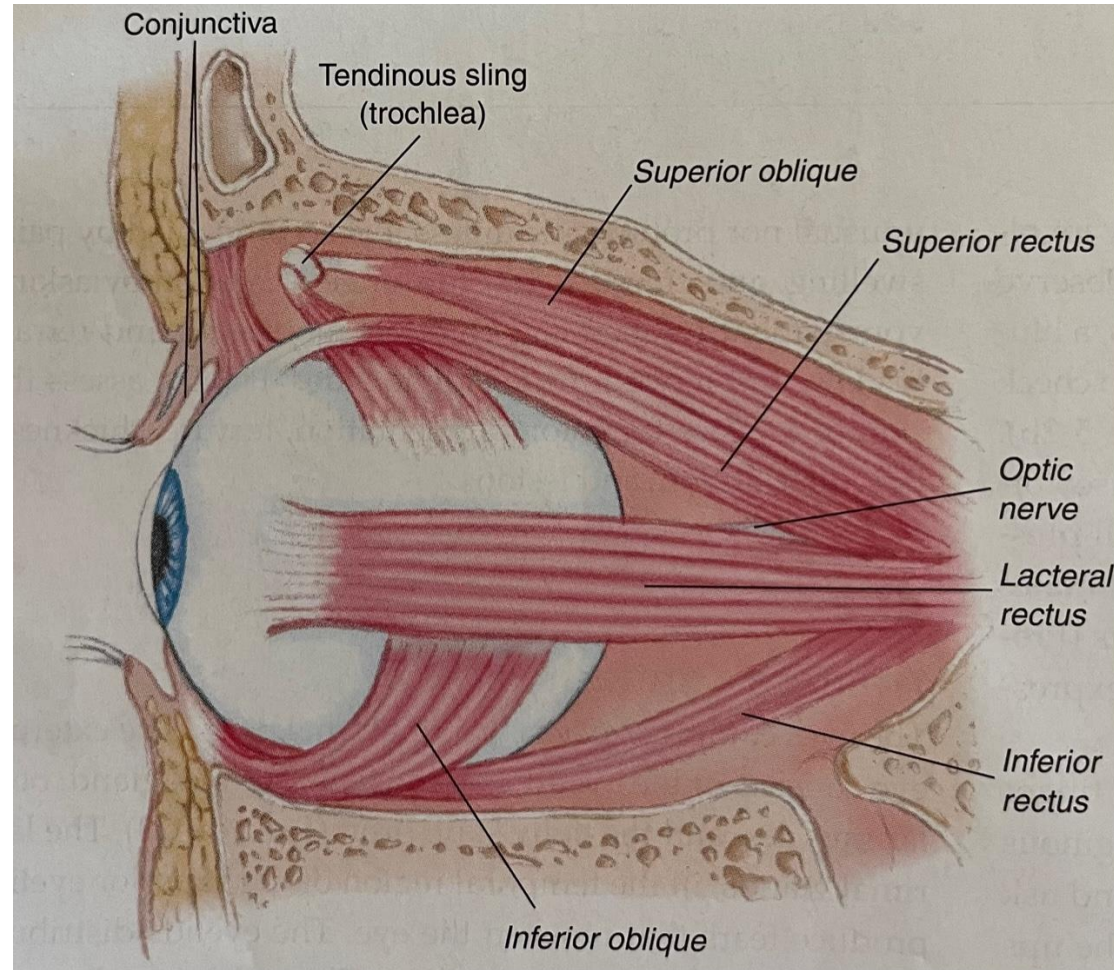


CSF Otorrhea

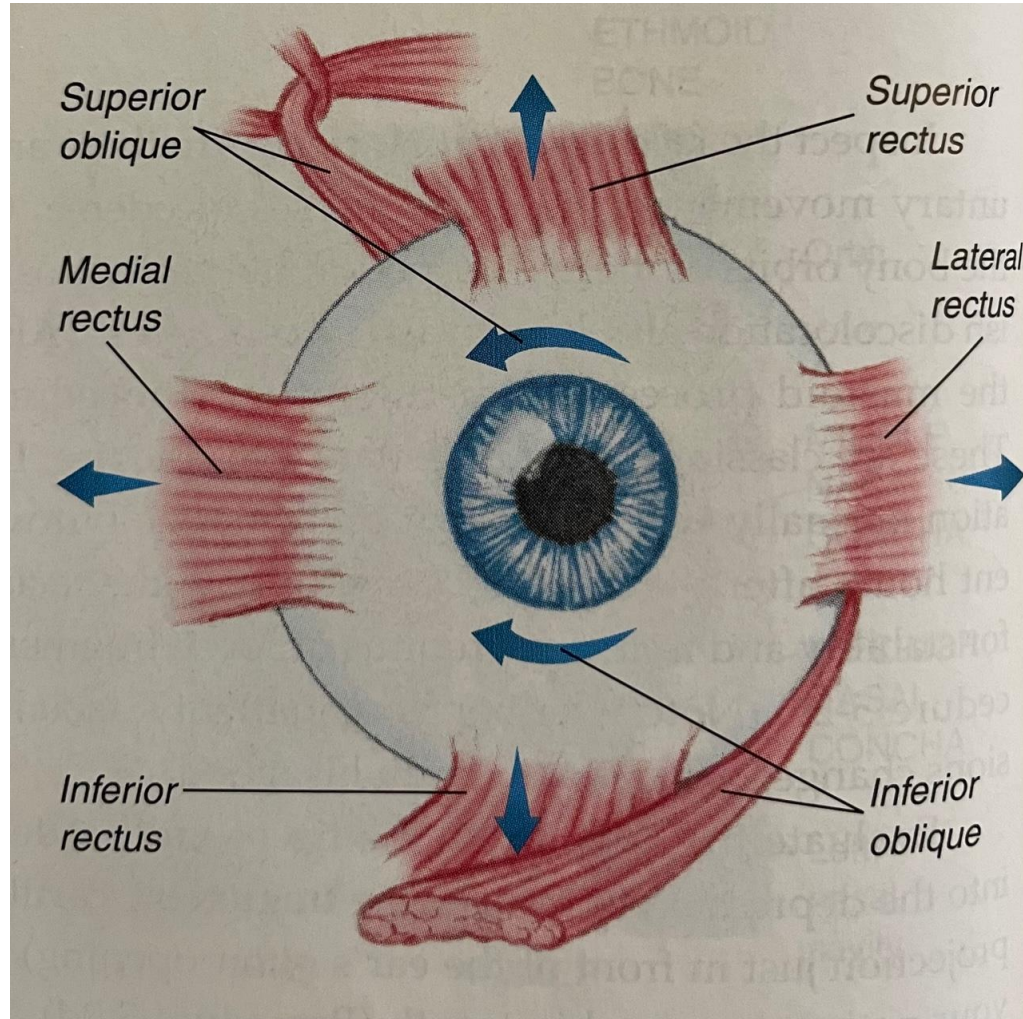
Eyes



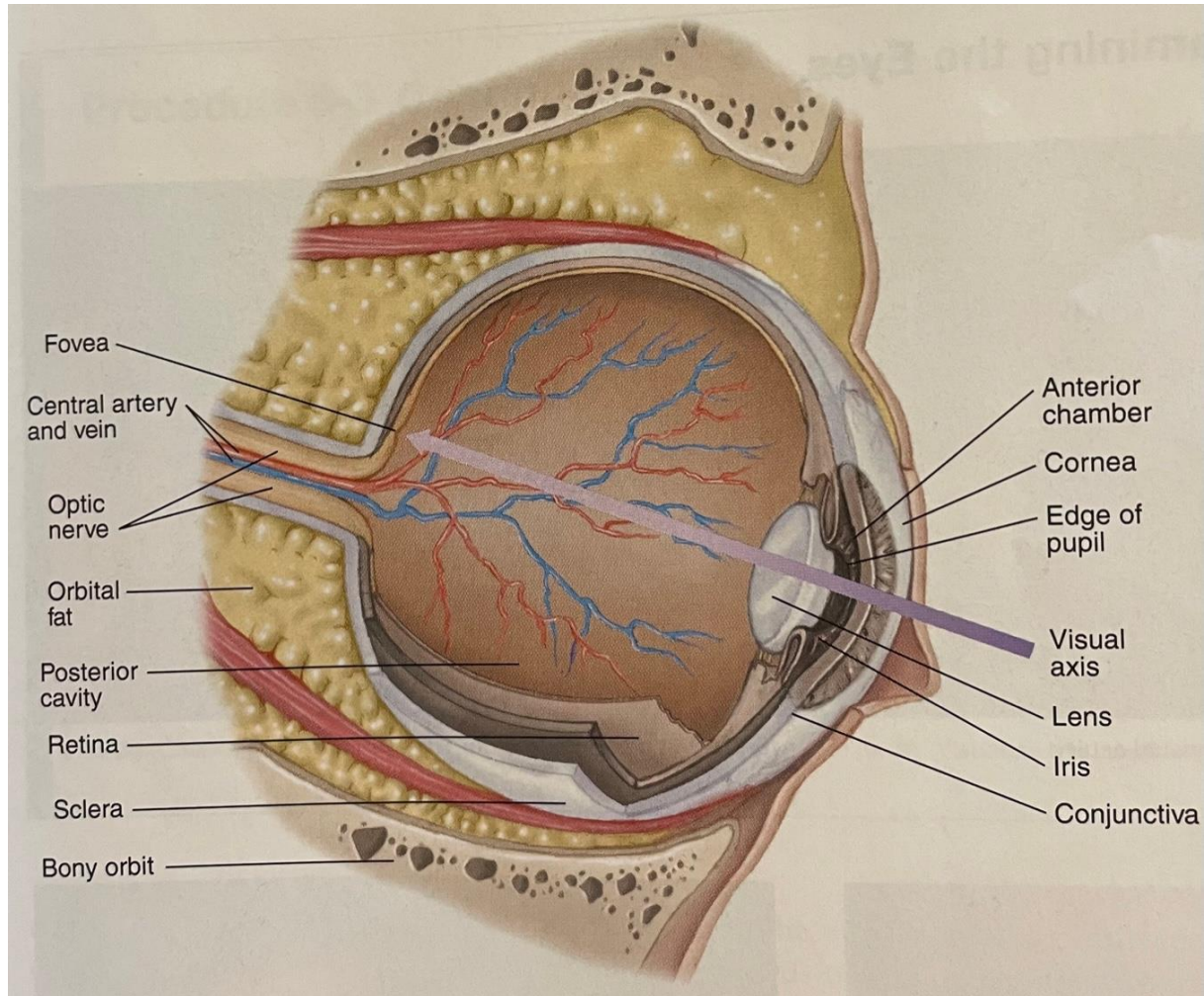
Eyes



Eyes













Eyes



Eye Assessment

VISUAL FIELD ABNORMALITIES

		Horizontal defect
		Blind eye
		Bitemporal hemianopsia
		Homonymous hemianopsia
		Homonymous quadrantic defect
Left	Right	

Eye Assessment



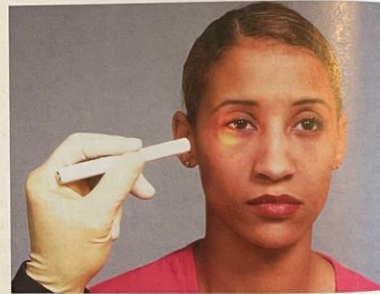
5-3a Use a visual acuity chart to test visual acuity.



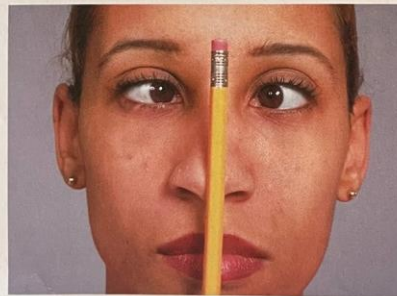
5-3b Test peripheral vision.



5-3c Inspect the external eye.



5-3d Test the pupil's reaction to light.



5-3e Test for accommodation.

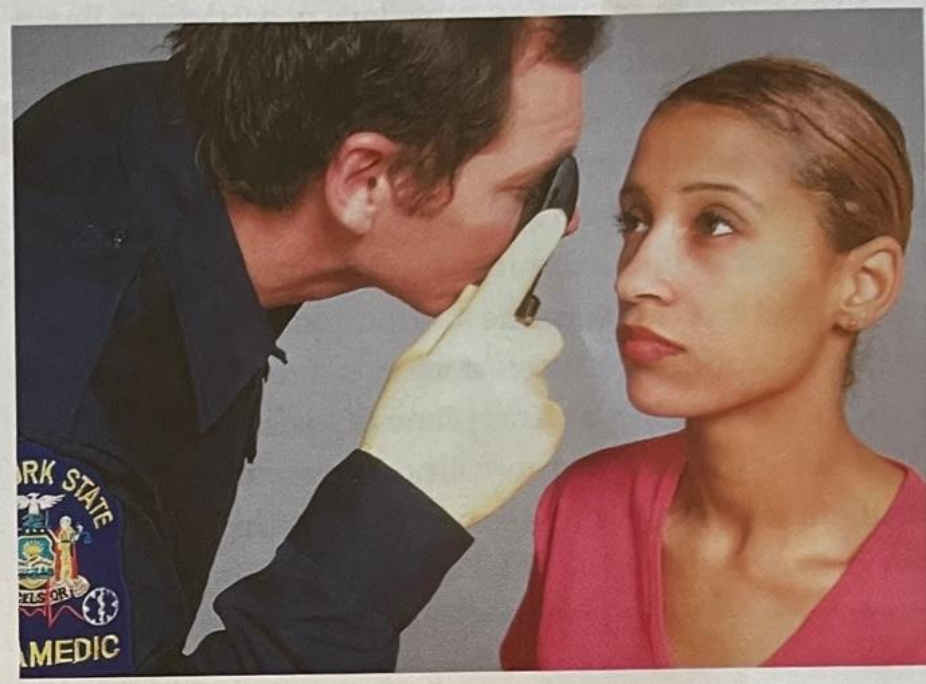


5-3f Move your finger in an H pattern to test your patient's extraocular muscles.

Eye Assessment



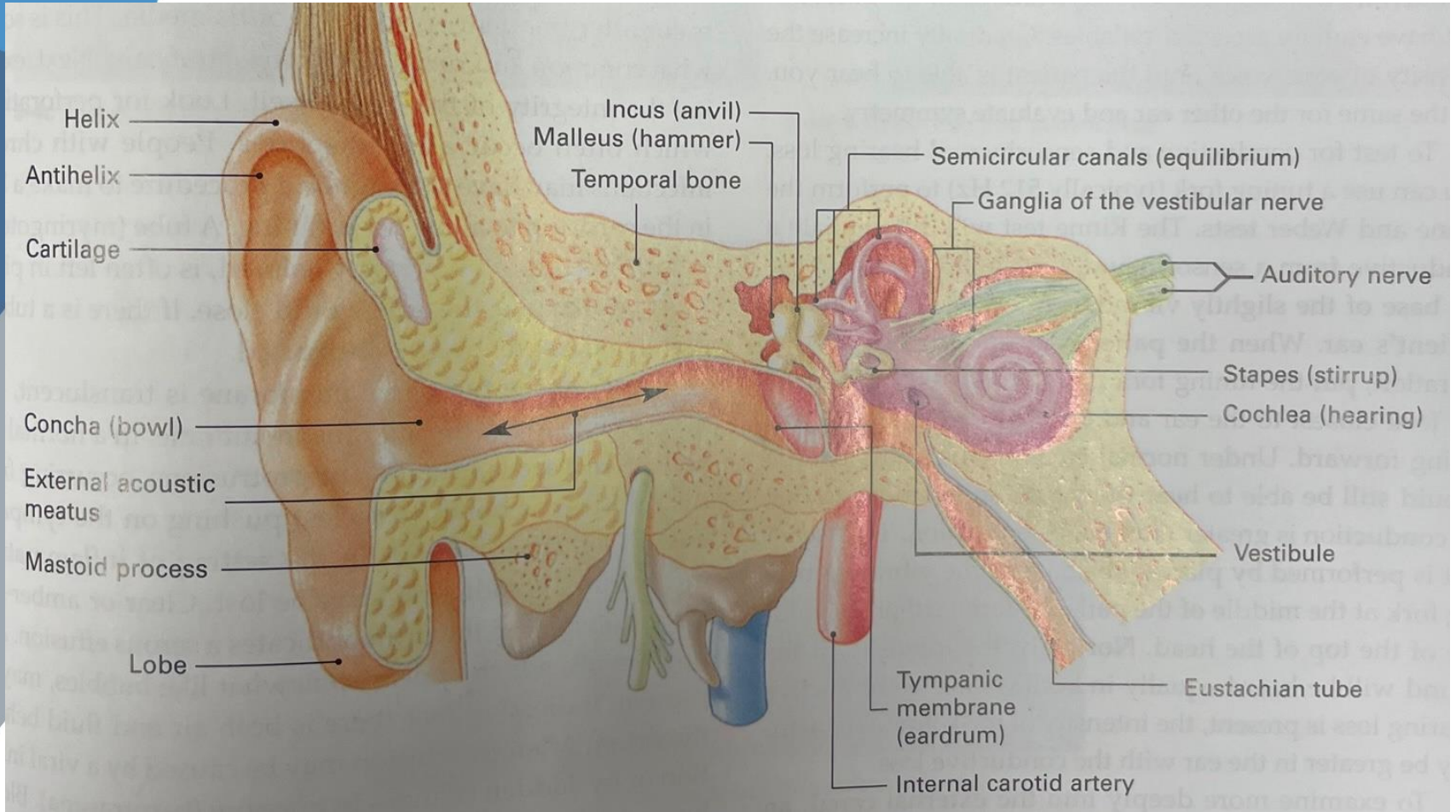
5-3g Check the corneal reflex.



5-3h Visualize the interior eye with an ophthalmoscope.



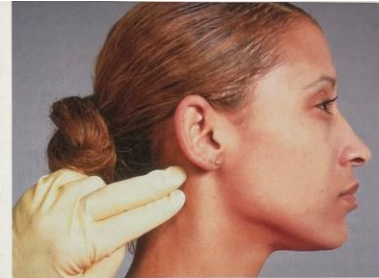
Ears



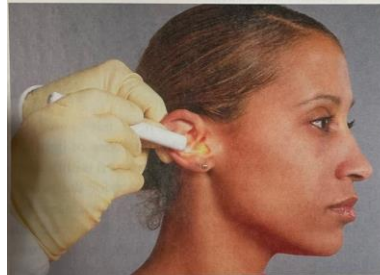
Ear Assessment



5-4a Examine the external ear.



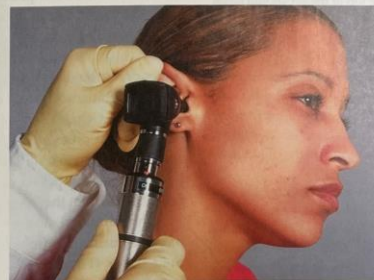
5-4b Press on the mastoid process.



5-4c Inspect the ear canal for drainage.

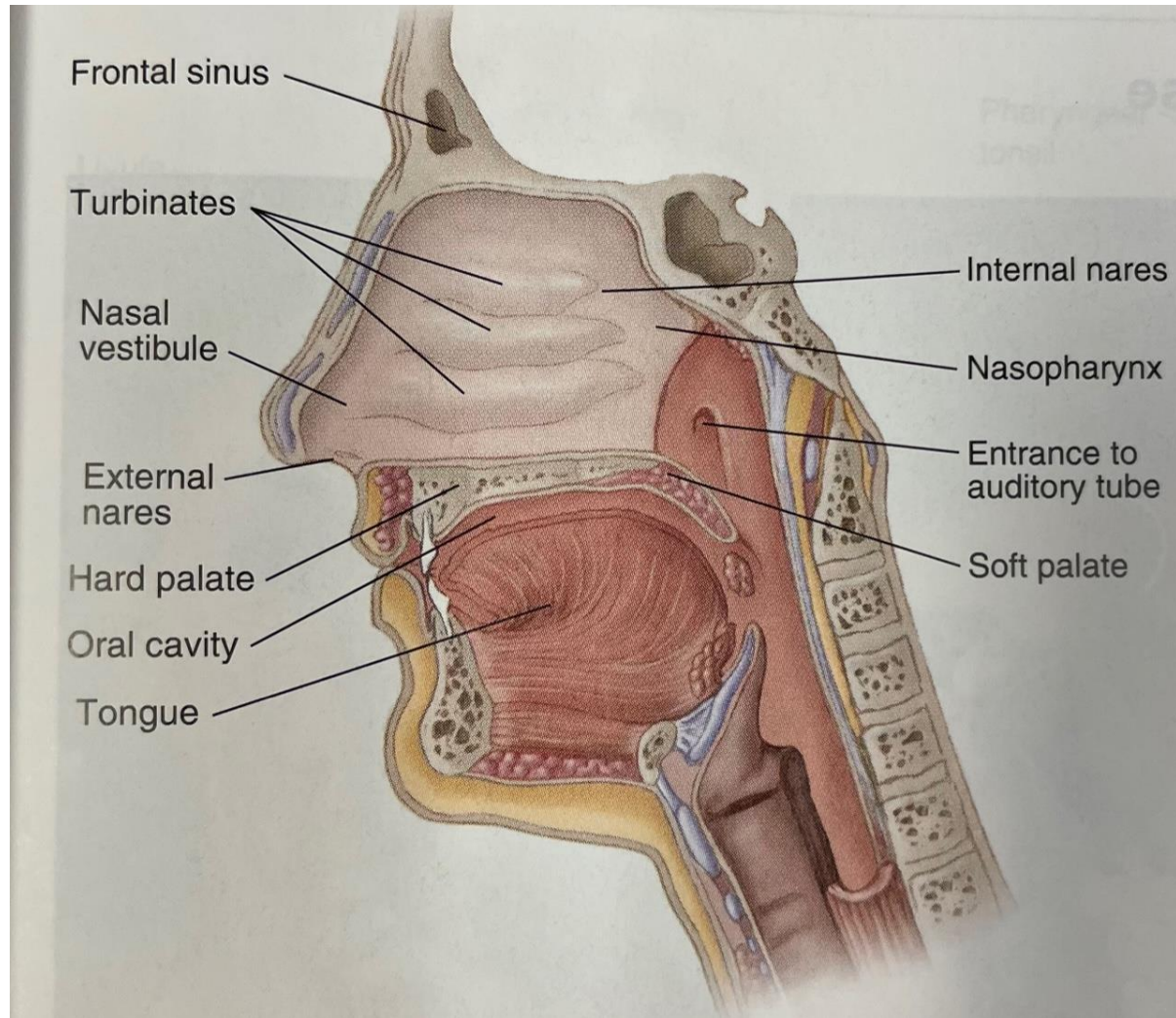


5-4d Whisper into your patient's ear.

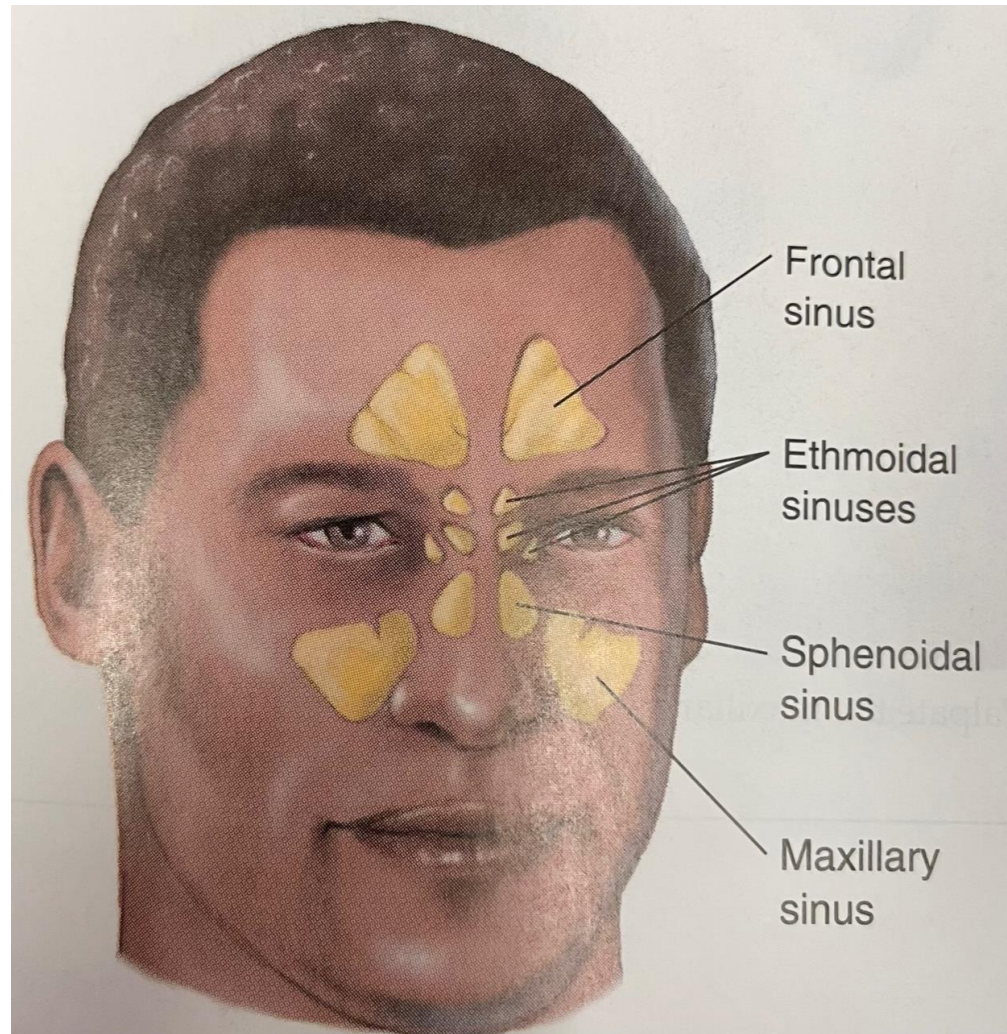


5-4e Visualize the inner ear canal and tympanic membrane.

Nose



Nose



Nose Assessment



5-5a Palpate the external nose.



5-5b Inspect the internal nose with an otoscope.



5-5c Inspect the nose for nasal obstruction.

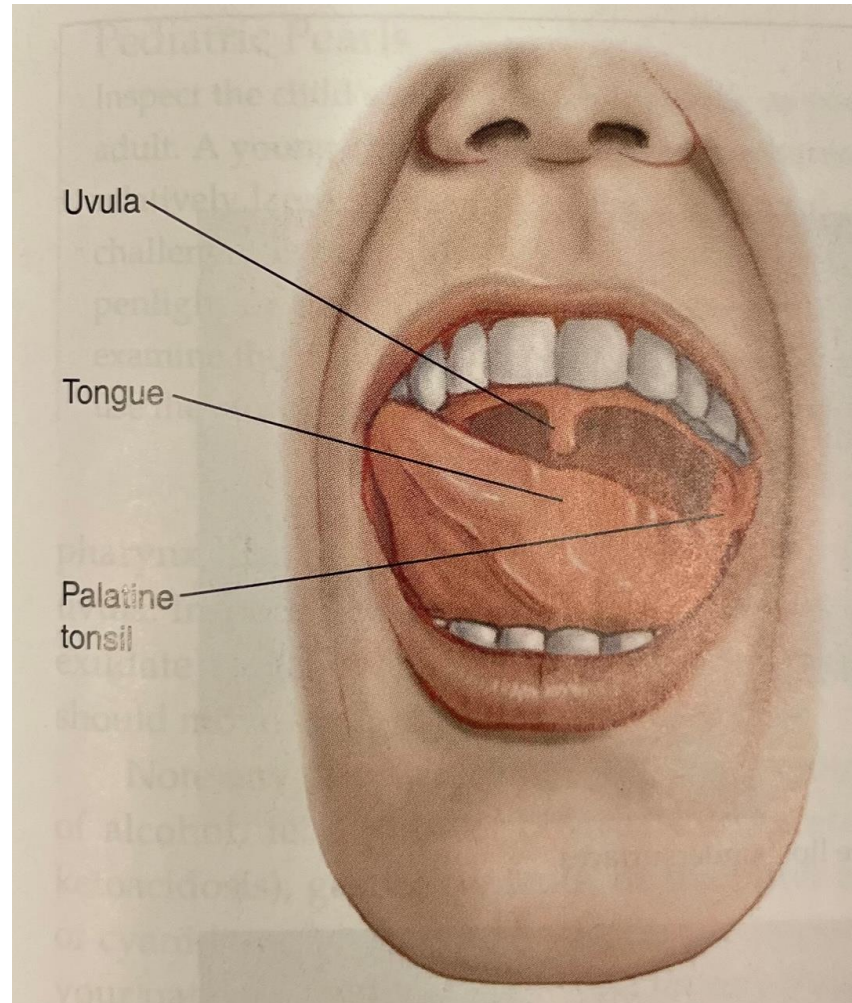


5-5d Palpate the frontal sinus.

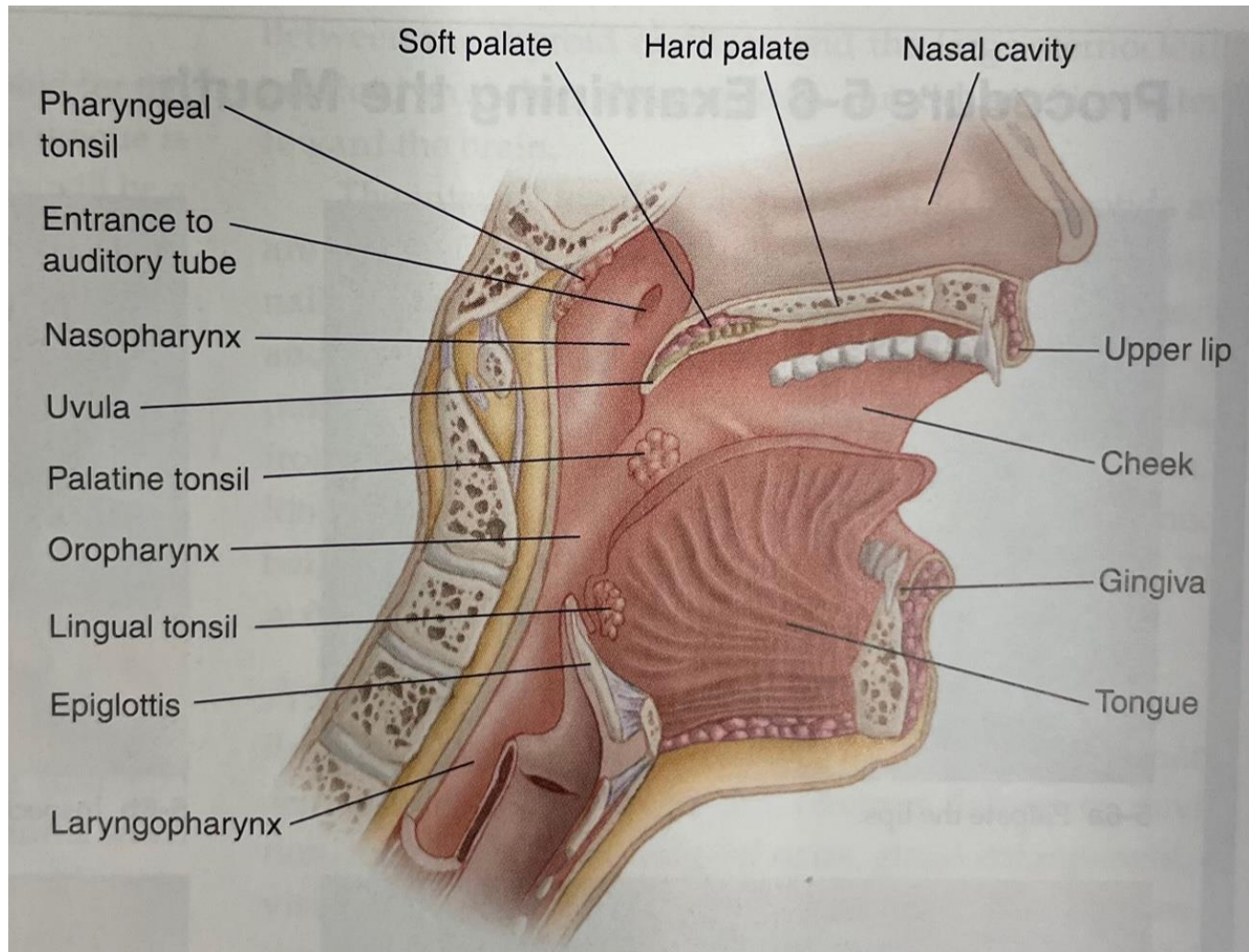


5-5e Palpate the maxillary sinus.

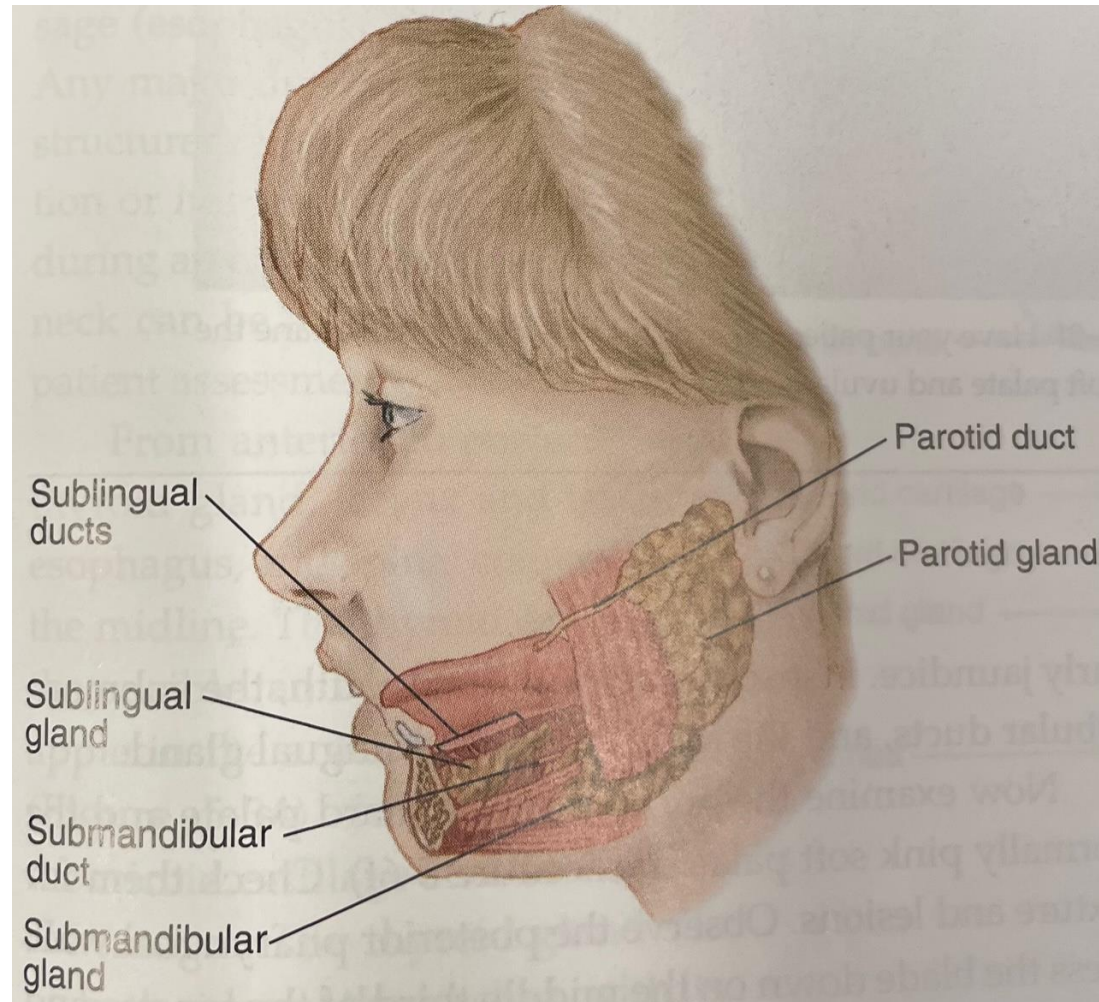
Mouth



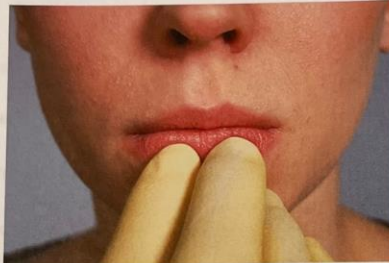
Mouth



Mouth



Mouth Assessment



5-6a Palpate the lips.



5-6b Inspect the lips' undersurfaces.



5-6c Examine the buccal mucosa.



5-6d Inspect the tongue using a gauze pad and a gloved hand.

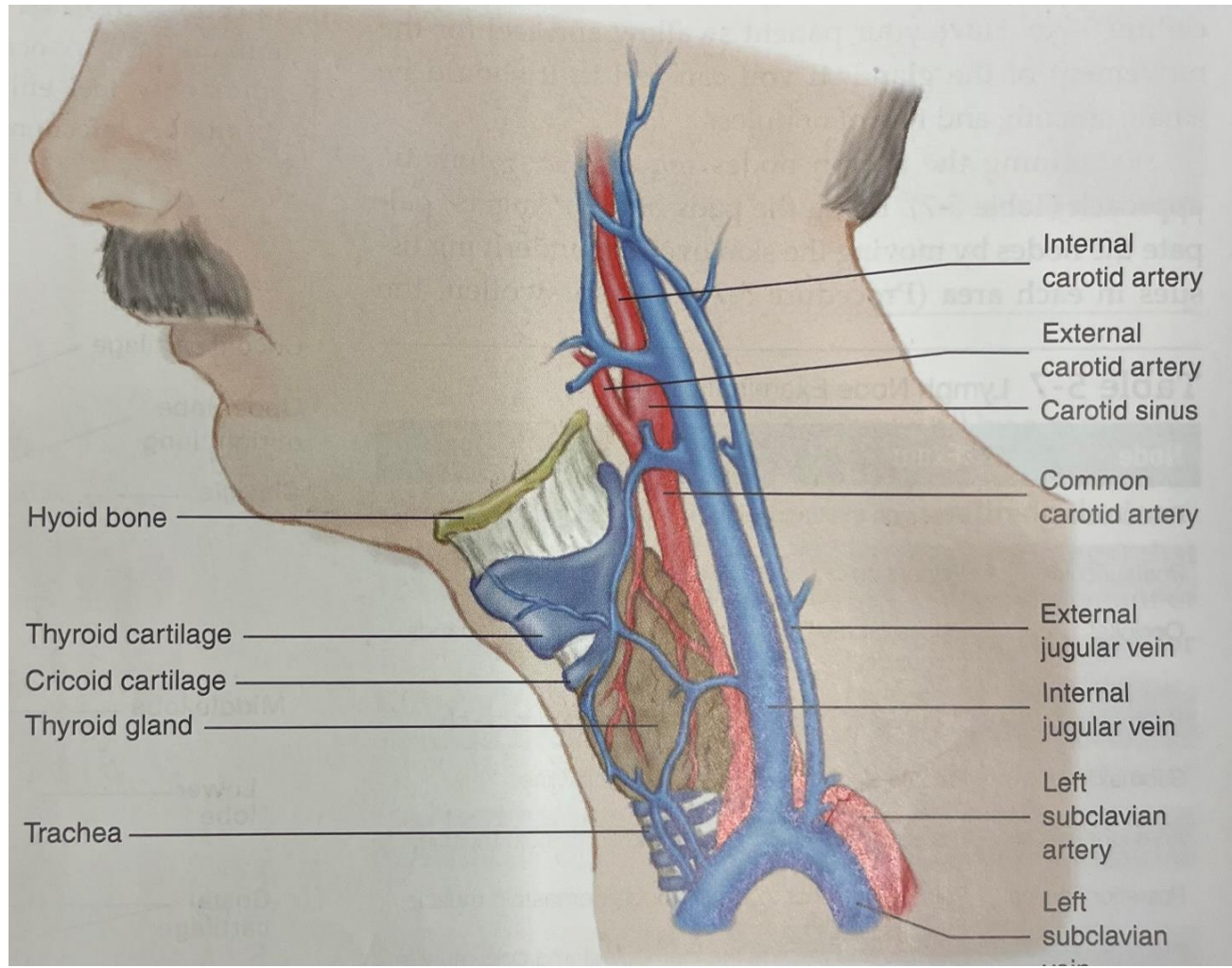


5-6e Inspect under the tongue.

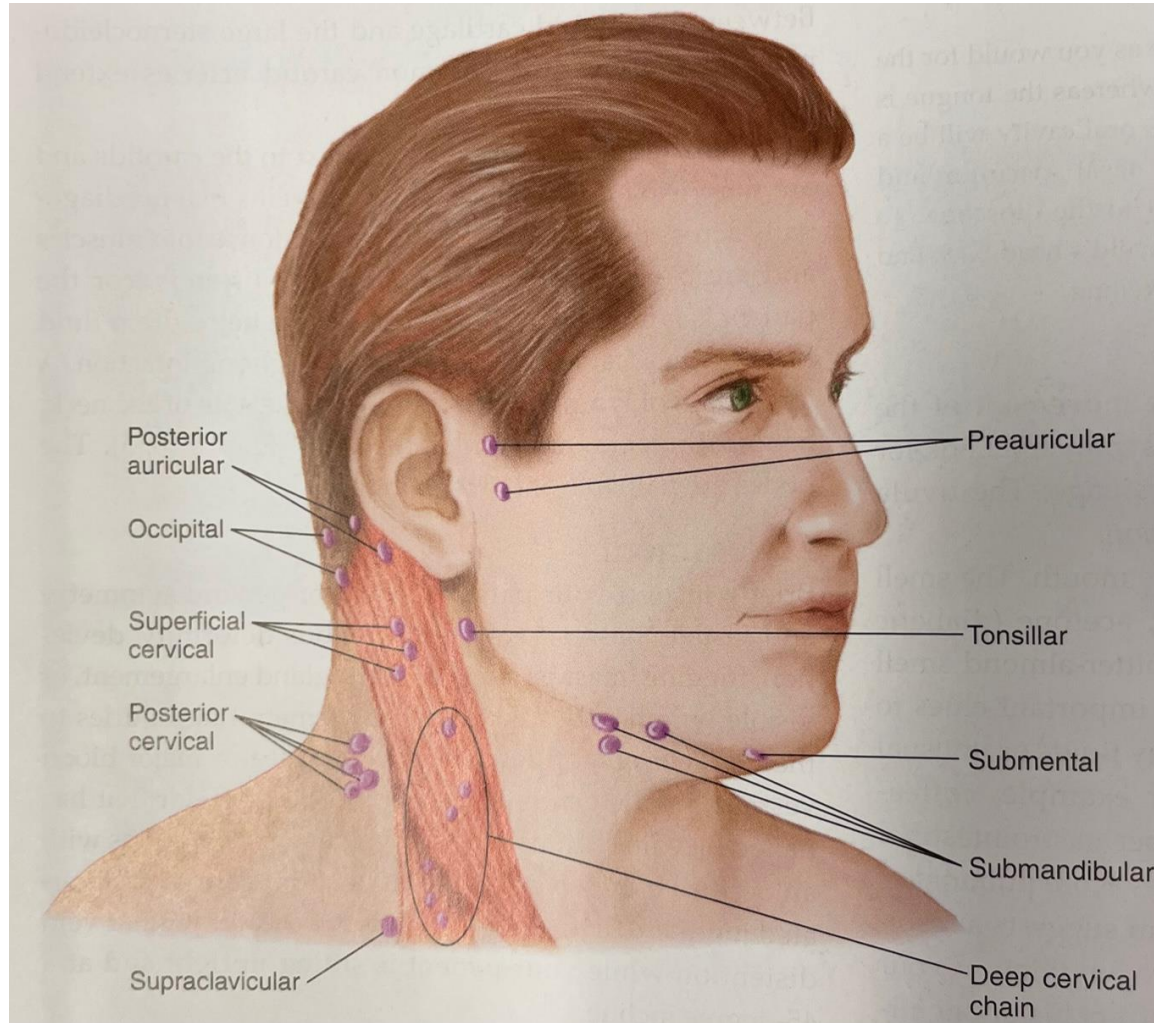


5-6f Have your patient say "aaahhh" while you examine the soft palate and uvula.

Neck



Neck



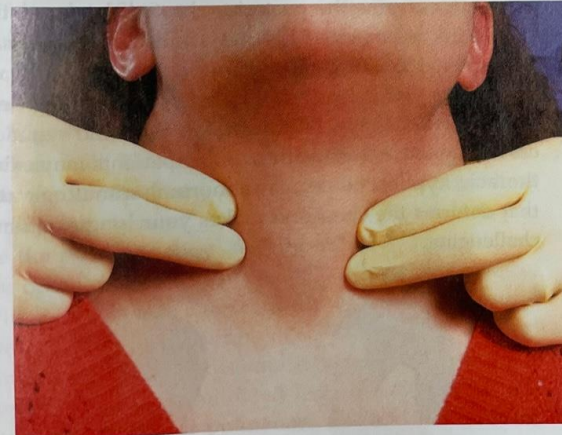
Neck Assessment



5-7a Assess the trachea for midline position.



5-7b Palpate the carotid arteries, one at a time.

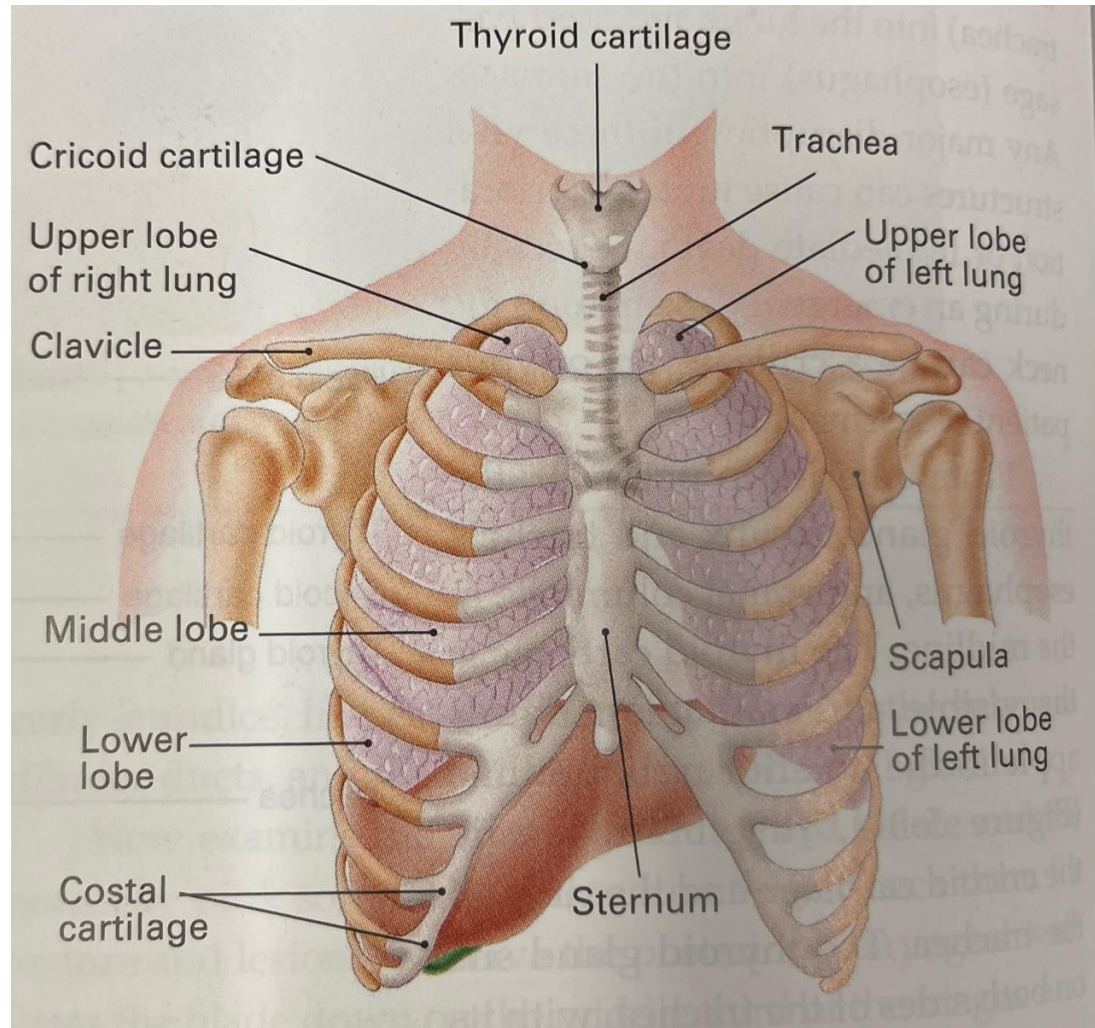


5-7c Palpate the thyroid gland.

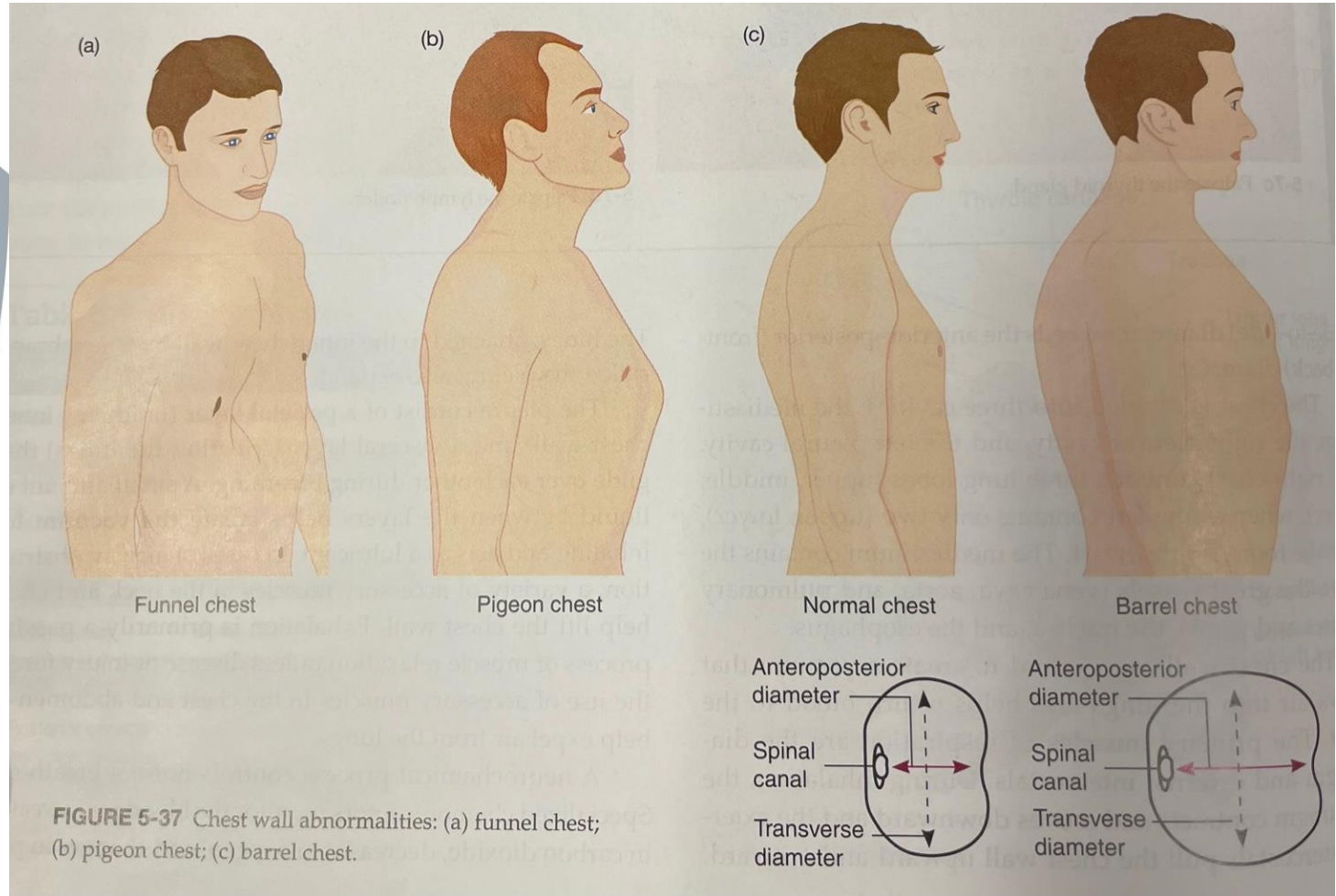


5-7d Palpate the lymph nodes.

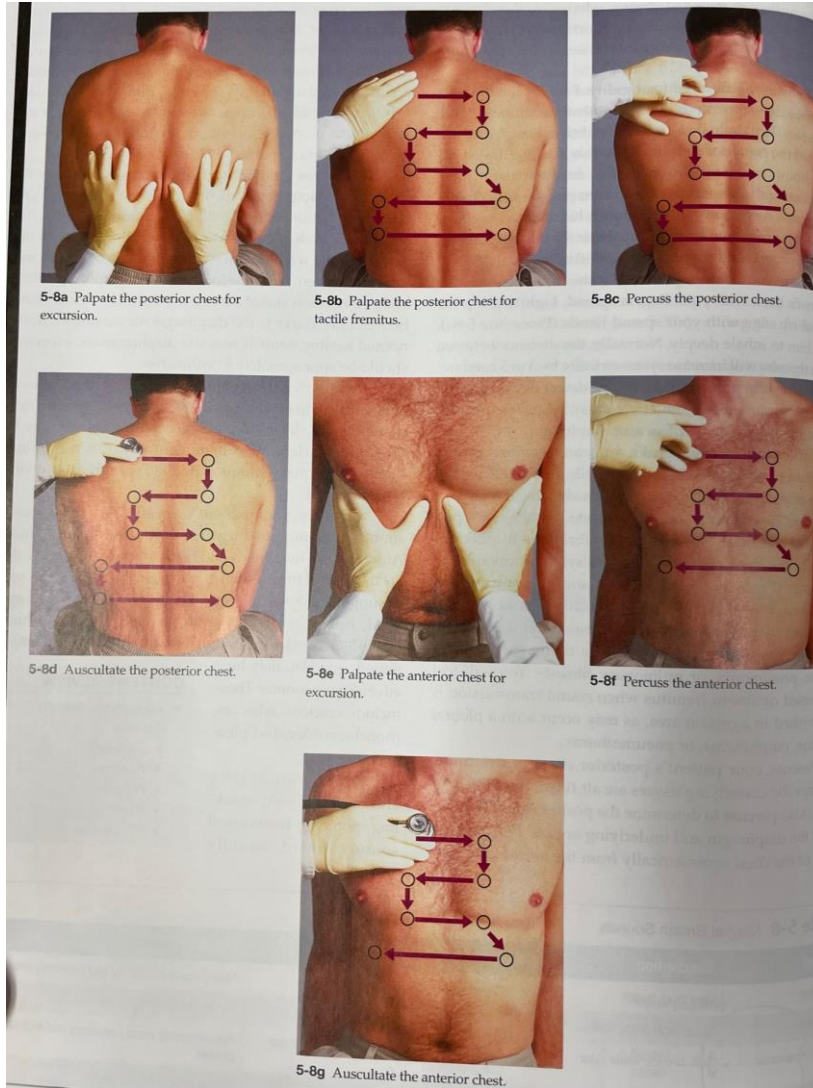
Chest and Lungs



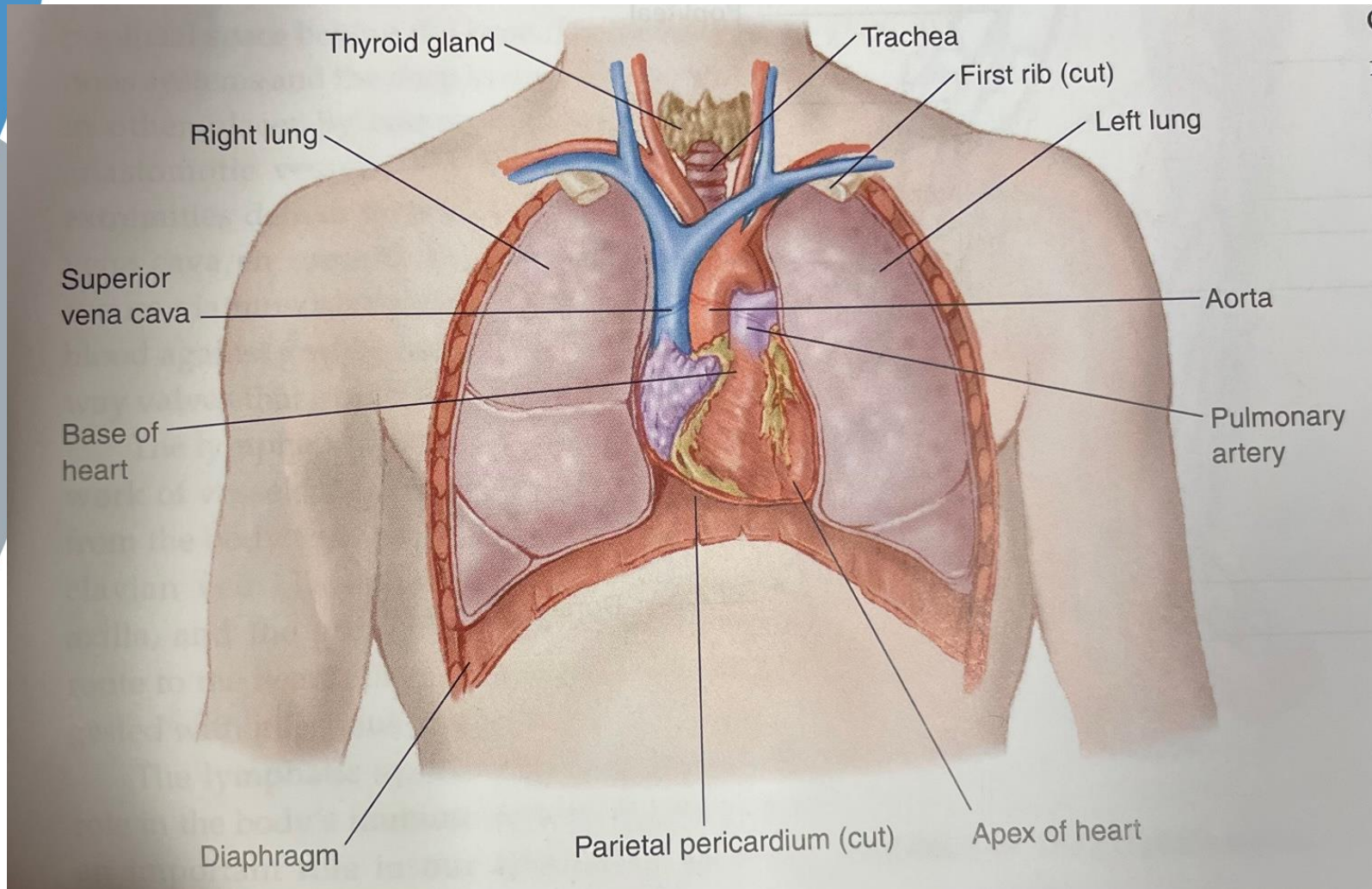
Chest and Lungs Assessment



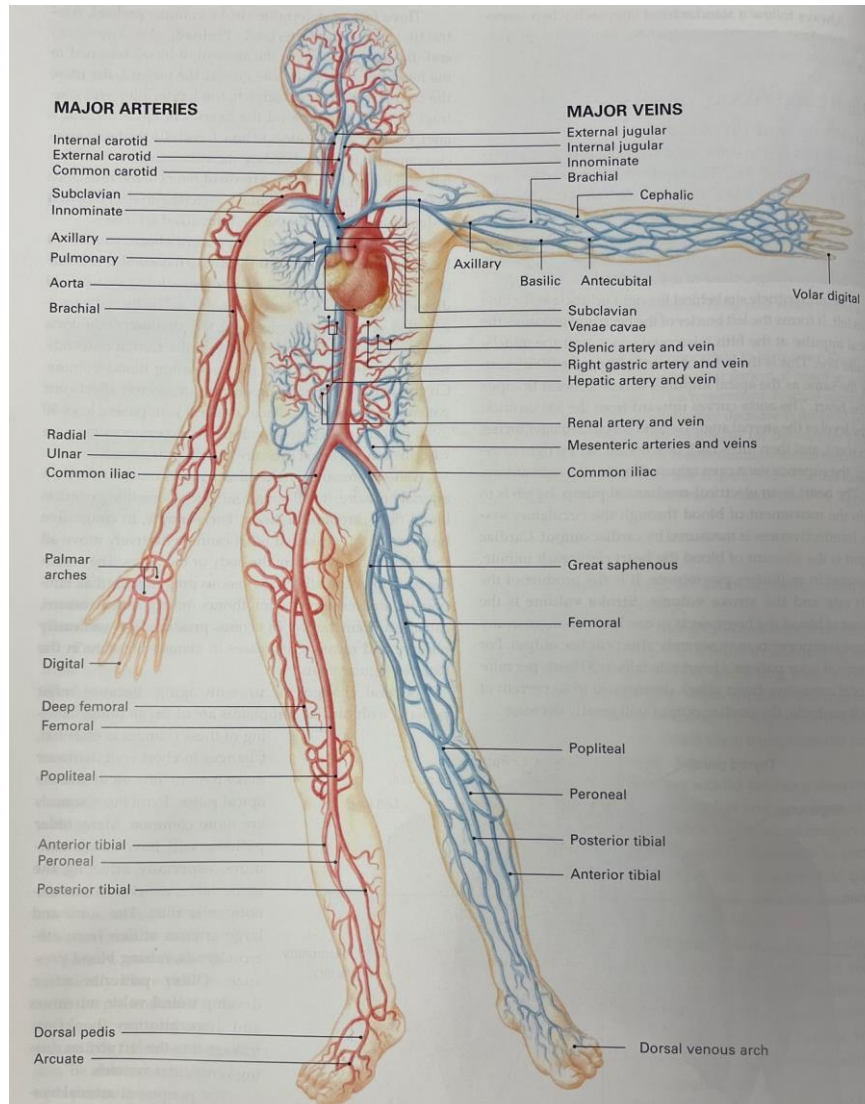
Chest and Lungs Assessment



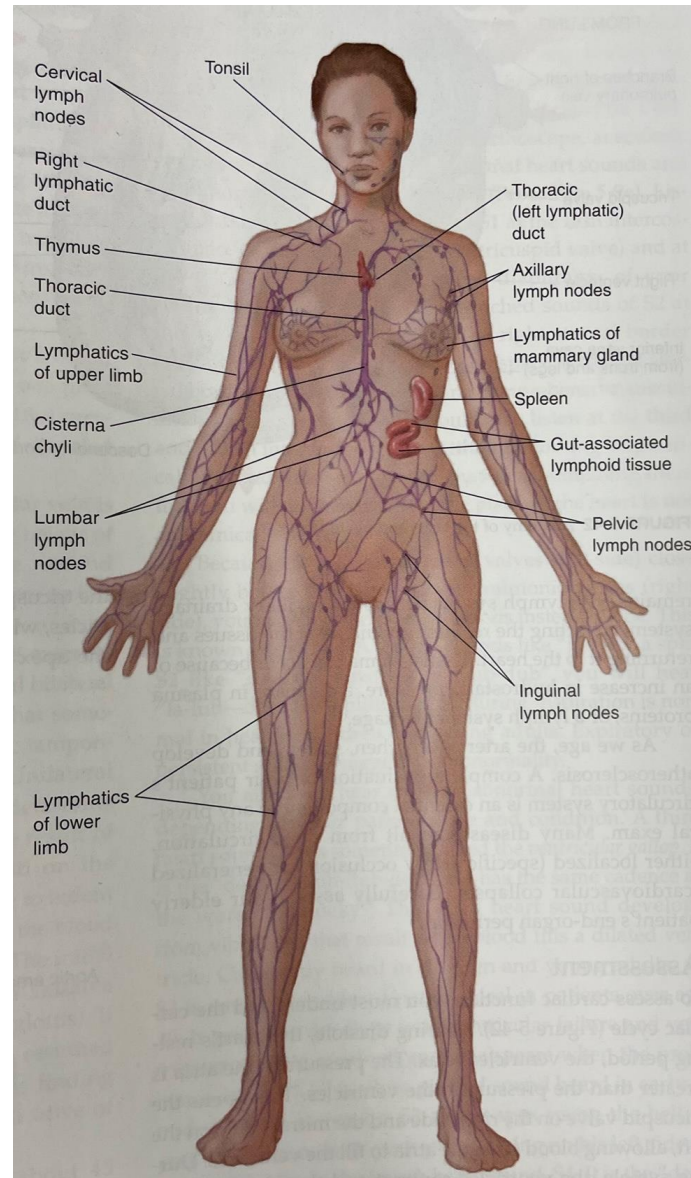
Heart and Blood Vessels



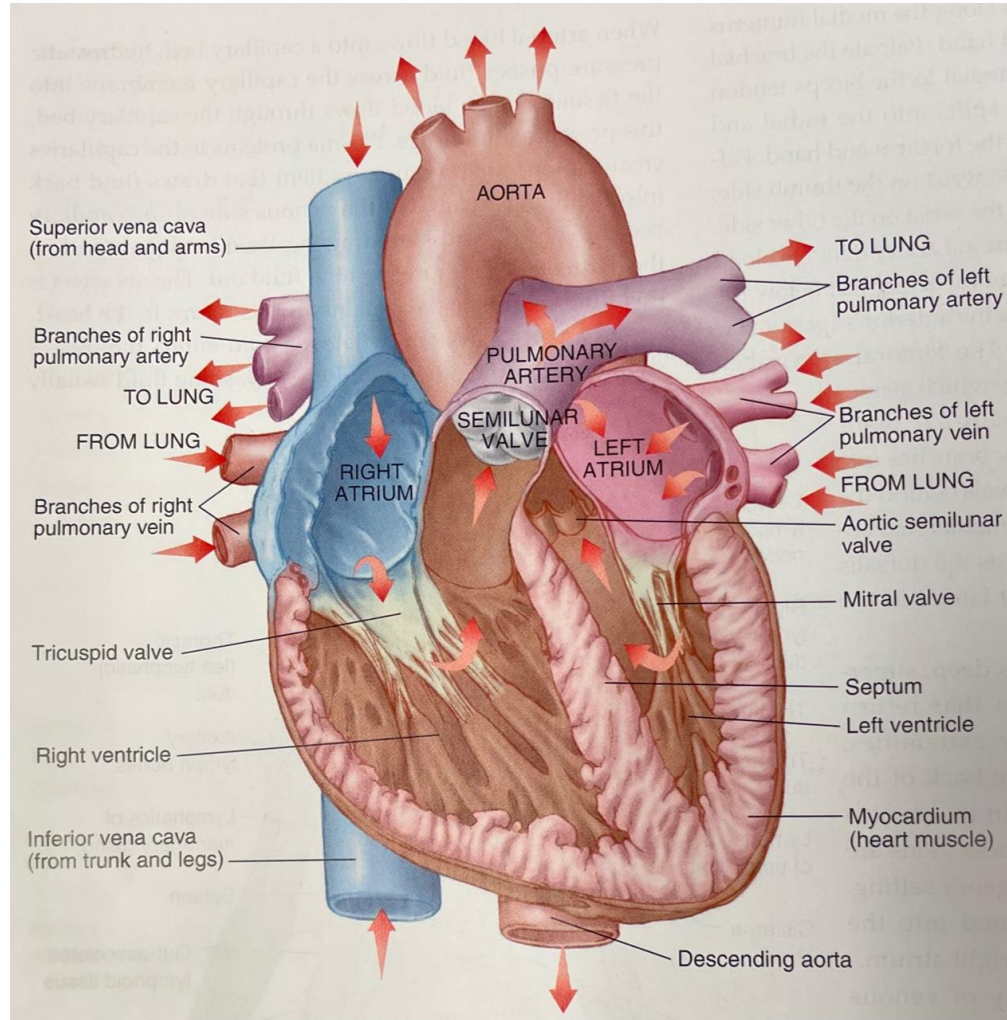
Heart and Blood Vessels



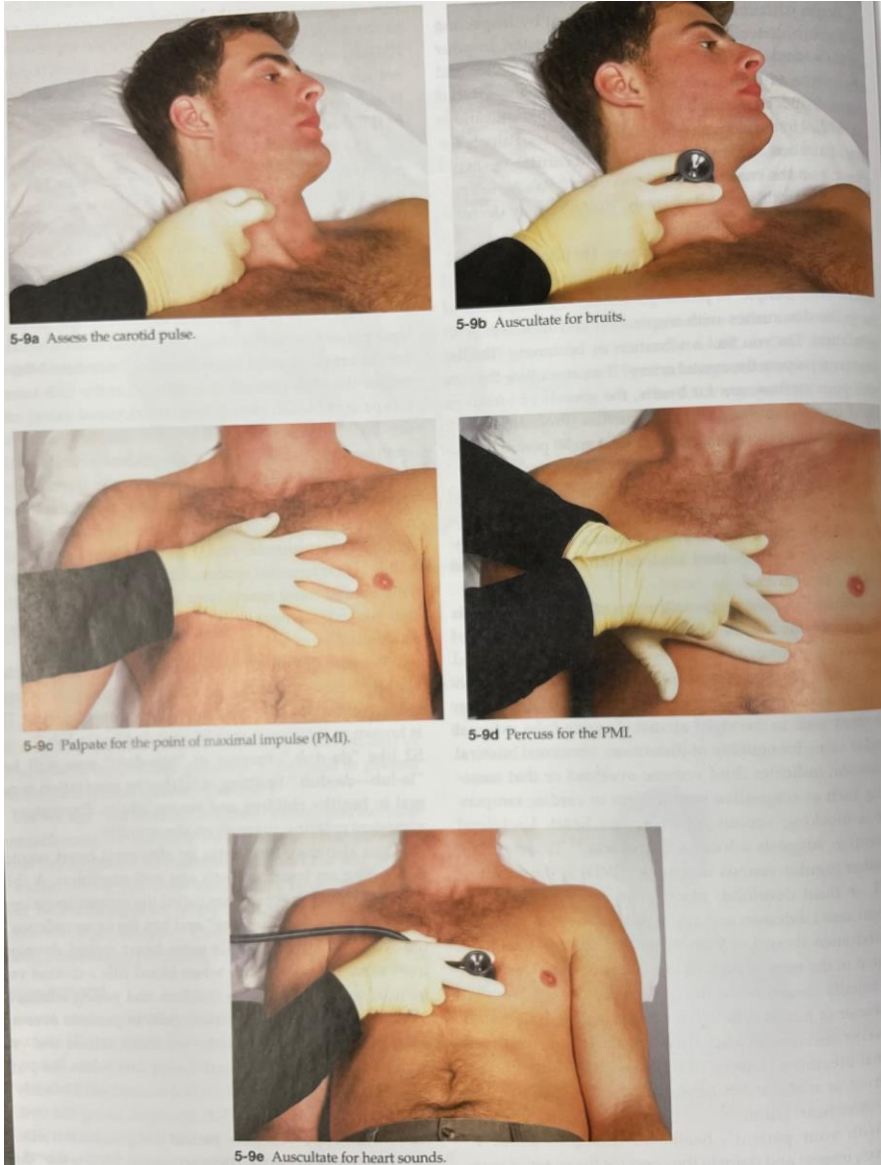
Heart and Blood Vessels



Heart and Blood Vessels Assessment



Heart and Blood Vessels Assessment



Heart and Blood Vessels Assessment



5-10a Palpate the radial artery.



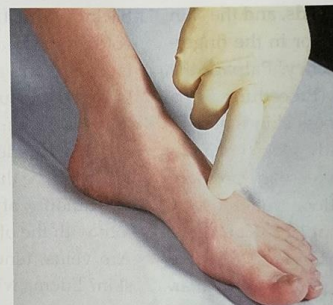
5-10b Palpate the brachial artery.



5-10c Palpate and compare the femoral arteries.



5-10d Palpate the popliteal pulse.



5-10e Palpate the dorsalis pedis pulse.

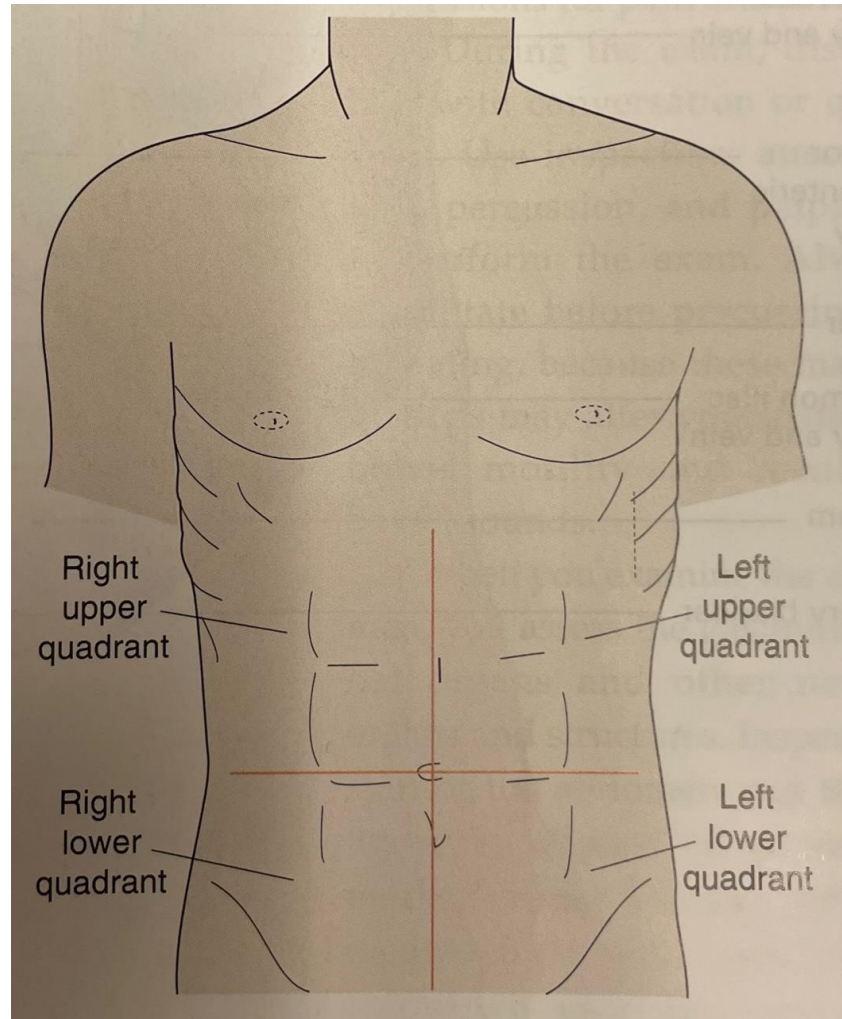


5-10f Palpate the posterior tibial pulse.

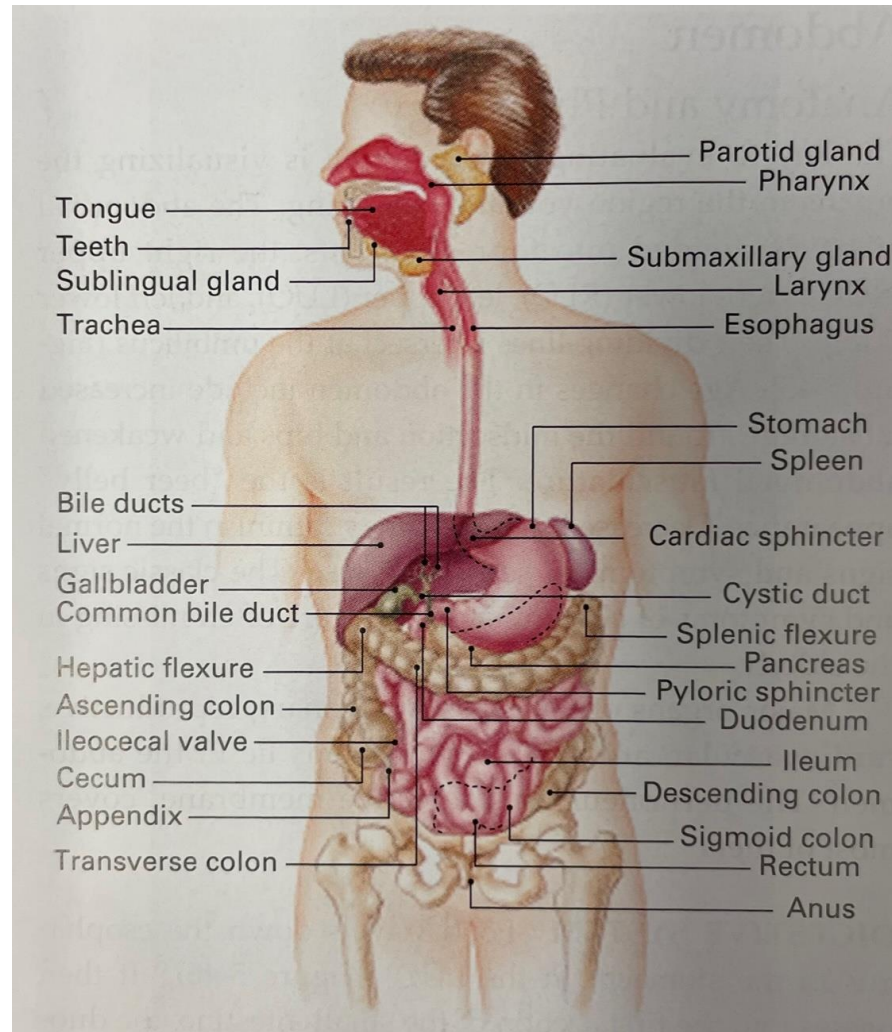


5-10g Palpate for edema.

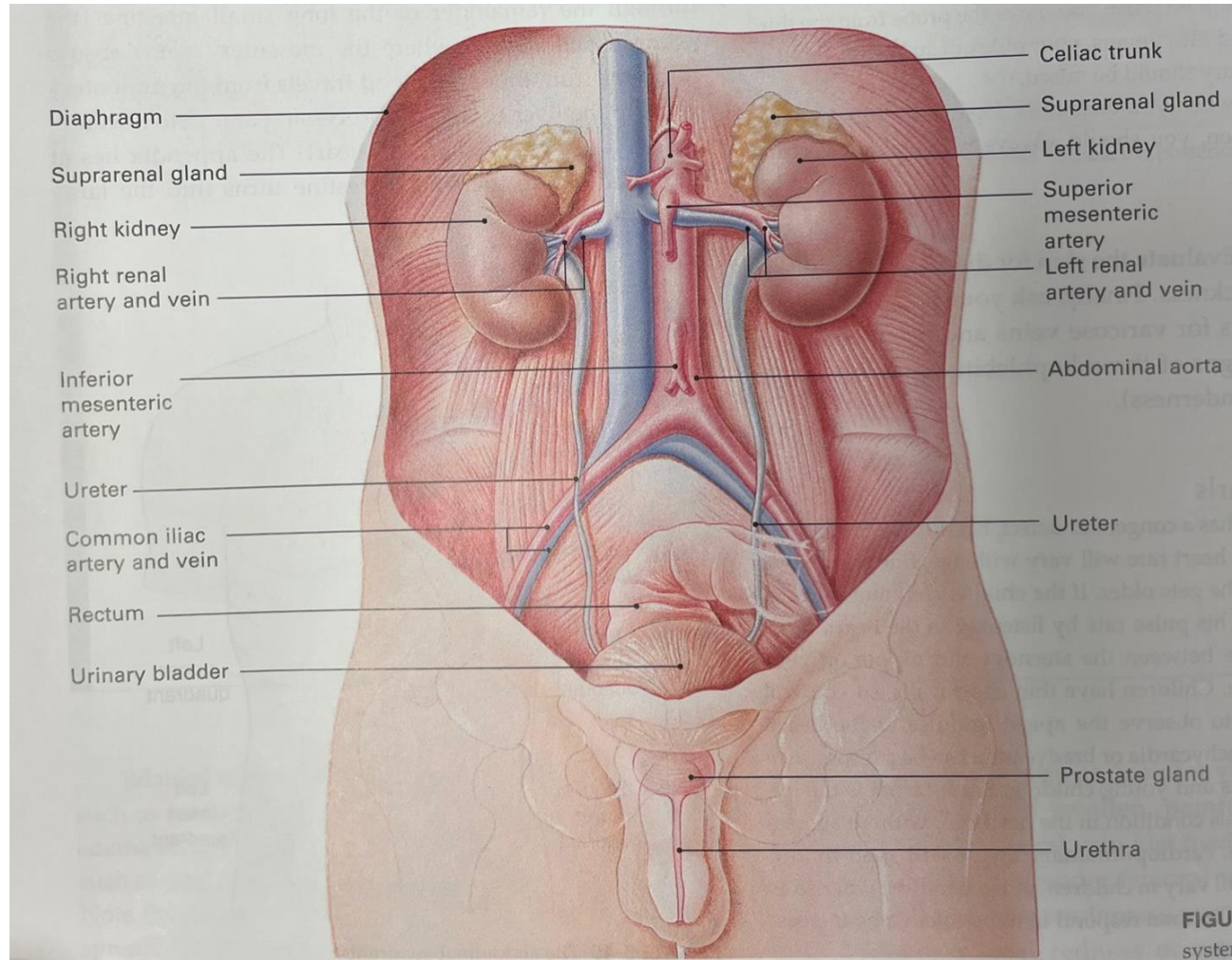
Abdomen



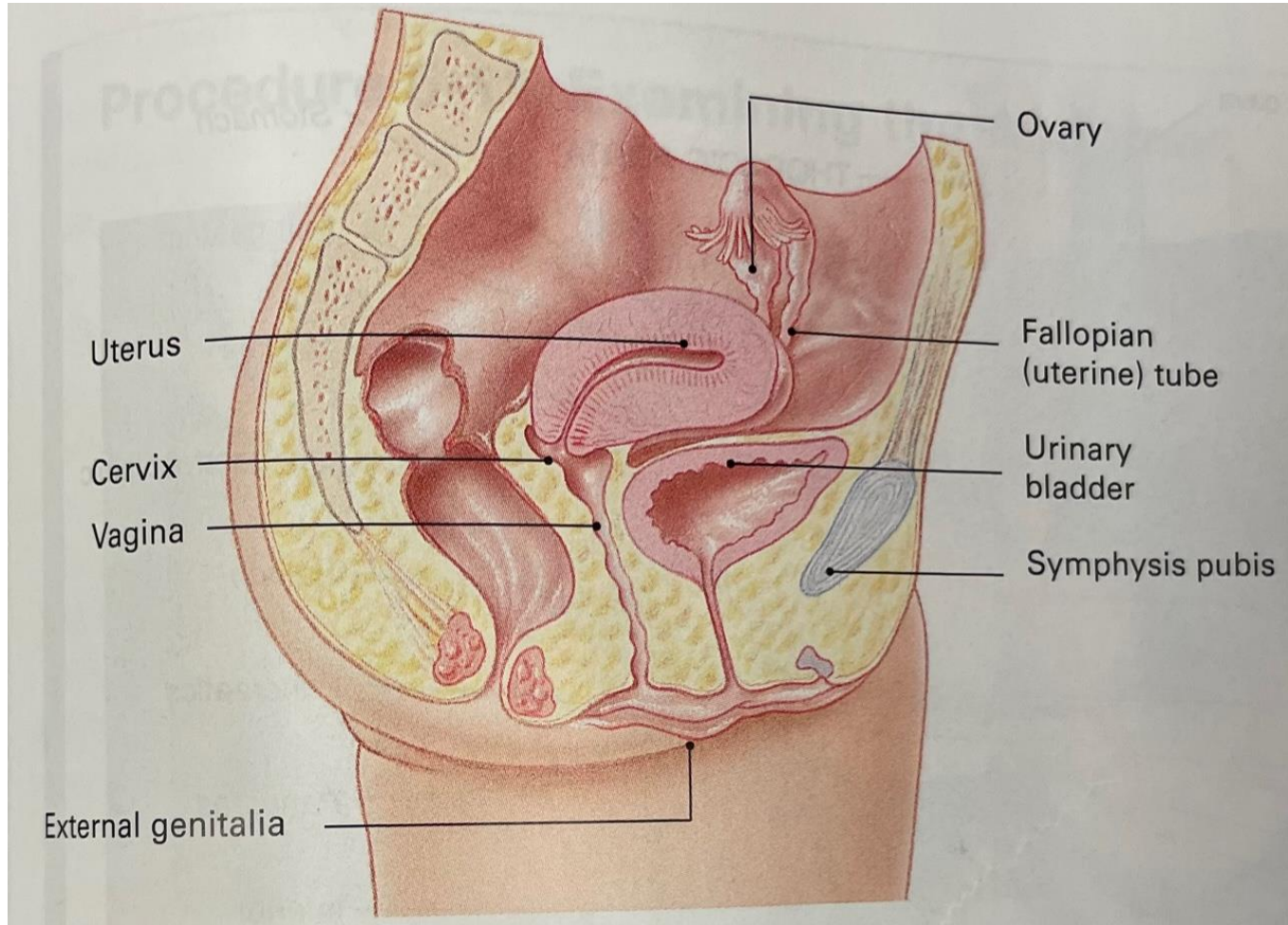
Abdomen



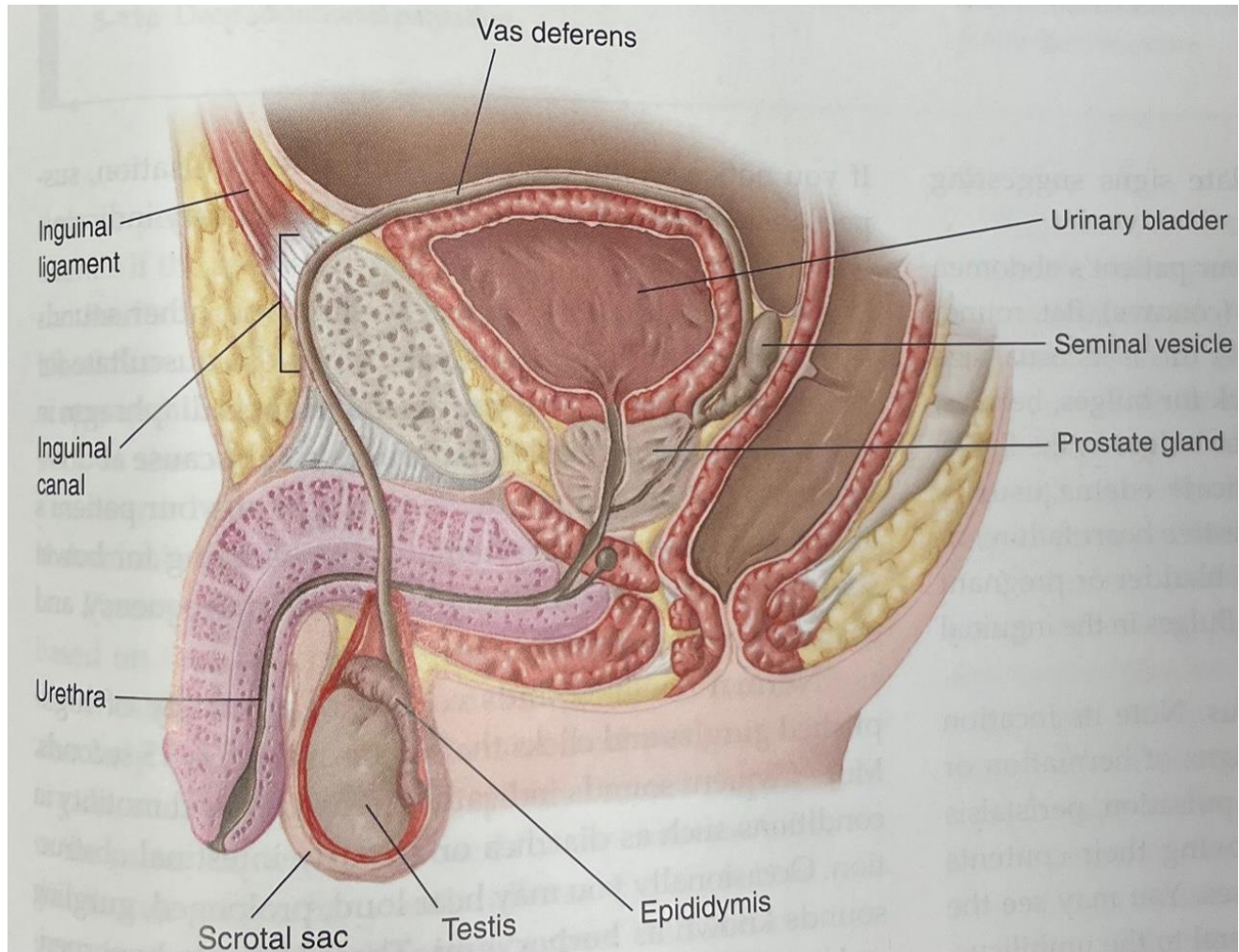
Abdomen



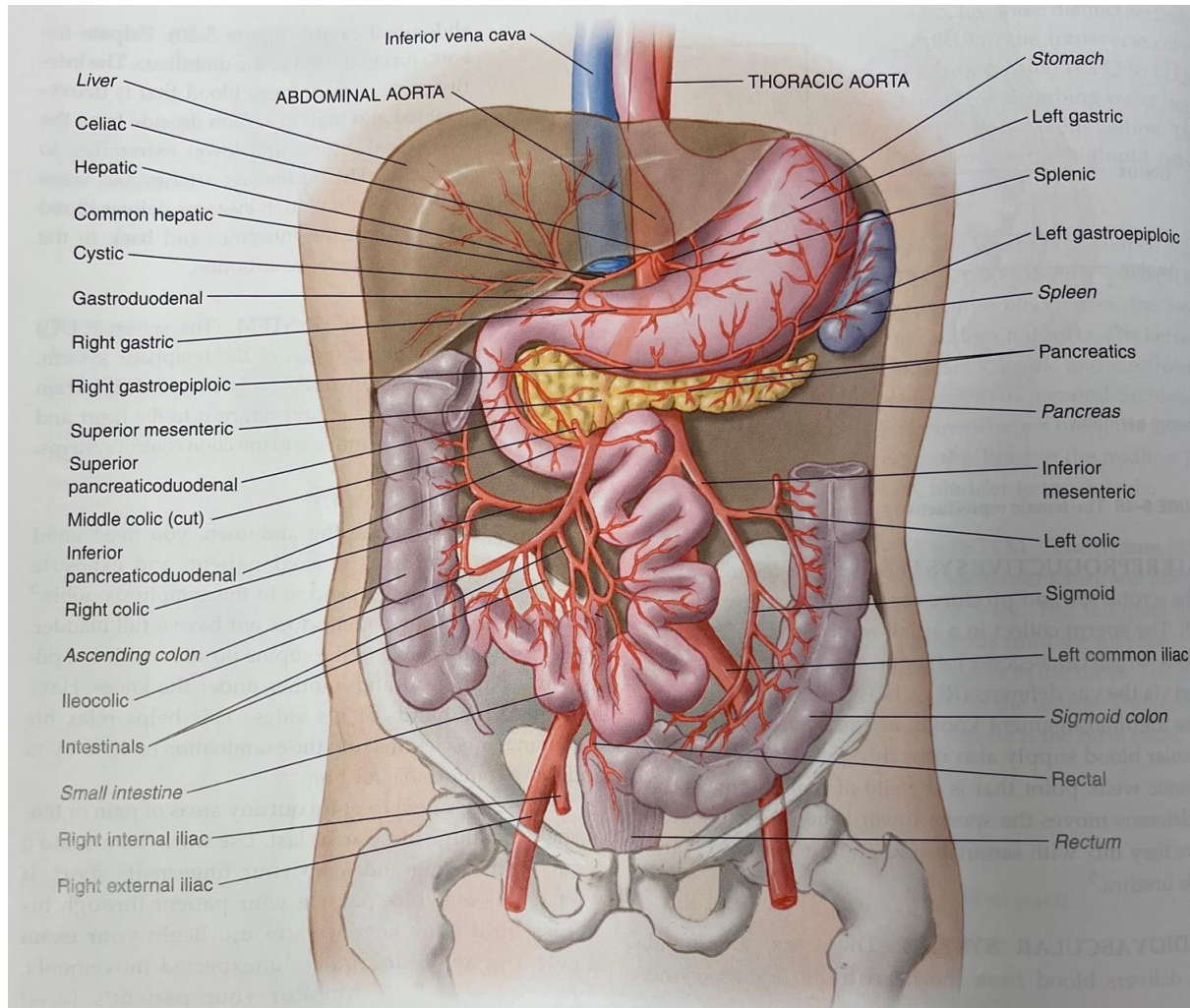
Abdomen



Abdomen



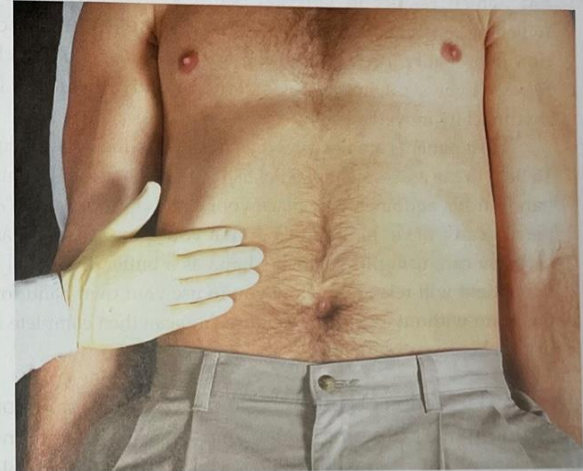
Abdomen



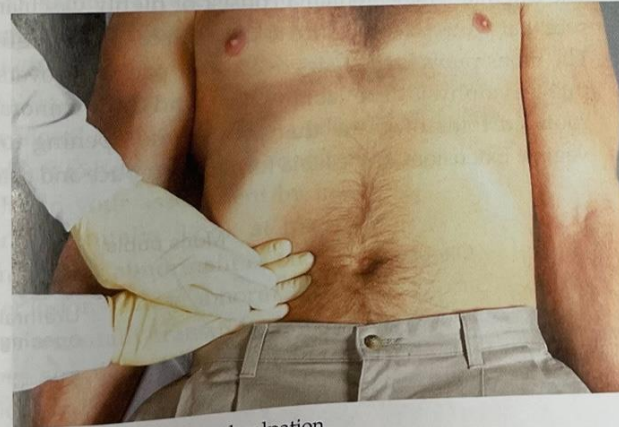
Abdomen Assessment



5-11a Auscultate for renal bruits.



5-11b Light abdominal palpation.



5-11c Deep abdominal palpation.



5-11d Test for ascites.

A

Cullen's sign

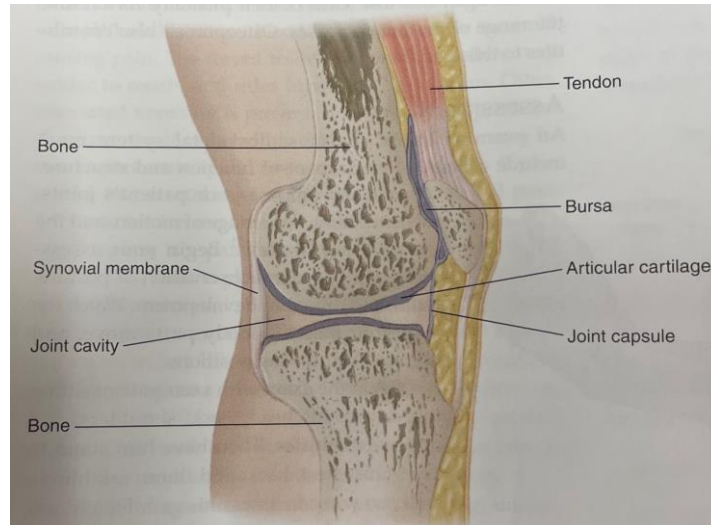
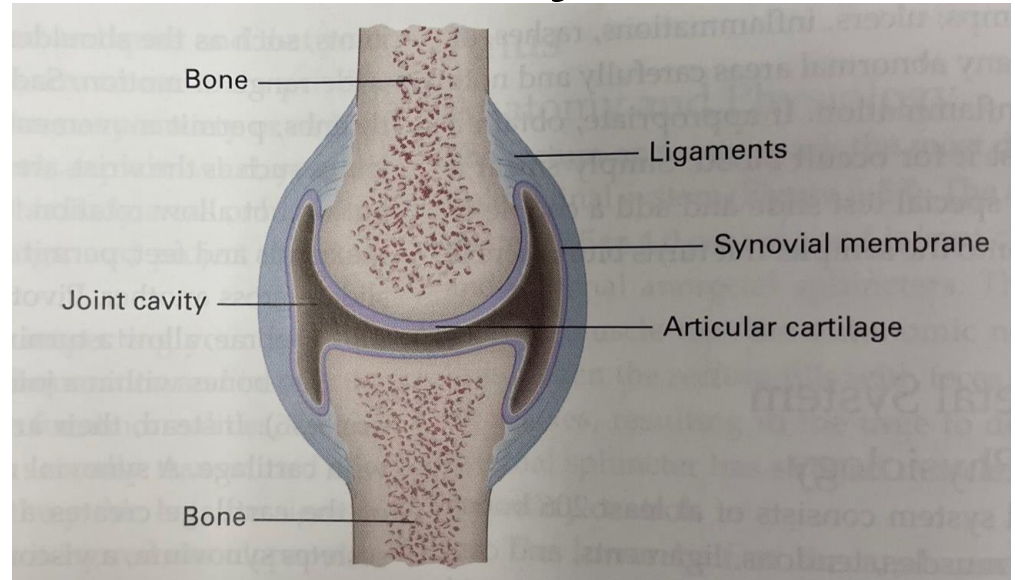


B

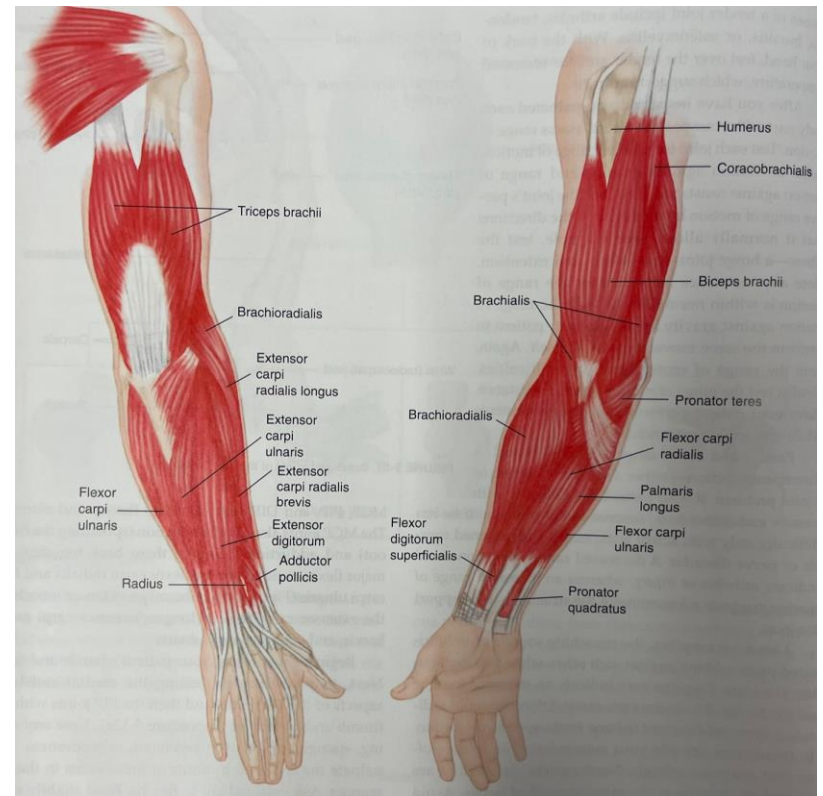
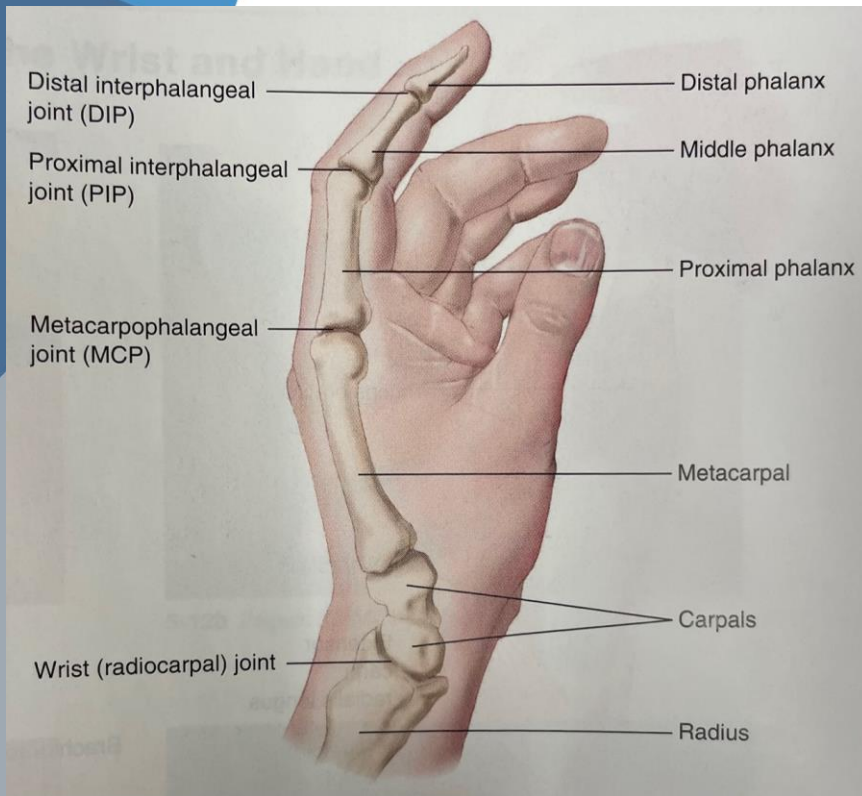
Grey Turner's sign



Musculoskeletal System



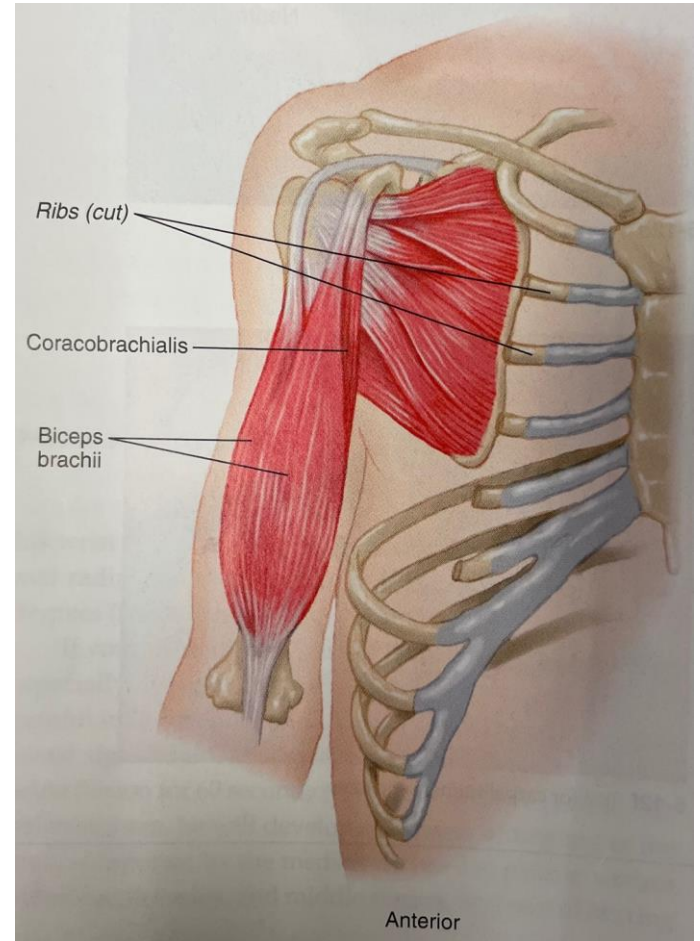
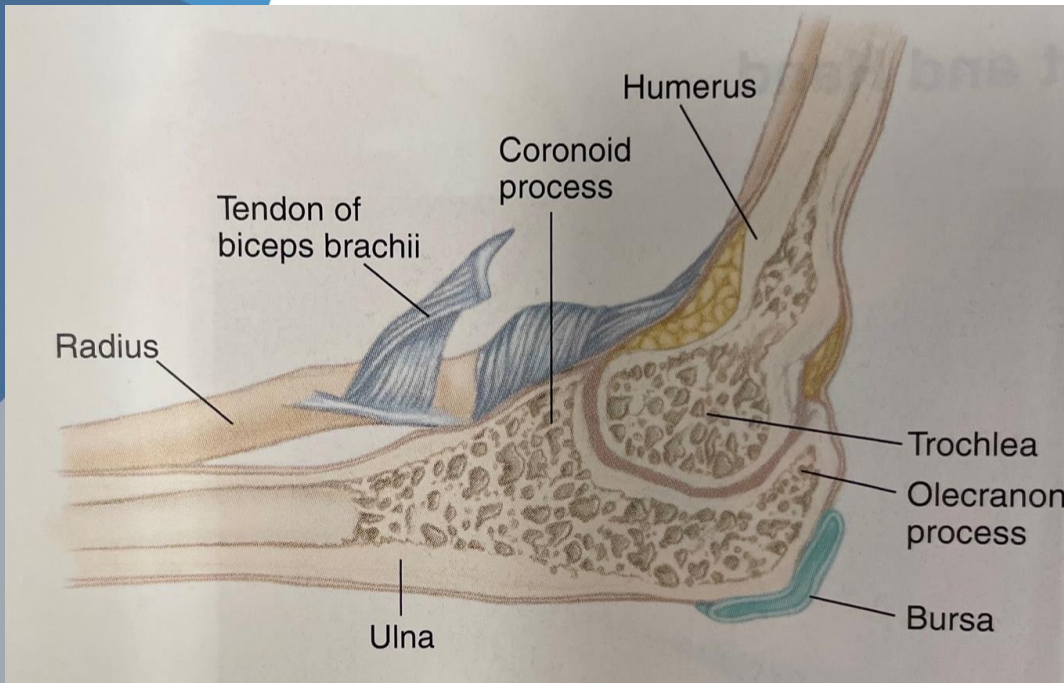
Wrists and Hands



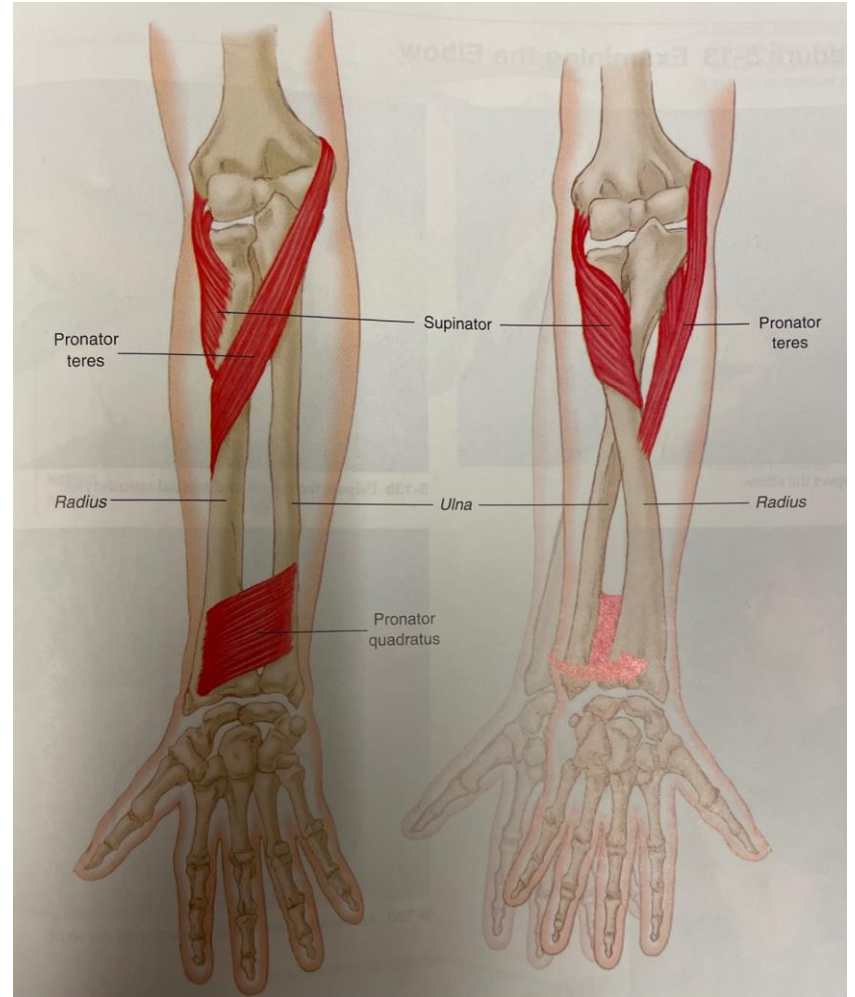
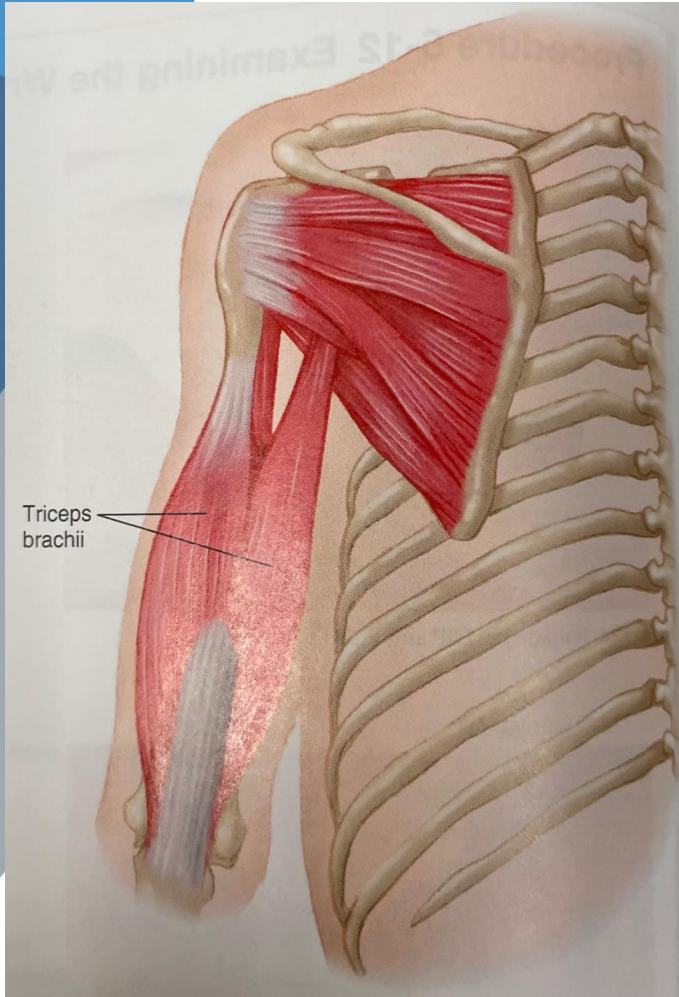
Wrists and Hands Assessment



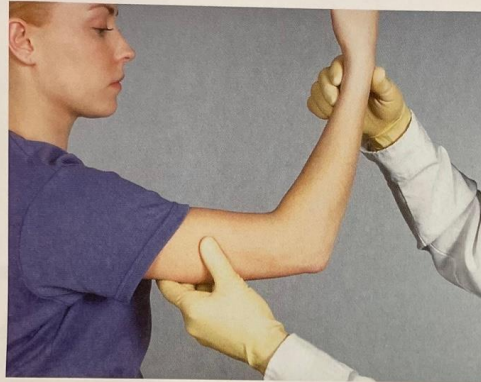
Elbows



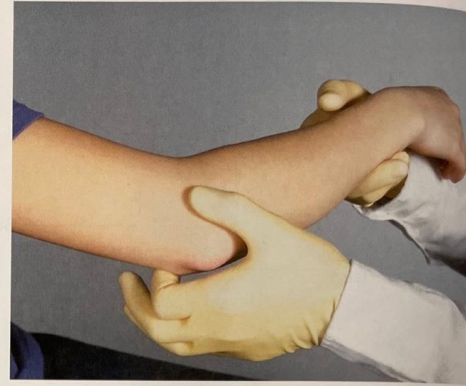
Elbows



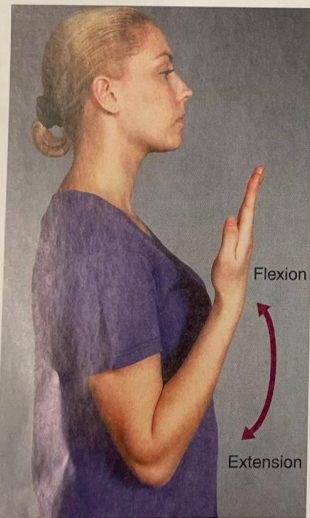
Elbows Assessment



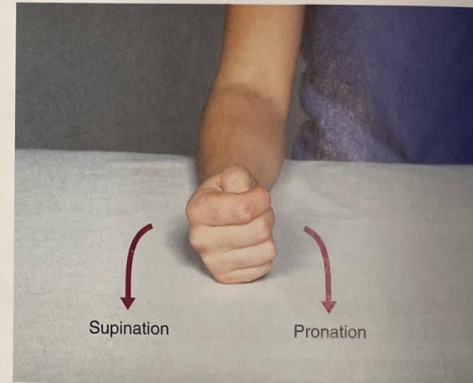
5-13a Inspect the elbow.



5-13b Palpate the lateral and medial epicondyles.

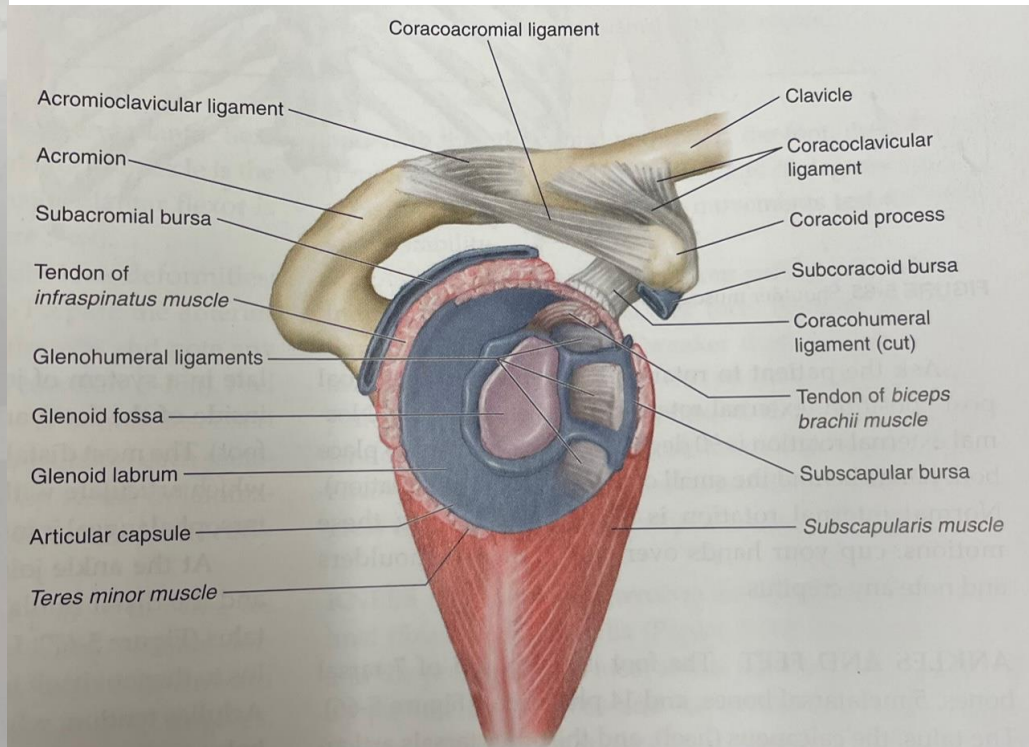
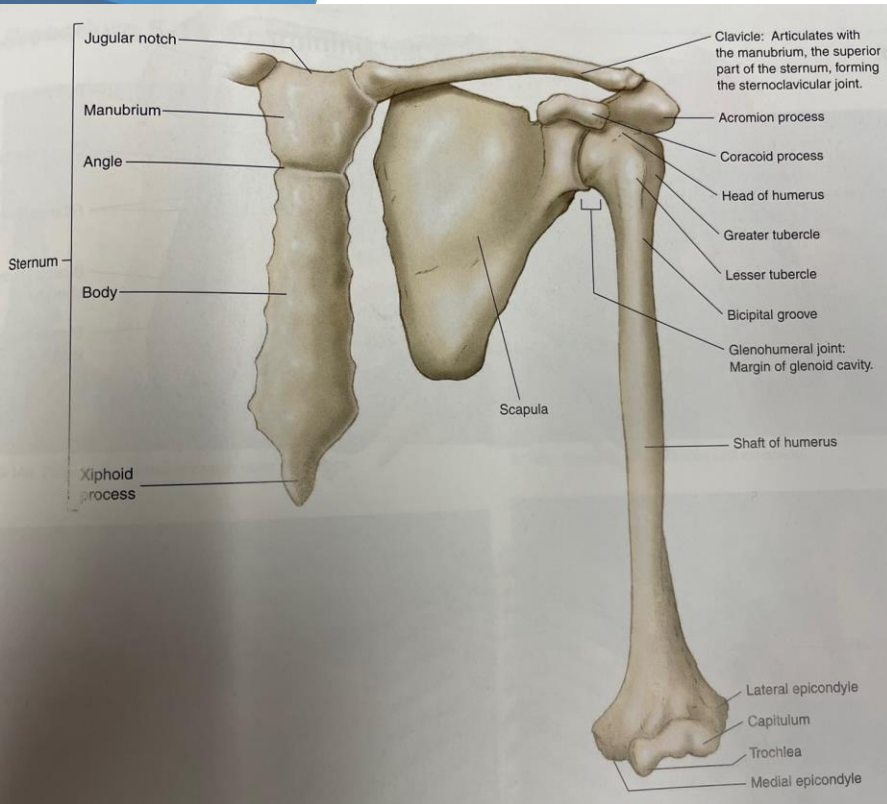


5-13c Assess elbow flexion and extension.

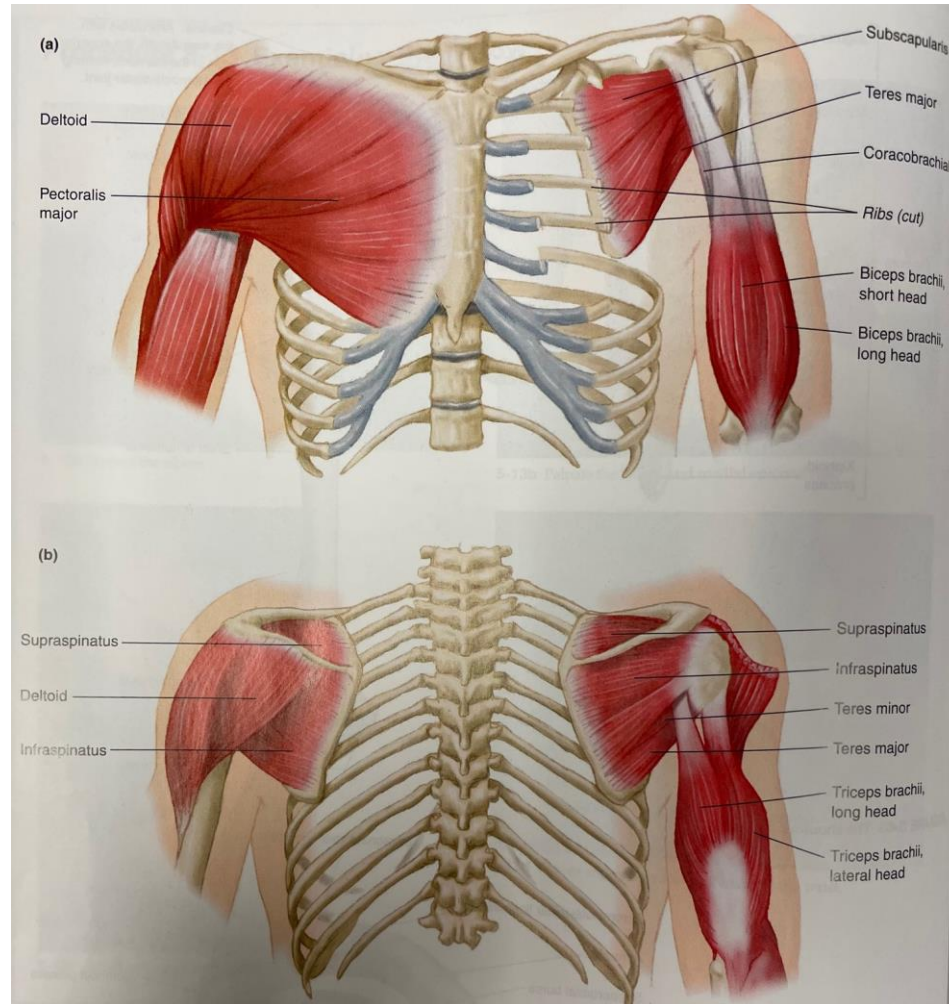


5-13d Assess supination and pronation of the wrist.

Shoulders



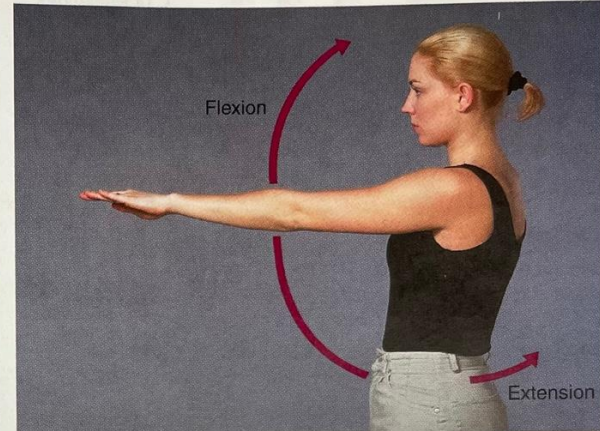
Shoulders



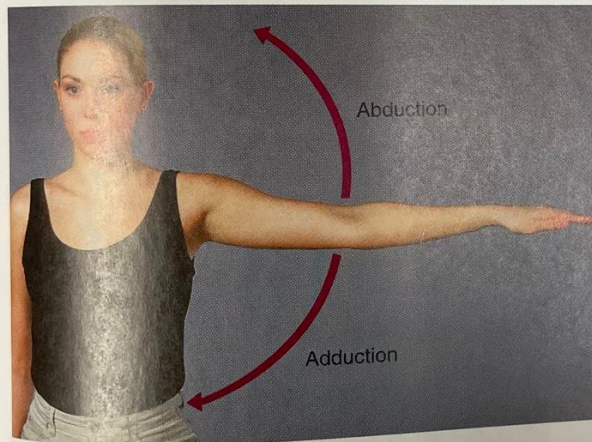
Shoulders Assessment



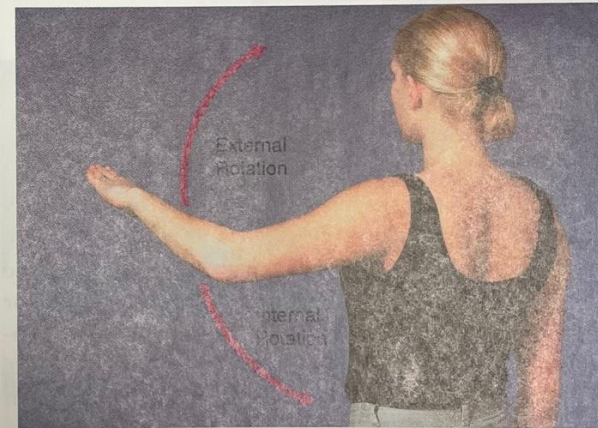
5-14a Palpate the shoulder with your fingertips.



5-14b Assess shoulder flexion and extension.

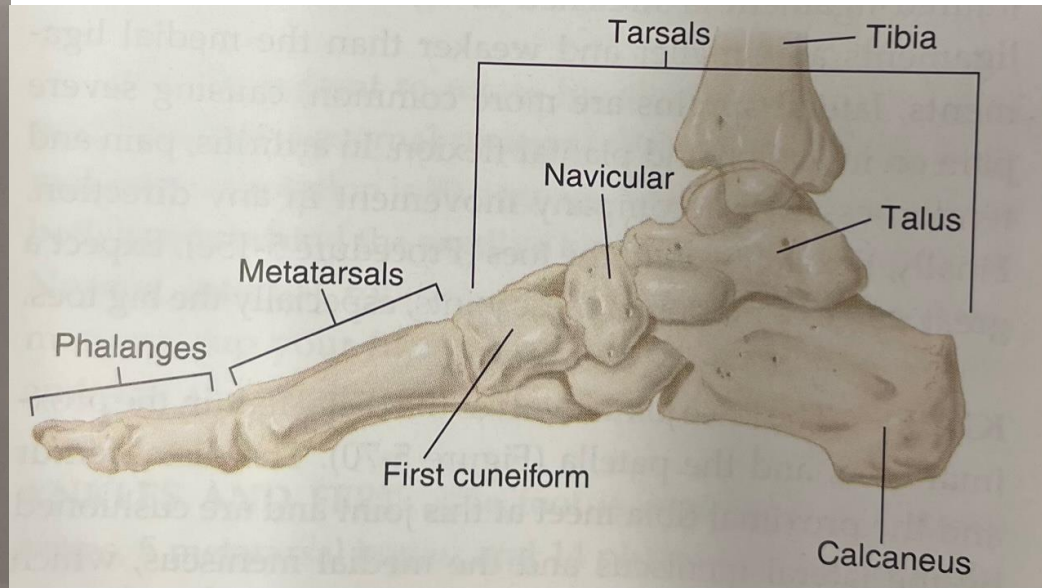
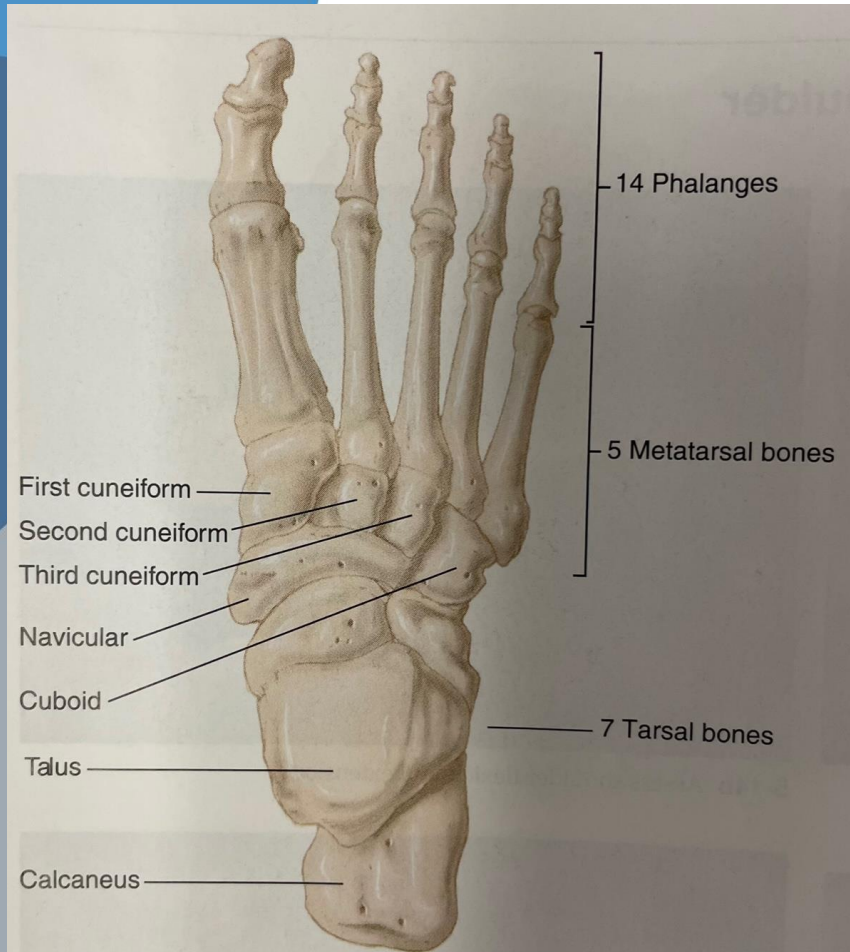


5-14c Assess shoulder abduction and adduction.

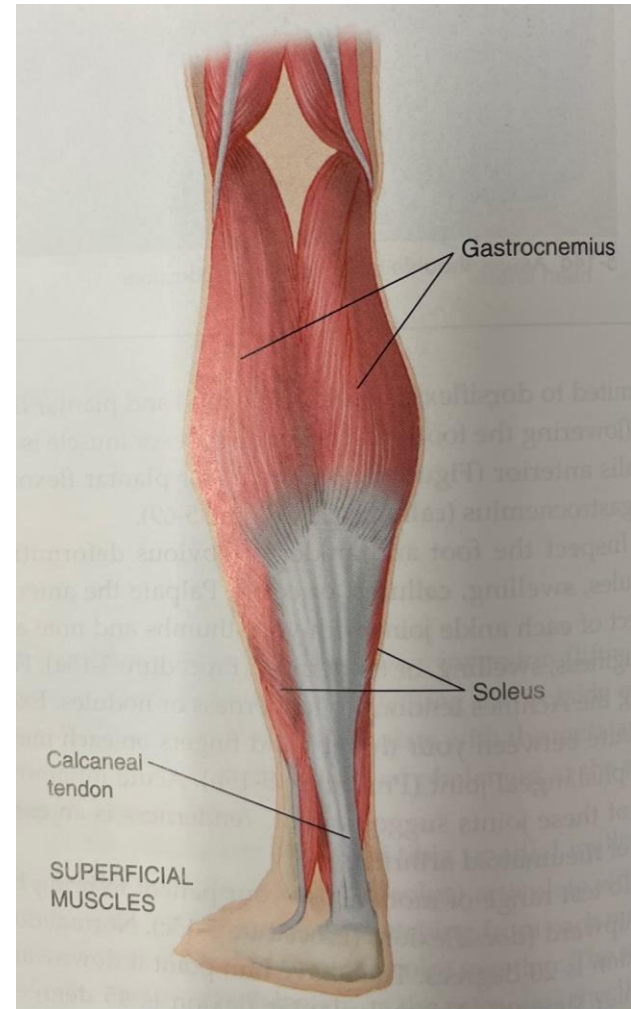
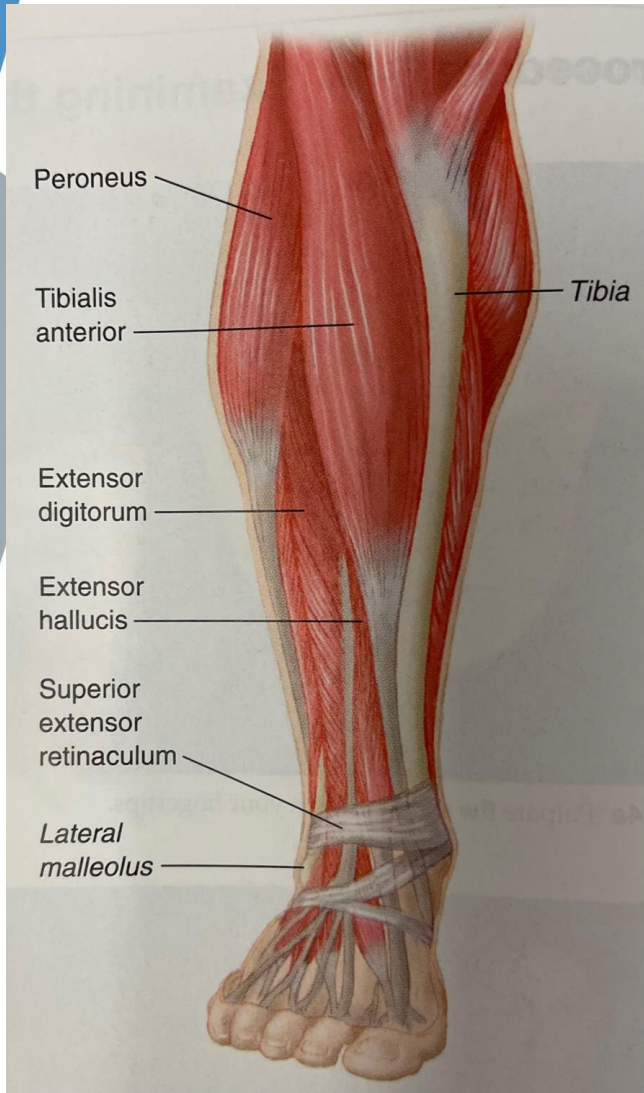


5-14d Assess internal and external shoulder rotation.

Ankles and Feet



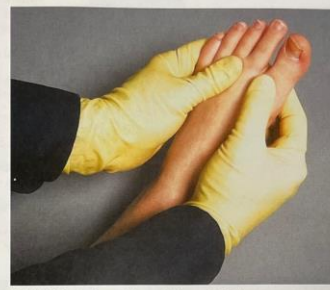
Ankles and Feet



Ankles and Feet Assessment



5-15a Palpate the ankle and foot.



5-15b Palpate the metatarsophalangeal joints.



5-15c Assess dorsiflexion and plantar flexion.

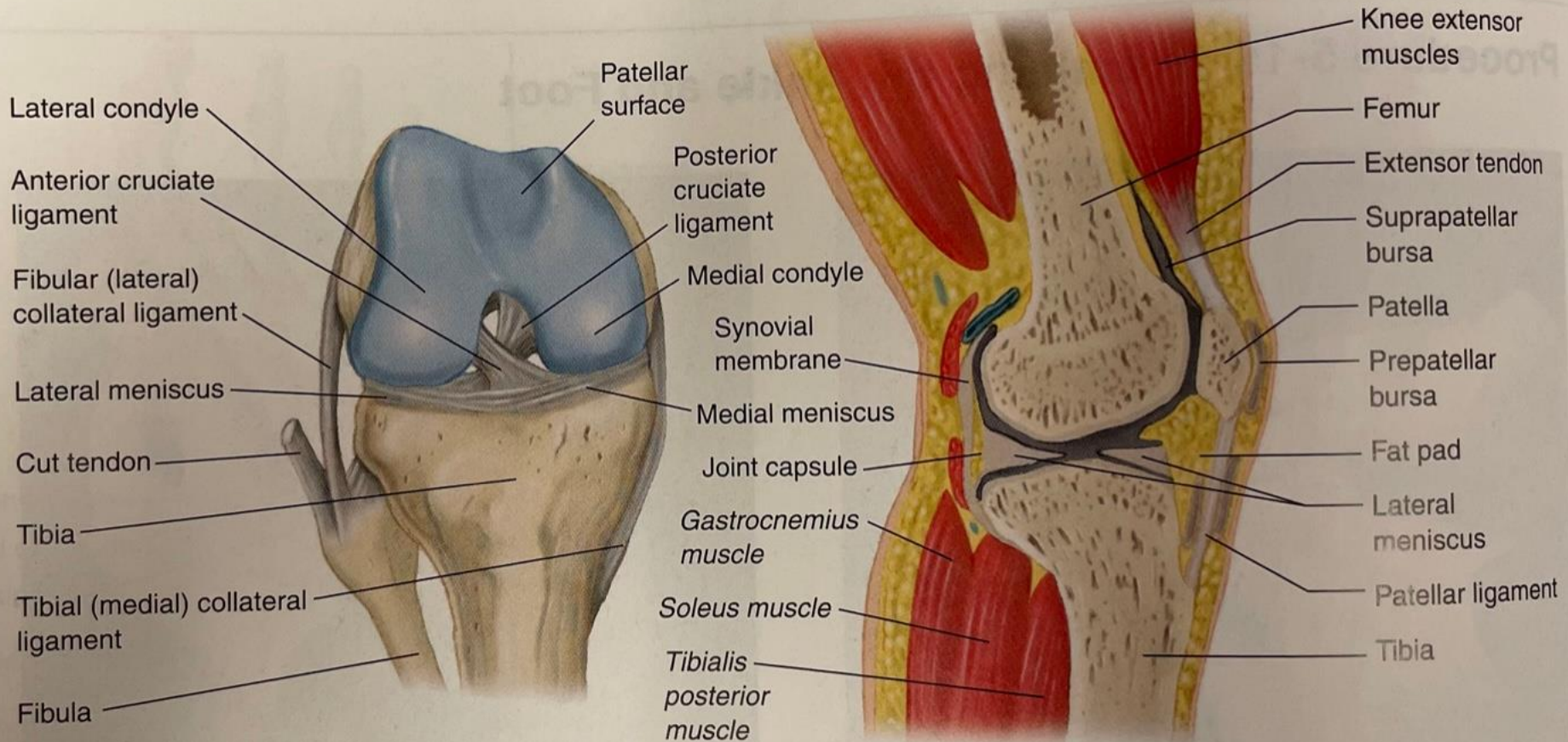


5-15d Assess inversion and eversion of the foot.

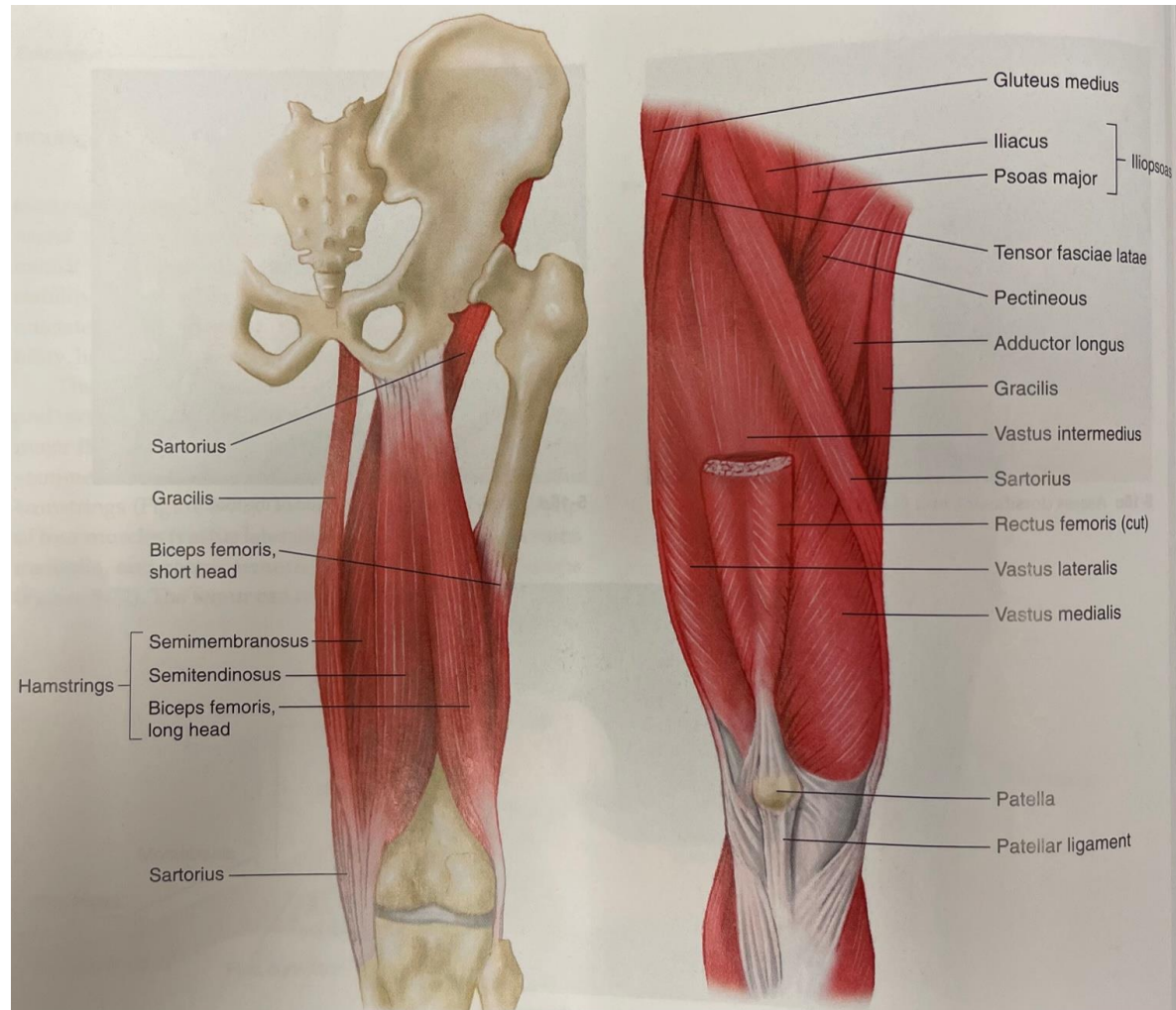


5-15e Test flexion and extension of the toes.

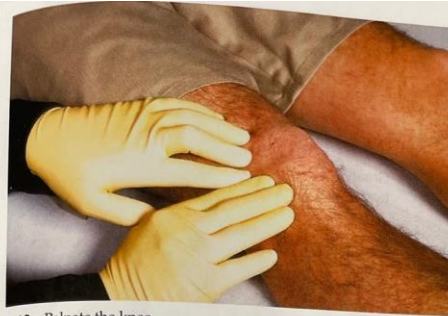
Knees



Knees



Knees Assessment



5-16a Palpate the knee.



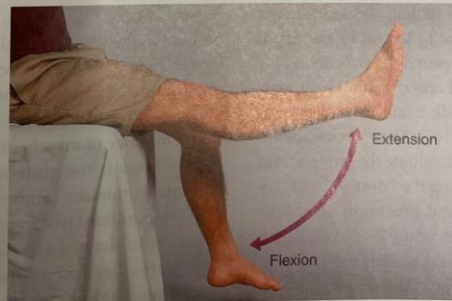
5-16b Palpate the patella.



5-16c Test the collateral ligaments of the knee.

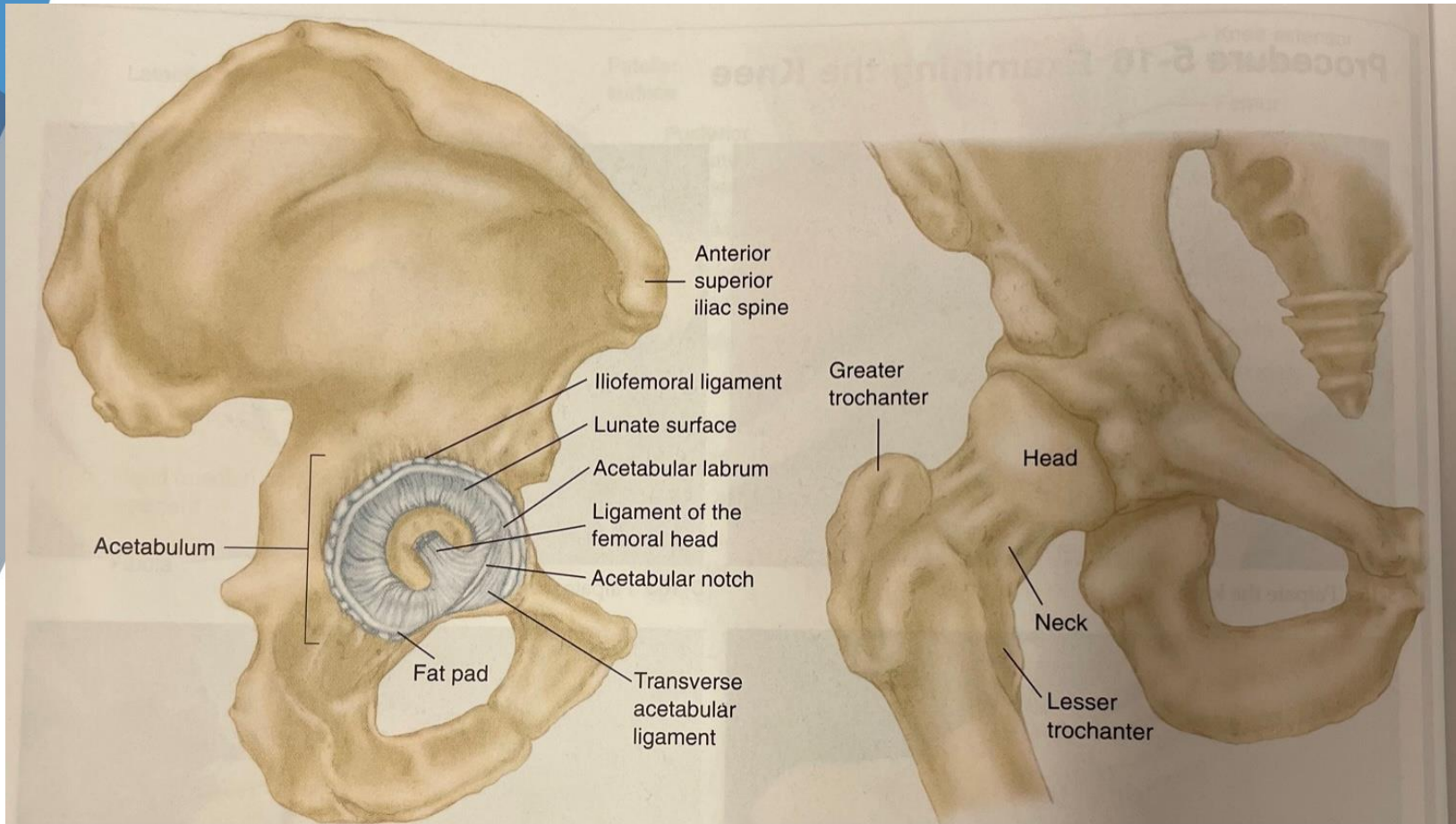


5-16d Test the cruciate ligaments of the knee.

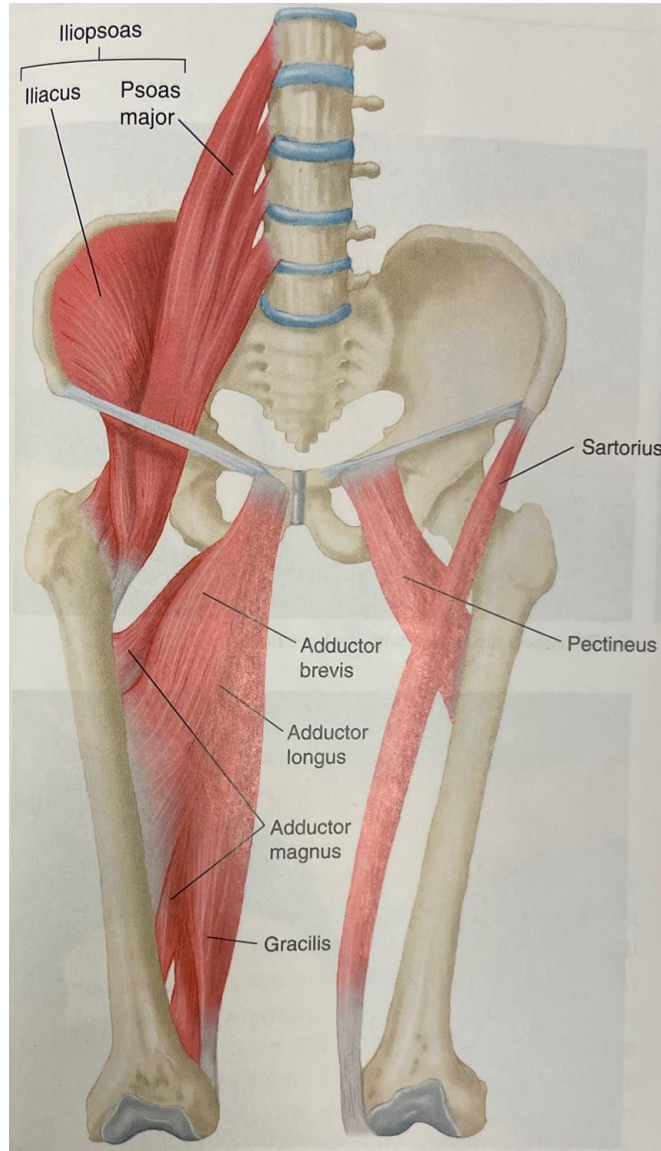


5-16e Assess knee flexion and extension.

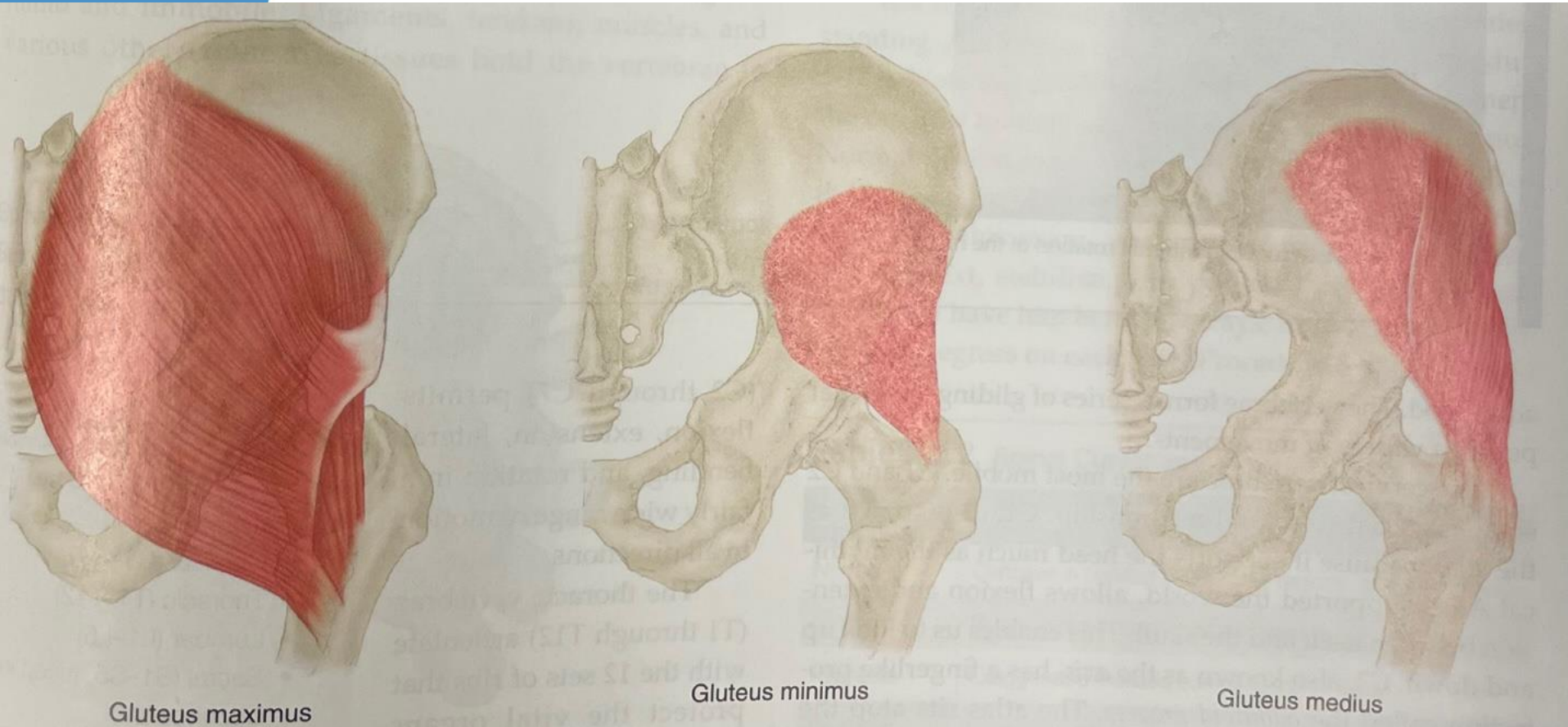
Hips



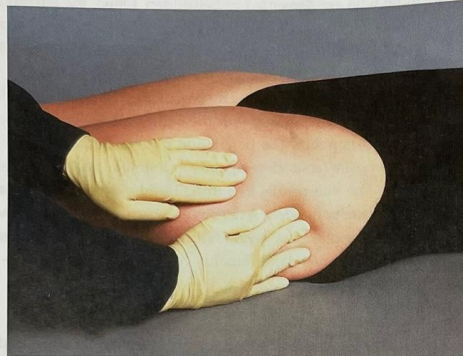
Hips



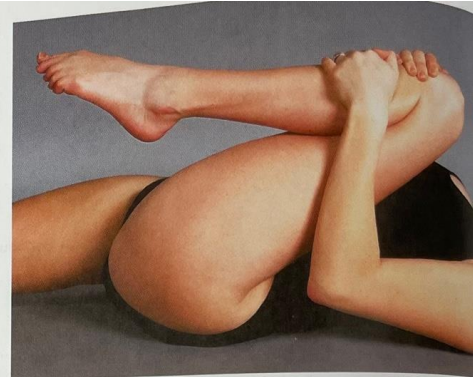
Hips



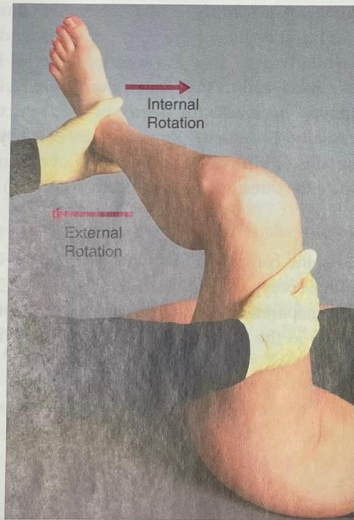
Hips Assessment



5-17a Palpate the hip.



5-17b Assess hip flexion with the knee flexed.

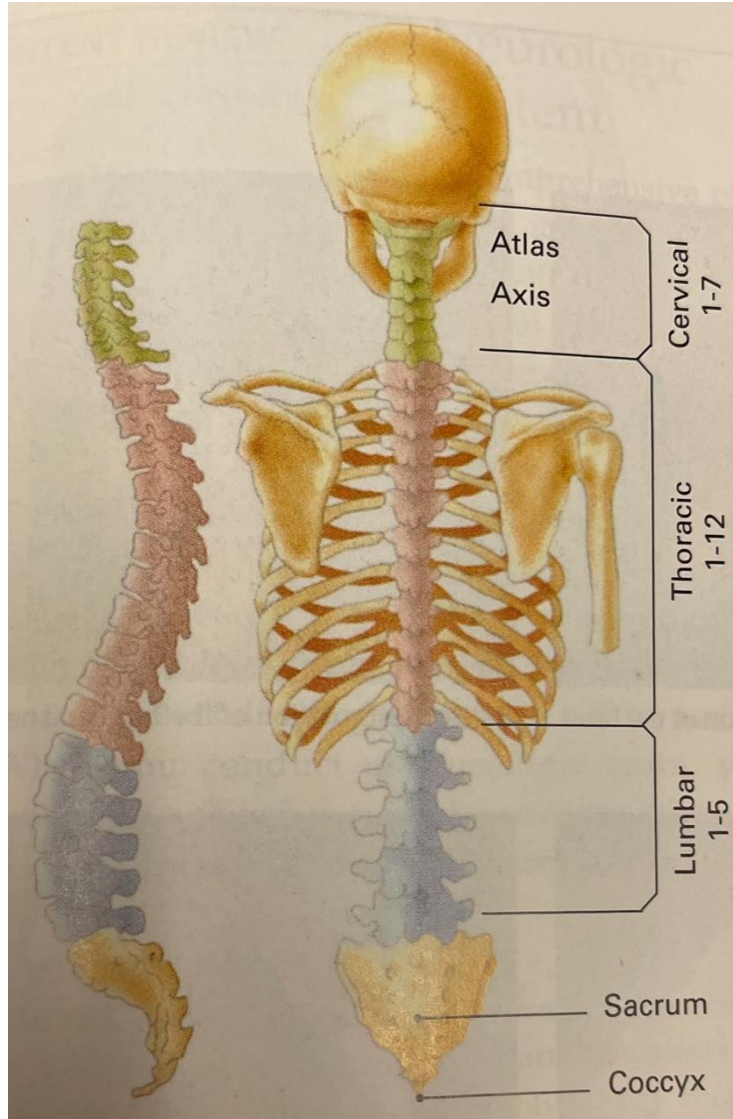


5-17c Assess external and internal rotation of the hip.

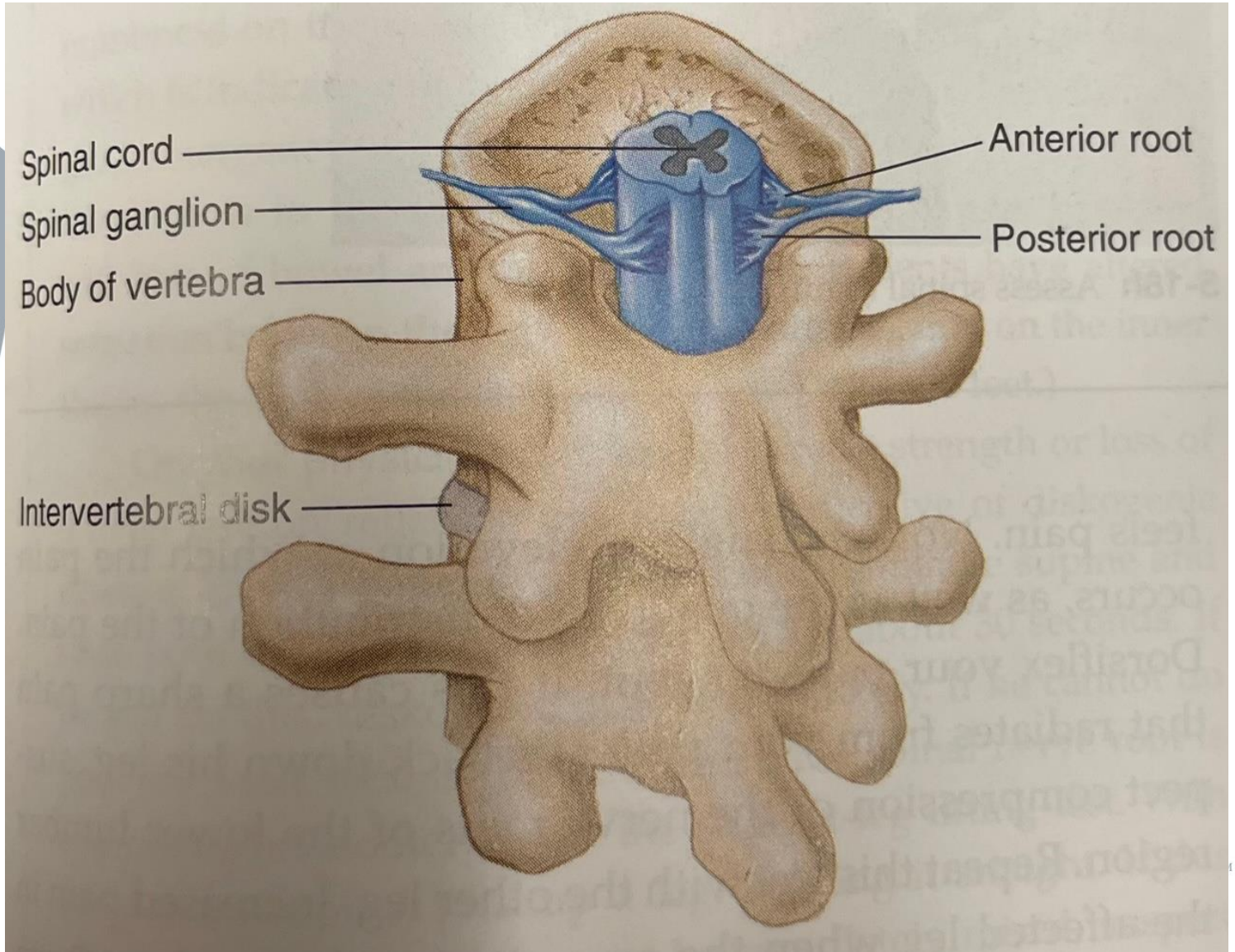


5-17d Assess hip abduction and adduction.

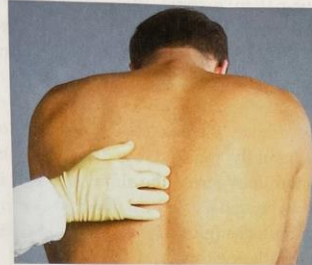
Spine



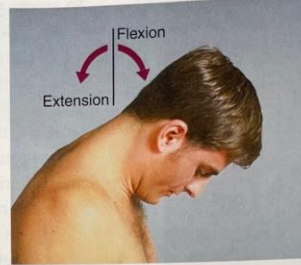
Spine



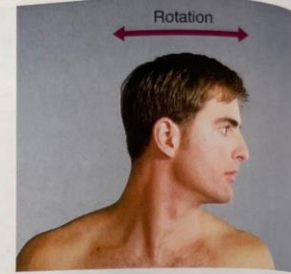
Spine Assessment



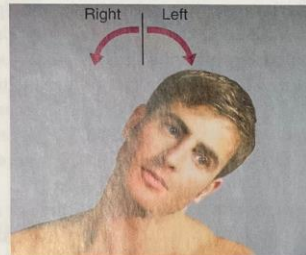
5-18a Palpate the spine.



5-18b Test flexion and extension of the head and neck.



5-18c Test rotation of the head and neck.



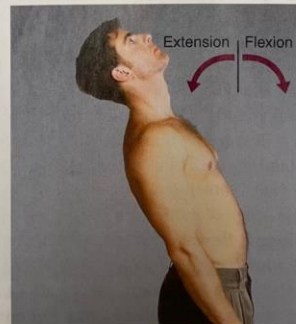
5-18d Test lateral bending of the head and neck.



5-18e Assess flexion of the lower spine.



5-18f Assess lateral bending of the lower spine.



5-18g Assess spinal extension.

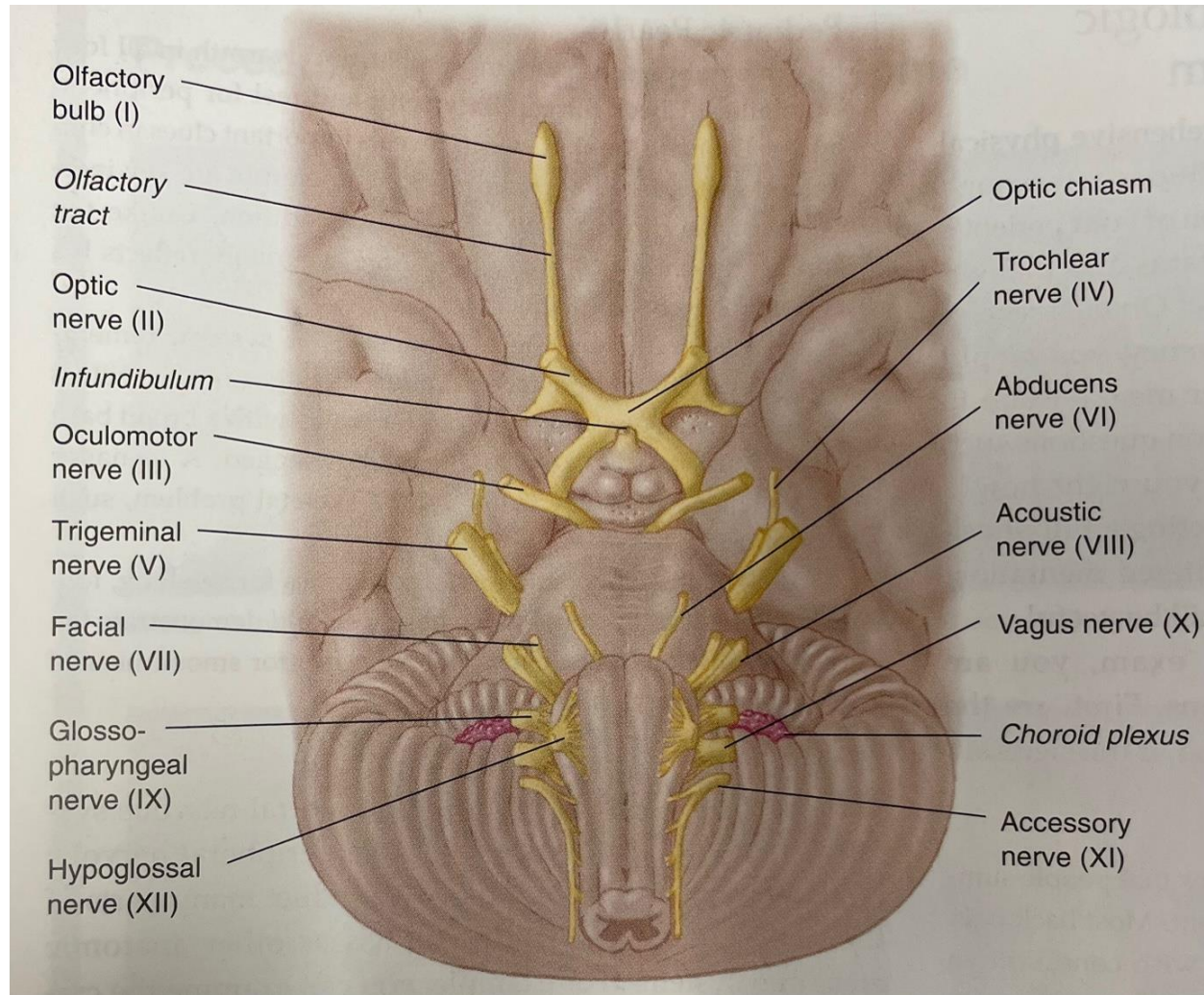


5-18h Assess spinal rotation.

Neurologic System

- Mental Status and Speech
- Cranial Nerves
- Motor System
- Sensory System
- Reflexes

Cranial Nerves



Cranial Nerves

Cranial Nerve	Function	Innervation
I—Olfactory	Sensory	Smell
II—Optic	Sensory	Sight
III—Oculomotor	Motor	Pupil constriction; superior rectus, inferior rectus, inferior oblique muscles
IV—Trochlear	Motor	Superior oblique muscles
V—Trigeminal	Sensory Motor	Ophthalmic (forehead), maxillary (cheek), and mandibular (chin) regions Chewing muscles
VI—Abducens	Motor	Lateral rectus muscle
VII—Facial	Sensory Motor	Tongue Facial muscles
VIII—Acoustic	Sensory	Hearing, balance
IX—Glossopharyngeal	Sensory Motor	Posterior pharynx, taste to anterior tongue Posterior pharynx
X—Vagus	Sensory Motor	Taste to posterior tongue Posterior palate and pharynx
XI—Accessory	Motor	Trapezius, sternocleidomastoids
XII—Hypoglossal	Motor	Tongue

Cranial Nerves Assessment



5-19a Test the olfactory nerve by having your patient identify common odors.



5-19b Test the oculomotor, trochlear, and abducens nerves by evaluating your patient's extraocular movements.



5-19c Test motor function of the trigeminal nerve by palpating the temporal and masseter muscles.



5-19d Test sensory function of the trigeminal nerve with sharp and dull objects.

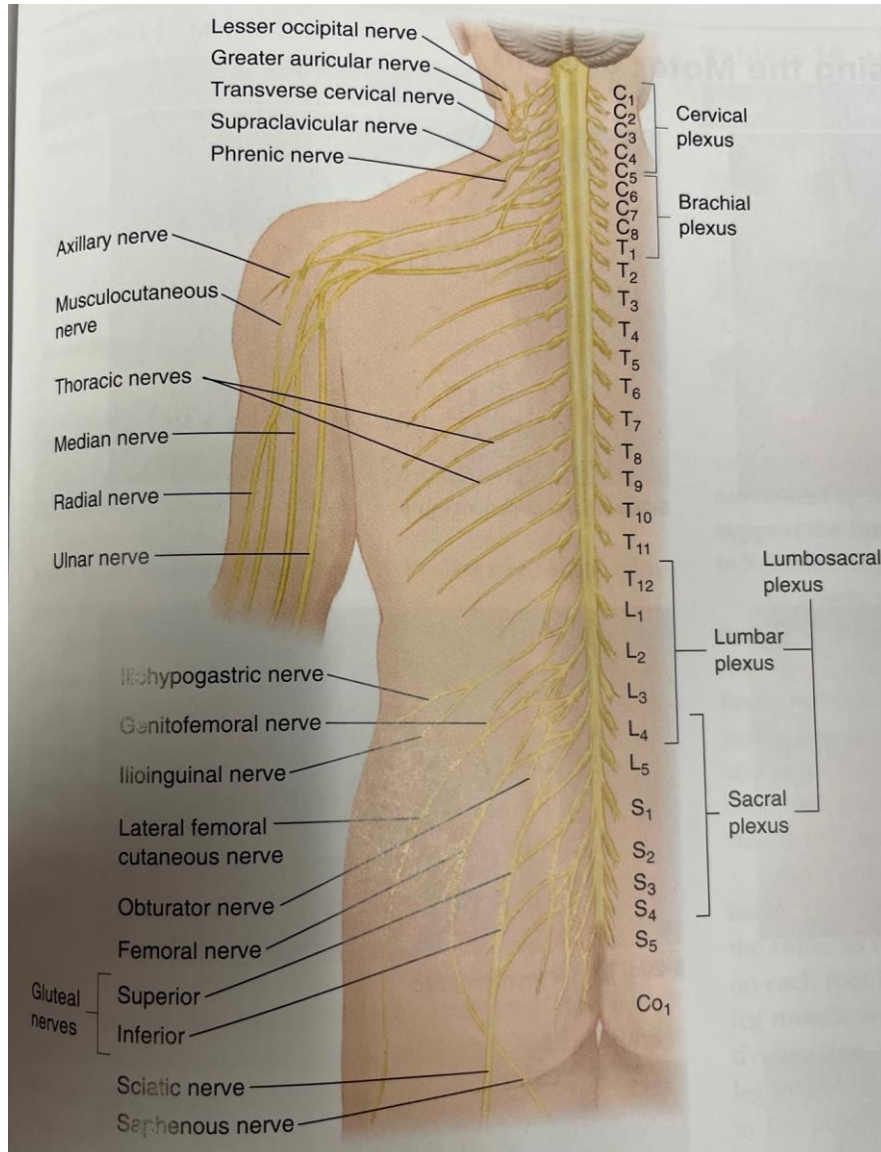


5-19e Test the glossopharyngeal and vagus nerves with a tongue blade.



5-19f Test the spinal accessory nerve by having your patient shrug her shoulders against resistance.

Motor System



Motor System Assessment



5-20a Assess the elbow's range of motion.



5-20b Test your patient's grip.



5-20c Test arm strength.



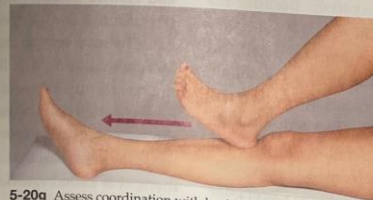
5-20d Test for pronator drift.



5-20e Test for coordination with rapid alternating movements.



5-20f Test coordination with point-to-point testing.



5-20g Assess coordination with heel-to-shin testing.

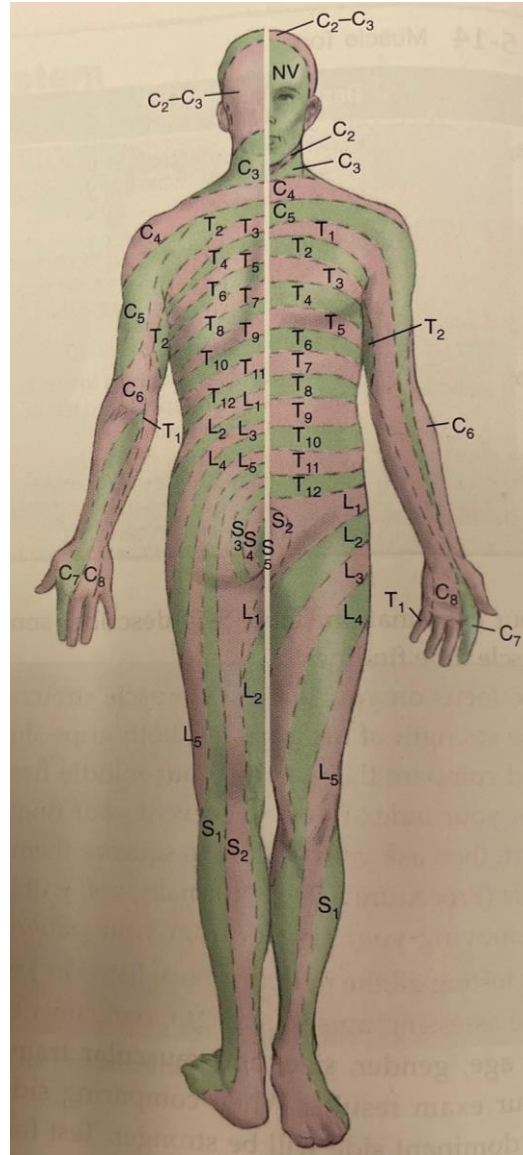
Motor System Assessment

Finding	Description
Spasticity	Increased tone when passive movement applied, especially at the end of range. Common in stroke.
Rigidity	Increased rigidity throughout movement (lead-pipe). Common in Parkinson's disease and extrapyramidal reactions. Cog-wheel motion is a patient-applied resistance.
Flaccidity	Loss of muscle tone causing limb to be loose. Common in stroke, spinal cord lesion, and Guillain-Barré syndrome.
Paratonia	Sudden changes in tone with passive movement. Can be increased or decreased resistance. Common in dementia.

TABLE 3-15 Muscle Strength Tests

Muscles	Nerves	Test
Biceps	C5, C6	Flexion of the elbow
Triceps	C6, C7, C8	Extension of the elbow
Wrist extensors	C6, C7, C8, radial nerve	Extension of the wrist
Fingers	C8, T1, ulnar nerve	Finger abduction
Thumb	C8, T1, median nerve	Thumb opposition
Iliopsoas	L2, L3, L4	Hip flexion
Hip extensor	S1	Hip extension
Hip abductors	L4, L5, S1	Hip abduction
Hip adductors	L2, L3, L4	Hip adduction
Quadriceps	L2, L3, L4	Knee extension
Hamstrings	L4, L5, S1, S2	Knee flexion
Feet	L4, L5	Dorsiflexion
Calf muscles	S1	Plantar flexion

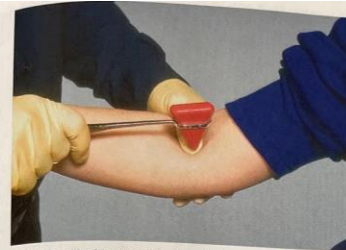
Sensory System Assessment



Reflexes

- Biceps
- Triceps
- Brachioradialis
- Quadriceps
- Achilles Tendon
- Plantar

Reflexes Assessment



5-21a Test the biceps reflex (cervical nerves C5 and C6).



5-21b Test the triceps reflex (cervical nerves C6, C7, and C8).



5-21c Test the brachioradialis reflex (cervical nerves C5 and C6).



5-21d Test the quadriceps reflex (lumbar nerves L2, L3, and L4).



5-21e Test the Achilles reflex (sacral nerves S1 and S2).



5-21f Test the plantar reflex (central nervous system).



5-21g Test abdominal reflexes (thoracic nerves T8, T9, T10, T11, and T12).

Patient Monitoring

- ECG
- Pulse Oximetry
- Capnography
- Pulse CO-Oximetry
- Blood Glucometry
- Ultrasound



When do we use a backboard?