



# OneShot 4.0 **ENT**



# ENT

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Persistent  
hard work can  
beat a bad  
start, luck, and  
intelligence.

- Dr. Sanjay Agarwal

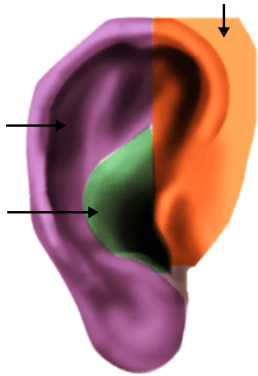
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# EAR ANATOMY

## Ear Anatomy



- Arnold's nerve
- Auriculotemporal nerve
- Auricle/Sensory branch of facial nerve
- Lesser occipital nerve
- Greater auricular nerve

## Middle Ear Anatomy with Facial Nerve

<b>Eustachian Tube</b>	<b>Stapedius Muscle</b>
36 mm long Child- straighter Function- Balance pressure & Drainage Investigation: Tympanometry	Function: Dampens loud sound <u>Acoustic Reflex</u> Afferent Nerve-VIII Efferent Nerve - VII Absent reflex: <b>Hyperacusis</b>

<i>Prussack's Space</i>	<i>Facial Recess</i>
<i>Sup: Lateral Malleal fold</i>	<i>Facial Nerve</i>
<i>Med: Neck of malleus</i>	<i>Chorda Tympani</i>
<i>Lat: Pars flaccida &amp; Scutum</i>	<i>Fossa Incudis</i>





## NOTES



ENT

## NOTES



# LABYRINTH

## Labyrinth

Cochlea		Vestibule	Semi circular canals
Inner Hair cells X X	<b>Outer hair cells</b> Produces OAE Easily damaged		

## Investigation of Ear Diseases

Hearing test	Vestibular function Test
Tuning Fork Test	Caloric test
Audiometry	Fistula test
Tympanometry	HINT
BERA	VEMP-Vestibular Evoked Myogenic Potential
OAE	

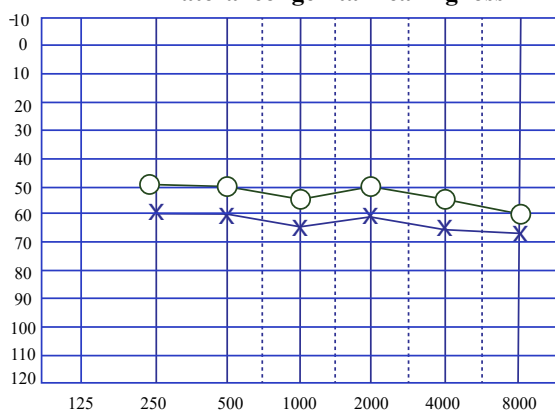
**Tuning Fork Tests (512Hz)****1. Rinne test****2. Weber test****3. ABC test/Schwabach's test****4. Bing test****5. Gelle test**

<b>256Hz</b>	<b>512Hz</b>	<b>1024Hz</b>	<b>Hearing loss</b>
-ve	+ve	+ve	15-30db
-ve	-ve	+ve	30-45dB
-ve	-ve	-ve	45-60dB

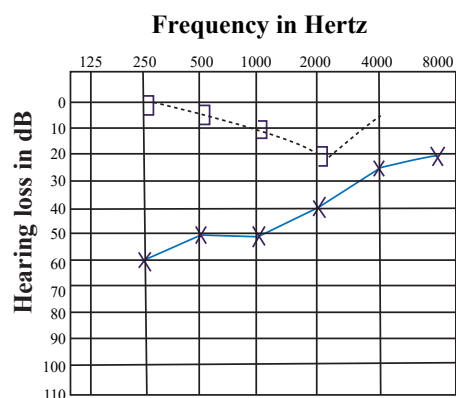


**Audiometry**

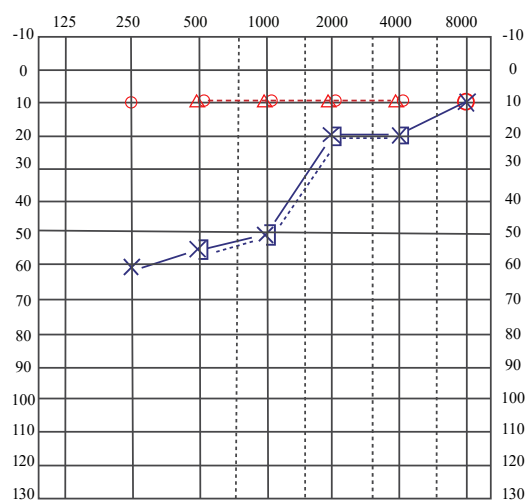
**Bilateral congenital hearing loss**



**Carhart's notch in otosclerosis**



**Meniere's Disease in Left ear**



<i>B/L BC &gt; AC, Webers to left side</i>	<i>B/L AC &gt; BC; Webers to Right side</i>
--	---



**Tympanometry types:**

A-----

As-----

Ad-----

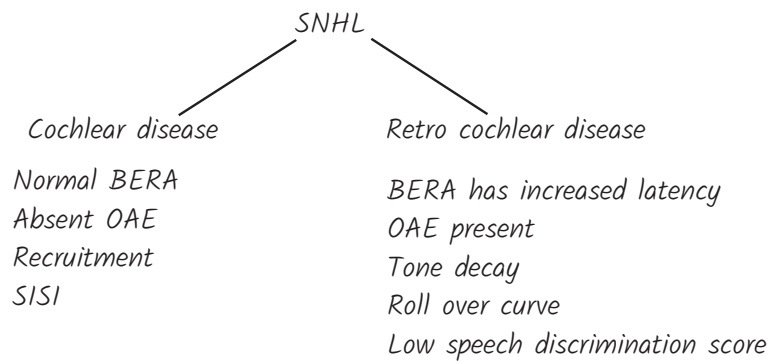
B/Flat-----

C/Negative-

**BERA & OAE**

**Children:**

**Adult (if SNHL):**



## Caloric Test

### C O W S

*Hypoactive labyrinth: Nystagmus will be on opposite side but eyeball moves toward same side*

*Hyperactive labyrinth: Nystagmus on same side but eye ball moves towards opposite side*



#### **True (+) ve Fistula test**

1. Labyrinthine fistula, or CSOM
2. Fenestration surgery or Type V tympanoplasty
3. Post stapedectomy
4. Perilymph fistula

#### **False (+) ve FT ( Hennebert's sign)**

*Meniere's disease*



#### **Siegle's speculum**

## Head Impulse test

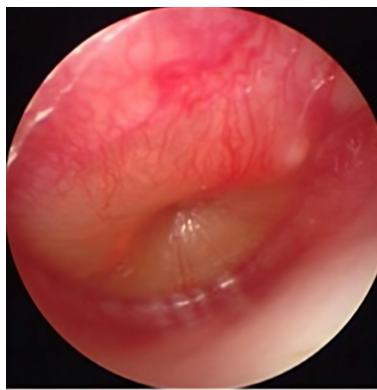
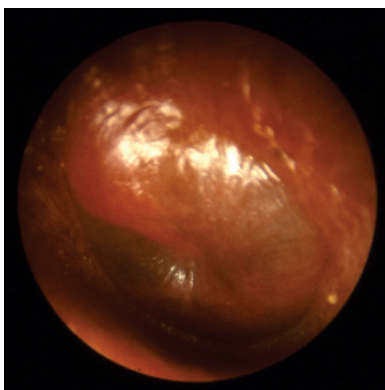
*In vestibular neuronitis: On tilting the head on the side of the lesion, Saccadic movement will be seen on the opposite side*

## NOTES

## INFECTIVE DISEASES OF EAR

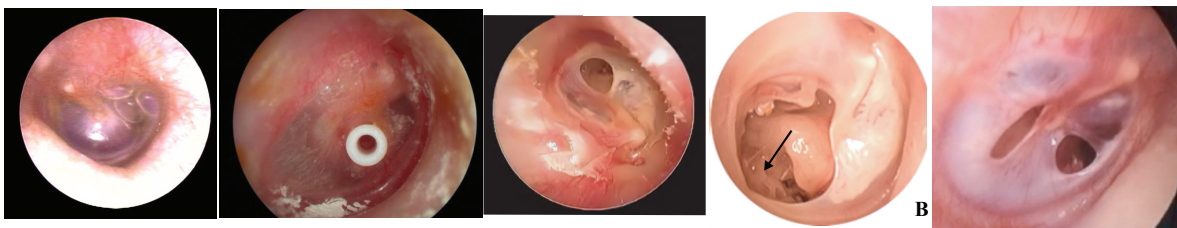
### Acute Infections

Malignant Otitis Externa	ASOM	Acute Mastoiditis
<i>Pseudomonas</i> Diabetic Nocturnal pain Osteitis & facial palsy	<i>Streptococcus pneumoniae</i> <i>H. influenza</i> <i>Moraxella</i>  Red, bulging TM Cart wheel Fluid level Light house sign Reservoir sign  Nasal decongestants & AMB Myringotomy	<i>Streptococcus pyogenes</i>  Ironed out mastoid Pinna: antero-inferiorly Light house sign Reservoir sign  Bezold's abscess- SCM Citelli's abscess- Digastric Luc's abscess- Superior canal wall



**Chronic Infections**

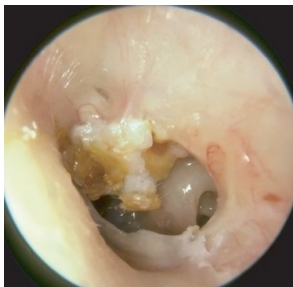
<b>SOM/Glue ear</b>	<b>Safe CSOM</b>	<b>Unsafe CSOM</b>	<b>Tuberculosis</b>
<p>No Pathogen</p> <p>Child: Adenoid hypertrophy</p> <p>Adult: Nasopharyngoscopy</p> <p>M/C/C of HL in child</p> <p>Retracted TM</p> <p>Air bubbles</p> <p>Tympanogram: Type B</p> <p>Myringotomy+ grommet+ Adenoidectomy</p>	<p><i>Pseudomonas</i></p> <p>Copius discharge</p> <p>Central perforation</p> <p>Myringoplasty</p>	<p><i>Pseudomonas</i></p> <p>Foul smelling, scanty d/s</p> <p>Retraction pocket</p> <p>Cholesteatoma</p> <p>Marginal perforation</p> <p>Attic perforation</p> <p>MRM</p>	<p>Painless</p> <p>Watery discharge</p> <p>Multiple perforation</p> <p>Pale granulations</p>





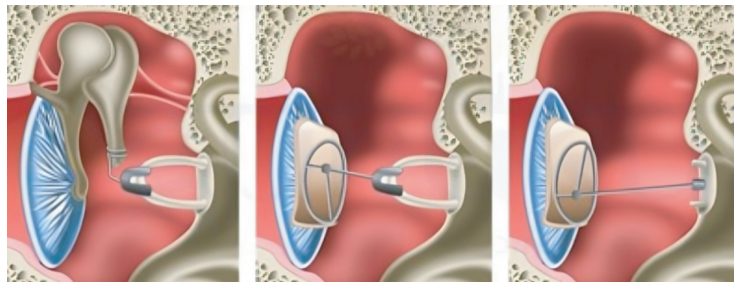
**Complications**

<b>Cholesteotoma</b>	<b>Gradenigo's syndrome</b>	<b>Labyrinthine fistula</b>	<b>Lateral sinus thrombosis</b>	<b>Brain abscess</b>
Prussak's space Keratin squamous epithelium Wittmack's theory MRM	3 D's Discharge Diplopia Deep pain	Bulge of LSCC Vertigo Nystagmus True +ve FT	Picket fence fever Gresinger's sign Delta sign Crow beck sign Tobey ayer sign	Fever & headache Aphasia convulsions



**Surgeries:**

<b>Myringotomy + Grommet</b>	<b>Myringoplasty</b>	<b>Tympanoplasty</b>	<b>Mastoidectomy</b>
<p>ASOM: Posterior-inferior</p> <p>Glue ear: Antero-inferior with grommet</p>	<p>Safe CSOM</p> <p>Temporalis fascia has low BMR</p>	<p>Types:</p> <p>I: Malleus-<b>Myringoplasty</b></p> <p>II: Incus</p> <p>III: Stapes head- <b>Columella</b></p> <p>IV: Round window &amp; ET</p> <p>V: Fistula on LSCC- <b>Fenestration</b></p>	<p>Simple: Ac mastoiditis</p> <p>MRM: unsafe CSOM</p> <p><b>Radical has 3 steps:</b></p> <p>Exteriorization</p> <p>Retain footplate</p> <p>Block ET</p>





## NOTES

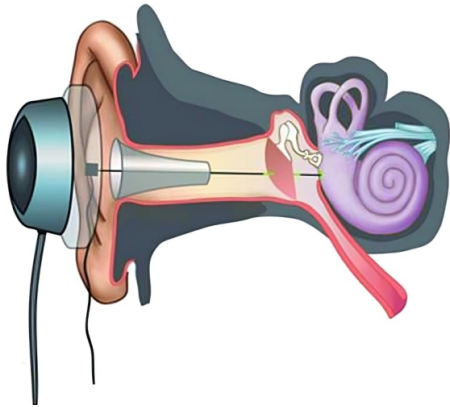
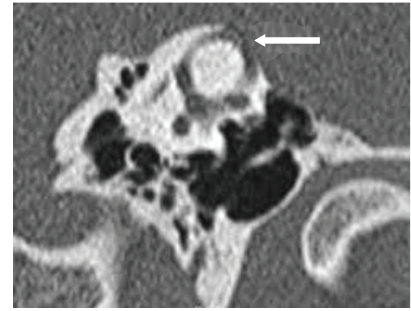
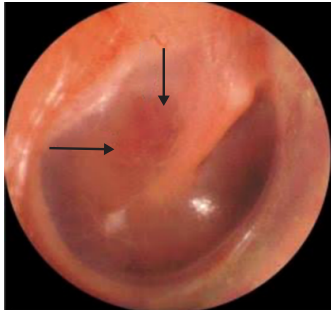
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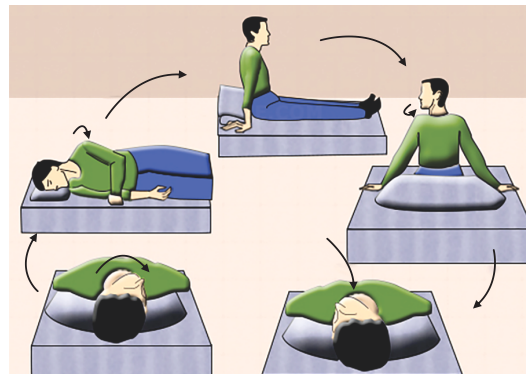
## NON INFECTIVE DISEASES OF EAR

### Non-Infective diseases

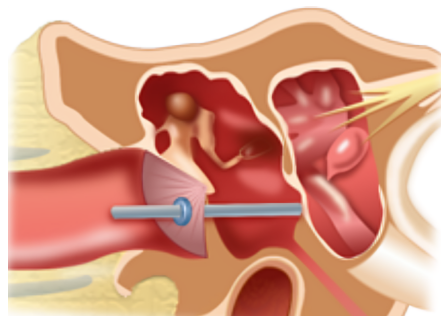
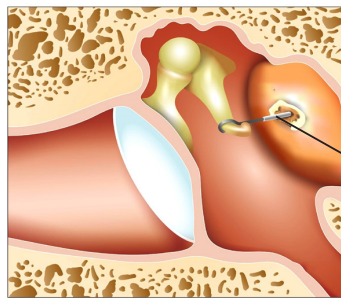
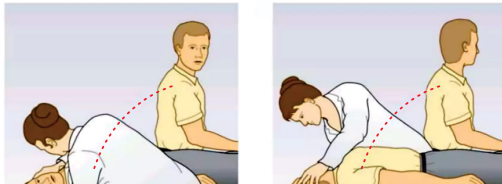
<b>Otosclerosis</b>	<b>Meniere's disease</b>	<b>BPPV</b>	<b>Superior canal dehiscence syndrome</b>
<i>Fistula ante fenestrum</i> 35 yrs pregnant lady, CHL Schwartz sign Paracusis willisi Gelle's test is -ve Tympanometry: As TOC:Stapedotomy DOC: sodium flouride	<i>Endolymphatic hydrops</i> Mutation: short arm ch 6 Fluctuating SNHL, Tinnitus Vertigo: 24 min-24 hrs Electrocochleography  Beta histine  Meniett's device Intratympanic genta	<i>Posterior SCC</i> Positional vertigo < 20sec  Dix hallpike maneuver Epley's maneuver	<i>Minor's syndrome</i> 3rd window effect  CHL & Autophony Conservative



Epley's Maneuver



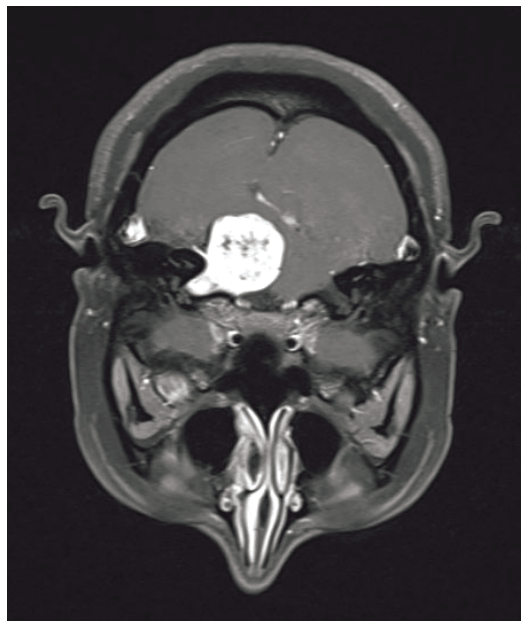
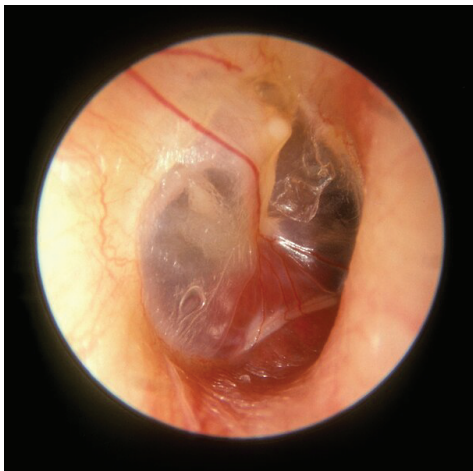
Dix hallpike maneuver





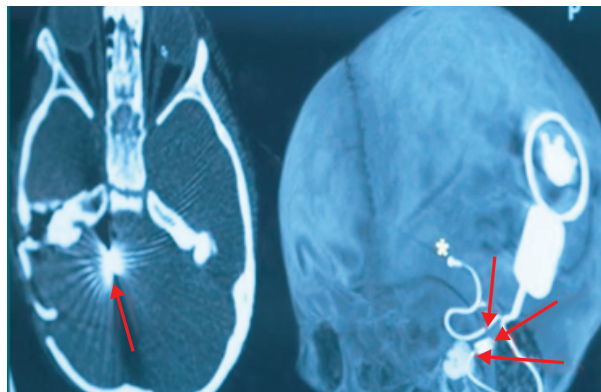
**Tumours:**

<b>Glomus Tumour</b>	<b>Acoustic Neuroma</b>
<p><i>Is a Paranglioma</i></p> <p><i>Presentation:</i></p> <p><i>Pulsatile tinnitus</i></p> <p><i>Rising sun sign</i></p> <p><i>Brown's sign</i></p> <p><i>Phelp's sign</i></p> <p><i>Aquino sign</i></p>	<p><i>Arises from Inferior vestibular nerve</i></p> <p><i>Site is C-P angle</i></p> <p><i>M/C manifestation: loss of corneal reflex</i></p> <p><i>Histelberger's sign</i></p> <p><i>Gold std inv: Gadolinium MRI</i></p> <p><i>Gamma knife stereotactic RT</i></p>



*Assistive device for Hearing*

<b>Hearing aid</b>	<b>Cochlear implant</b>	<b>Brainstem implant</b>
<p><i>Is an amplifier</i></p> <p><i>Used in any type of hearing loss</i></p>	<p><i>Used in B/L severe HL due to cochlear disease</i></p> <p><i>Electrodes are implanted:</i></p> <ol style="list-style-type: none"> <li><i>1. Through round window</i></li> <li><i>2. Into scala tympani</i></li> </ol>	<p><i>Used in B/L severe HL due to retro-cochlear diseases</i></p> <p><i>Implanted into recess of IV ventricle</i></p>





## NOTES

NOTES

## THROAT ANATOMY

### **Throat:**

#### **Arteries of Tonsil:**

1. Main : Tonsillar or facial artery
2. Ascending Pharyngeal
3. Ascending Palatine
4. Descending palatine
5. Dorsal Lingual

#### **Muscles of larynx & movement of vocal cord**

<b>Abduction</b>	<b>Adduction</b>	<b>Tension</b>
<i>Helps in Breathing</i>	<i>Helps in Voice production</i>	<i>Helps in High pitch voice</i>
<i>Posterior cricothyroid muscle</i>	<i>Lateral cricothyroid muscle</i> <i>Inter-arytenoid muscle</i> <i>Thyroarytenoid muscle</i> <i>Cricothyroid muscle</i>	<i>Cricothyroid muscle</i> <i>Thyroarytenoid muscle</i>
<i>Supplied by recurrent laryngeal nerve</i>		<i>External laryngeal nerve</i>

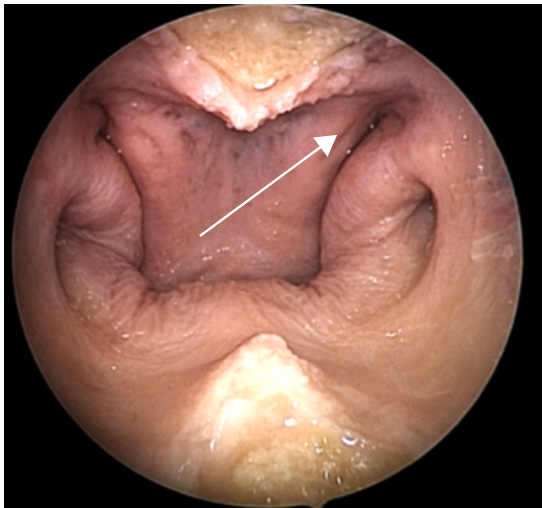


ENT

## NOTES

## DISEASES OF THROAT

### *Nasopharyngeal image & diseases*



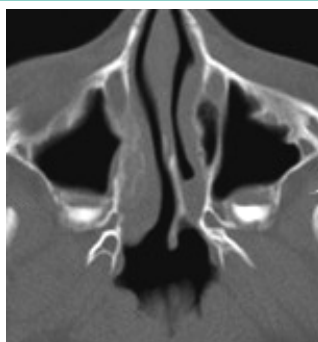
### *Features of Adenoid facies*

*High arched palate*  
*Crowded upper teeth*  
*Collapsed ala*  
*Hypoplastic maxilla*  
*Dull expression*

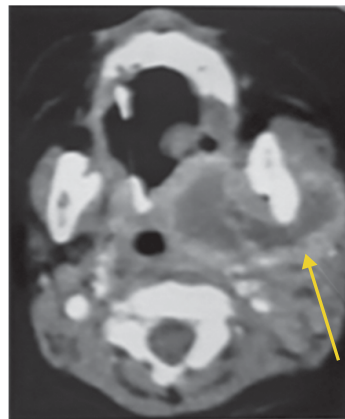
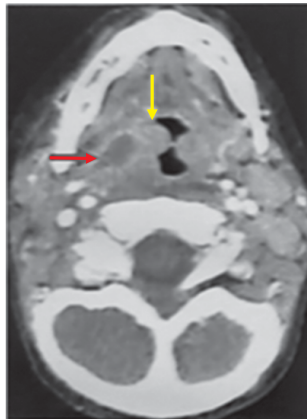
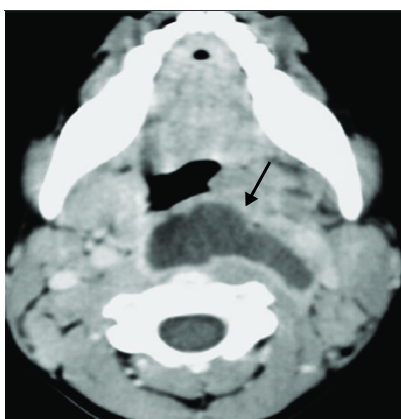


### **Choanal Atresia**

*Caused by Bucco-nasal membrane*  
*McGovern's technique*

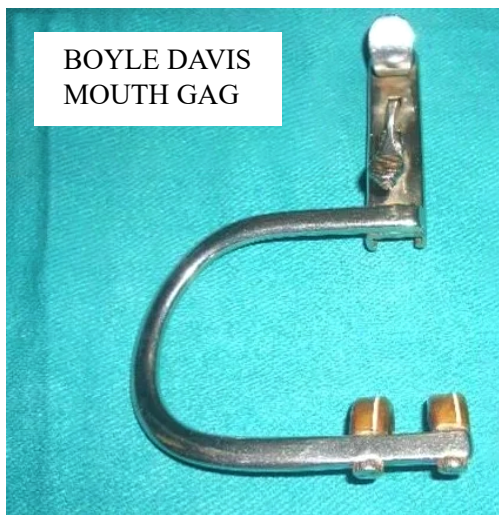






### Tonsillectomy

<b>Indications</b>	<b>Contraindications</b>
<i>Recurrent tonsillitis</i> <i>Chronic tonsillitis</i> <i>Quincy</i> <i>Eagle's disease</i>	<i>Acute tonsillitis</i> <i>Bleeding disorders</i> <i>Cleft palate</i>





## Complications of tonsillectomy

### 1. Bleeding

<b>Primary bleeding</b>	<b>Reactionary bleeding</b>	<b>Secondary bleeding</b>
<i>Caused by veins</i>	<i>Within 24 hrs after surgery</i> <i>Caused by arteries</i> <i>Immediate re-ligation in GA</i>	<i>5-8 day</i> <i>Infection is cause</i> <i>Antibiotic + re-ligation</i>

### Other complications

2. *Grisel's syndrome*

3. *Hyper-nasal voice/rhinolalia aperta*



ENT

## NOTES

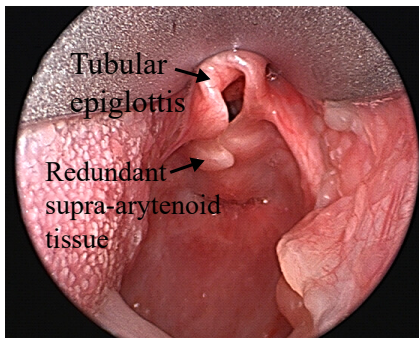
## DISEASES OF LARYNX

### ***Congenital Diseases of Larynx***

**Laryngomalacia:** is the m/c congenital disease of larynx

Presents: a newborn with inspiratory stridor

Omega shaped epiglottis



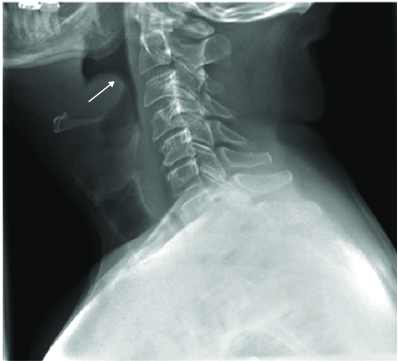
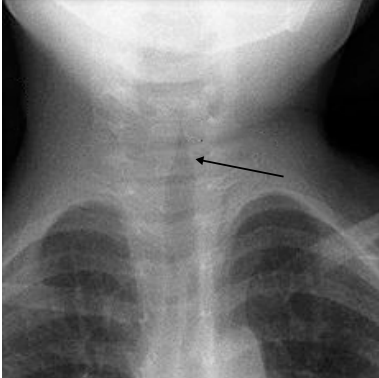
**Treatment:** Reassurance

**Subglottic stenosis:** May cause expiratory or Biphasic stridor



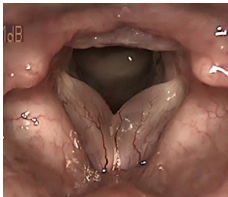

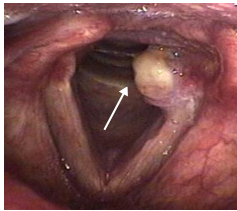
It is graded into 4 grades by '**Myer & Cotton**'

**Topical Mitamycin-C may be beneficial**

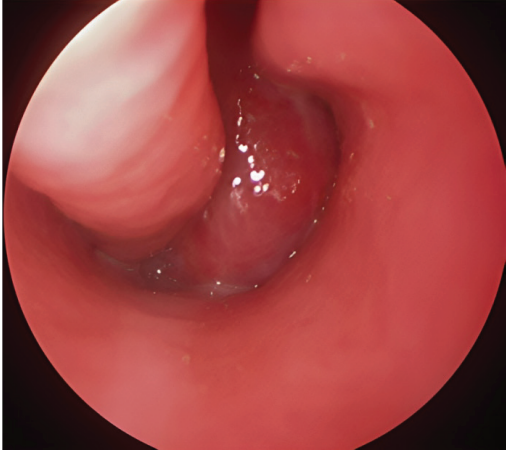

**Laryngitis:**

<b>Acute epiglottitis</b>	<b>CROUP</b>	<b>Tuberculosis</b>
<p><i>Streptococcus pyogenes</i></p> <p>Child in Tripod position</p> <p>Fever, Dyspnea, Dysphagia</p> <p><b>X-ray: Thumb sign</b></p> <p>DOC: Cephalosporin</p>	<p><i>Parainfluenza virus</i></p> <p>Child lying on mother's lap</p> <p>Dyspnea, voice change</p> <p><b>X-Ray: Steeple sign</b></p> <p>Treatment:</p> <ol style="list-style-type: none"> <li>1. Steroid</li> <li>2. Nebulisation</li> <li>3. Antibiotics</li> </ol>	<p>Site: Inter-arytenoid area</p> <p>Hoarseness &amp; Pain</p> <p><b>Cobble stone appearance</b></p> <p><b>Mouse nibbled appearance</b></p> <p><b>Turban epiglottitis</b></p>
		

**Non Neoplastic growth**

<b>VC Nodule</b>	<b>VC Polyp</b>	<b>Rienke's edema</b>	<b>Laryngocele</b>	<b>Granuloma</b>
<p>Misuse of voice</p> <p>Site: junction of 1/3 &amp; 2/3</p> <p>TOC: Voice rest</p>	<p>Misuse</p> <p>Site: same</p> <p>TOC: MLS + PPI</p>	<p>Hypothyroidism</p> <p>TOC: Conservative</p> <p>-Microflap technique</p>	<p>Dilation of sac-cule in trumpet blower</p> <p>-Conservative</p>	<p>Intubation</p> <p>Posterior 1/3</p> <p>CO2 laser</p> <p>+ botox</p> <p>+ mitamycin C</p>
				

**Benign growths of throat**

<b>Juvenile nasopharyngeal Angiofibroma</b>	<b>Laryngeal papilloma</b>
<p><b>Site:</b> Sphenopalatine foramen</p> <p><b>Presents:</b> Juvenil male with Epistaxis</p> <p><b>Signs:</b> Antral sign &amp; frog face</p> <p><b>IOC:</b> CECT</p> <p><b>Treatment:</b> Embolization &amp; Excision</p>	<p><b>Site:</b> M/C Glottis</p> <p><b>Etiology:</b> HPV 6 &amp; HPV 11</p> <p><b>Presents:</b> A child with hoarseness</p> <p>Microdebridement + intralesional cidofovir</p>
	

NOTES

# CARCINOMAS

## Carcinomas

<b>Nasopharyngeal carcinoma</b>	<b>Laryngeal carcinoma</b>
<p>Site: Fossa of Rosenmuller</p> <p>Etiology: EBV &amp; Nitrosamine</p> <p>M/C presents: Lymphadenopathy</p> <p>Trotter's triad</p> <ol style="list-style-type: none"> <li>1. Soft palate palsy</li> <li>2. Facial pain</li> <li>3. Hearing loss</li> </ol> <p>Treatment: chemoradiation</p>	<p>Site: Glottis</p> <p>Etiology: Smoking &amp; Alcohol</p> <p>Presents: Hoarseness &amp; Dyspnea</p> <p>I/L: proliferative growth</p> <p>Treatment:</p> <p>Stages I &amp; II: transoral laser Microsurgery</p> <p>Stage III &amp; IV: concurrent Chemoradiation</p>

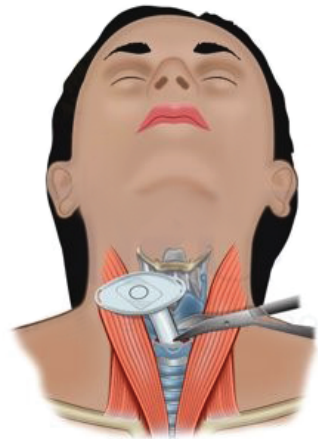
**Tracheostomy: M/C indication:** laryngeal block due to laryngeal carcinoma

**Site:** Tracheal ring 2 & 3

**High tracheostomy:** done in ring 1

Mini-tracheostomy is also called '**cricothyroidotomy**'

**M/C complication:** Dislodgment of tube & bleeding



## Speech rehabilitation

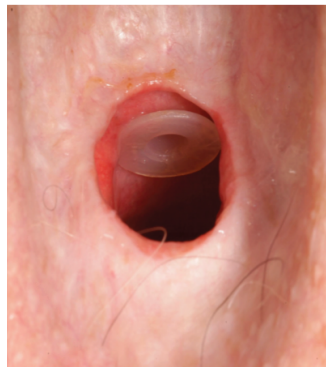
### **Tracheostomy:**

Fenestrated tube + Muir passay valve



### **Laryngectomy:**

1. Trachea-esophageal speech
2. Electrolarynx



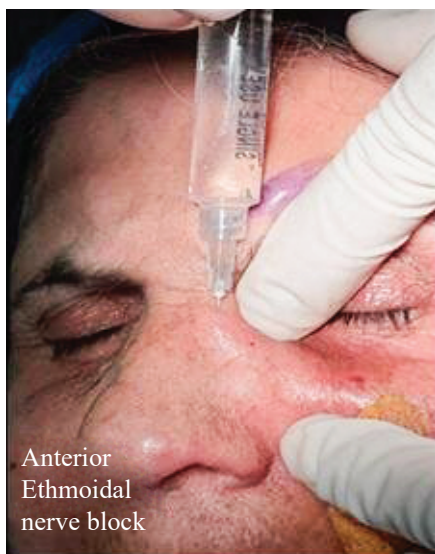
NOTES

## NOSE AND SINUSES

### *Nose & Sinus*


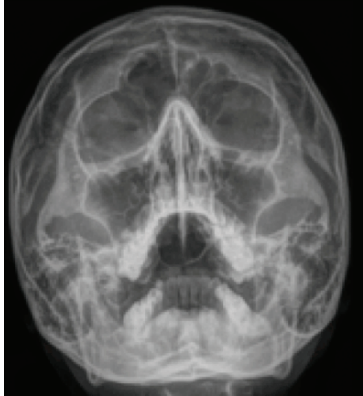

#### **Anatomy**

<b>Nasal septal arteries</b>	<b>Lateral wall</b>
<i>Sphenopalatine artery</i>	<i>Spheno-ethmoidal recess: Sphenoid ostia</i>
<i>Greater palatine artery</i>	<i>Superior meatus: Posterior ethmoid ostia</i>
<i>Superior Labial artery</i>	<i>Middle meatus: Maxilla, Frontal &amp; Anterior ethmoid ostia</i>
<i>Anterior ethmoidal artery</i>	<i>Inferior meatus: Naso-lacrimal duct</i>
<i>Posterior ethmoidal artery</i>	



***Anterior Ethmoidal nerve block***

**X-Ray of Sinuses**

<b>Water's view</b>	<b>Pierre's view</b>	<b>Caldwell's view</b>
<p><i>M/C view done</i></p> <p><i>Best view to see maxilla</i></p> <p><i>Sphenoid is NOT seen, at all</i></p>	<p><i>M/C view</i></p> <p><i>Best for Maxilla &amp; Sphenoid</i></p>	<p><i>Done for Frontal sinus</i></p>
		



## NOTES



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## NOTES

## DISEASES OF NOSE AND SINUSES

### *Septal diseases*

#### **Epistaxis**

M/C site: Little's area/Kiesselbach's plexus

Artery of epistaxis: Sphenopalatine artery

M/C cause: Nose picking & Idiopathic

Treatment: Nose pinching, Cautery with silver nitrate, Nasal packing, Ligation of vessels

**Ligation:** TESPAL



Anterior Ethmoidal ligation

### **Deviated Nasal Septum (DNS)**

**M/C presents as:**

1. Nasal Block- mainly on the same side
2. Sometimes, on opposite side: **Compensatory HT of Inferior turbinate**

Headache: called **Sluder's neuralgia/Anterior Ethmoidal syndrome**

Boundaries of Nasal Valve

1. Anterior end of inferior turbinate
2. Lower end of upper lateral cartilage
3. Septum

**Treatment:**

<b>Septoplasty</b>	<b>Sub mucosal resection</b>
<i>Freeer's incision/ Hemitransfixation</i> <i>Preferred after 16-17 years</i>	<i>Killian's incision</i> <i>Bleeding is the m/c complication</i> <i>Dane after 16-17 years</i>

**Nasal polyps:****Features:**

1. *Pale in colour*
2. *Poor blood supply*
3. *Poor nerve supply*

**Cause: m/c/c is allergy**

*May be seen in syndromes, like*

<b>Samter's Triad</b>	<b>Kartegener's syndrome</b>	<b>Young's syndrome</b>
<i>Polyps</i>	<i>Polyps</i>	<i>Polyps</i>
<i>Asthma</i>	<i>Bronchiectasis</i>	<i>Bronchiectasis</i>
<i>Aspirin sensitivity</i>	<i>Situs inversus</i>	<i>Azoospermia</i>

<b>Maxillary/Antro-choanal polyp</b>	<b>Ethmoidal polyp</b>
<i>M/c in children</i>	<i>M/C in adults</i>
<i>U/L &amp; single</i>	<i>B/L &amp; Multiple: 'Bunch of Grapes'</i>
<i>Not Recurrent</i>	<i>Is recurrent</i>
<i>Rx: Antibiotic &amp; FESS</i>	<i>Rx: Steroid &amp; FESS</i>
	<i>If recurrence → Ethmoidectomy</i>


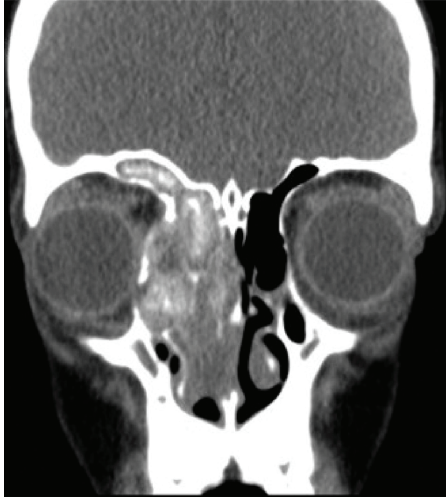





**Rhinosinusitis**

**Non-Infective rhinosinusitis**

<b>Allergic rhinitis</b>	<b>Vasomotor rhinitis</b>	<b>Atrophic rhinitis</b>
<p>Allergic shiners Allergic salute Denis Morgan lines</p>	<p>Increased Parasympathetic Rx: Vidian Neurectomy</p>	<p>M/C/C decreased Estrogen Features Roomy cavity &amp; Dry Crust- -----Causes Block Foul smell } Anosmia } Merciful Anosmia  <b>Alkaline nasal douche</b> Sodium bicarbonate Sodium baborate Sodium chloride Sx: Young's surgery Lautenslager's Sx</p>

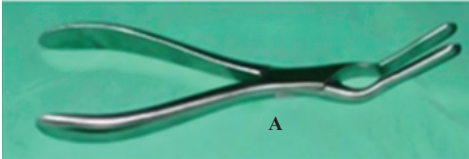
**Fungal rhinosinusitis**

<b>Aspergillosis</b>	<b>Mucormycosis Rhino-Orbito-Cerebral fungus</b>	<b>Allergic fungal sinusitis</b>				
<p>Is M/C type A fumigatus Aspergilloma</p>	<p>Is called 'Black fungus' Seen in Diabetic Caused by Rhizopus Is angio-invasive Causes necrosis (black fungus) DOC: Lyposomal amphotericin B</p>  <p>Black fungus</p>	<p><b>Bent &amp; Kuhn criteria</b></p> <table border="1" data-bbox="783 450 1367 719"> <thead> <tr> <th data-bbox="783 450 1082 495"><b>Major criteria</b></th> <th data-bbox="1086 450 1367 495"><b>Minor criteria</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="783 501 1082 712"> <ol style="list-style-type: none"> <li>1. Evidence of type I IgE-mediated hypersensitivity</li> <li>2. Nasal polyposis</li> <li>3. Characteristic CT findings</li> <li>4. Eosinophilic mucus</li> <li>5. Positive fungal smear</li> </ol> </td> <td data-bbox="1086 501 1367 712"> <ol style="list-style-type: none"> <li>1. Asthma</li> <li>2. Unilateral predominance</li> <li>3. Radiographic bone erosion</li> <li>4. Fungal culture</li> <li>5. Charcot-Leyden crystals</li> <li>6. Serum eosinophilia</li> </ol> </td> </tr> </tbody> </table>  <p>Double density scan</p>	<b>Major criteria</b>	<b>Minor criteria</b>	<ol style="list-style-type: none"> <li>1. Evidence of type I IgE-mediated hypersensitivity</li> <li>2. Nasal polyposis</li> <li>3. Characteristic CT findings</li> <li>4. Eosinophilic mucus</li> <li>5. Positive fungal smear</li> </ol>	<ol style="list-style-type: none"> <li>1. Asthma</li> <li>2. Unilateral predominance</li> <li>3. Radiographic bone erosion</li> <li>4. Fungal culture</li> <li>5. Charcot-Leyden crystals</li> <li>6. Serum eosinophilia</li> </ol>
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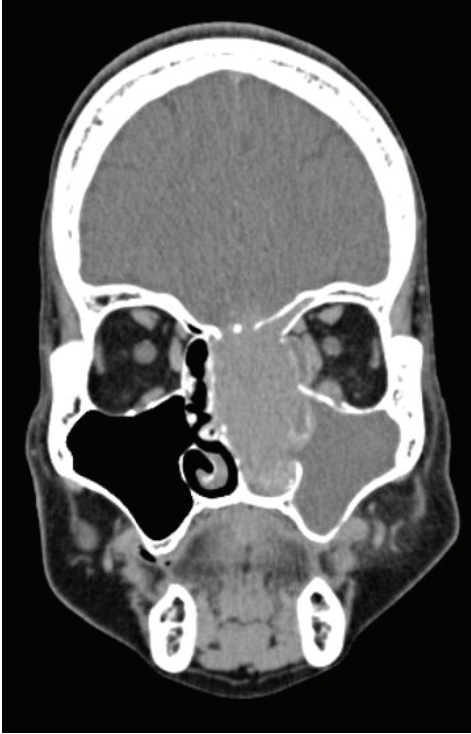
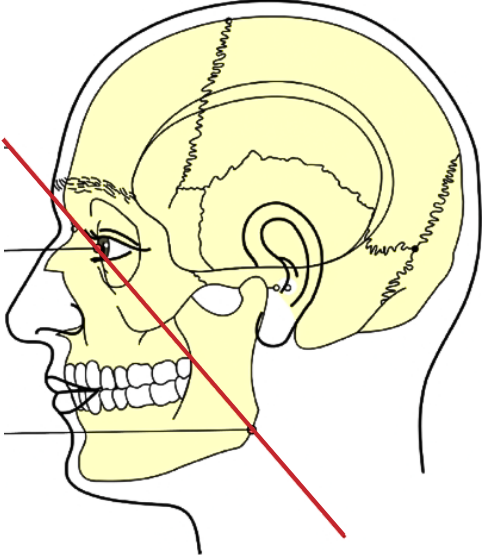
<b>Rhinophyma</b>	<b>Rhinoscleroma</b>	<b>Rhinosporidiosis</b>
<p>Is called '<b>Potato Nose</b>'</p> <p>Due to HT of sebaceous gland</p>	<p>Is called '<b>Woody nose</b>'</p> <p><i>Klebsiella Rhinoscleromatis</i></p> <p>Also called Frisch bacilli</p> <p>HPE: Mikulicz cell &amp; Russell body</p> <p>DOC: <b>Streptomycin</b></p>	<p><i>Rhinosporidium seeberi</i></p> <p>Aquatic protozoa</p> <p>'<b>Strawberry polyp</b>'</p> <p>HPE: sporangia with endospores</p> <p>DOC: <b>Dapsone</b></p>
		

**Fractures of facial bones**

M/C facial bone to fracture is facial bone

<b>Septum fracture</b>	<b>Maxilla/Le Fort fracture</b>	<b>CSF Rhinorrhea</b>
<p>Vertical: Chevallet fracture Horizontal: Jarjavay fracture</p> <p>Rx: Closed reduction</p>  <p>Ash's forcep</p>	<p>LF I: Horizontal fracture LF II: Pyramidal fracture LF III: cranio-facial dysjunction</p>	<p>M/C/C: cribriform plate fracture</p> <p><b>Features:</b></p> <p>Halo sign/Target sign Glucose &gt; 30gm B2 transferrin</p> <p>Rx: Conservative</p>

### Tumours of Nose & Sinuses

Inverted Papilloma/Ringertz tumour	Sinonasal carcinoma
<p data-bbox="215 360 708 394">Is a benign tumour with malignant potential</p> <p data-bbox="215 412 762 445">Rx: Excision &amp; wide margin/ Medial maxillectomy</p> 	<p data-bbox="845 360 1318 394">M/C site is Maxilla: has squamous cell CA</p> <p data-bbox="845 412 1251 445">2<sup>nd</sup>: ethmoids; has <b>adenocarcinoma</b></p> <p data-bbox="845 463 1082 497">m/c in <b>woodworkers</b></p> <p data-bbox="845 562 1358 629"><b>Ohngrens's line</b> helps know the prognosis of maxillary carcinoma</p> 



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## NOTES

## MULTIPLE CHOICE QUESTIONS

1. A 8 years old child presented with hearing loss and the following surgery was done in this child.



Which of the following could be true in this child?

- a. May have tonsillectomy along with this
  - b. if we culture the fluid of ear will be sterile
  - c. This is done in the anteroinferior quadrant
  - d. All are true
2. This is the image of a teacher who presented with hoarseness of voice.



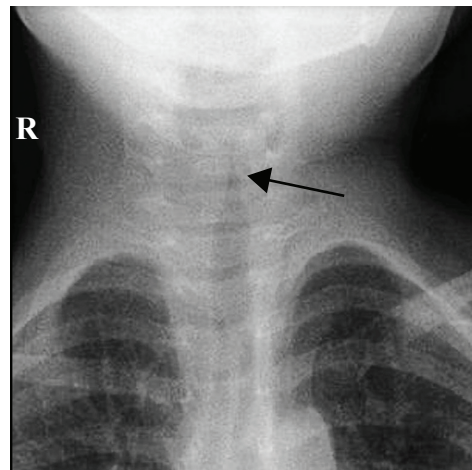
Pick the correct statement in this patient:

- a. This condition is usually unilateral
- b. It is due to fibrosis of the vocal cord
- c. Voice rest with proton pump inhibitor is the TOC
- d. All are true

3. A 35 years old lady presented with nasal obstruction & anosmia for few weeks. The CT Scan of PNS of this lady is shown. Which of the following is NOT a major criteria by 'Bent & Kuhn'?



- a. The finding is described as 'double density scan'
  - b. Nasal polyp is a common finding
  - c. Fungal culture will be positive for fungus
  - d. Nasal mucin will have eosinophilia
4. A 3 years old child had fever for 2-3 days. Today she has difficulty in breathing and looked cyanosed. X-ray done is shown below. True in this case is?



- This is a case of CROUP
- The X-ray is showing 'steeple sign'
- Steroid with nebulization with adrenalin could be beneficial
- All are true

5. The X-ray of PNS shown below is done for which sinus?



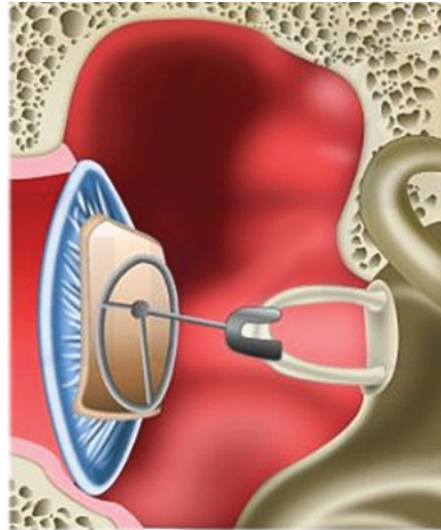
- Maxillary sinus
  - Frontal sinus
  - Ethmoidal sinus
  - Sphenoidal sinus
6. A patient has come to ENT OPD and was being examined for some ENT complaint. The following instrument was being used.



Which of the following could be the primary complaint (most likely) of this patient?

- Hoarseness of voice
- Hearing loss
- Nasal obstruction
- Feeling of lump in throat

7. A patient presented with hearing loss & otorrhea. He was operated for this ailment. The image of the surgery is shown



Which of the following is true in this patient?

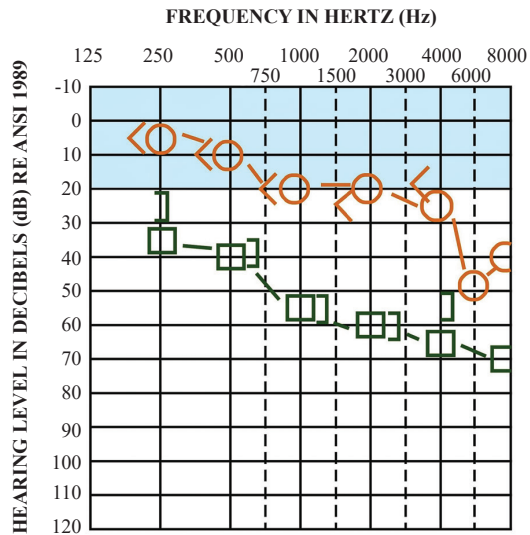
- This is 'Columella surgery'
  - Most likely diagnosis was serous otitis media
  - The prosthesis shown is 'Total ossicular replacement prosthesis'
  - All are true
8. A 13 years old school going male child has sudden episode of epistaxis in school. He was immediately brought to emergency. His bleeding had stopped when he reached the hospital. Nasal endoscopy was done few days later and the image is shown. Which of these is true?



- The contractile layers in the blood vessels of this tumour are absent
- May have antral sign

- c. M/C site is 'sphenopalatine foramen'  
 d. All are true

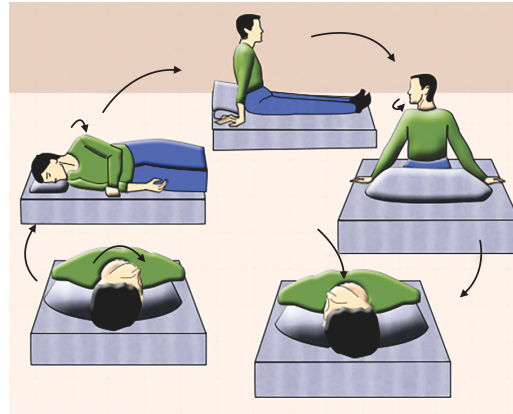
9. A driver presented with hearing loss. The audiogram is shown.



If tuning fork tests are done in this patient, which of these could be the finding?

- a. B/L positive Rinne's with Weber's lateralized to right side  
 b. B/L positive Rinne's with Weber's lateralised to left side  
 c. B/L negative Rinne's with Weber's lateralised to left side  
 d. Right side positive Rinne's & left side negative Rinne's

10. Looking at the image of the procedure and pick the correct statement:



- a. This is canalith repositioning maneuver  
 b. It is done in a patient who has continuous vertigo for few days  
 c. Labyrinthectomy is the alternate treatment in this case  
 d. All are true



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## NOTES