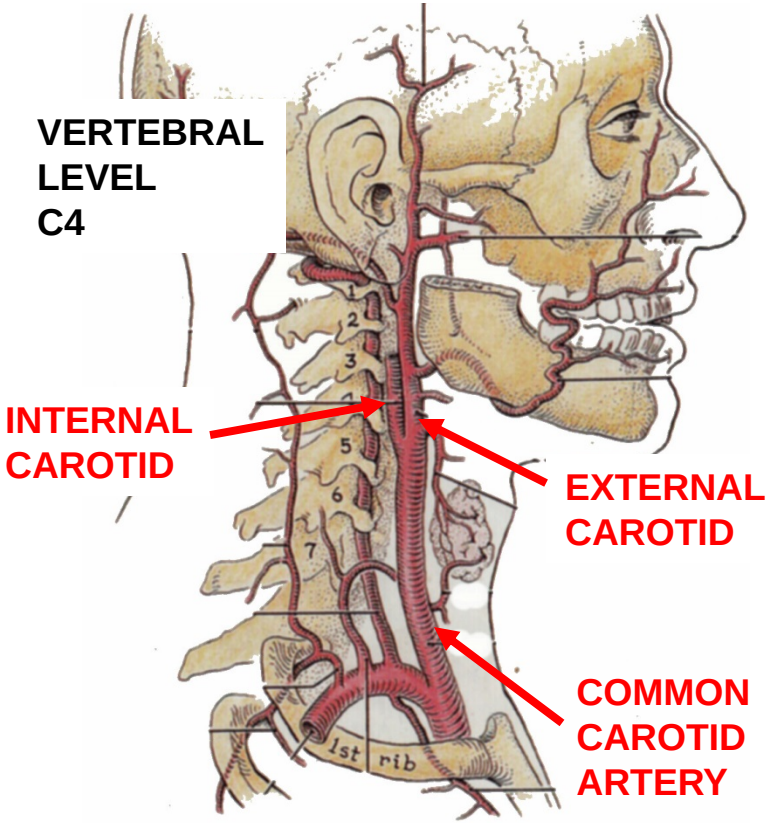
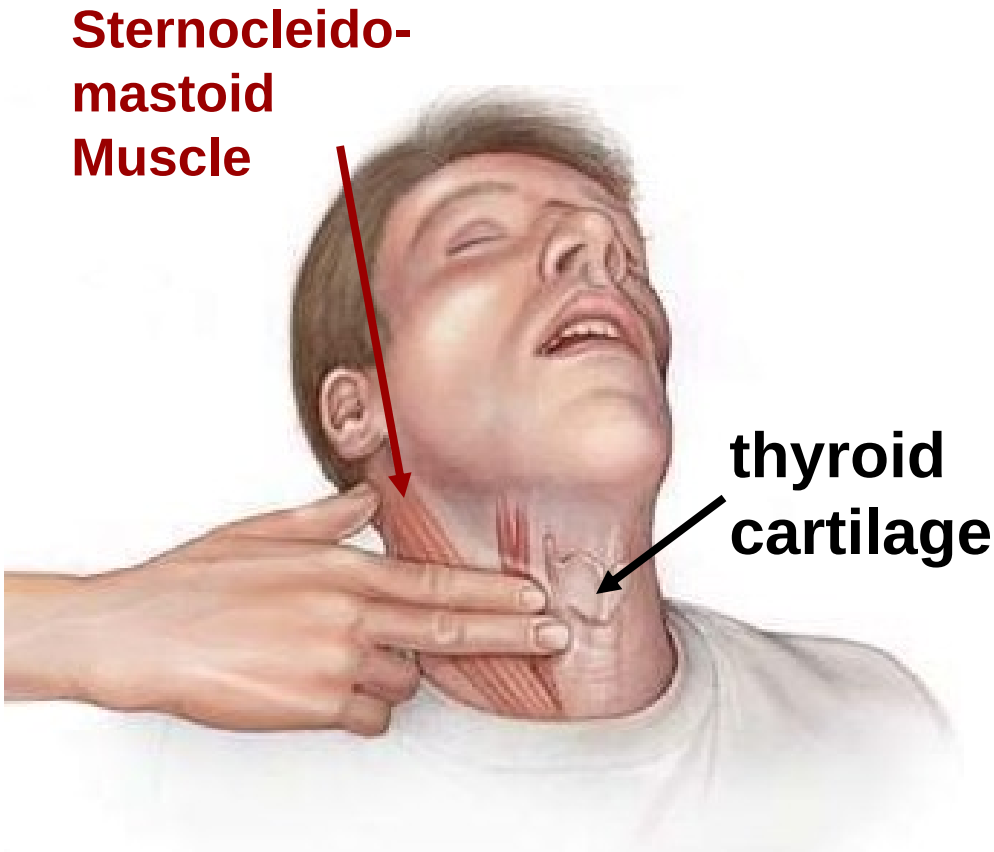
REVIEW/PREVIEW OF HEAD AND NECK ANATOMY FOR ENT EXAM - 2018

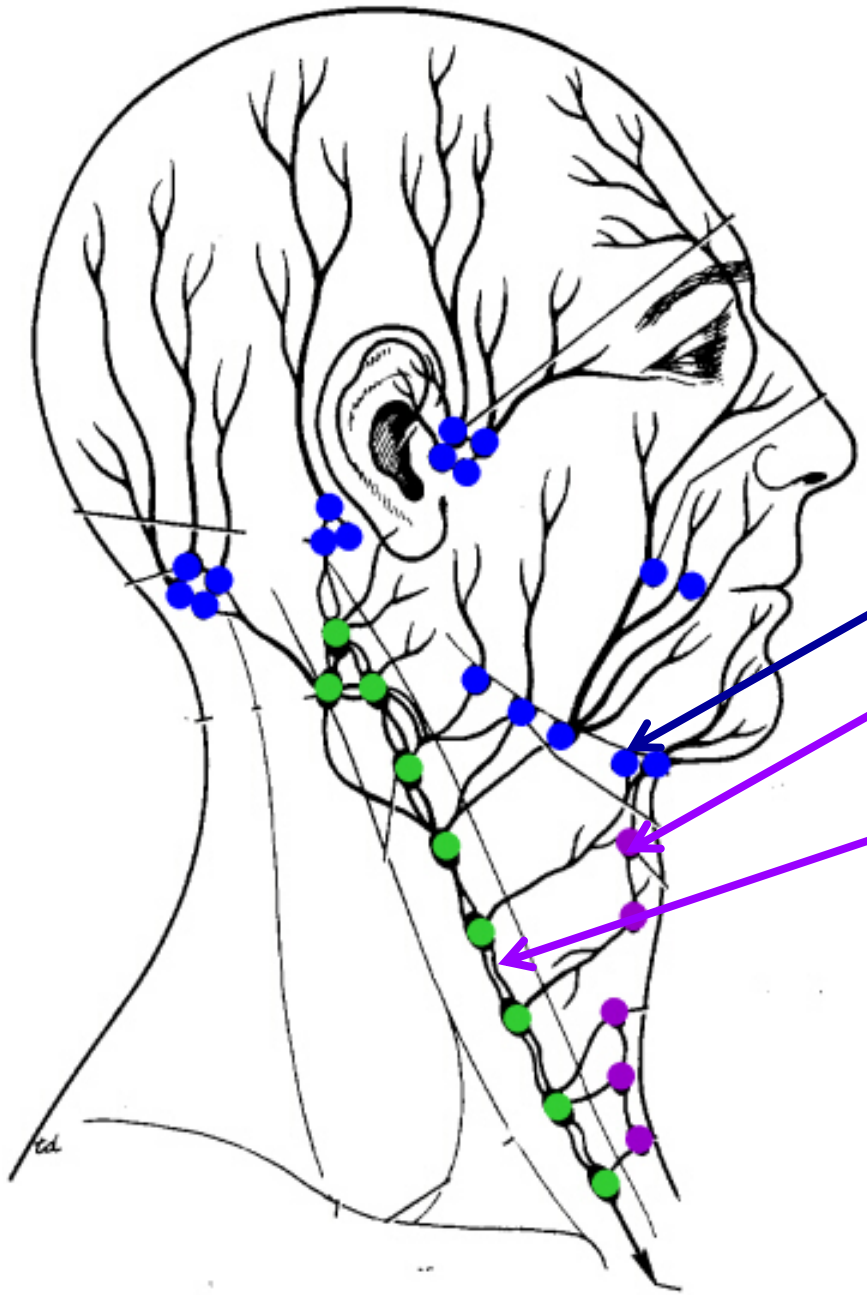
PALPATE CAROTID ARTERY: AT LEVEL OF CAROTID BIFURCATION





PALPATE CAROTID BIFURCATION: ANTERIOR TO STERNOCLEIDOMASTOID MUSCLES AT UPPER BORDER OF THYROID CARTILAGE (VERTEBRAL LEVEL C4)

Anatomy: Overview Lymph Nodes



- Lymph nodes are named for their position

- Three groups

- Two arranged as rings that drain to chain

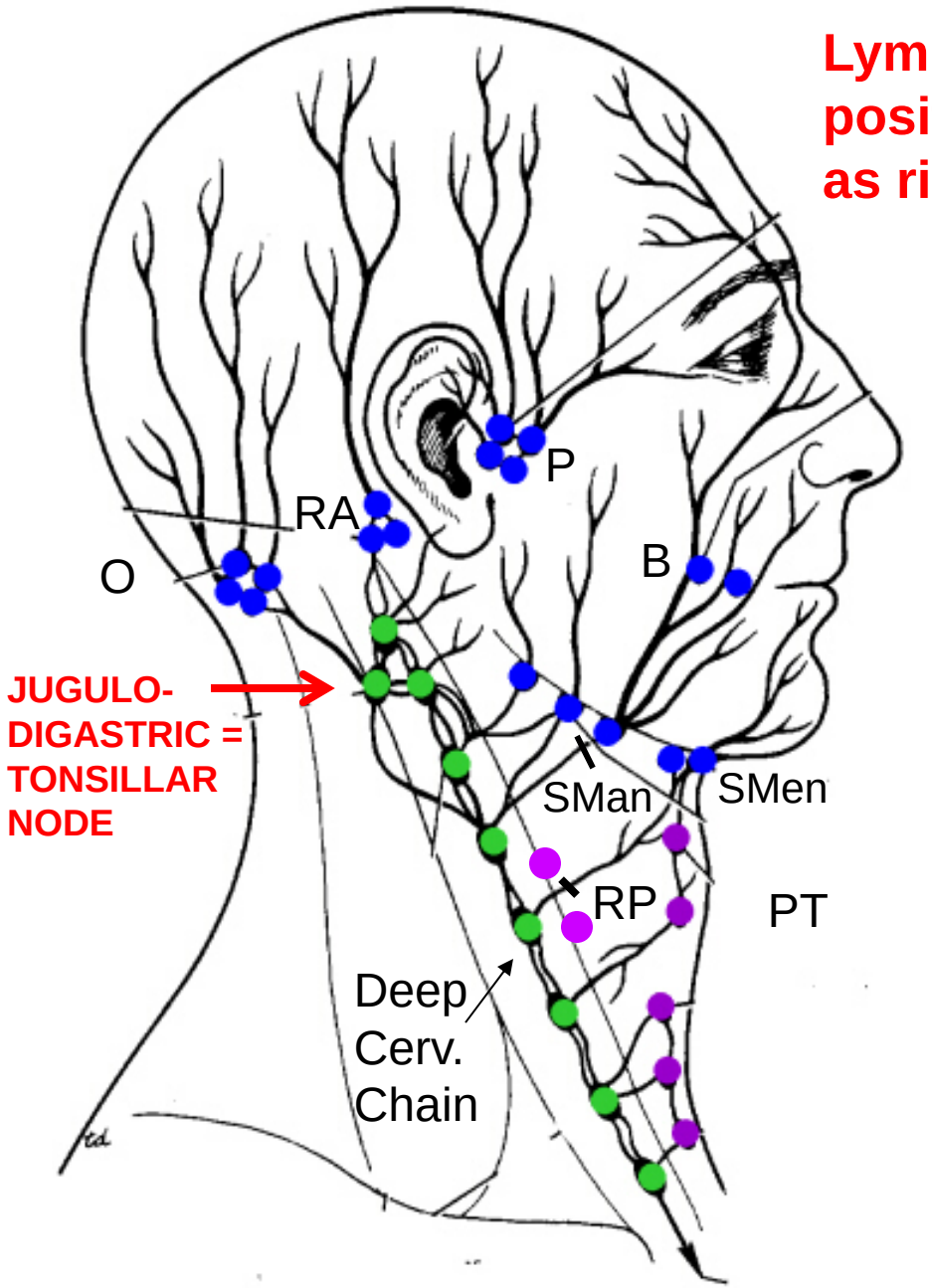
Superficial Ring;

Deep Ring (not palpated)

Deep cervical chain- along Internal Jugular vein; some named (ex. Tonsillar node)

All Lymph from Head drains to Jugular lymph trunk - to Right lymphatic duct or Thoracic duct

Anatomy: Lymph Nodes



Lymph nodes are named for their position; three groups (two arranged as rings; drain to chain)

A. Superficial Ring; Submental, Submandibular, Buccal, Parotid, Retro-auricular, Occipital nodes

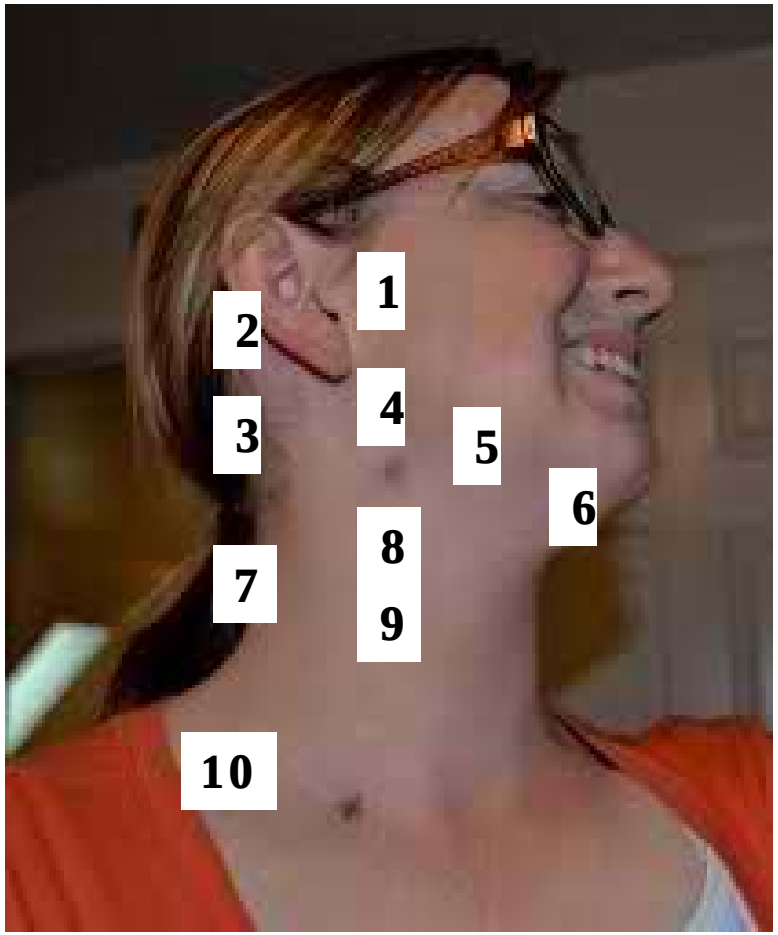
B. Deep Ring: Pretracheal, Retropharyngeal nodes

C. Deep cervical chain- along Internal Jugular vein; receive lymph from all above nodes, Some named (ex. Tonsillar node)

D. Jugular lymph trunk - to Right lymphatic duct or Thoracic duct

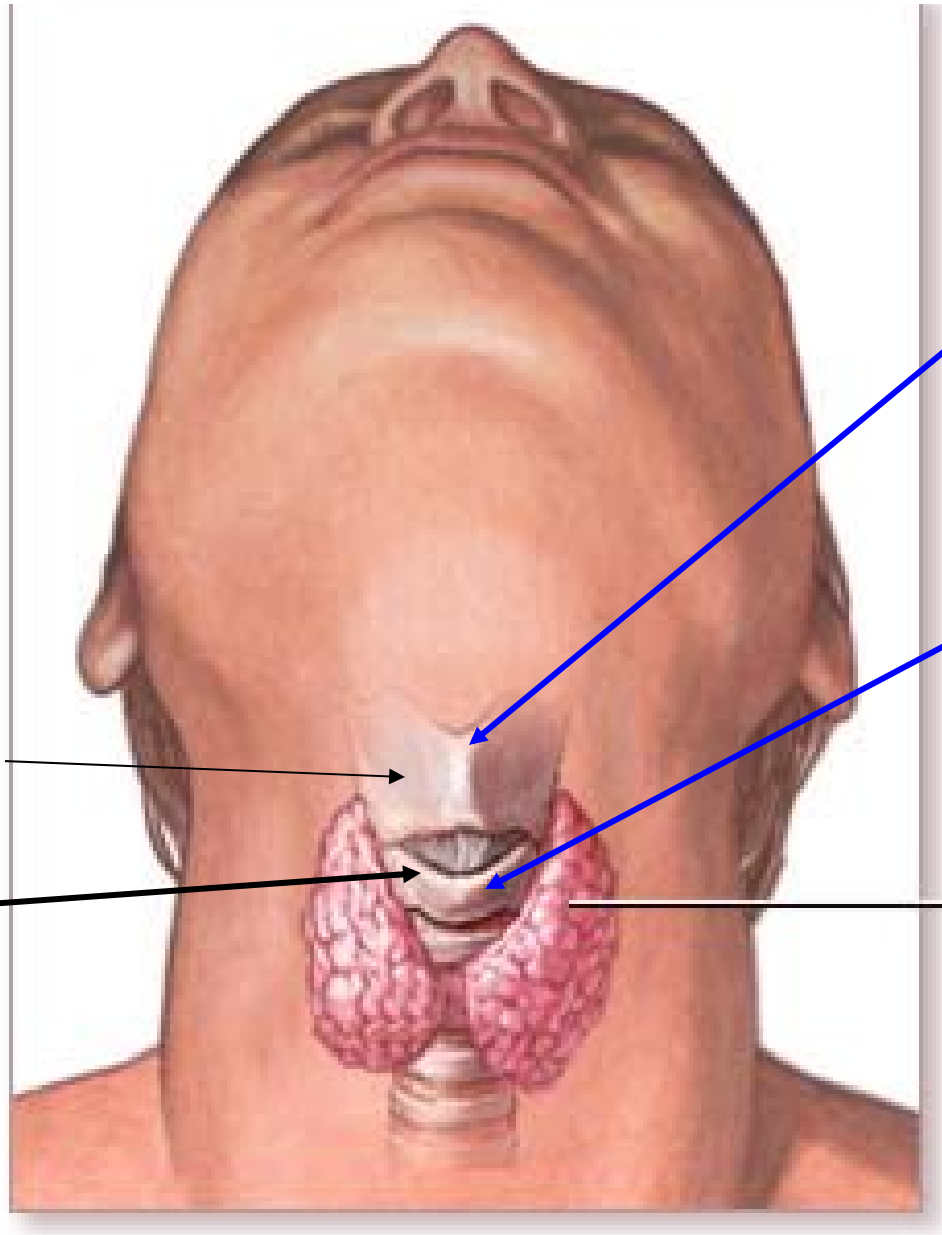
ENT Exam: Palpate Lymph Nodes

Lymph Nodes (10)
1- Periauricular = Parotid (in front of the ear)
2 - Posterior auricular = Retroauricular (behind the ear)
3 - Occipital (base of skull)
4 - Tonsillar (angle of jaw)
5 - Submaxillary = Submandibular (mid-jaw)
6 - Submental (under chin)
7 - Posterior cervical (back of neck)
8 - Superficial cervical
9 - Deep cervical
10 - Supraclavicular

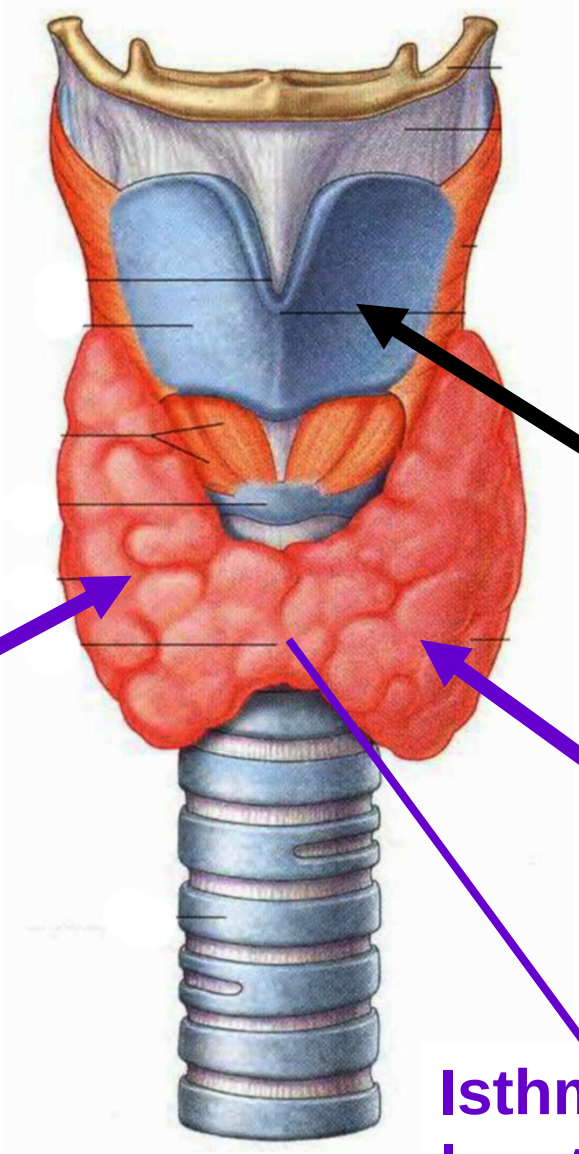


Note: Clinical terms for specific lymph nodes vary and can differ from anatomical terms.

Anatomy: Thyroid Gland



Anatomy: Thyroid Gland



THYROID GLAND

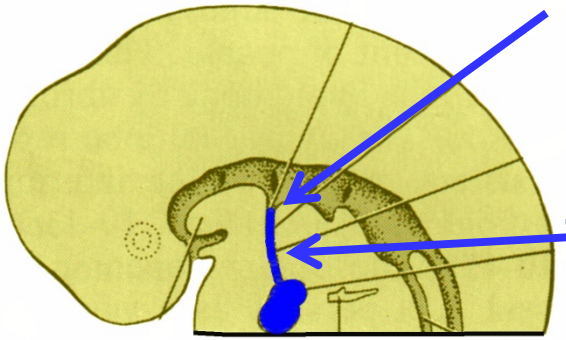
Two Lateral Lobes - inferior to and on sides of Thyroid cartilage

Lateral Lobe

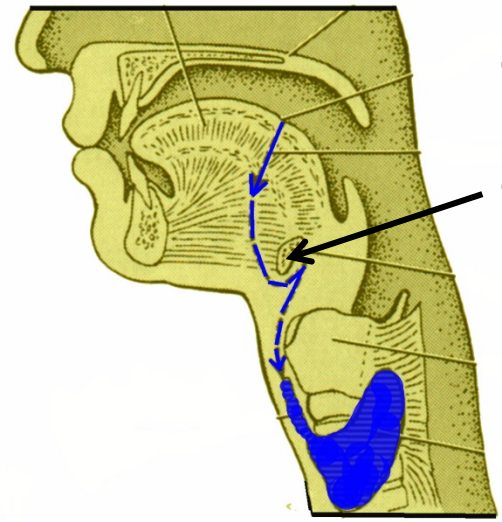
Lateral Lobe

Isthmus - connects Lateral Lobes - located below cricoid cartilage

Development, Normal Variations: Thyroid Gland



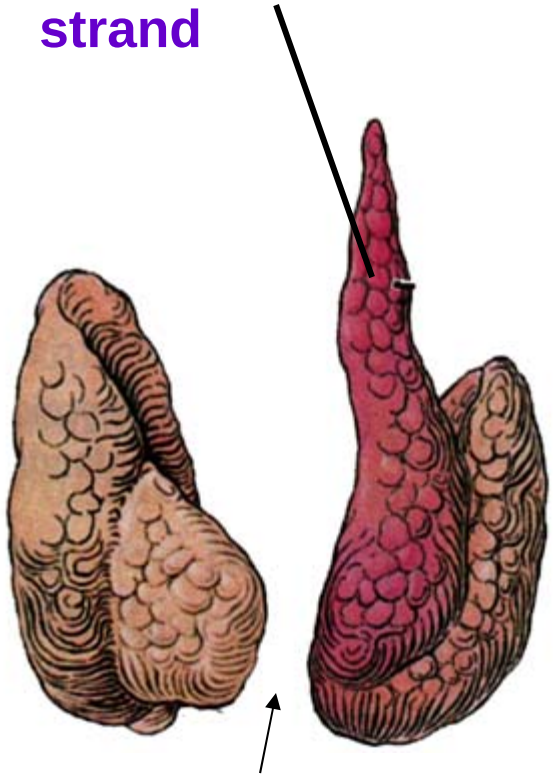
Thyroid develops at foramen cecum of tongue;
Elongates to form Thyroglossal duct



Thyroid tissue migrates anterior to hyoid bone, inferior to thyroid cartilage

Normal variations common

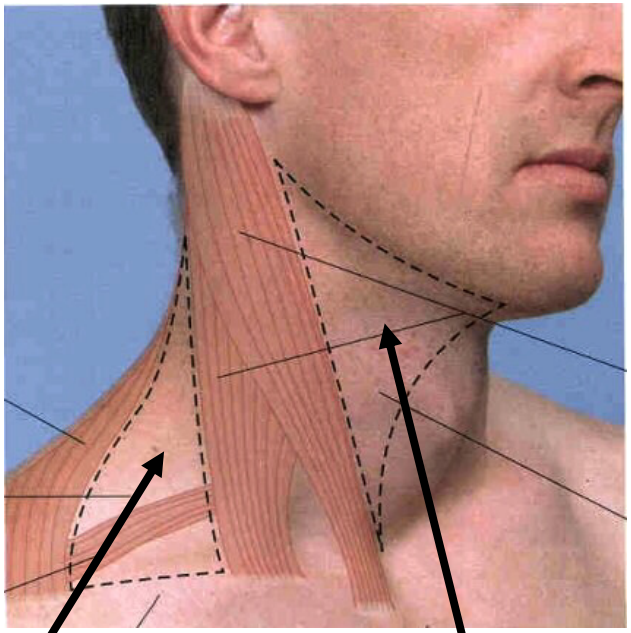
1) Pyramidal lobe - when present often attached to hyoid bone by fibrous strand

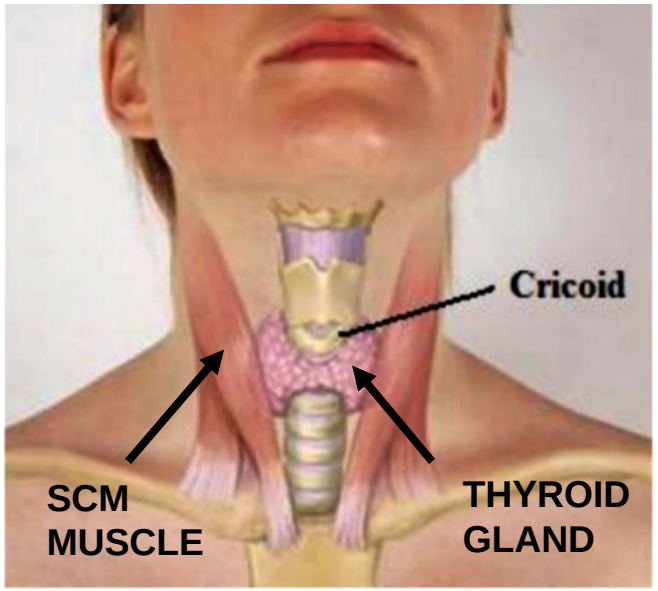


2) Absence of Isthmus

ENT: PALPATE THYROID GLAND

Sternocleidomastoid (SCM) defines areas in Neck

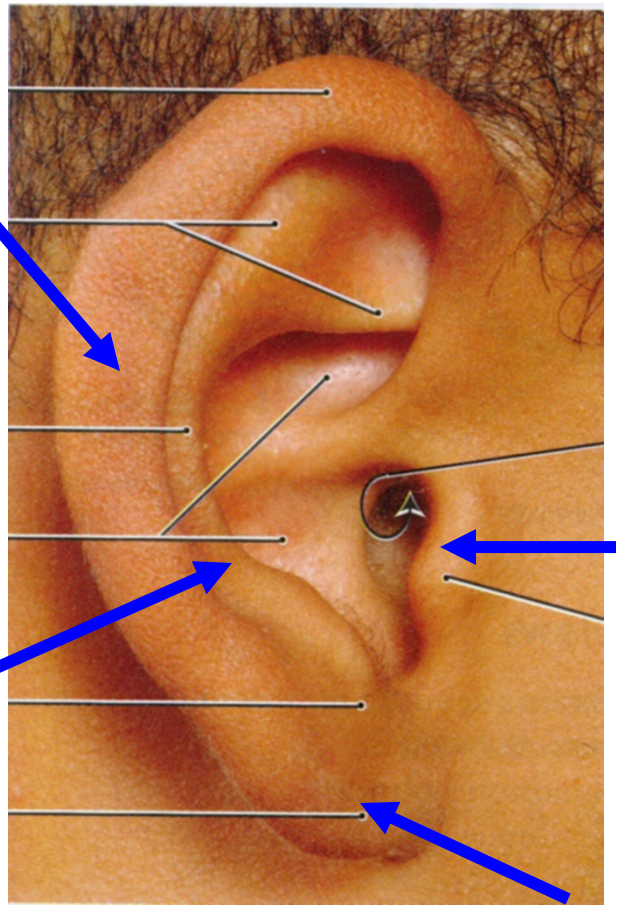




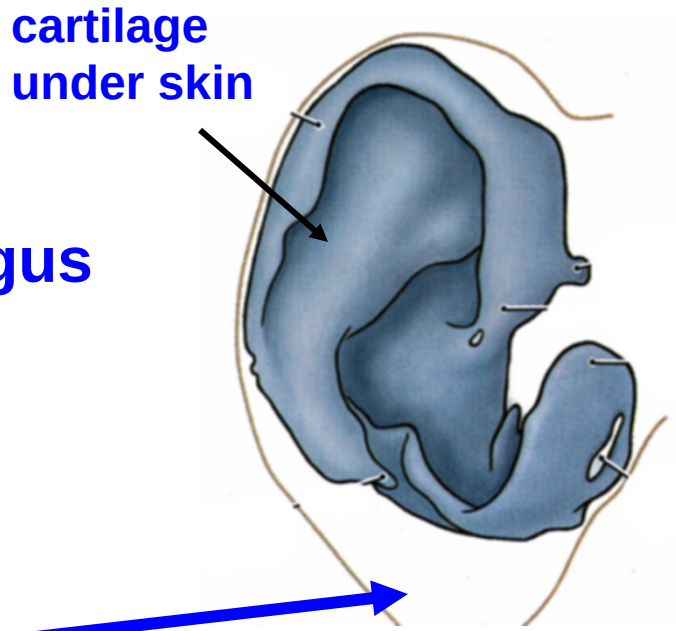
Thyroid gland: palpated in Anterior Triangle below Cricoid cartilage, medial to Sternocleidomastoid

Stand behind patient; have patient swallow

OUTER EAR: ANATOMY



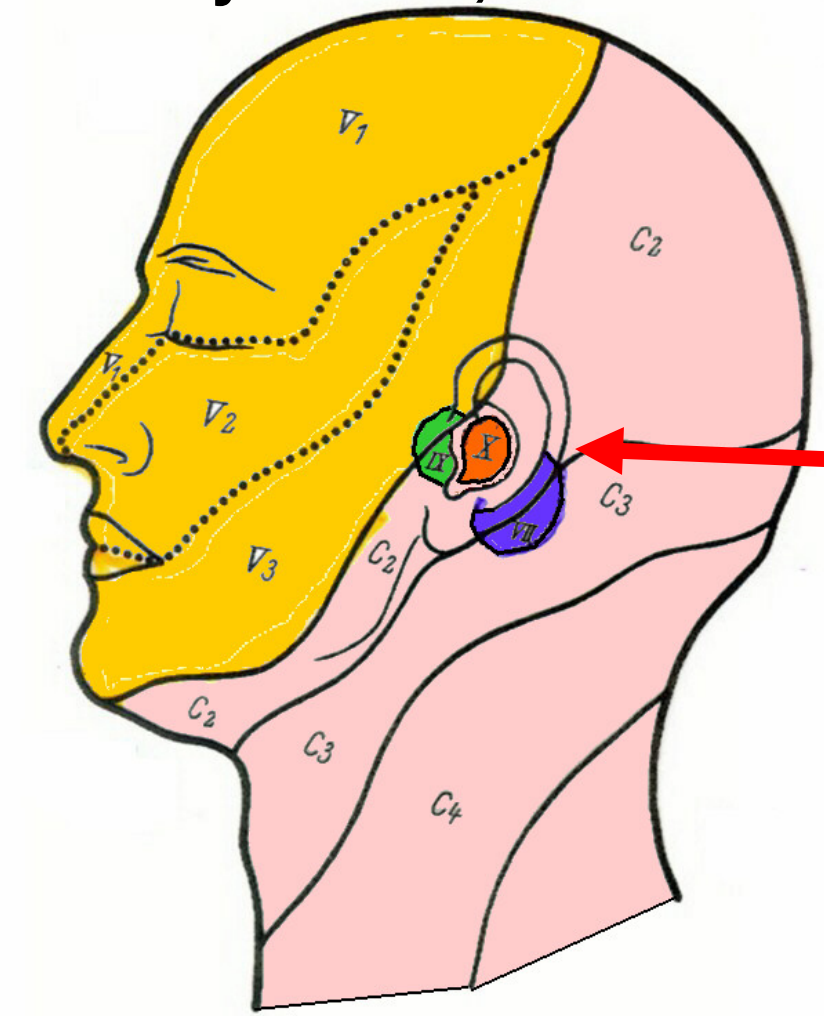
<u>AURICLE</u> (pinna) - elastic cartilage and skin - Reflects sound waves



Cartilage does not extend into lobule - Can safely pierce and suspend decorative metal objects from lobule

SOMATIC SENSORY

sensory to skin, ORAL cavity, NASAL cavity, joints, muscles



ALMOST ALL
TRIGEMINAL V
EXCEPTION:
SKIN OF OUTER EAR
ALSO
1) VII- FACIAL
2) IX - GLOSSO-PHARYNGEAL
3) X - VAGUS

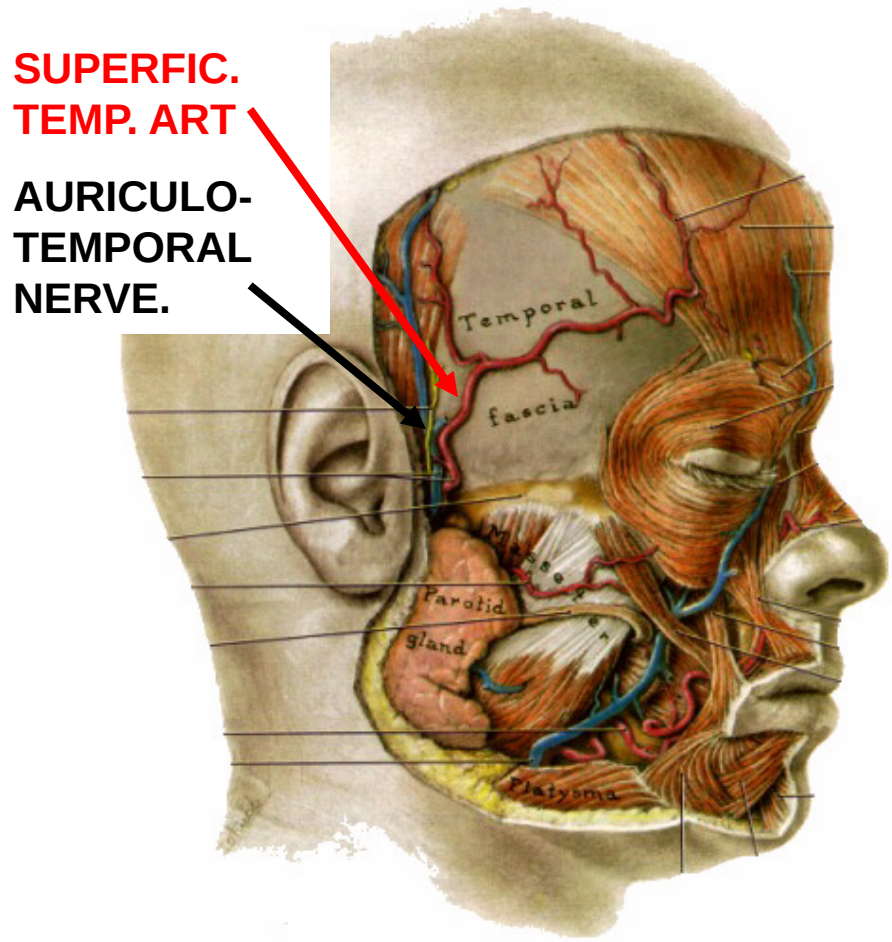
BELL'S PALSY (VII) - PARALYSIS OF FACIAL MUSCLES; IN RECOVERY, PATIENTS COMPLAIN OF EARACHES

EAR ACHE - referred pain

Auriculotemporal Nerve (branch of V3) -
- sensory to Outer Ear
- also Temporomandibular Joint (TMJ)
- passes through Parotid Gland

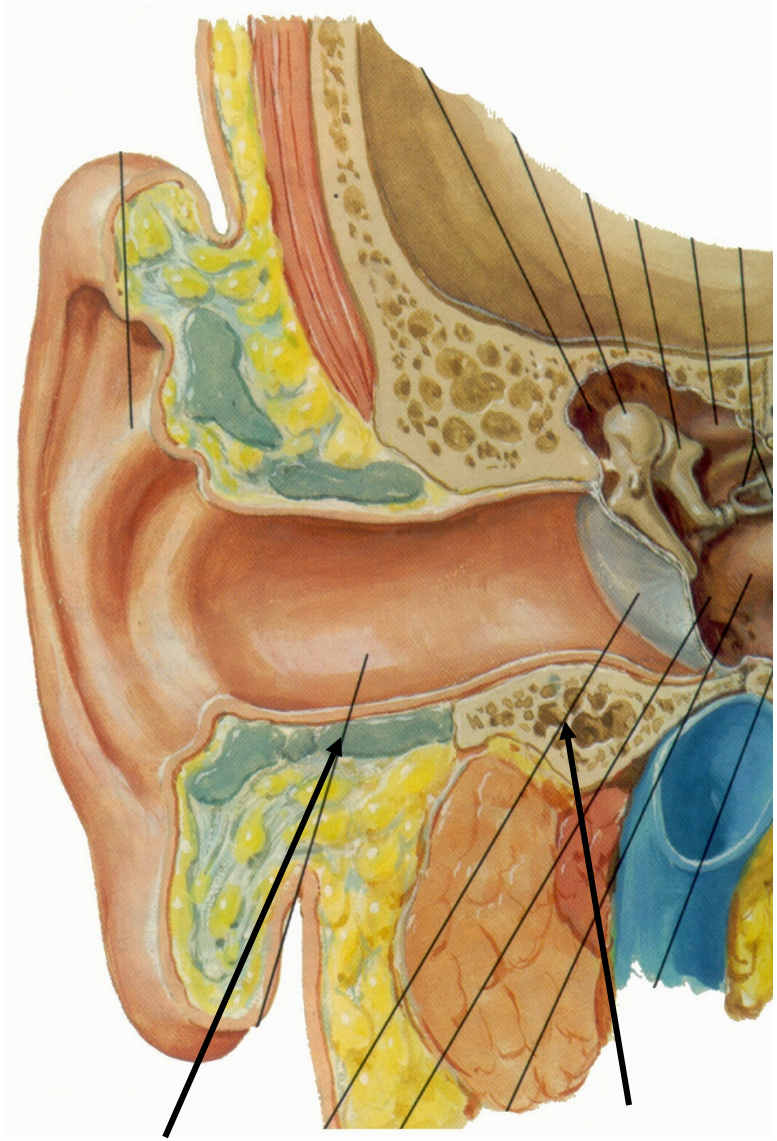
- Clinical problems with Parotid enlargement or TMJ can compress Auriculotemporal nerve

- Symptom is Ear Ache



Recall: Face Prosection

ANATOMY: EXTERNAL AUDITORY MEATUS



OUTER 1/3
CARTILAGE

INNER 2/3
BONE

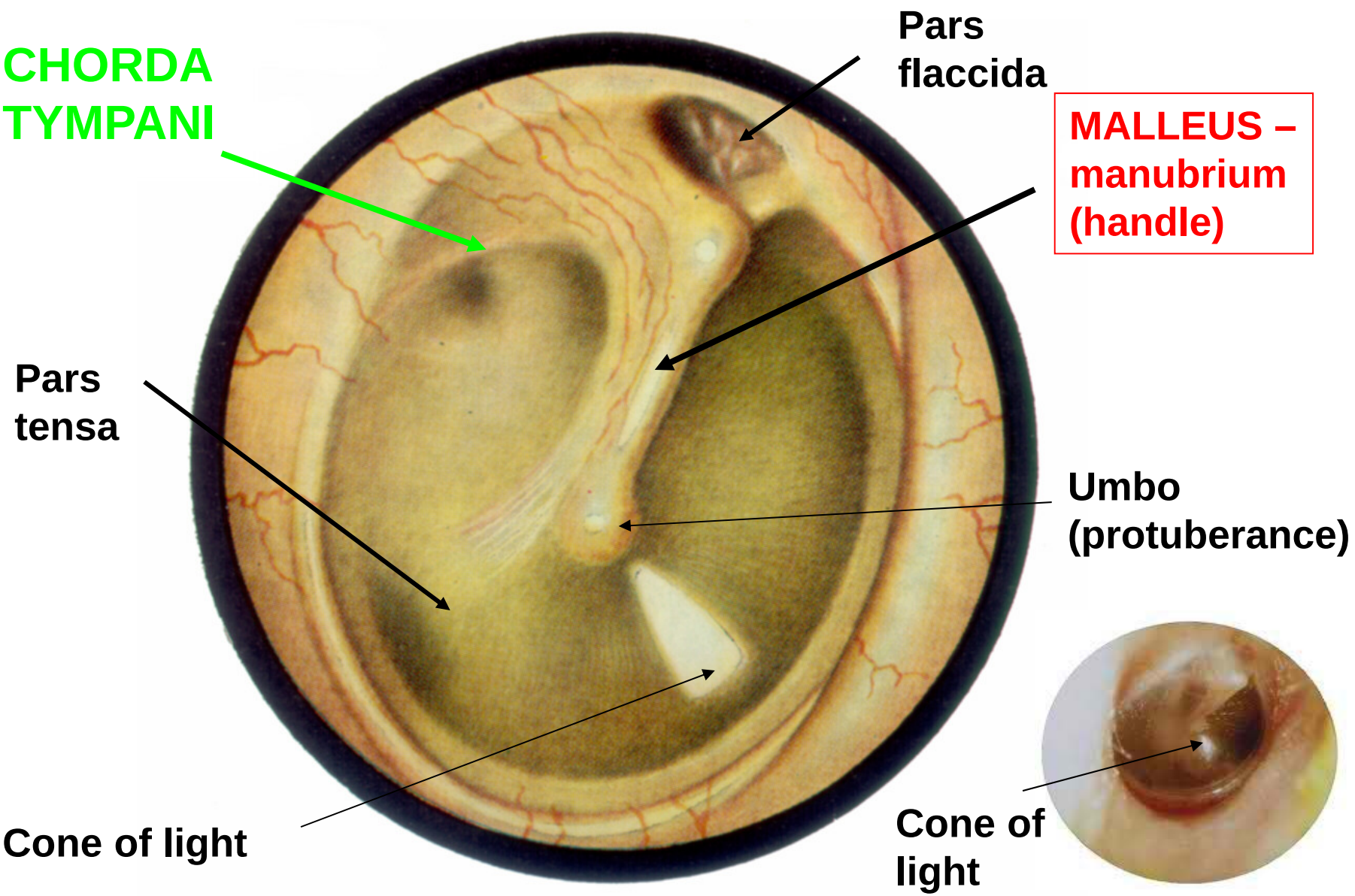
Outer 1/3 - Cartilage - contains hair, sebaceous and ceruminous glands (ear wax [insect repellent]); protects tymp. membrane,

Inner 2/3 - Bone covered by skin

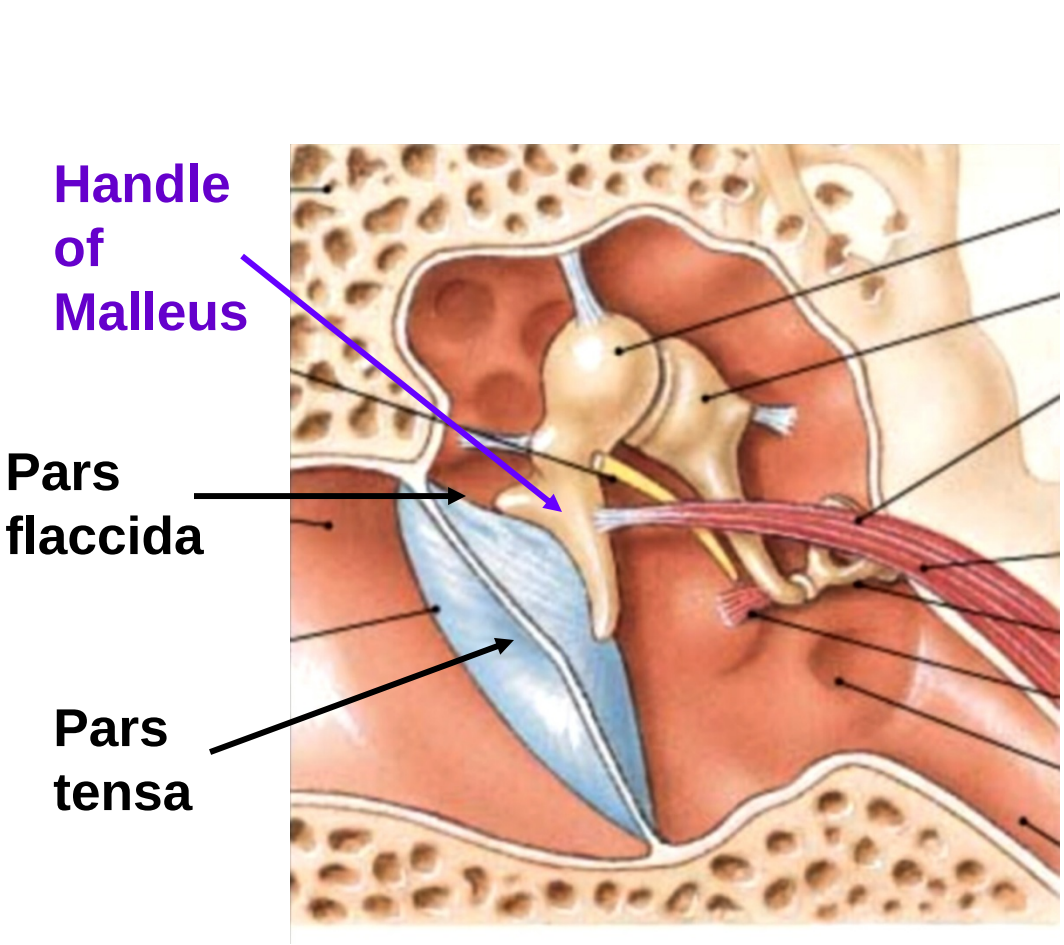
Clinical note: ext. auditory meatus is straight in children, curved anteriorly in adults

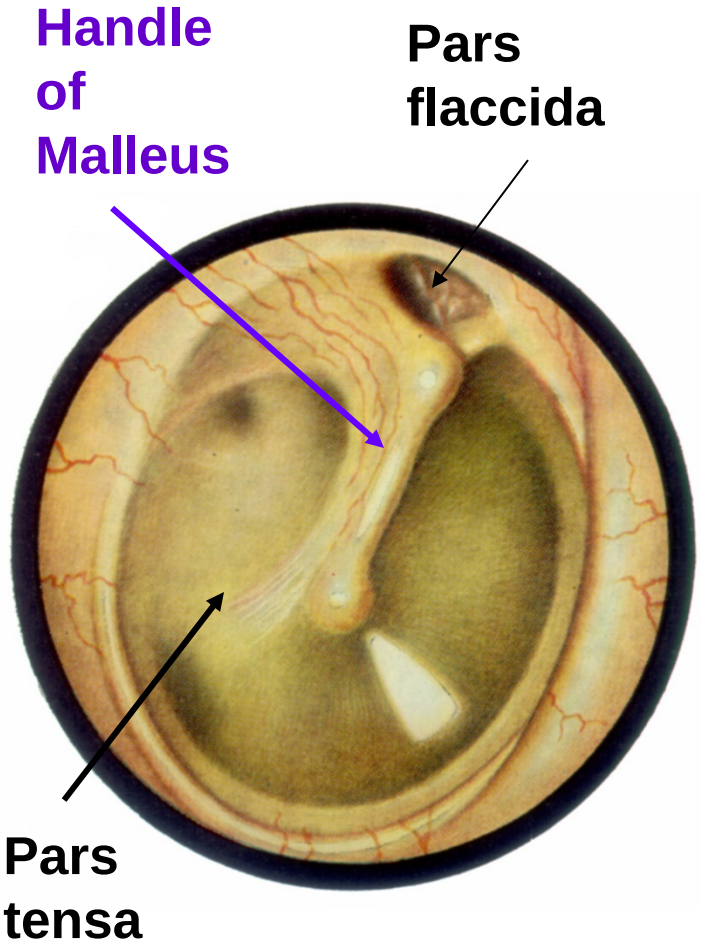
In Adult - pull up and back to insert otoscope

OTOSCOPE VIEW OF TYMPANIC MEMBRANE



OTOSCOPE VIEW OF TYMPANIC MEMBRANE





Handle malleus is attached to upper half of Tympanic membrane; malleus is supported by ligaments linking it to wall of Tympanic cavity; part of Tympanic membrane surrounding handle is tense (pars tensa); upper end is less tense (pars flaccida)

TESTING AUDITORY FUNCTION: INNER EAR DETECTS TRANSMITTED VIBRATIONS

Weber test – tuning fork on calvarium causes bone to vibrate; conducted to directly to cochlea by bone; perceived as sound by patient

Can use to test functioning of inner ear (Sensorineural hearing loss) independent of outer, middle ear (Conductive hearing loss)

CONDUCTIVE HEARING LOSS - damage to middle ear (tympanic membrane, auditory ossicles (bones)
SENSORINEURAL HEARING LOSS - damage to inner ear.

FIGURE 11-18
Weber test. Place the base of the tuning fork on the midline of the skull.

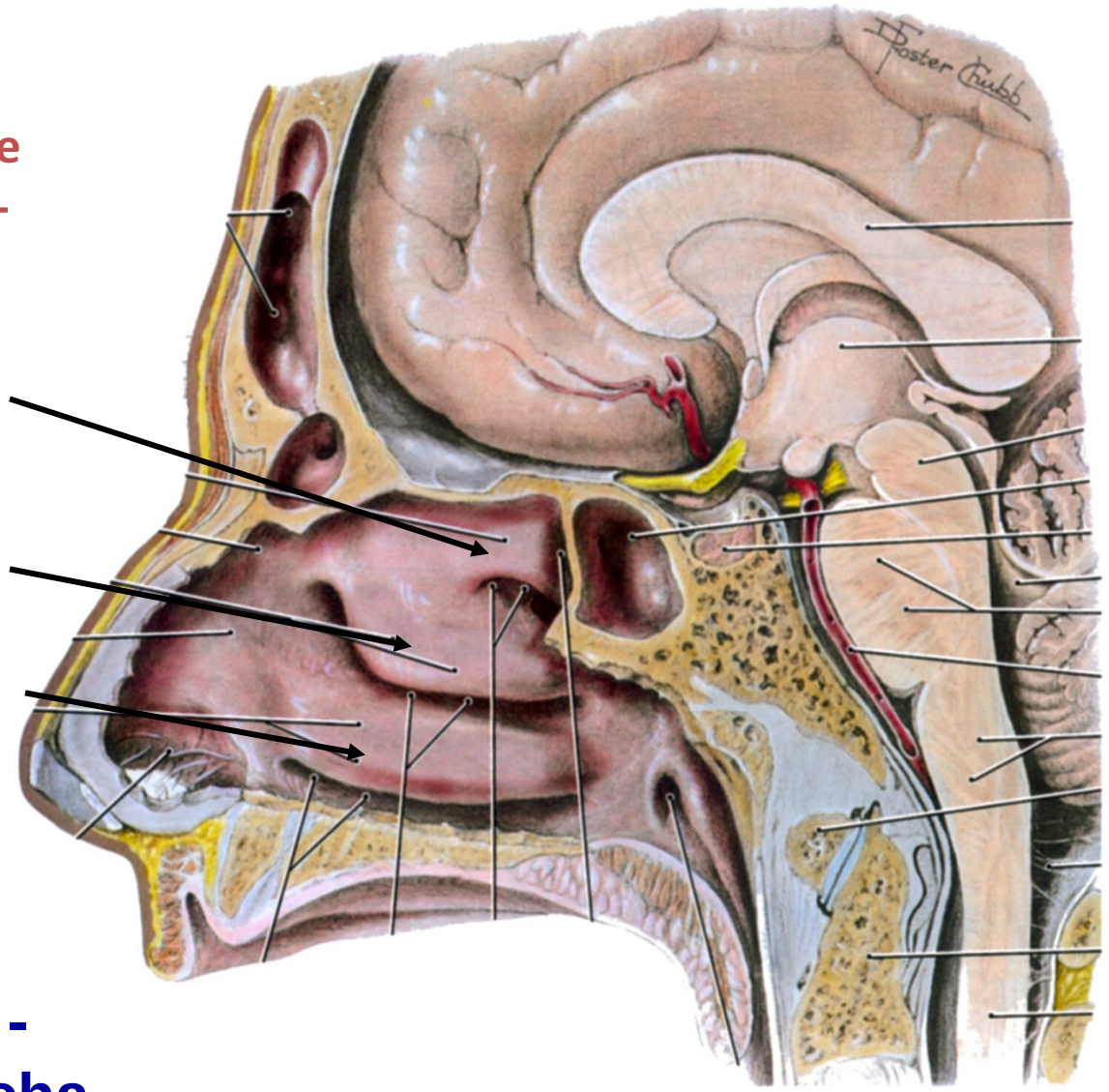
ANATOMY: NASAL CAVITY

Projections = Conchae (shell) or turbinates – increase surface area

1) Superior Concha - Ethmoid

2) Middle Concha - Ethmoid

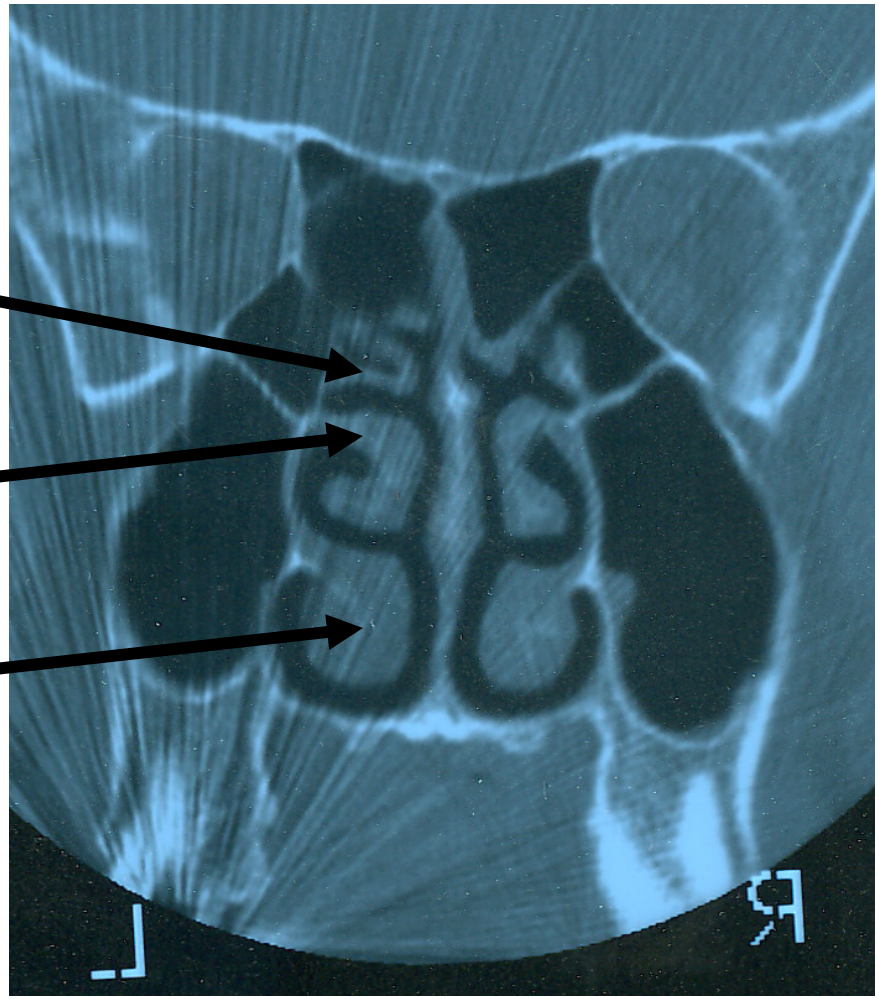
3) Inferior Concha - separate bone



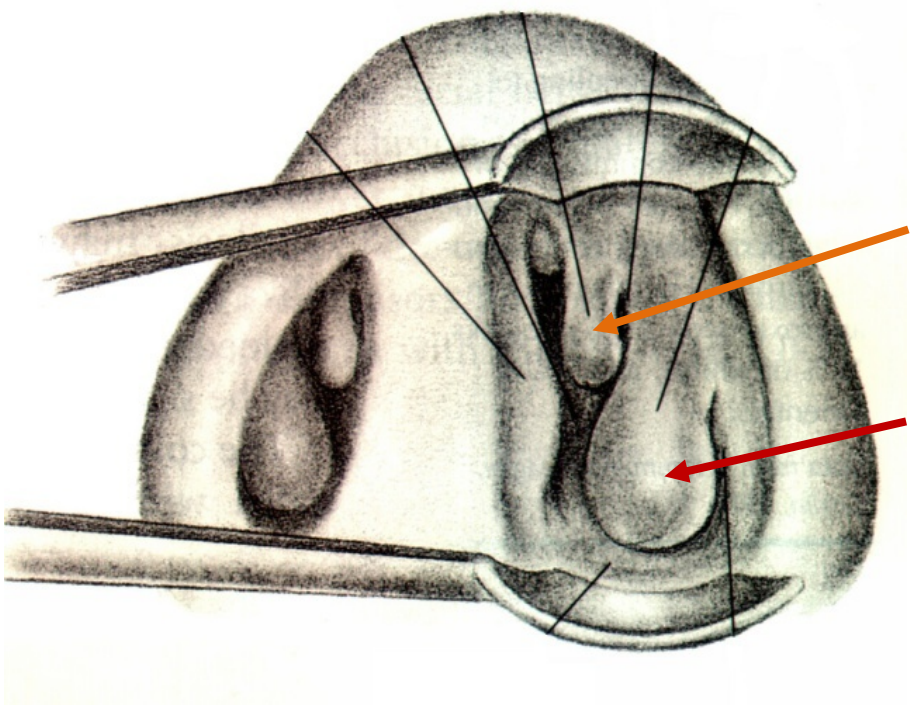
Meatus (passage) - Space below Concha

CORONAL CT of NASAL CAVITY

1) Superior Concha - Ethmoid
2) Middle Concha - Ethmoid
3) Inferior Concha - separate bone



ENT VIEW: NASAL CAVITY



In nasal speculum view, See only Middle and Inferior Conchae (Turbinates)