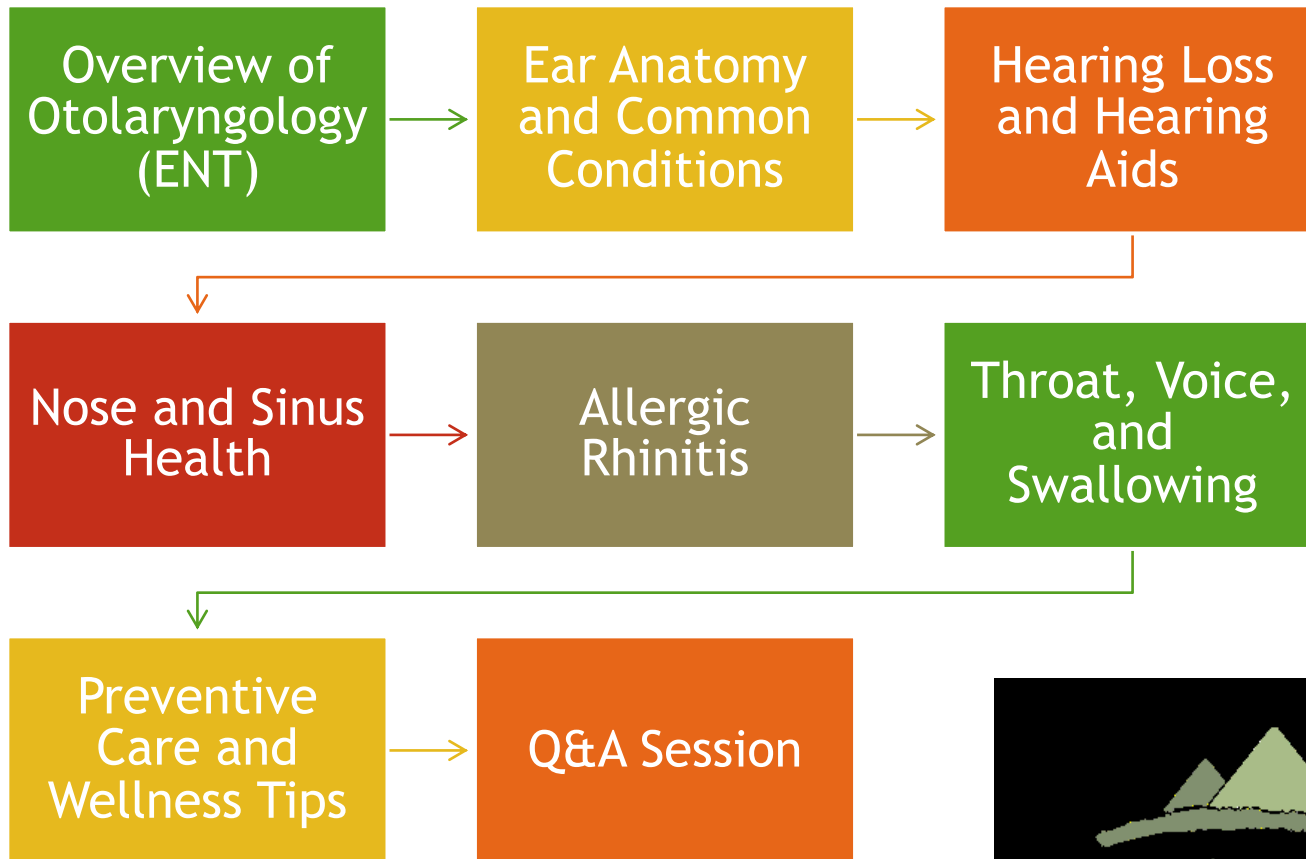




Introduction to Otolaryngology

- ▶ General ENT Topics
- ▶ Nicolette A. Picerno, MD -
ENT Specialists of the
Rockies

Agenda



What is Otolaryngology?

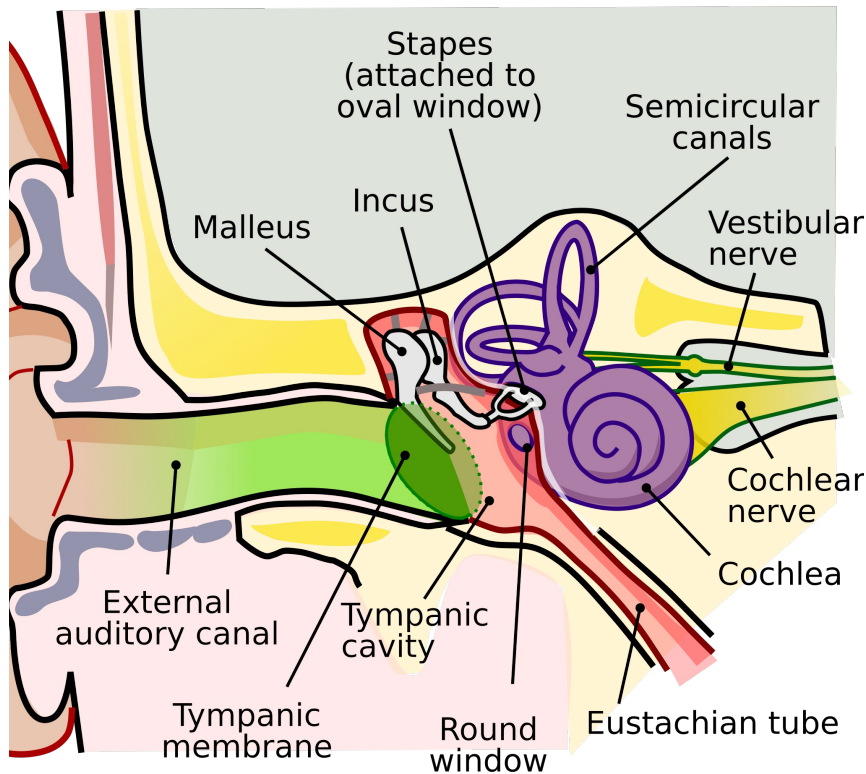
Ear conditions: Hearing loss, ear infections, balance disorders (vertigo), ringing in the ears (tinnitus), nerve pain, and congenital ear disorders

Nose and sinus conditions: Allergies, sinusitis, nasal obstruction, nasal polyps, and smell disorders

Throat and voice box conditions: Voice and swallowing disorders, and diseases of the larynx (voice box)

Head and neck conditions: Infectious diseases, benign and malignant tumors, facial trauma, and deformities. We also perform cosmetic plastic and reconstructive surgery in these areas

Ear Anatomy and Function



- ▶ **Basic Structure:**
- ▶ **External ear:** Pinna and ear canal
- ▶ **Middle ear:** Tympanic membrane and ossicles
- ▶ **Inner ear:** Cochlea and vestibular system

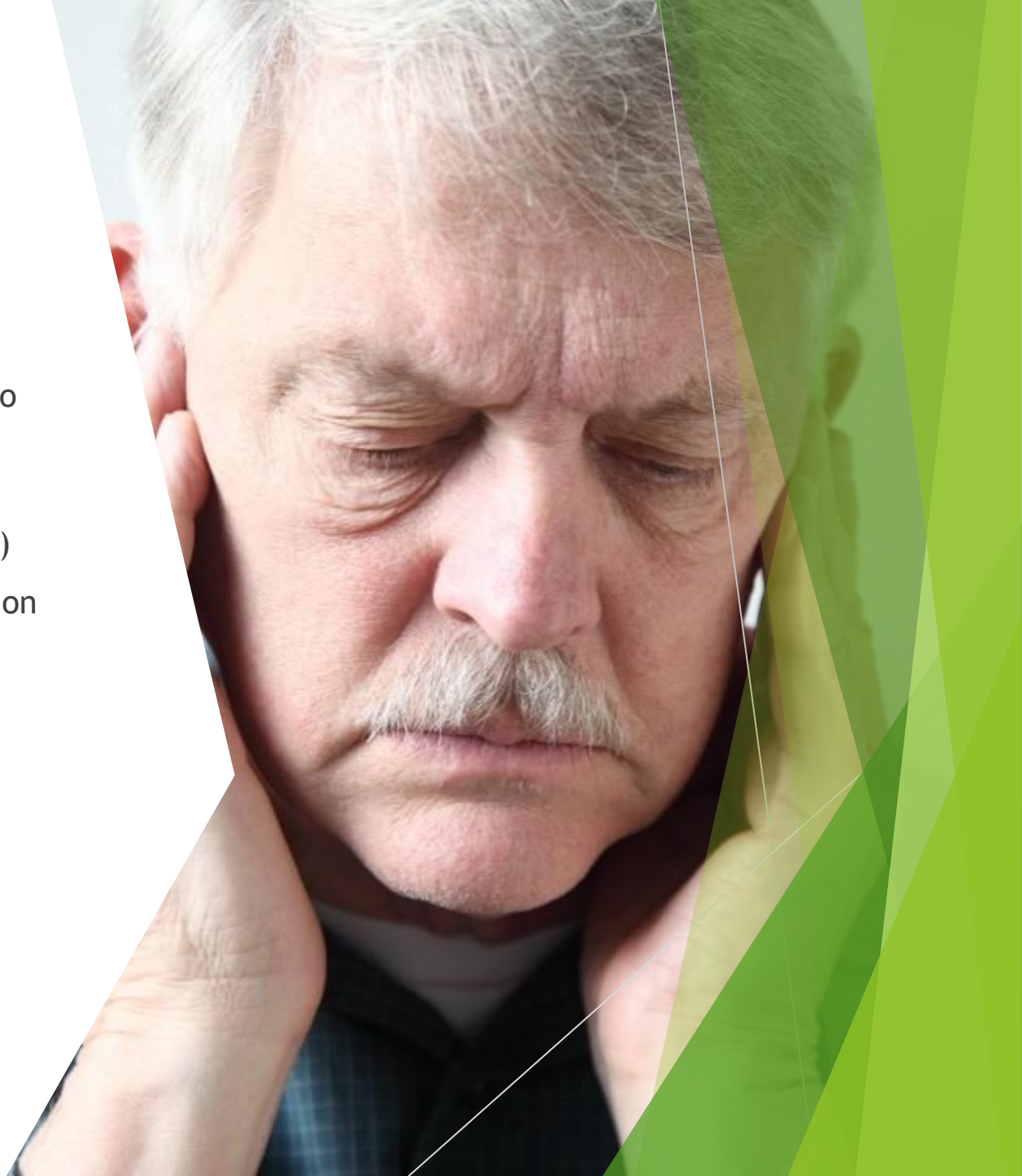
Common Ear Conditions



- ▶ Ear wax/plugged ears
- ▶ Otitis media (middle ear infections)
- ▶ Tinnitus (ringing in the ears)
- ▶ Hearing loss - sudden, symmetric or asymmetric
- ▶ Ear pain

A Note About Plugged Ears:

- ▶ It can range from benign to very serious
- ▶ Unilateral or bilateral
- ▶ Possible etiologies (causes)
 - ▶ Cerumen/wax/infection
 - ▶ Eustachian tube dysfunction
 - ▶ Allergies
 - ▶ Sudden hearing loss
 - ▶ Meniere's disease
 - ▶ Tumors-ear, nose or brain



Sudden Hearing Loss

- ▶ Sudden hearing loss is a medical condition characterized by a rapid decline in hearing ability, often occurring within 24 to 72 hours.
- ▶ It can be a total or partial loss of hearing in one or both ears.
- ▶ This sudden loss can be a sign of various underlying issues, ranging from relatively common causes like ear infections or earwax buildup to more serious conditions like strokes or tumors.
- ▶ Early intervention is crucial for maximizing the chances of hearing recovery.

Sudden Hearing loss

- ▶ Urgent ENT evaluation is required
- ▶ Ideally within 2 weeks of onset
- ▶ Diagnosed with an audiogram
- ▶ If confirmed to be actual SNHL, oral steroids are initial treatment along with search for likely causes
- ▶ MRI scan
- ▶ Intratympanic steroid injection
- ▶ Does not always return to baseline

Tinnitus

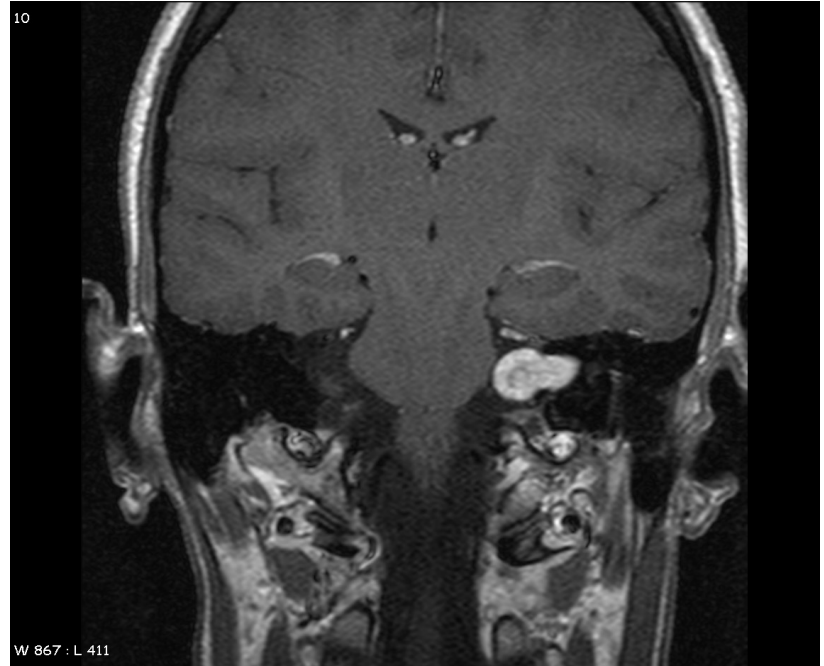
- ▶ Tinnitus is a condition characterized by the perception of sound in the ears or head when no external sound source is present
- ▶ It's often described as ringing, buzzing, hissing, or roaring, and can vary in pitch and intensity
- ▶ Tinnitus is frequently linked to hearing loss, particularly age-related hearing loss
- ▶ Other causes: loud noise exposure, ear infections, circulatory problems, medications (NSAIDs), other medical conditions (neck issues, TMJ), diet (excessive salt intake)

Tinnitus Treatment

- ▶ Treatment focuses on managing the symptoms and improving quality of life, often involving a combination of approaches
- ▶ Sound Generators
- ▶ Hearing Aid-Based Masking: Some hearing aids have built-in tinnitus masking features
- ▶ Tinnitus Retraining Therapy (TRT) (counseling)
- ▶ Supplements/dietary changes
- ▶ Medications (last resort)

Hearing Loss in Aging

- ▶ There are many types of hearing loss
- ▶ Conductive (reversible?) vs. sensorineural hearing loss (permanent?)
- ▶ Presbycusis: age-related hearing decline
- ▶ Noise-induced hearing loss
- ▶ Asymmetric hearing loss
- ▶ Acoustic neuroma/benign tumor



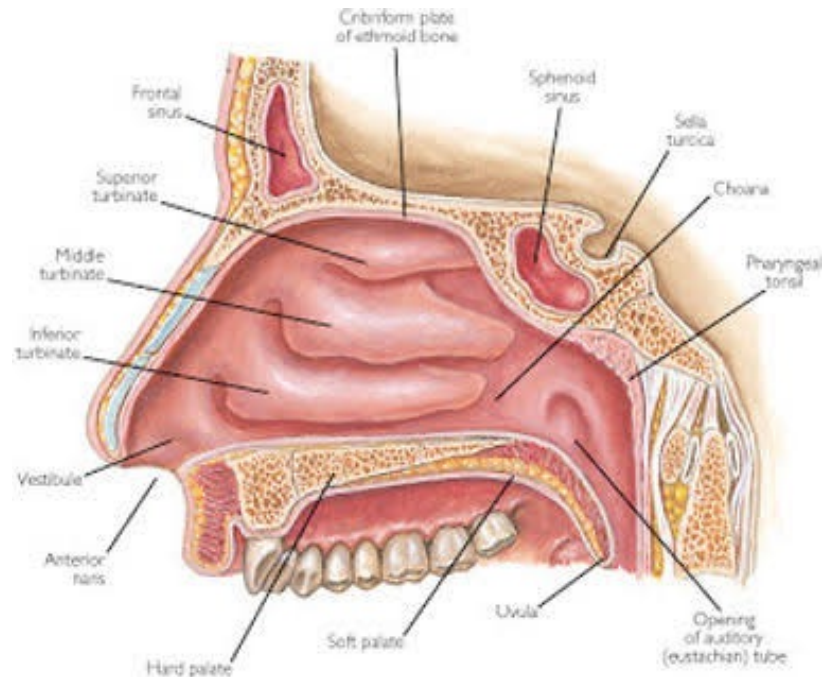


Hearing Aids and Assistive Devices

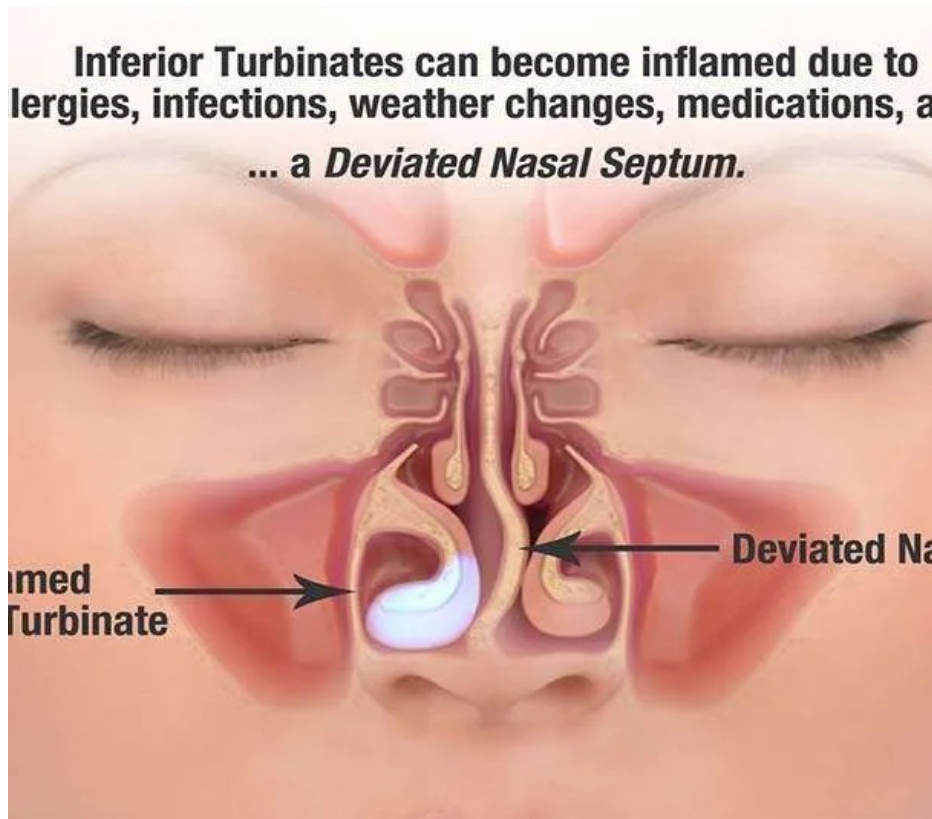
- ▶ Types of hearing aids: BTE, ITE, CIC.
- ▶ Cochlear implants and bone-anchored devices.
- ▶ Assistive listening devices: FM and Telecoil systems
- ▶ Caption call phone services
- ▶ Alerting systems

Nose and Sinus Anatomy

- ▶ Nasal septum and turbinates
- ▶ Sinus cavities: maxillary, frontal, ethmoid, sphenoid
- ▶ Function: air filtration, humidification, voice resonance, smell



Common Nasal and Sinus Conditions



- ▶ Sinusitis: acute and chronic
- ▶ Allergic rhinitis (hay fever)
- ▶ Nasal obstruction and deviated septum
- ▶ Postnasal Drip

Post Nasal Drip



What is Postnasal Drip?



Excess mucus dripping from the nose into the throat



Common causes: allergies, colds, sinus infections, sleep apnea, GERD



Symptoms: throat clearing, cough, sensation of drainage



Treatment: nasal sprays, antihistamines, hydration, procedures, allergy testing, reflux tx

Treatment of Common Nasal Conditions

- ▶ Nasal sprays/washes
(saline/steroids/antihistamines/anticholinergics)
Flonase/Nasacort/Astepro/Atrovent
- ▶ Allergy tests to diagnose and quantify allergies-
environmental control (avoidance), medications,
allergy shots or drops
- ▶ Septoplasty/turbinate reduction
- ▶ Sinus surgery
- ▶ Rhinoplasty



Rhinitis

- ▶ Can have many causes - allergic, non allergic, structural, hormonal, mucosal atrophy
- ▶ Impact on society
 - ▶ Absenteeism/Presenteeism (missed workdays or loss of productivity and concentration)
 - ▶ Sleep disturbance, depressed sense of wellbeing
 - ▶ Comorbidities (sinusitis, asthma, bronchitis)
 - ▶ Economic burden (healthcare costs, salary reductions)
 - ▶ Social isolation



Normal



Rhinitis

Allergies and ENT Health

- ▶ Allergic Rhinitis Overview:
- ▶ Triggered by allergens like pollen, dust, or pets
- ▶ Symptoms: sneezing, nasal congestion, runny nose, itchy eyes
- ▶ Can lead to postnasal drip and sinus pressure
- ▶ Treatment options: avoidance, antihistamines, allergy shots and drops

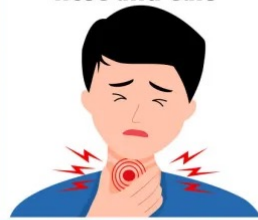
**A runny or
blocked nose**



**Sneezing and
coughing**



**Itchy throat, mouth,
nose and ears**



**Itchy, red or
watery eyes**

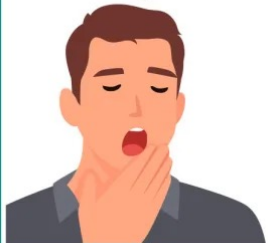


SYMPTOMS OF HAY FEVER

Loss of smell



Feeling tired



**Pain around the
sides of your head
and your forehead**

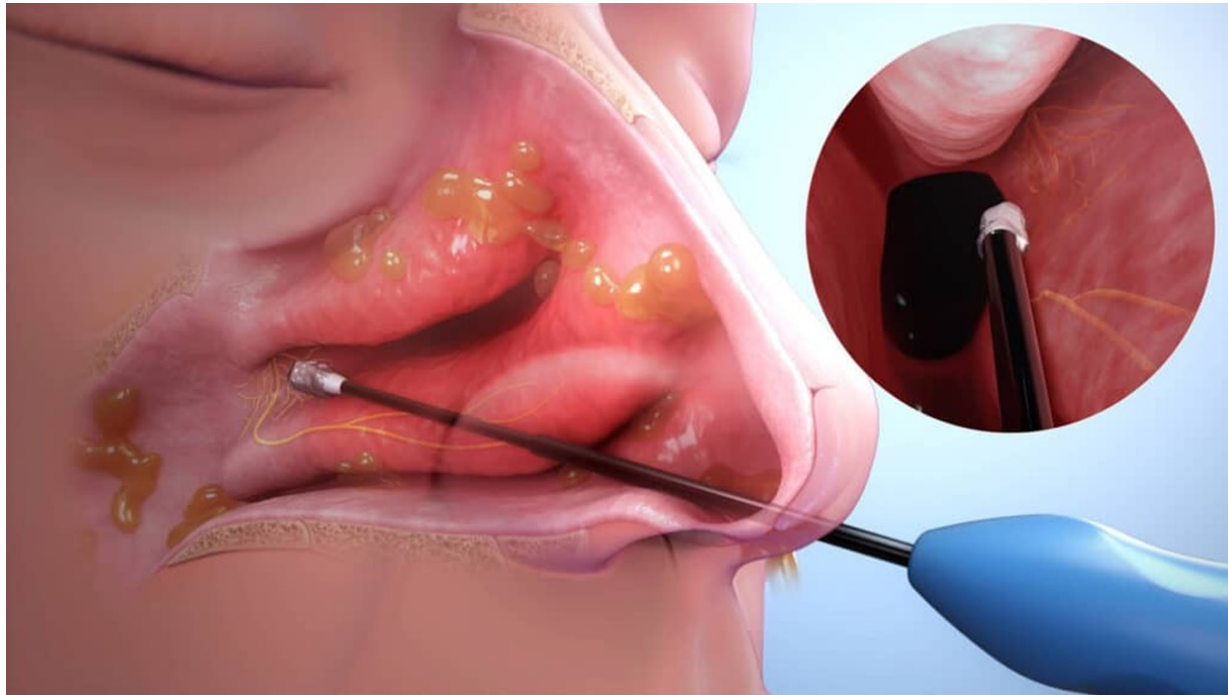


Headache



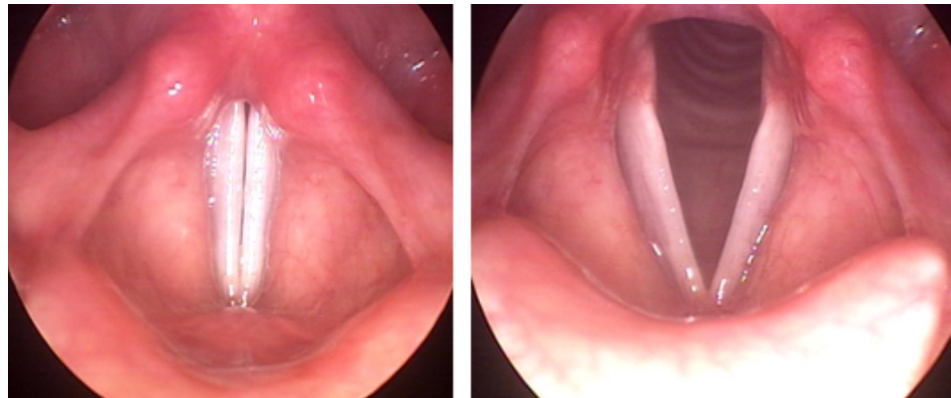
Rhinitis - New Definitive Treatment

- ▶ Posterior nasal nerve - Rhinaer®
- ▶ Nasal turbinates/nasal valve - Rhinaer® / Vivaer®



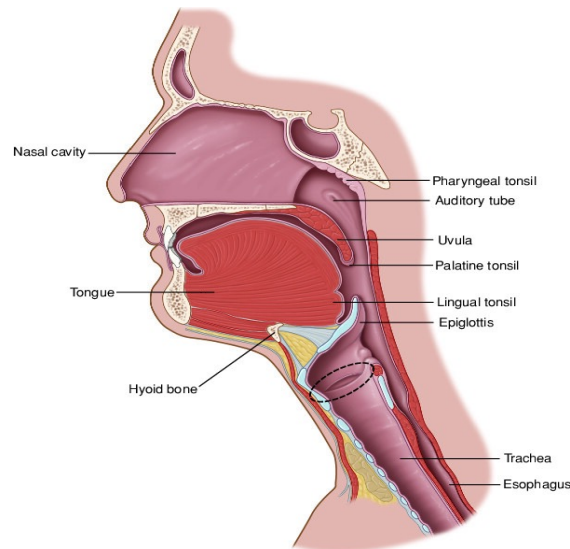
Throat, Voice, and Swallowing

- ▶ Key Components:
- ▶ Pharynx and larynx structure
- ▶ Vocal cords and voice production
- ▶ Breathing



Common Throat Conditions

- ▶ Laryngitis: voice changes and hoarseness
- ▶ Gastroesophageal reflux disease (GERD) impact on throat - silent or laryngopharyngeal reflux vs GERD
- ▶ Tonsillitis and pharyngitis
- ▶ Postnasal Drip
- ▶ Chronic cough



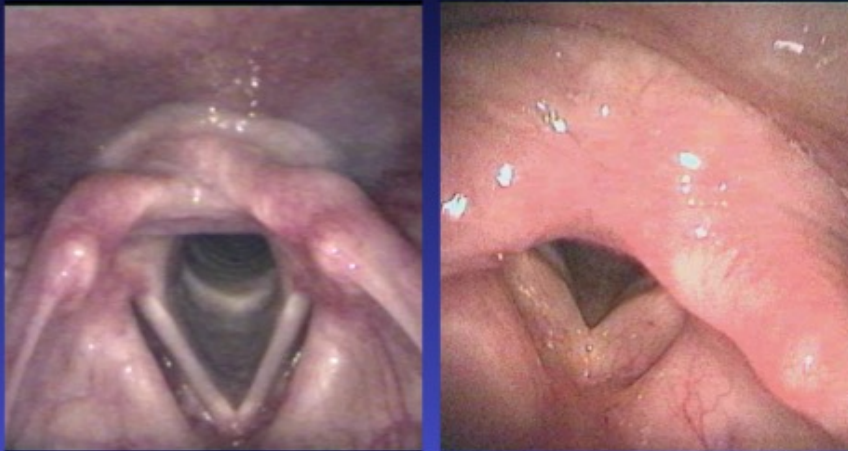
Globus Sensation (Lump in the Throat)

- ▶ What is Globus?
- ▶ Sensation of a lump or something stuck in the throat.
- ▶ Not usually painful or linked to actual obstruction.
- ▶ Often related to reflux, stress, or muscle tension.
- ▶ Evaluation may include ENT exam and reflux treatment.

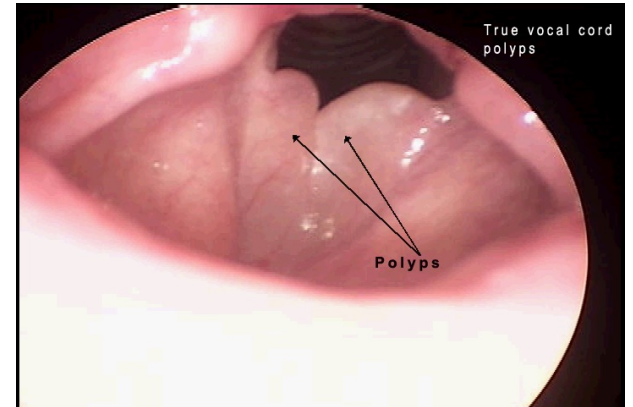
Larynx:

Normal

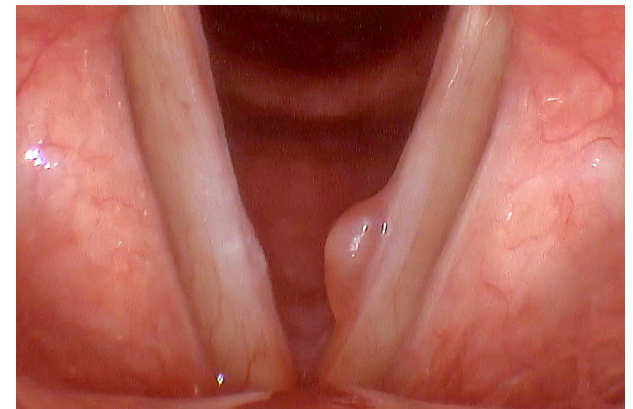
Acid Injured



LPR - Laryngopharyngeal reflux



Caused by smoking



Vocal Abuse

Head and Neck Cancers

- ▶ **Key Points:**
- ▶ **Common sites:** oral cavity, larynx, thyroid, lip
- ▶ **Risk factors:** smoking, HPV, radiation exposure
- ▶ **Importance of early detection and screening**
- ▶ **Ear pain without cause needs to be evaluated**
- ▶ **Non healing lesions need biopsy**
- ▶ **Close correlation with dentistry**

Preventive Care and Wellness Tips



Recommendations for Healthy ENT Function:



Regular hearing and vision screenings



Avoiding tobacco and limiting alcohol



Managing allergies and sinus health



Staying hydrated and practicing good hygiene

Summary and Q&A

Key Takeaways:

ENT covers a broad range of conditions affecting daily life.

Nasal saline spray/wash helps a lot of ENT problems

Early detection and preventive care are crucial.

Advances in technology benefit diagnosis and treatment.

