

# Examination of the Ears, Nose, Throat, and Neck

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# HISTORY

Chief complaint: **Ear? Nose? Throat? Neck?**

HPI:

Onset, frequency, duration

Associated symptoms

What has the patient already tried?

Pertinent positives & negatives

Always think: “Could this be related to underlying malignancy or something more serious?”

Previous work-up, testing, imaging, or interventions

What has already been done or tried for this?

# HISTORY

Past Medical History: **Allergies?**  
**Asthma? Neurologic or  
rheumatologic disorders?**

Past Surgical History: **Head and neck  
procedures?**

Allergies- **Aspirin Sensitivity?**

Meds- **Is this problem medication-  
related?**

Social History - **Smoker? Alcohol use?**

Family History- **Does this run in the  
patient's family?**

**Remember:** The patient may not know their full medical history. Often, you will have to ask specific and directed questions to get the information you are looking for

**Sampter Triad:**  
Allergies + Asthma +  
Aspirin sensitivity

Familial/genetic syndromes, such as MEN (which may have concurrent thyroid or parathyroid carcinoma, pheochromocytoma, or typical physical features)

# ENT REVIEW OF SYSTEMS

**Gen: fever/chills/weight changes**

**Ear: tinnitus/ vertigo/ hearing loss/ otalgia/ otorrhea**

**Nose: congestion/ rhinorrhea/ epistaxis/ decreased smell**

**Throat: pain/ dysphagia/ odynophagia**

**Larynx: hoarseness/ voice changes/ noisy breathing/ difficulty breathing / pain with speaking (odynophonia)**

**Trachea: noisy or difficulty breathing**

**Neck: lymphadenopathy/ new lumps or bumps/ pain/ swelling**

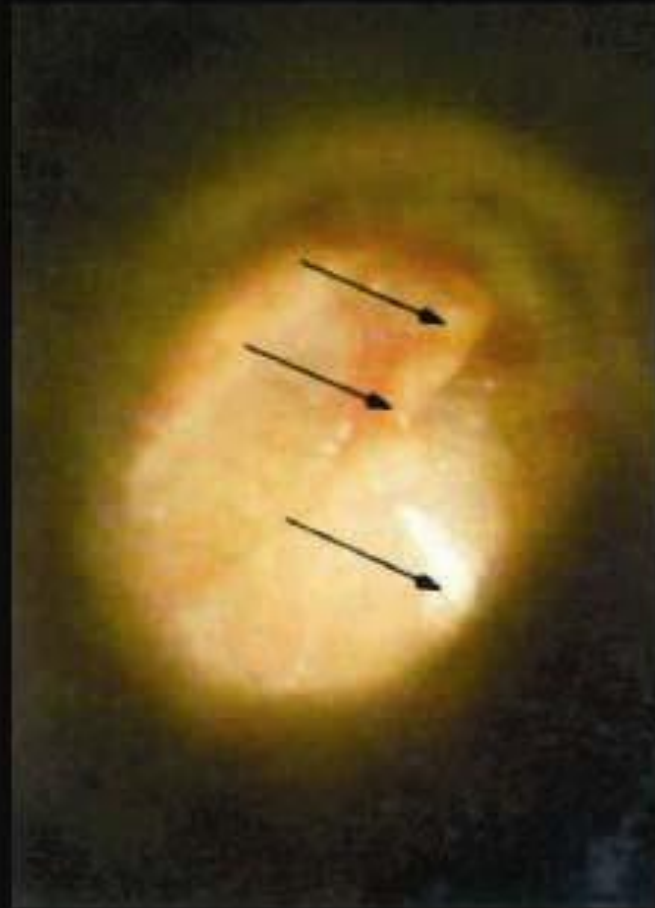
**Face: sinus pain/ pressure/ swelling/ numbness**

# Examination of the Ear

- 1) Introduction
- 2) Position the patient
- 3) Start with the better ear
- 4) Inspect the pinna
- 5) Inspect the mastoid
- 6) Inspect the external auditory meatus
- 7) Otoscopic examination
- 8) Fistula test
- 9) Free field testing
- 10) Tuning fork tests
- 11) Facial nerve
- 12) Post nasal space

# The Eardrum

- Tympanic membrane/  
drumhead
- 3 layers at pars tensa/  
2 at pars flaccida
- Shape oblique, center  
attached to ossicles
- Two chief landmarks:  
handle and short  
process of the malleus
- *Cone of light* is just a  
light reflection (antero-  
inferior)



# Examination of the Ear

- 1) Introduce yourself to the patient
  - Any deafness?
  - Communication



# Examination of the Ear

## 2) Position the patient

- Away from the wall
- In chair
- Can walk around patient

# Examination of the Ear

## 3) Start with the better side

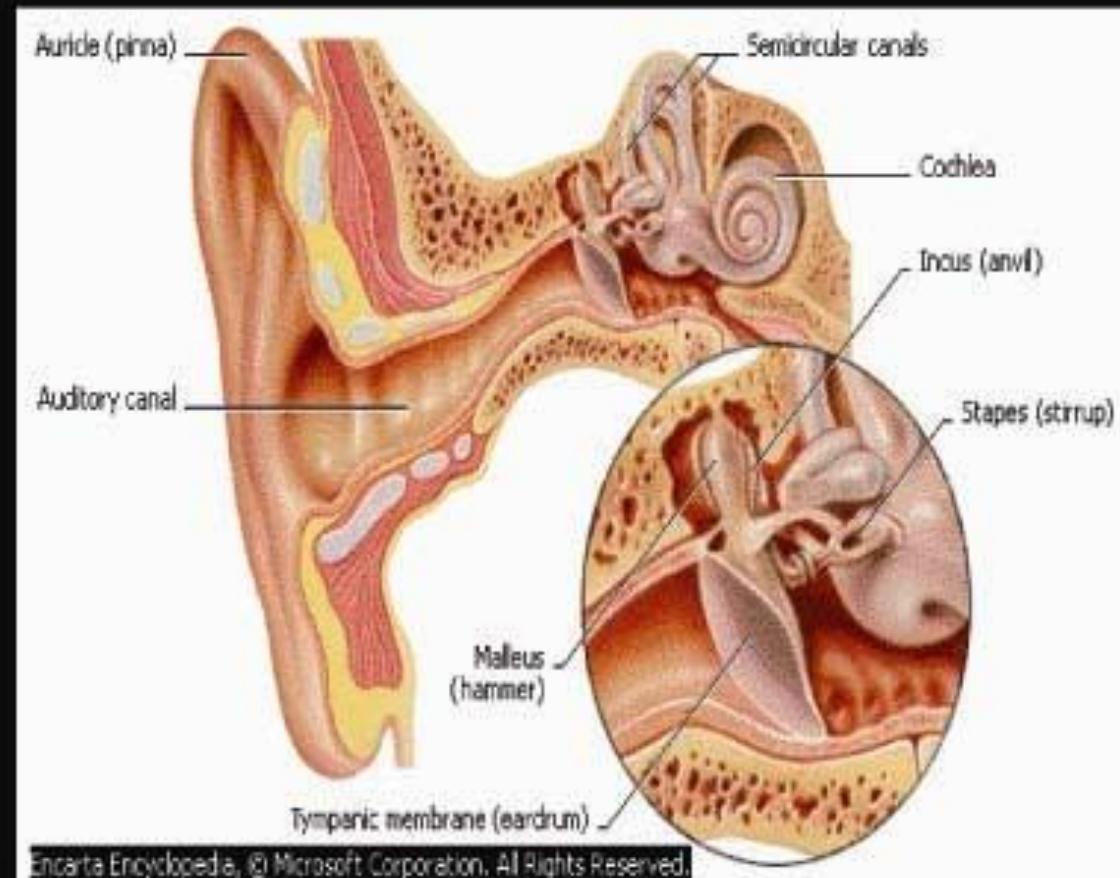
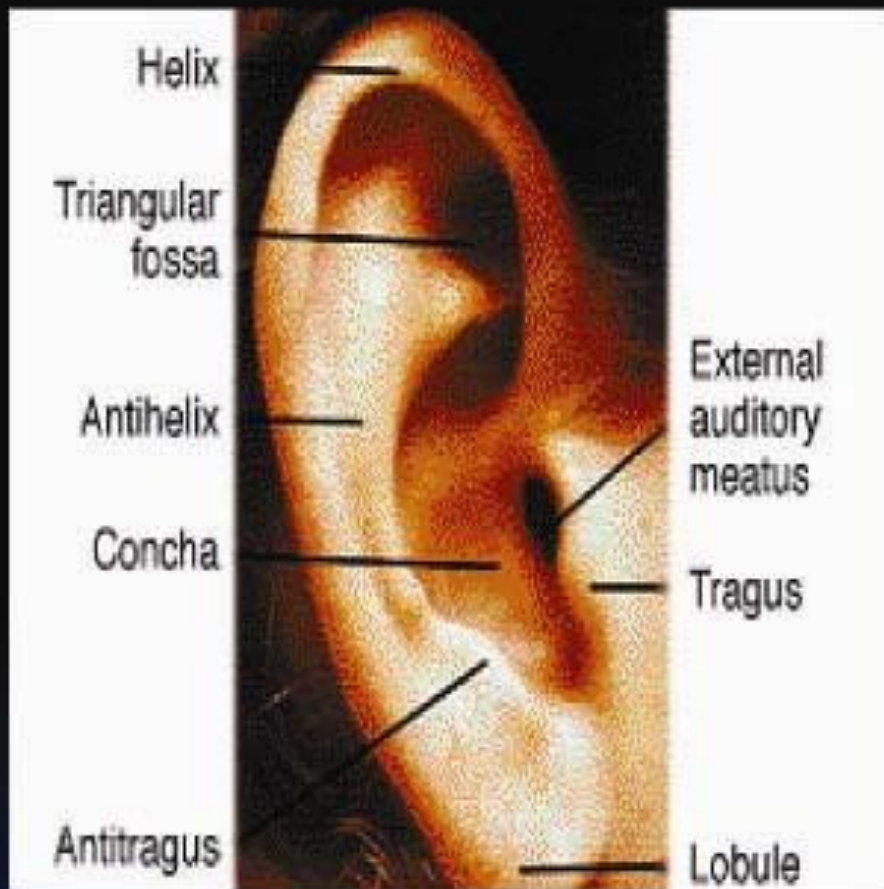
- Start with the dry side
- Remove hearing aids

# Examination of the Ear

## 4) Inspect the pinna

- Front and behind
- Skin condition
- Lesions
- Scars
- Pre-auricular area (common place for sinus)
- Condition of cartilage

# Structure of the Ear

























# Examination of the Ear

## 5) Inspect the mastoid

- Mastoiditis is very, very rare
- Post auricular lymph nodes
- Scars
- BAHAs and Cochlear implants





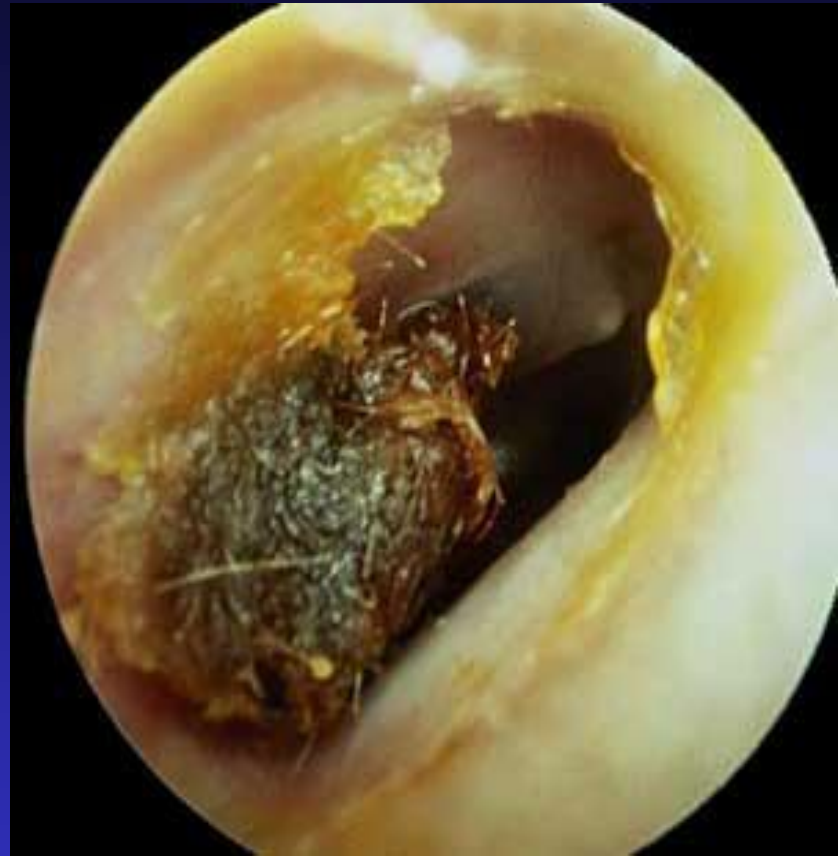




# Examination of the Ear

## 6) Inspect the external auditory meatus

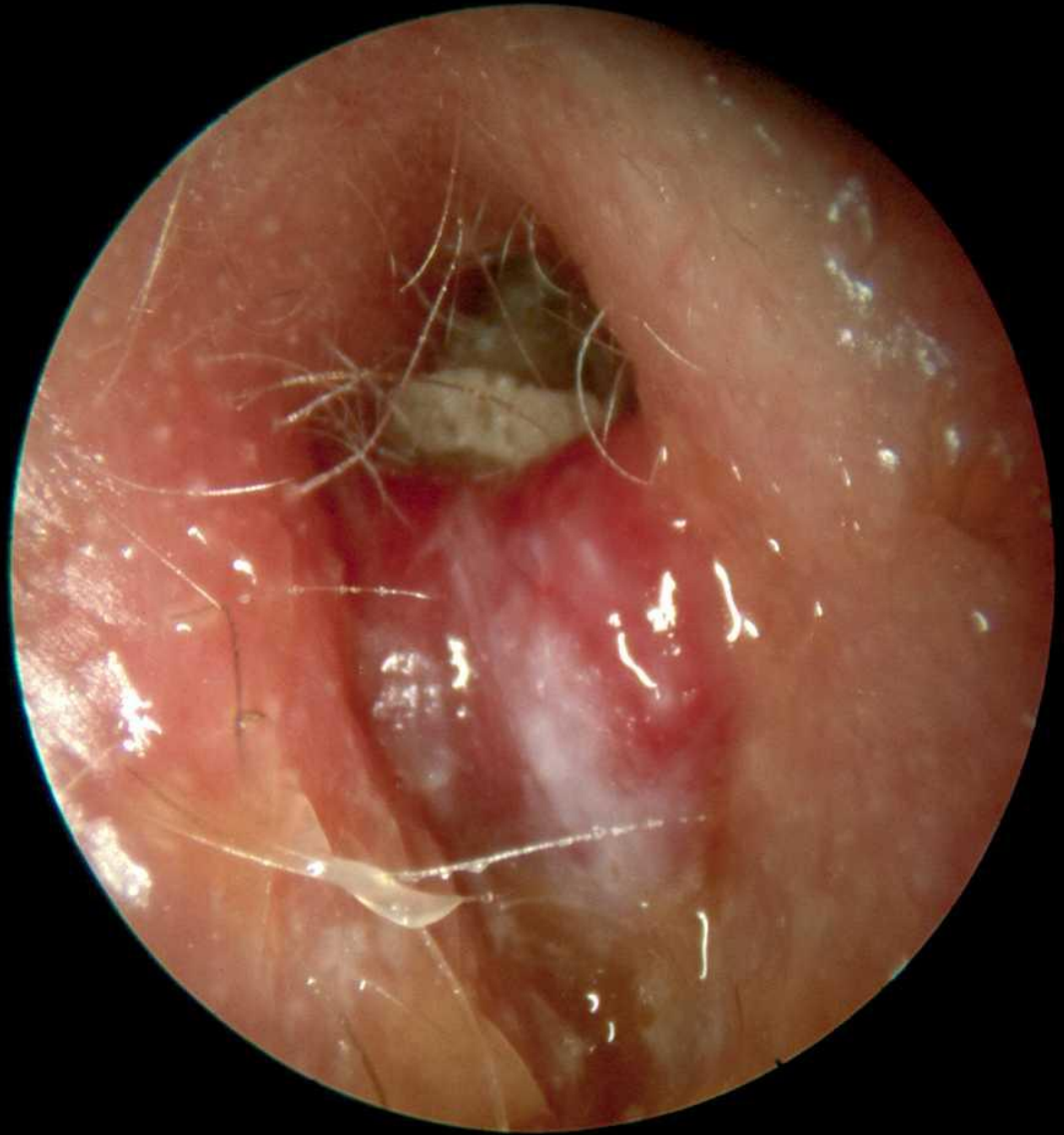
- Pull pinna upwards, outwards and backwards
- In infants downwards and backwards
- In children pull backwards
- Otorrhoea and otomycosis
- Canal stenosis
- Exostoses and osteomas







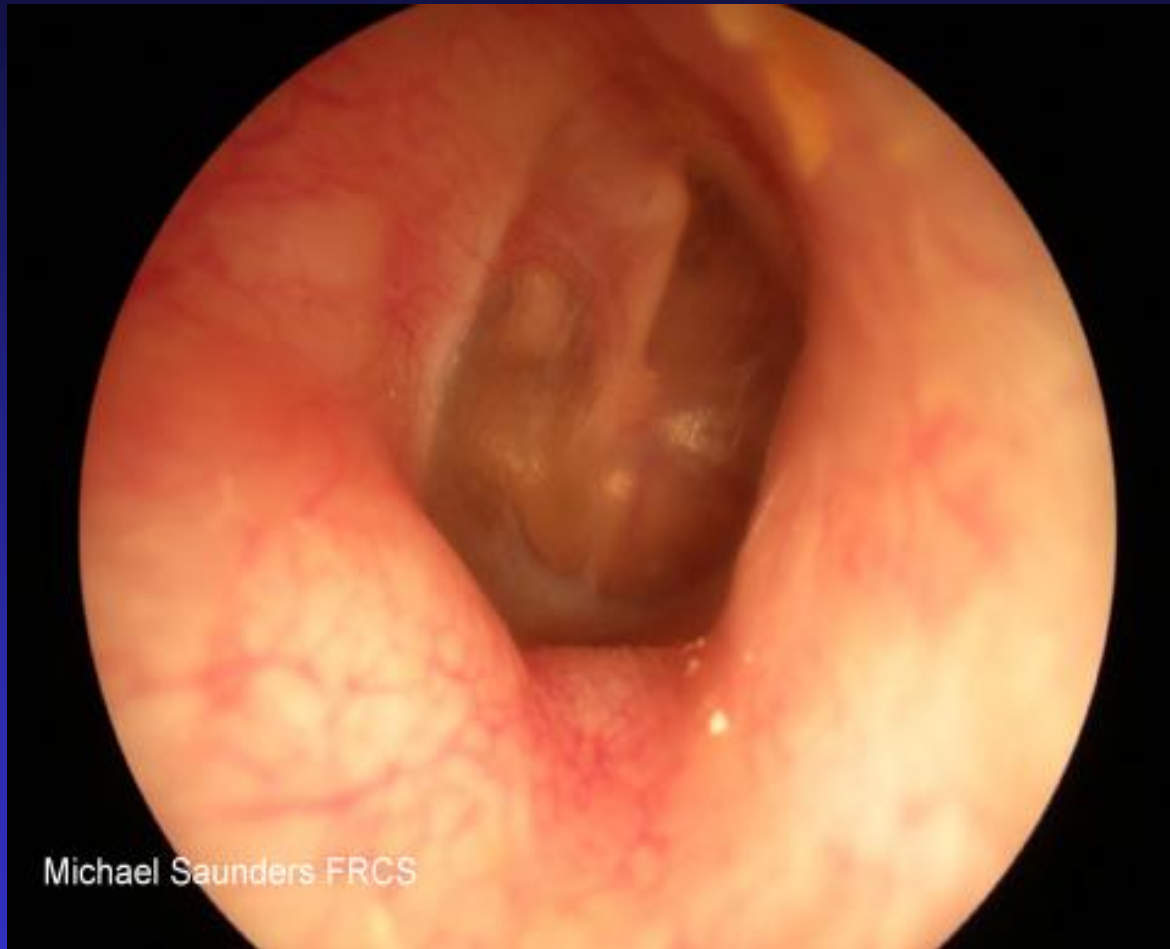
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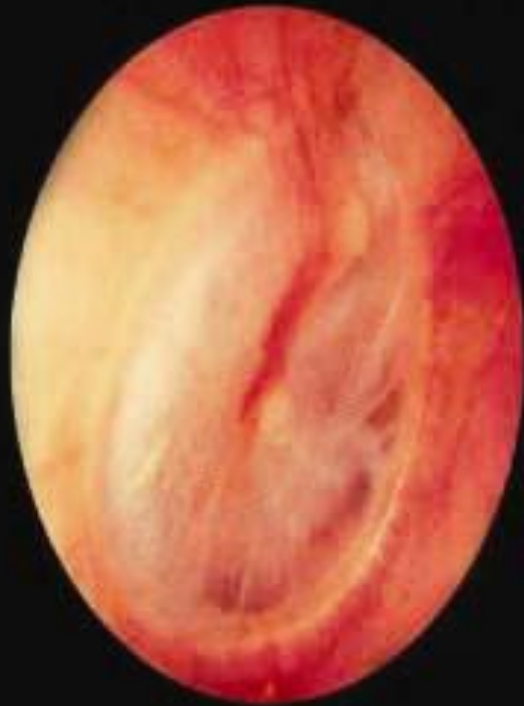
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# Examination of the Ear

## 7) Otoscopic examination

- The lateral process and handle of the malleus lie towards the centre of the tympanic membrane
- Four quadrants
- Perforation
  - Central or marginal
  - What can be seen through it
- Mastoid cavity
  - Dry
  - Wet, inflamed

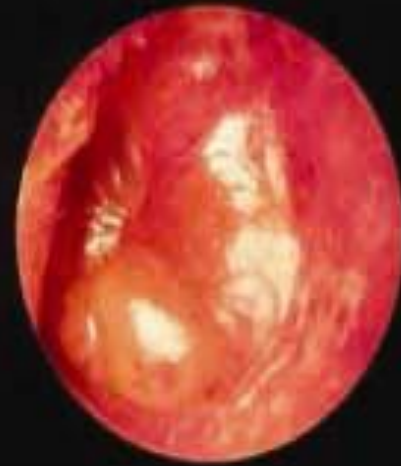
# Normal Tympanic Membrane



# Chronic Suppurative Otitis Media CSOM



# Otoscopic Findings





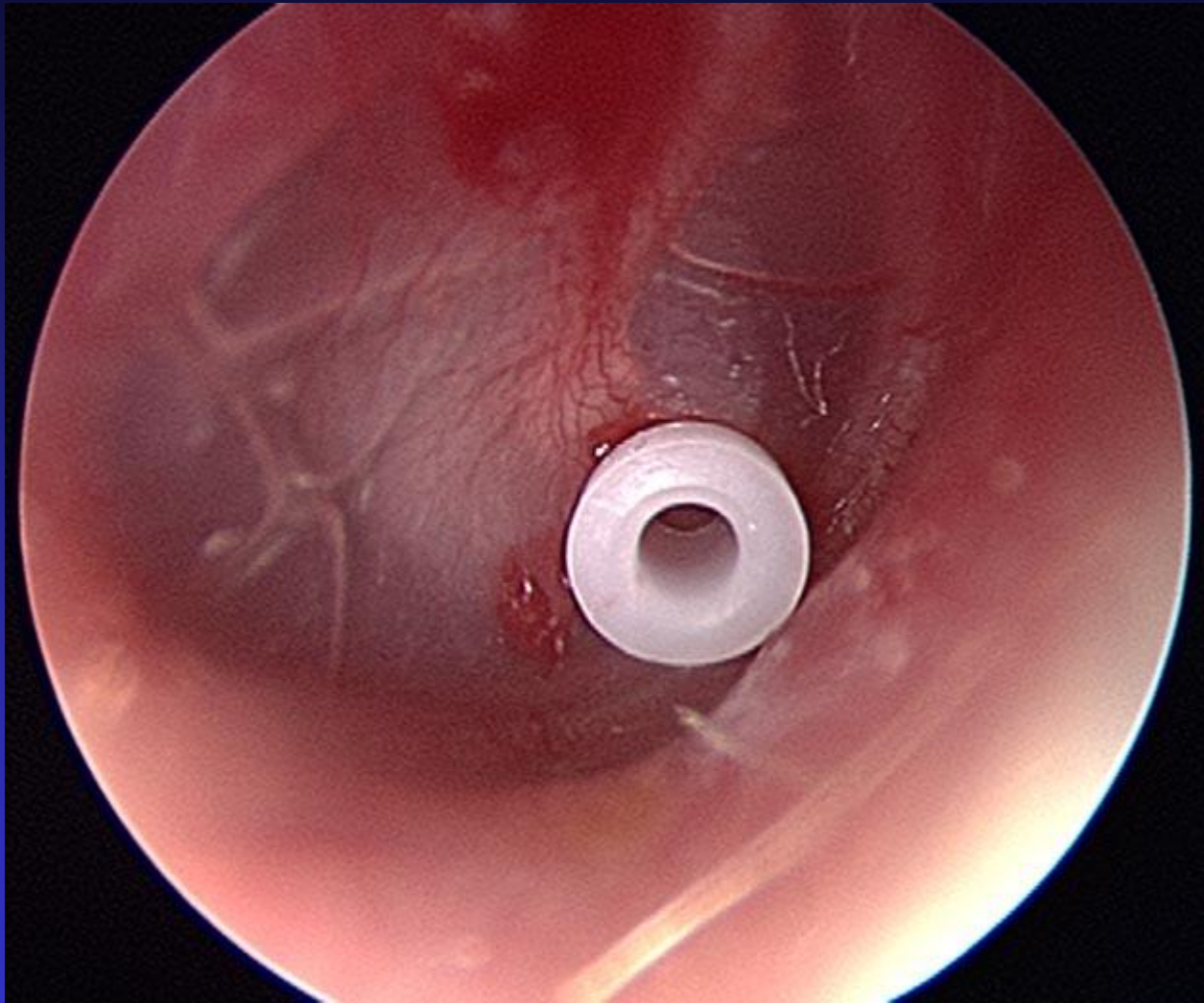


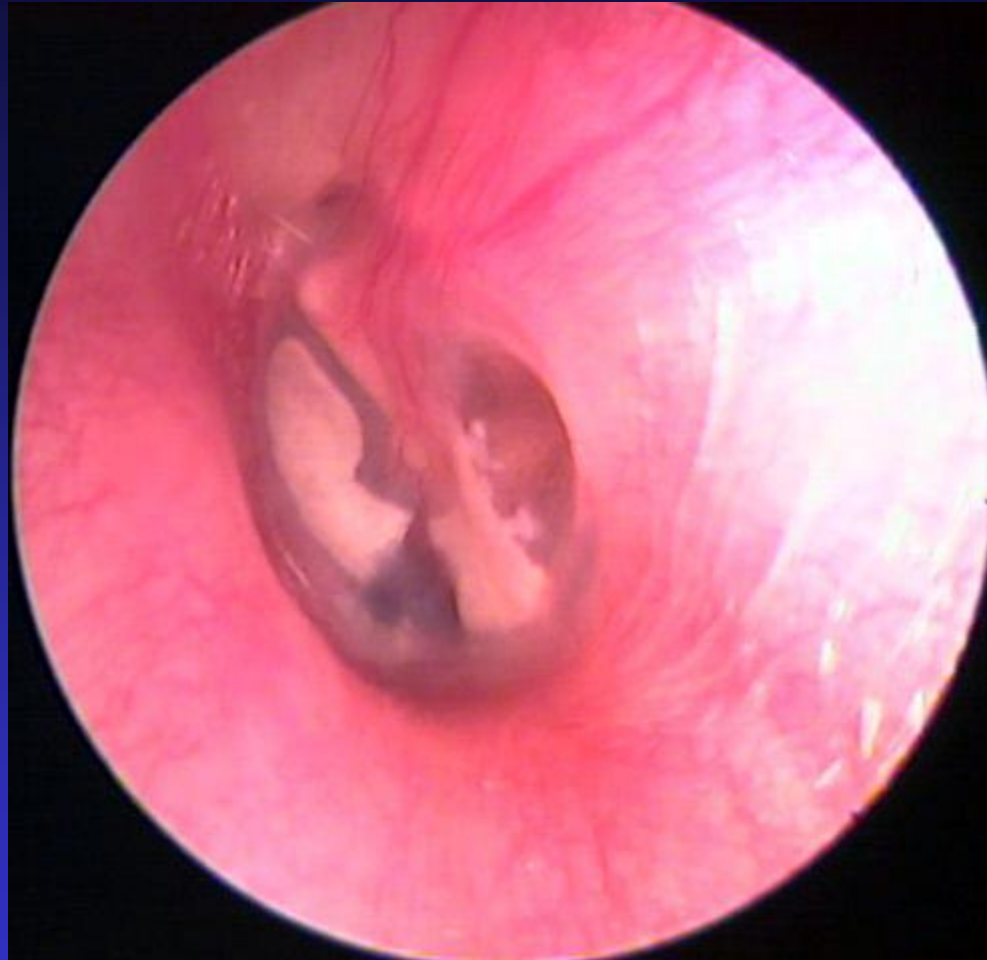
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# Examination of the Ear

## 8) Fistula test

- A test for ENT doctors!
- Warn the patient
- A cholesteatoma has eroded part of a semi-circular canal
- Pressure in the EAM causes conjugate deviation of the eyes

# Examination of the Ear

## 9) Free field testing

- Start with the better ear
- Use masking, such as a tragal rub
- Whispered voice, conversation voice, and shouted voice at 60cm
- Use double number fingers or bisyllable words

# Examination of the Ear

## 10) Tuning fork tests

- Traditionally 512Hz (256Hz may be better)
- Rinne and Weber (they were both German)
- Help differentiate between conductive and sensorineural hearing loss
- Limited reliability (around 80%)
- For Weber, incisors > vertex > forehead



# Examination of the Ear

## 11) Facial nerve

- Otoneurological conditions affect the cranial nerves closest to the vestibulocochlear nerve
  - Cholesteatoma
  - Malignant otitis externa (osteomyelitis)
  - Vestibular Schwannoma (formerly acoustic neuroma)
  - Other skull-base tumours

# Examination of the Ear

## 12) Post nasal space

- Conditions affecting the middle ear can sometimes affect the post nasal space
- Hopkins rod, flexible endoscope, or angled mirror usually needed
- Massive lesions can sometimes be seen through the nose, or behind the soft palate

**Before**



**After**



# Examination of the nose

1) Introduce yourself

5) Anterior rhinoscopy

6) Oral examination

7) Post nasal space  
examination

8) Neck examination



# Examination of the nose

## 1) Introduce yourself

- Any hyponasal speech?

# Examination of the nose

## 2) Position the patient

- Head-mirror or headlight?

# Examination of the nose

## 3) Inspect the external nose

- Compare nose to rest of face
- Size and shape
- Skin
- Swelling, bruising, ulcers
- Profile









# Examination of the nose

4) Examine the nasal tip, vestibule, and assess the nasal airways

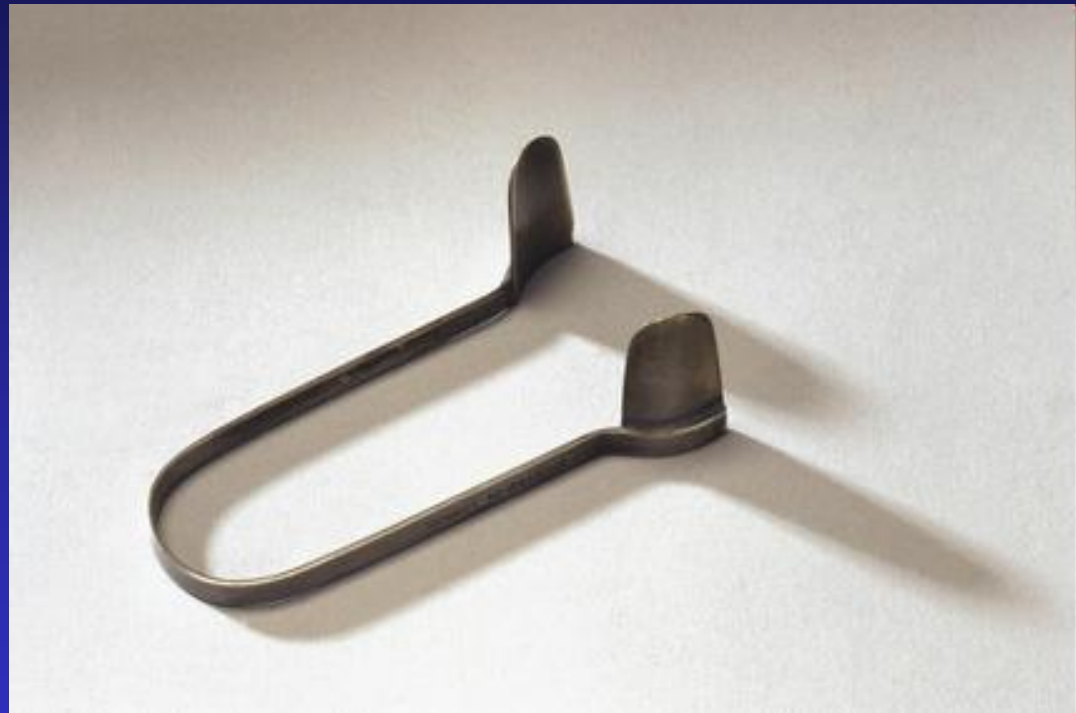
- Nasal tip
- Nostrils and air flow
- Mist test
- Condition of mucosa inside vestibule



# Examination of the nose

## 5) Anterior rhinoscopy

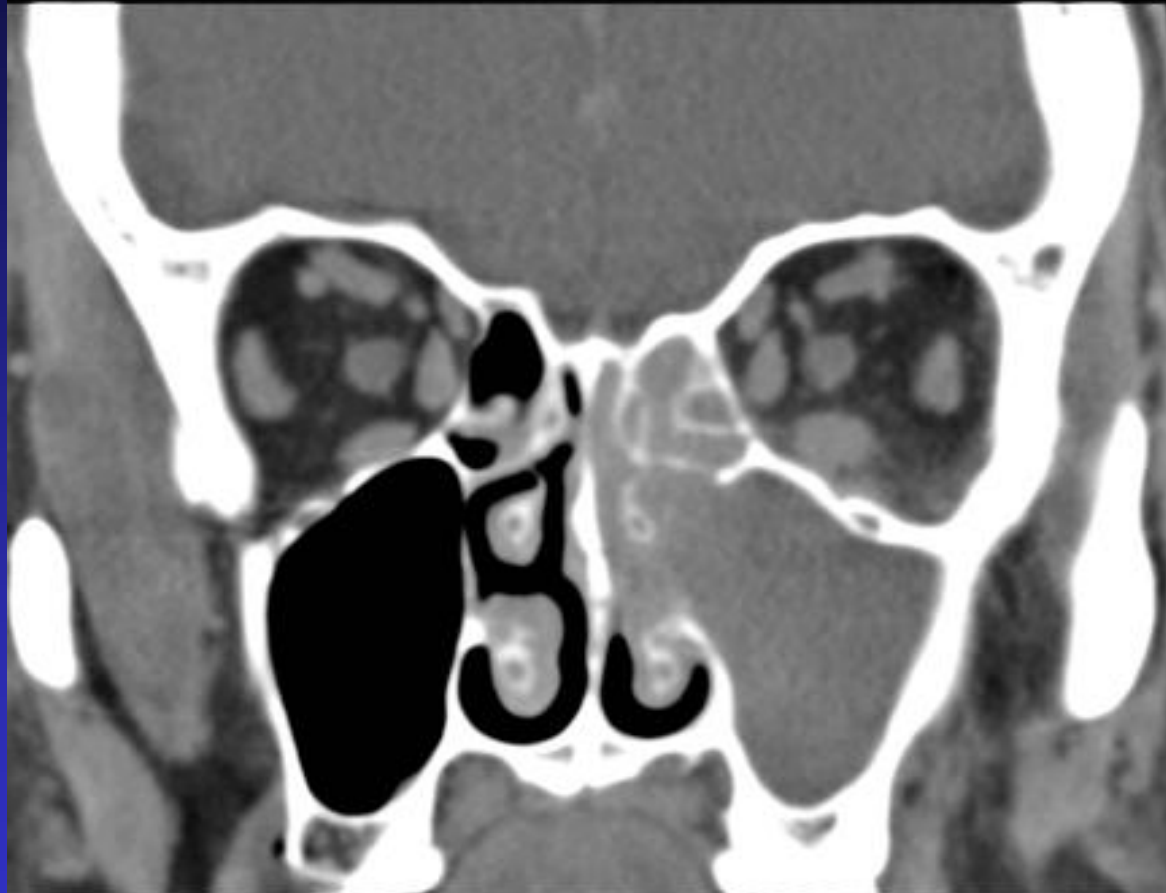
- Thudichum's speculum vs otoscope
- Obvious lesions
- Mucosa
- Septum
- Turbinates (and osteomeatal complex)







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# Examination of the nose

## 6) Oral examination

- Rotten teeth
- Alveolar process of the maxilla
- Palate and uvula

# Examination of the nose

## 7) Post nasal space examination

- With mirror, Hopkins rod, or nasendoscope
- Not easy outside of ENT clinic
- Large masses, such as an antrochoanal polyp



# Examination of the nose

## 8) Neck examination

- Anterior nose drains to submandibular region
- Posterior drains to middle deep cervical

# Examination of the throat

- 1) Introduce yourself
- 2) Position the patient
- 3) Assess speech
- 4) Oral examination
- 5) Nasopharynx
- 6) Indirect laryngoscopy
- 7) Examine the neck



# Examination of the throat

1) Introduce yourself

# Examination of the throat

## 2) Position the patient

- Headlamp, mirror or other light source
- Seated in chair with space to examine from all sides

# Examination of the throat

## 3) Assess speech

- Stridor
- Hoarseness
- Hot potato
- Any other dysphonia

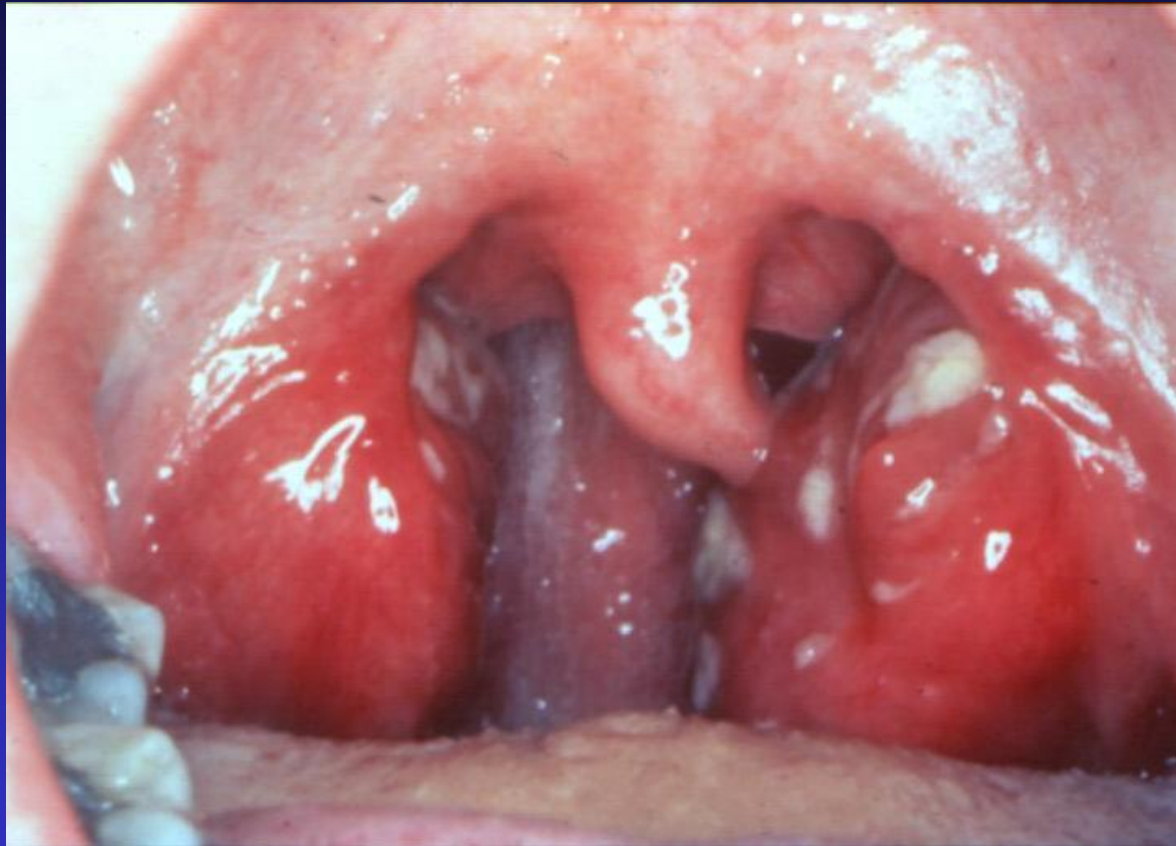


# Examination of the throat

## 4) Oral examination

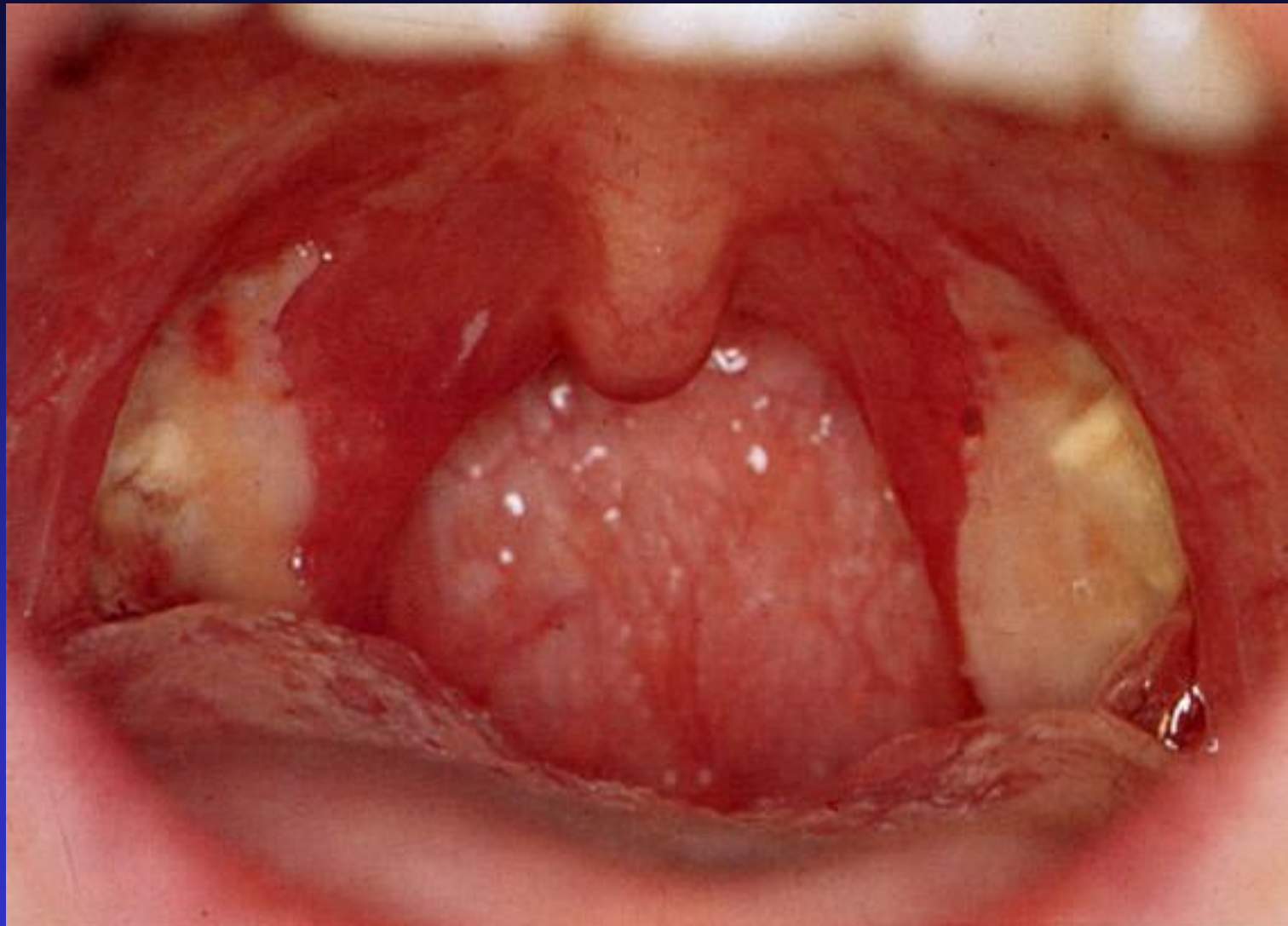
- Lips, perioral lesions
- 1 or 2 tongue depressors (or finger)
- Inspect tongue, buccal mucosa and oropharynx
- ~~Salivary duct orifices~~
- Say 'Ahhh'
- Finger examination of tongue, floor of mouth, cheeks and back of throat

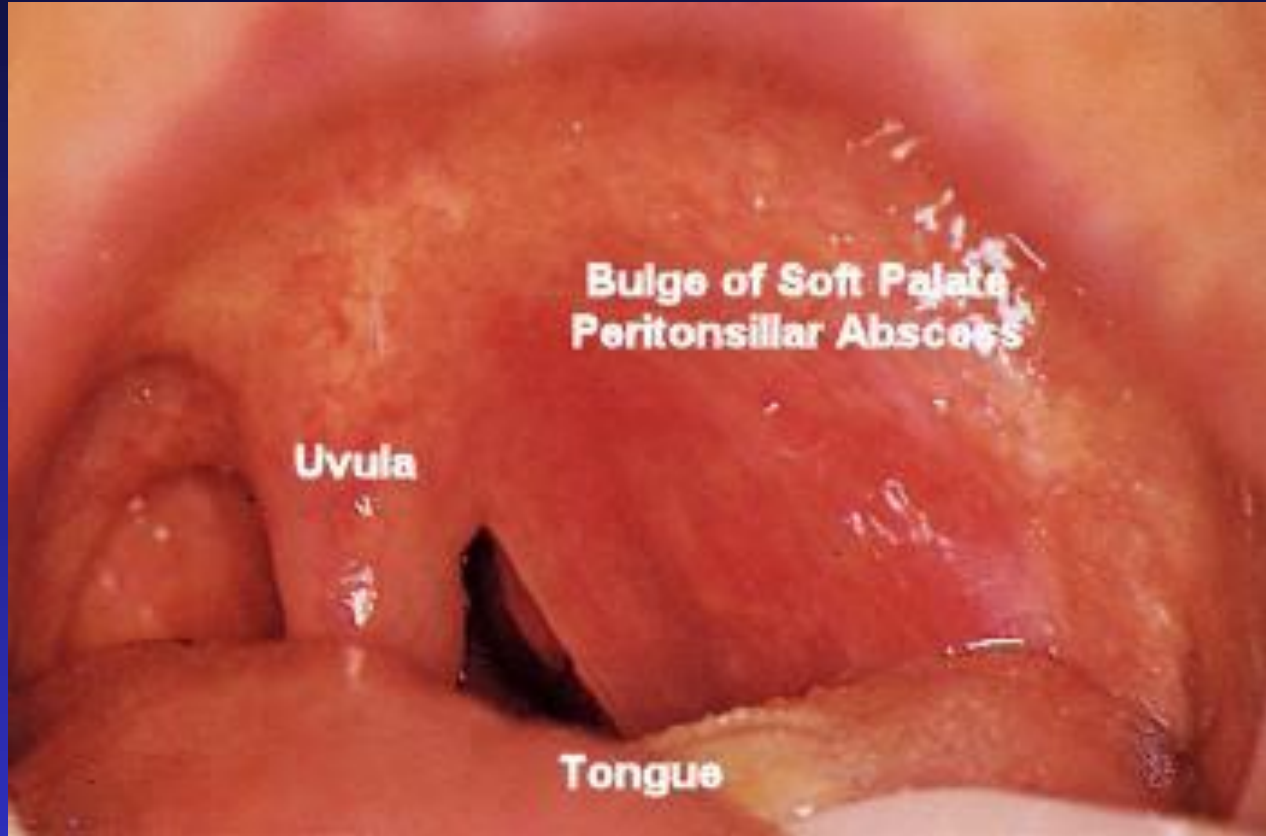












**Bulge of Soft Palate  
Peritonsillar Abscess**

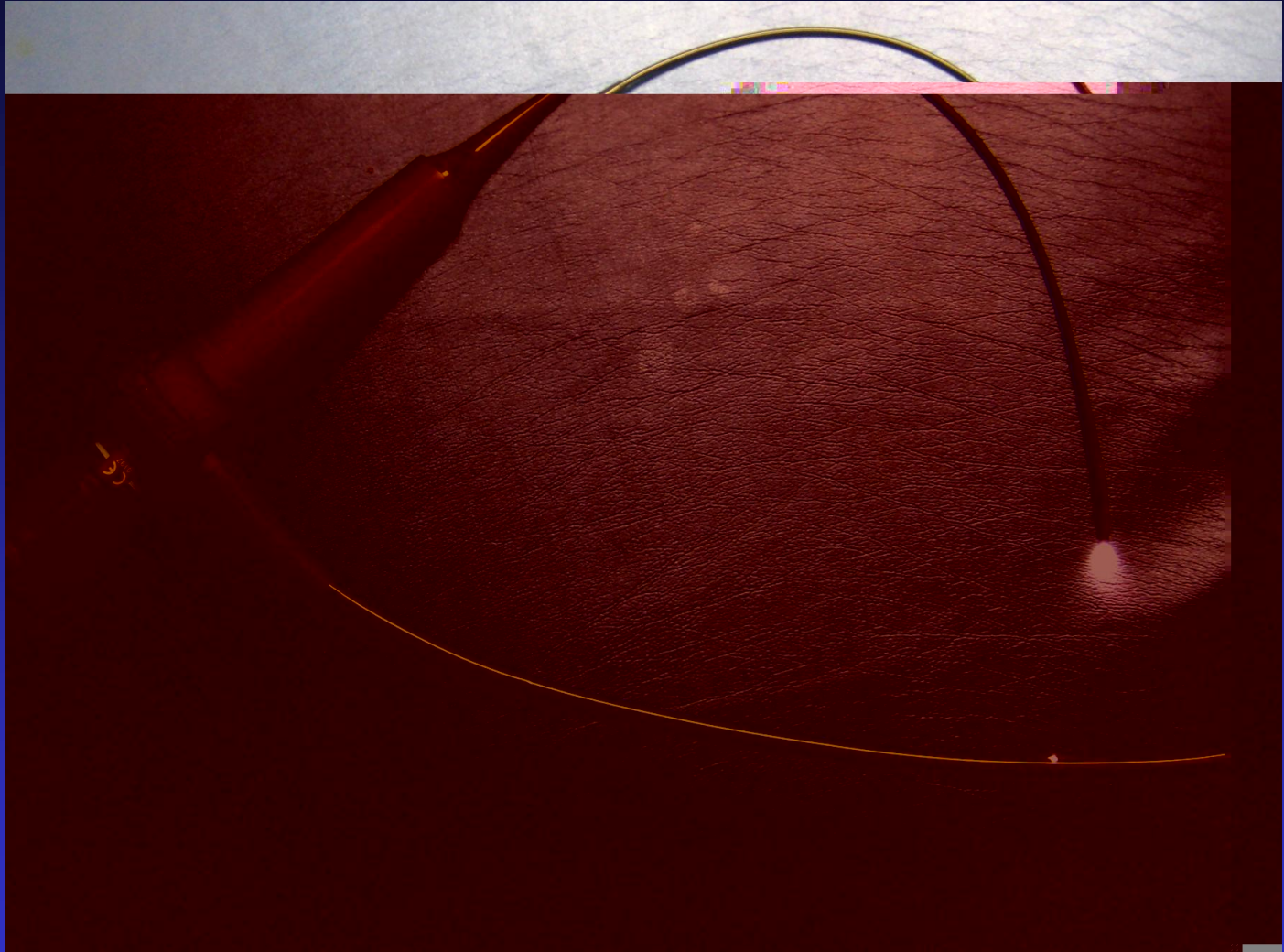
**Uvula**

**Tongue**

# Examination of the throat

## 5) Nasopharynx

- Unless large lesion, will need mirror, Hopkins rod or nasendoscope



# Examination of the throat

## 6) Indirect laryngoscopy

- With mirror or nasendoscope
- Can assess nasal cavity, nasopharynx, oropharynx, hypopharynx and larynx
- Can assess movement of cords, especially with strobe

# Examination of the throat

## 7) Examination of neck

- Head and neck cancers metastasise to neck nodes and to the lungs
- Tonsillar infections are the commonest cause of enlarged lymph nodes

# Examination of the neck

- 1) Skin
- 2) Swallow
- 3) Voice
- 4) Examine from behind
- 5) Anterior triangle
- 6) Airway
- 7) Thyroid
- 8) Posterior triangle
- 9) Sternocleidomastoid

# Examination of the neck

## 1) Skin

- Skin lesions
- Ulceration
- Scars and wounds
- Stoma
- Obvious large masses



# Examination of the neck

## 2) Swallow

- Larynx should rise
- A goitre may rise, too

# Examination of the neck

## 3) Voice

- As before. “Count to ten”.

# Examination of the neck

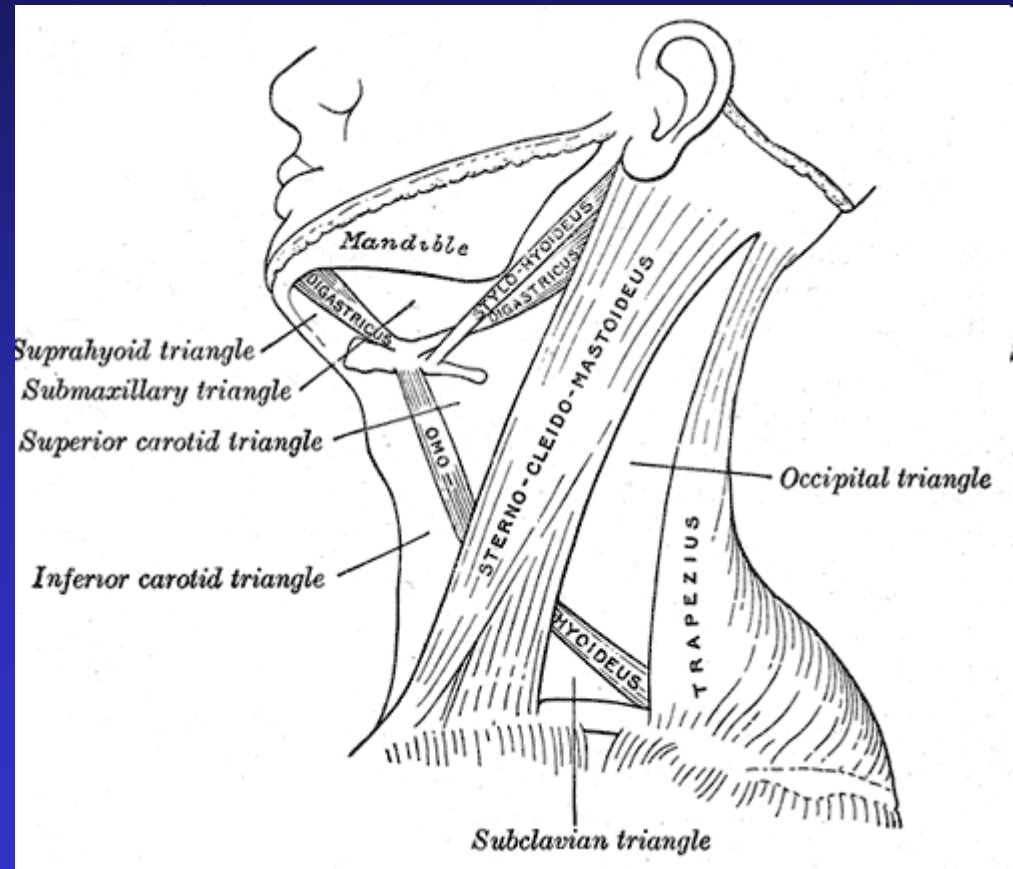
## 4) Examine from behind

- Let patient know what you are doing
- Tender areas
- Gentle
- One side at a time

# Examination of the neck

## 5) Anterior Triangle

- Mastoid
- Mental process
- Sternal notch
- Ramus and border of mandible
- Midline
- Upper edge of SCM



# Examination of the neck

## 6) Airway

- Trachea
- Larynx
- Trotter's sign
- Hyoid bone
- Thyroglossal cyst (around half move with tongue protrusion)

# Examination of the neck

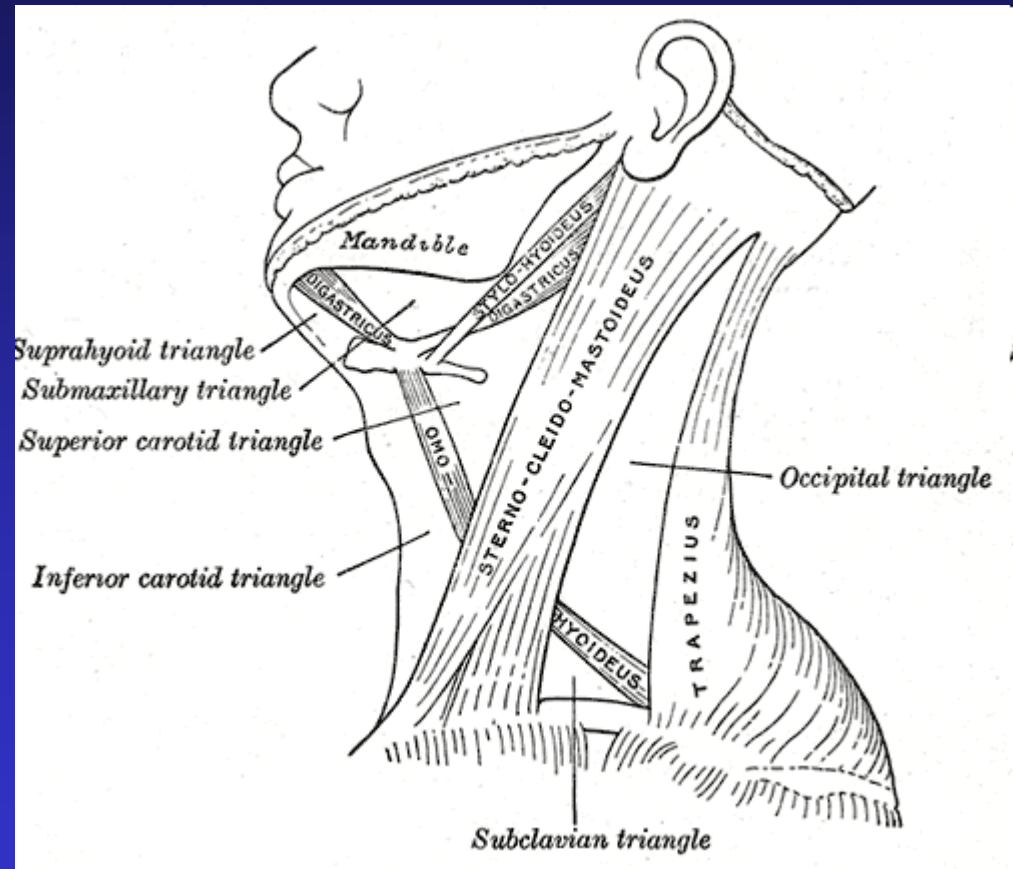
## 7) Thyroid

- Moves on swallowing
- Two lobes
- Describe any lumps
- Percuss the sternum

# Examination of the neck

## 8) Posterior Triangle

- Mastoid
- Medial end of clavicle
- Junction of trapezius and clavicle
- Lower edge of SCM
- Border of trapezius
- Clavicle



# Examination of the neck

## 9) Sternocleidomastoid

- As well as traditional names of nodes, can be described as I to VI
- Easier to remember, and more relevant to metastatic spread

