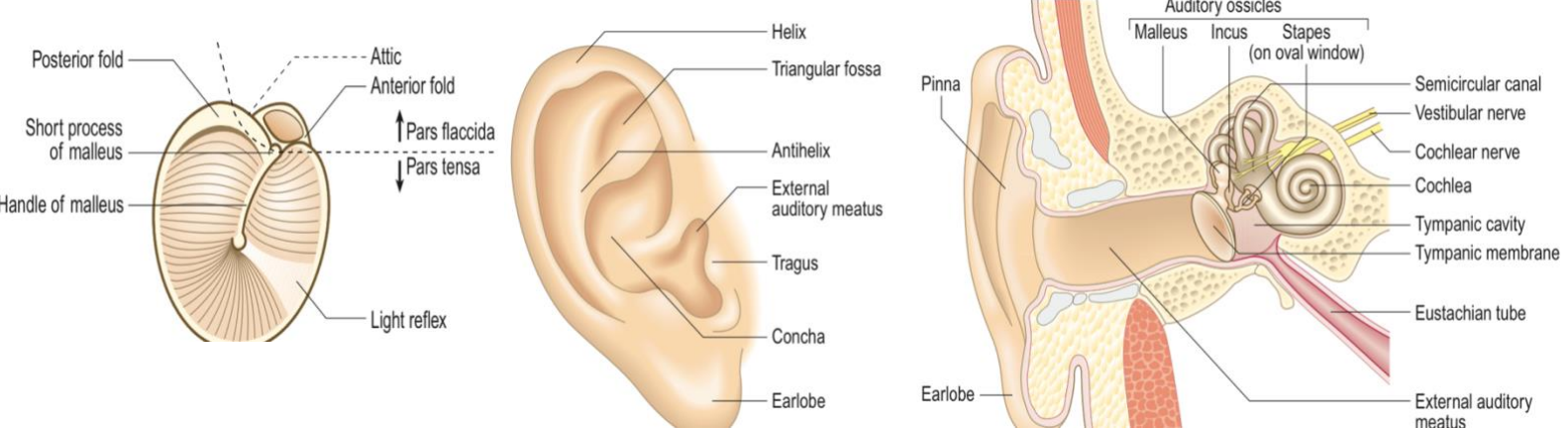


ENT _ Introduction

- Ear :**



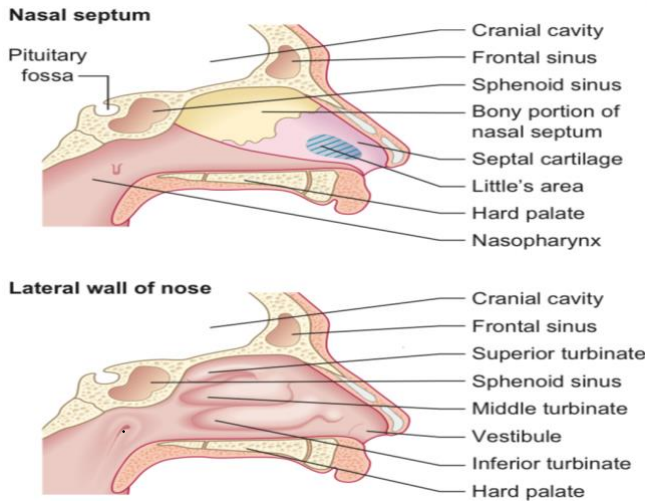
Eustachian Tube: 2 cm, wider in children than adult, it opens by action of tensor veil palantini, & levator veil palantini -> during swallowing.

13.1 Symptoms and definitions in ear disease		
Symptom	Definition	Common cause
Otalgia	Pain	Otitis media or externa, referred from pharyngitis, trauma or, rarely, cancer
Pruritus	Itching	Otitis externa
Otorrhoea	Discharge	Eardrum perforation with infection Otitis externa Eardrum perforation, severe trauma causing leak of cerebrospinal fluid Granulation tissue from infection, trauma
	Purulent	
	Mucoid	
	Blood-stained	
Hearing loss	Deafness	
Tinnitus	Noise in the absence of an objective source	Presbycusis, noise damage
Vertigo	Hallucination of movement	Inner-ear disease
Unsteadiness		Vestibular or central disease

- Referred Otalgia ?
- 1) CN. 5 ▶ dental pathology
 - 2) CN. 9 ▶ pharyngeal CA
 - 3) CN. 10 ▶ supraglottic tumor
 - 4) CN. 7 ▶ in Bell's palsy
 - 5) C2, C3 ▶ Cervical disk prolapse

Examination: use **Otoscopy**, **Rinne test** (AC > BC -> positive) , **Weber test** , **pure tone audiogram PTA**

Nose :



13.10 Symptoms and definitions in nasal disease		
Symptom	Definition	Common cause
Nose blocked		Viral illness, deviated nasal septum, nasal polyp
Rhinorrhoea	Discharge	Watery – allergic rhinitis, cerebrospinal fluid leak Purulent – infection, foreign body
Epistaxis	Nose bleed	Trauma, infection
Sneezing		Allergy, infection
Coughing		Postnasal drip
Anosmia	Absence of smell	Head injury, viral neuropathy
Hyposmia	Reduced smell	Nasal polyps, nasal blockage
Cacosmia	Unpleasant smell	Chronic anaerobic sepsis
Nasal deformity		Trauma, rhinophyma
Pain		Sinus infection, dental infection
Septum perforation		Nose-picking, granulomatous disease, e.g. granulomatosis with polyangiitis, cocaine use, inhalation of industrial dusts, e.g. nickel, chromium

Nasal Cavity Meatuses

- ➔ **Inferior meatus:** drains tears/ nasolacrimal duct
- ➔ **Middle meatus:** drainage site for ant.Ethmoidal cells, frontal, maxillary. S
- ➔ **Superior meatus:** drainage site for post. Ethmoidal cells& sphenoid a.S

Examinations: use Nasal speculum

Pharynx & Neck :

13.13 Symptoms and definitions in mouth and throat disease		
Symptom	Definition	Common cause
Pain		Dental caries, periodontal infection
Odynophagia	Pain on swallowing	Infection, cancer of oesophagus, larynx or pharynx
Stridor	Noise from upper airway on breathing	Upper-airways obstruction, e.g. laryngeal cancer
Dysphonia	Change in the quality of the voice	Cysts, polyps, cancer, laryngitis
Dysphagia	Difficulty swallowing	Pharyngitis Oesophageal disease
Lumps		Lymphadenopathy
Halitosis	Bad breath	Poor dental hygiene
Trismus	Inability to open mouth fully	Quinsy, tetanus
Xerostomia	Dry mouth	Anticholinergic drugs, Sjögren's syndrome



Examination: inspection , palpate for any mass, use Thudicum's speculum, Otoscope , Nasendoscopy → flexible fiber – optic instrument.

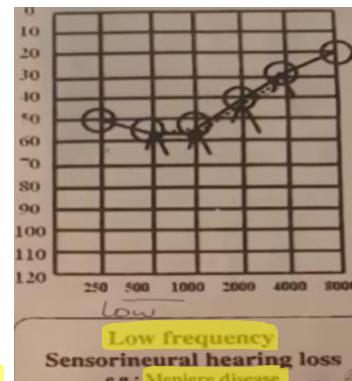
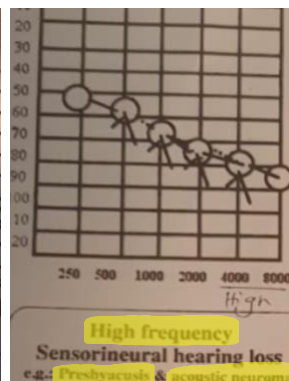
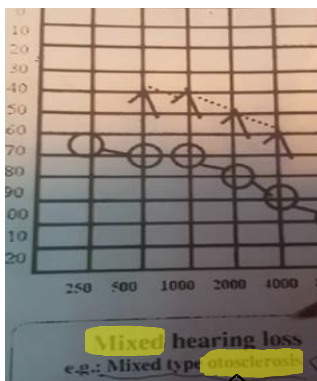
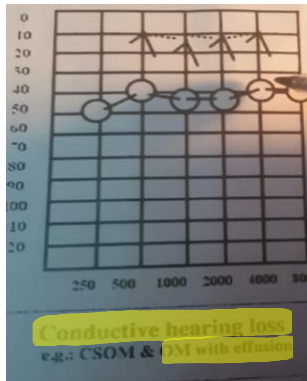
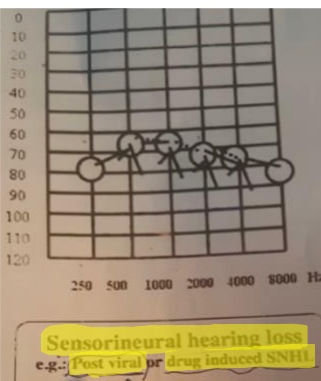
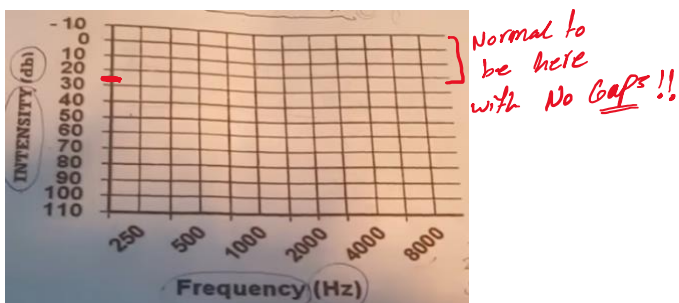
Audiometry

- **Air conduction** -> the integrity of the hearing system from outside, the external, middle ear, inner ear, and finally the cochlea.
- **Bone conduction** -> hearing straight to the cochlea (bypasses the external path).

Note: Each point on both curves represents minimal intensity of the liberated frequency at

Both curves (**bone ^^^^** & **air 000** conduction curves)

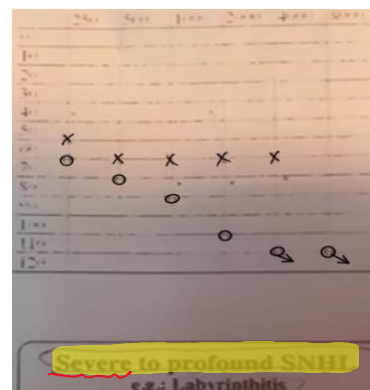
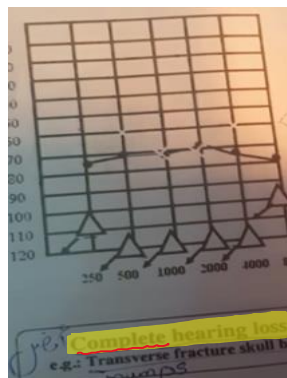
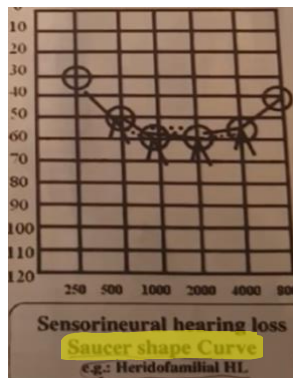
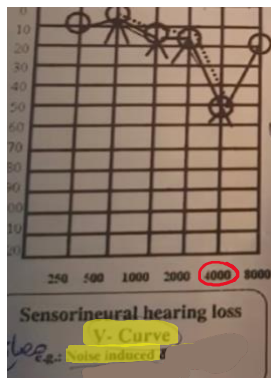
1. Both curves lies on each other and less than 25 dB = **Normal audiogram**.
2. Both curves lies on each other and partially or completely more than 25 dB = **Sensor neural** hearing loss.
3. Both curves away from each other and the upper (bone) curve less than 25 dB = Pure **Conductive** hearing loss
4. Both curves away from each other and the upper (bone) curve more than 25 dB **Mixed** hearing loss.



in slopes in cochlea

Bose

Aff

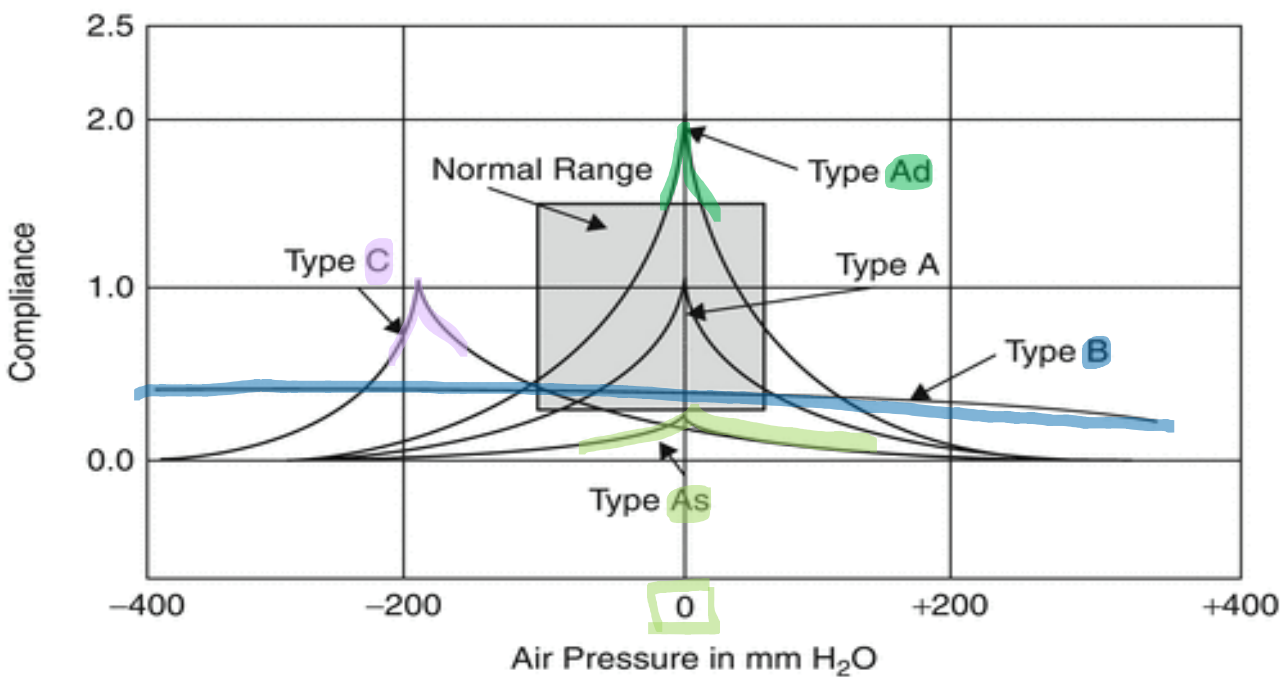


Mild 25 - 40 dB
 Moderate 41- 55 dB
 Moderate to Sever 56- 70 dB

Sever 71 - 90 dB
 Profound > 91 dB
 Complete or dead. At all

Tympanometry

- The machine detects the **compliance** of the **middle ear system** (ear drum and ossicular chain) by measuring how much of a sound is absorbed as the pressure is changed to above and below its normal level.
- In a normal ear, most sound is absorbed when the eardrum is in the **normal position**, when there is no pressure change → This gives a '**type A**' tympanogram
- A flat trace, or '**type B**' tympanogram, can occur when the eardrum **fails to move**, for example due to **glue ear**, or because there is a **perforation** of the eardrum.



Type	Implications
Type A	Normal tympanogram/ sensorineural hearing loss where conductive mechanism is normal.
Type B	Flat curve, no change in compliance with pressure changes. Seen in fluid in the middle ear .
Type C	Maximum compliance in negative pressure. Seen in eustachian tube obstruction . <i>-ve pressure</i>
Type As	Compliance is lower at or near ambient air pressure. Seen in otosclerosis or malleus fixation.
Type Ad	High compliance at or near ambient pressure. Seen in ossicular discontinuity .

high : perforated TM
low : effusion