# EAR PATHOLOGY: "THE GOOD THE BAD AND THE UGLY" TIPS ON MANAGEMENT

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The University Of Sheffield.

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

# Objectives

- To cover common ENT ear related conditions you may encounter in General Practice
- Tips from an Otologist on management of these conditions in the primary care setting.

# Aim

- Re-visit anatomy of the ear
- Demonstrate normal and abnormal findings
- Red flag signs and symptoms that warrant urgent referral
- Brief explanation of balance disorders and how to help the patient
- Overview of hearing loss
- Discussion of facial weakness

# Disclaimer

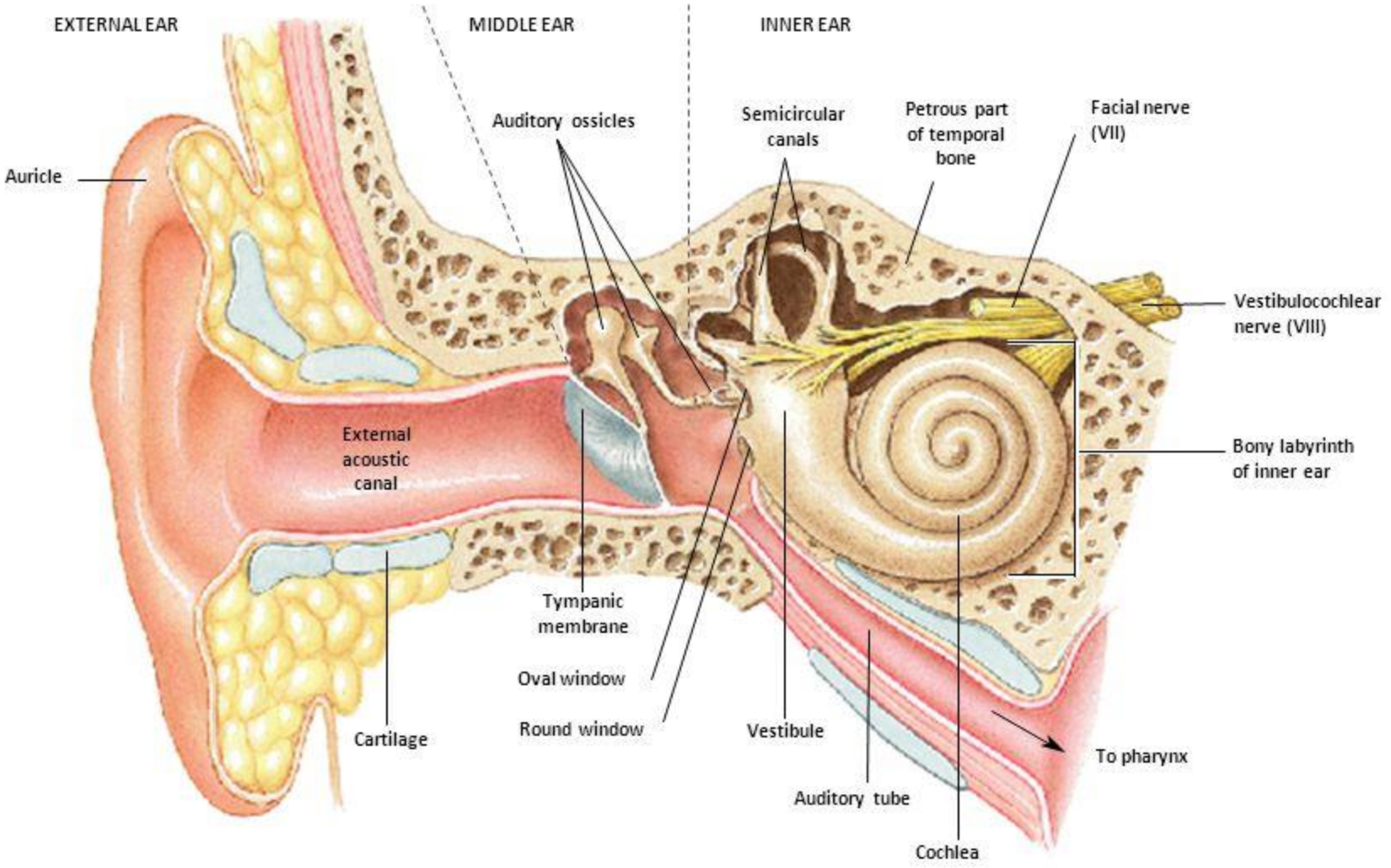
- This presentation is based on my own experience and where necessary backed by EBM

# Background

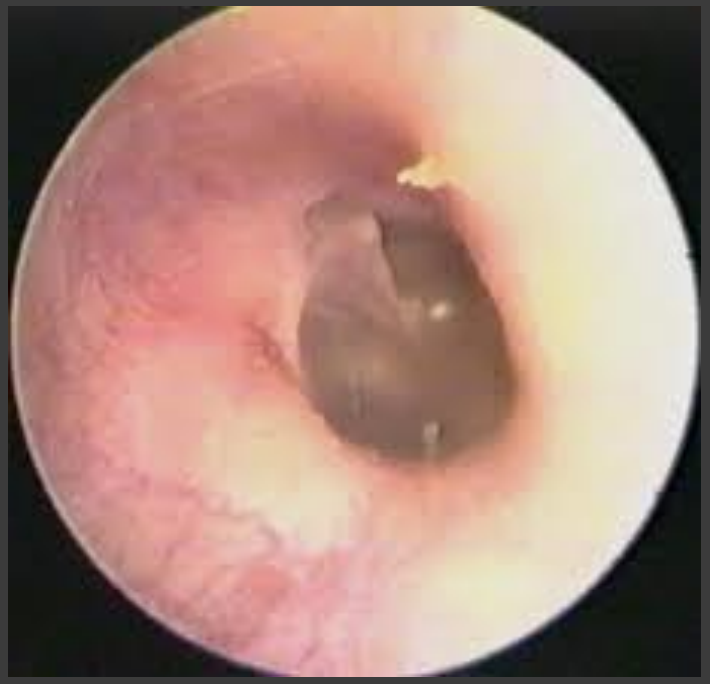

MUST...RETURN...SHOPPING...CART


Welcome to Yorkshire.
like Lancashire, but nicer.
www.yorkshire.com
Welcome
to Yorkshire

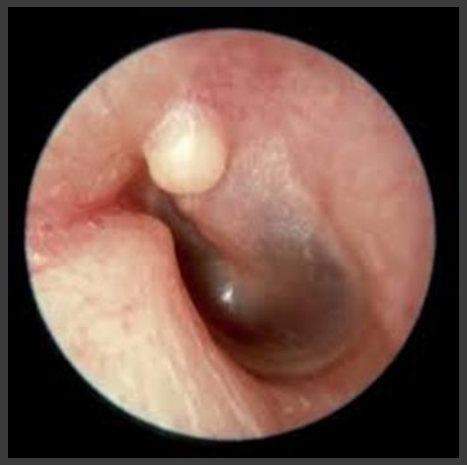
# Anatomy of the Ear

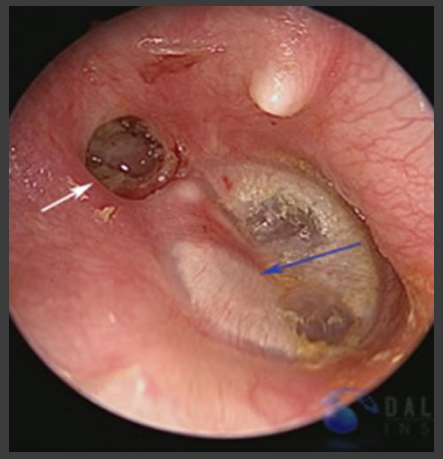


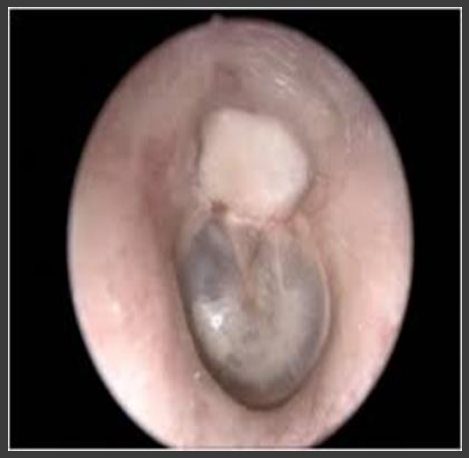
# Anatomy

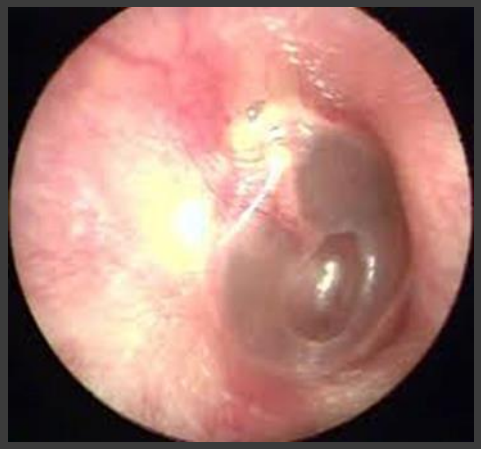


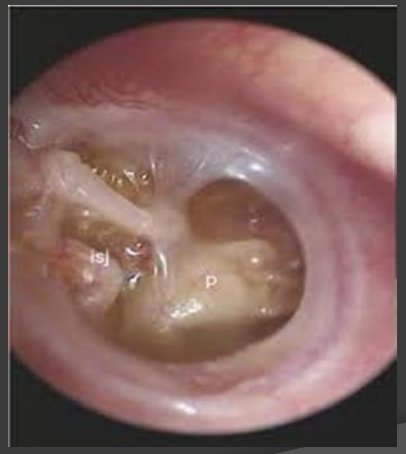
# Variations of normal and abnormal ears



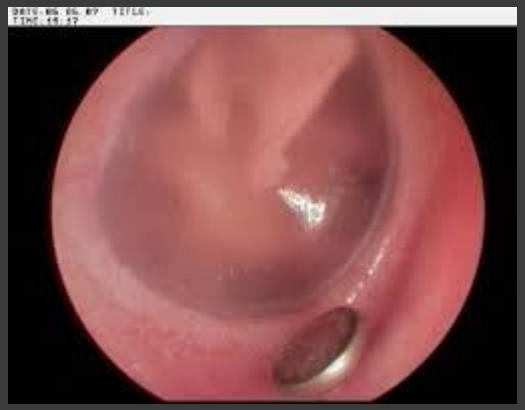








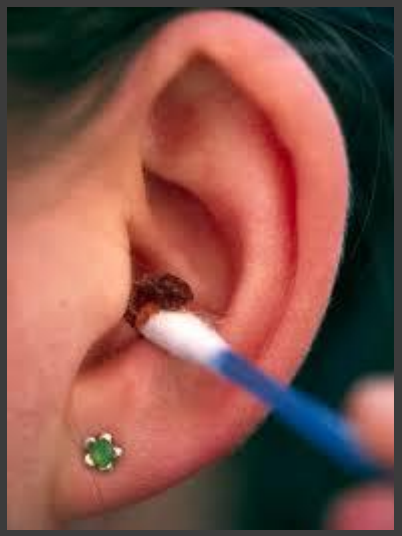
# Foreign bodies

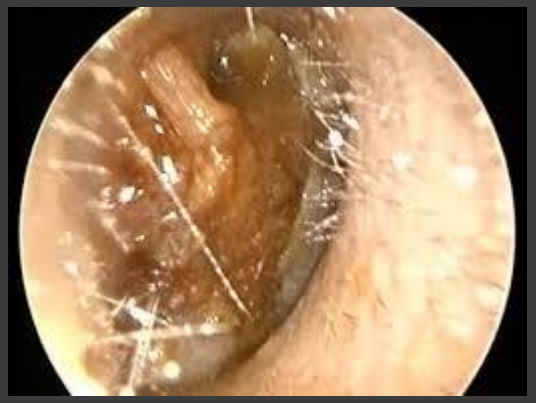


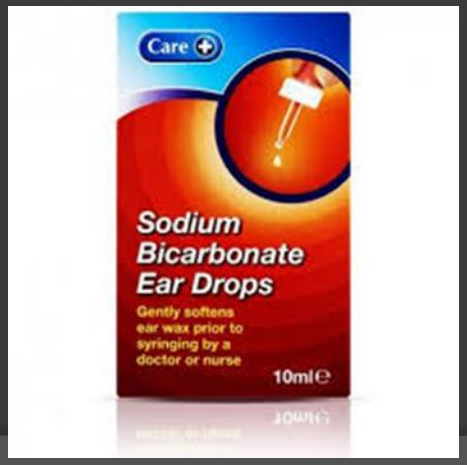
## Tips

- If you are not familiar, do not have the correct instruments or confidence **do not** remove any foreign bodies
- If it is alive drown it in olive oil
- Batteries come out immediately
- Organic material 24 hours - don’t syringe
- Inorganic material (except batteries) elective clinic

# Wax!






Care
Sodium Bicarbonate Ear Drops
Gently softens ear wax prior to syringing by a doctor or nurse
10ml


Care
Olive Oil Eardrops
Gently softens and removes earwax
10ml

# Wax [1]

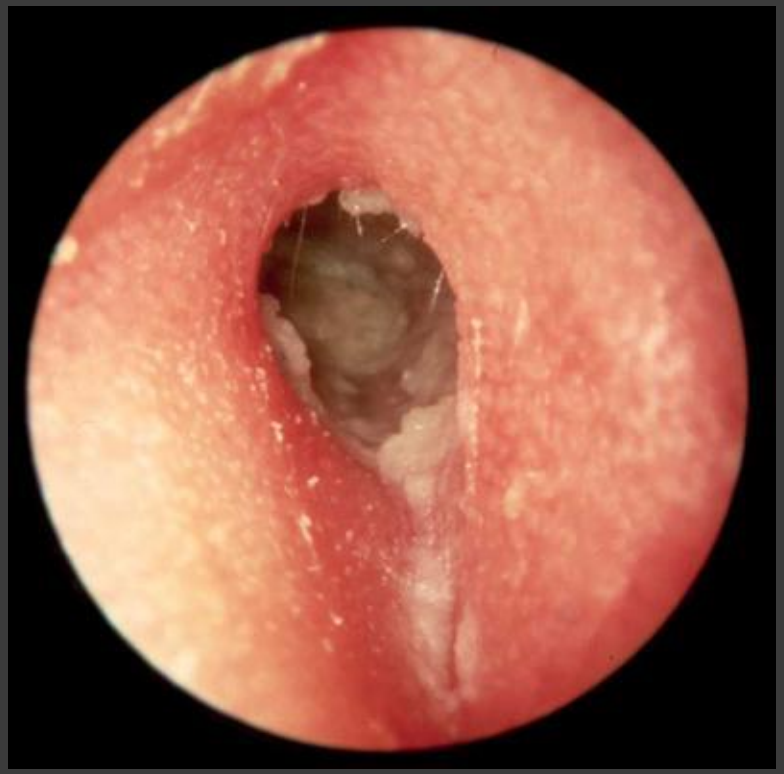
## Tips

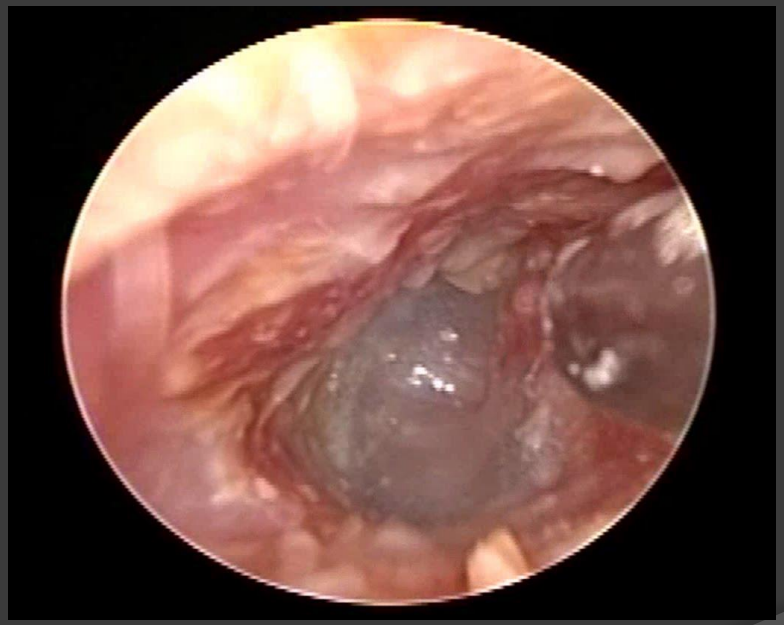
- Useful substance not the enemy
- Low pH, antimicrobial, lubricant, hydrophobic
- Unless large quantity lodged against the drum will not necessarily affect hearing
- Can affect hearing aids - feedback

## Management

- Leave it alone
- Olive oil, sodium bicarbonate drops
- Syringe with care after appropriate training
- Stop immediately if painful, vertigo, hearing loss or facial weakness
- Referral for microsuction if patient has outer or middle ear conditions, only hearing ear, recent or past surgery
- Caution with diabetics and immunocompromised patients

# Otitis Externa [2]





# Otitis externa[2]

## Tips

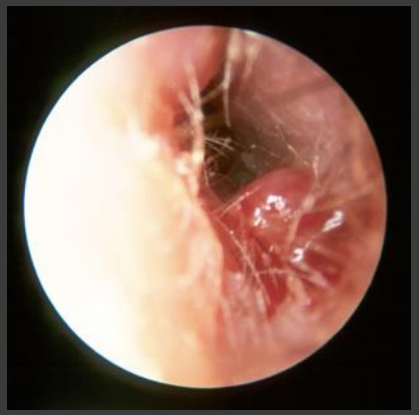
- Avoid water in ears
- Use a hairdryer to dry ears if in contact with water
- Avoid sticking objects into ear including finger nails!
- Be aware of fragrance containing products- soap, shampoo, creams, detergents

## Management

- Dry mop ear if possible then take swab
- Use antibiotic and steroid drops-show patients how to instil them
- If canal swollen closed, skin cellulitic or patient is immunocompromised and not responded to treatment over a two week period refer to local ENT Department

# Malignant otitis externa (Necrotizing otitis externa, skull base osteomyelitis)

- Elderly
- Male> female
- Diabetic or immunocompromised/ suppressed
- Recent exposure to water and trauma
- Pseudomonas positive
- Severe unremitting otalgia, otorrhoea, CN weakness and trismus



# Otalgia!

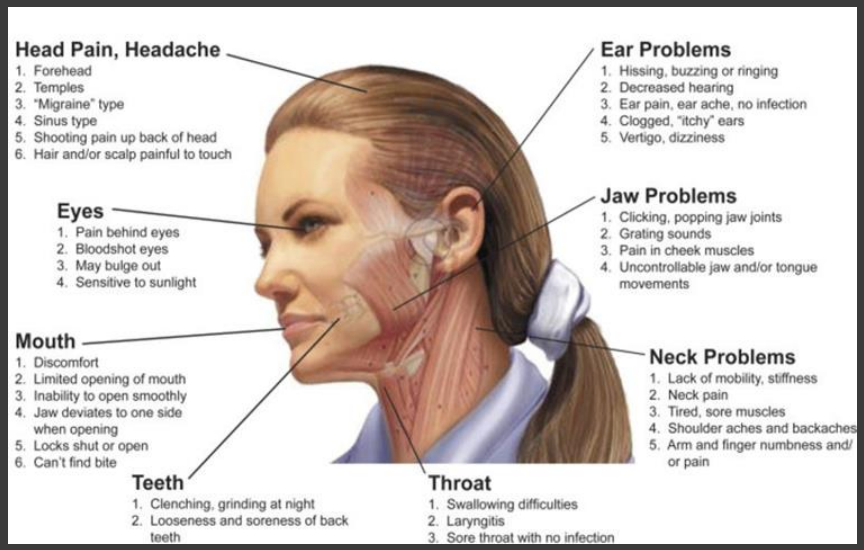
**Great Frustration - repeat attenders**

**Tips**

- Could be the ear or from surrounding structures (referred otalgia)
- If minimal hearing loss or discharge “think outside the box”
- TMD
- Cervicogenic
- Oropharyngeal malignancy

# Temporomandibular Disorder (TMD)

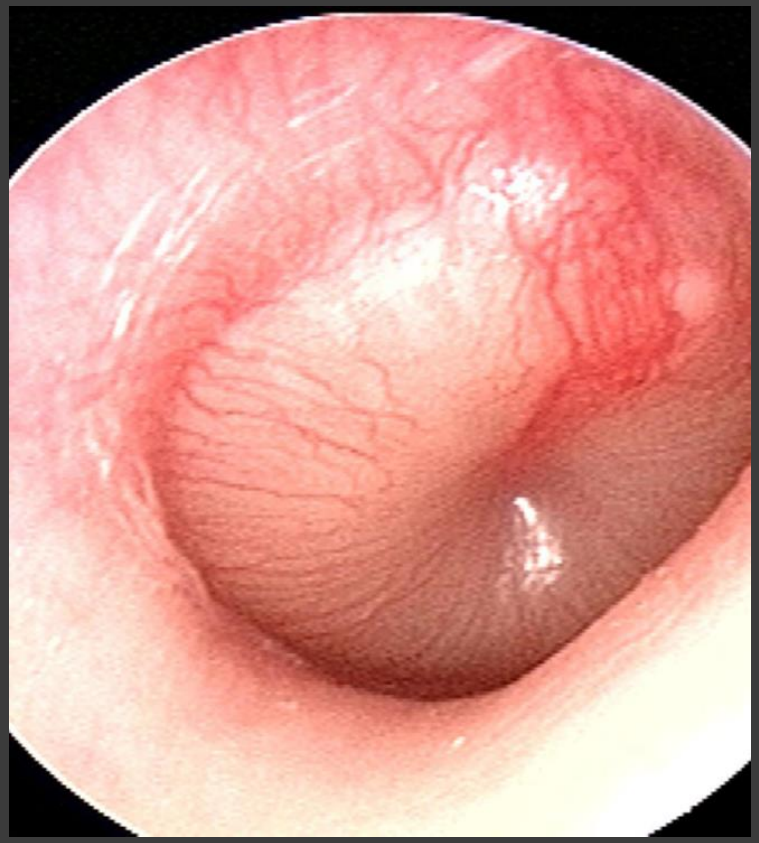
## Symptoms




## Tips

- Ask about stress, habitual clenching, grinding, “worry warts”, cyberchondria, migraines
- Clicking jaw
- Nail biting, chewing gum, pen lid chewing
- Missing teeth, ill fitting dentures
- Look for scalloping, linea alba buccal mucosa, flattening of cusps,
- Masseteric tenderness - bimanual palpation
- Analgesics, sports gels, warm compress, bite guard, soft diet, stifle yawn, refer to dental hospital
- Functional - control not cure!!

# Acute Otitis media [3]

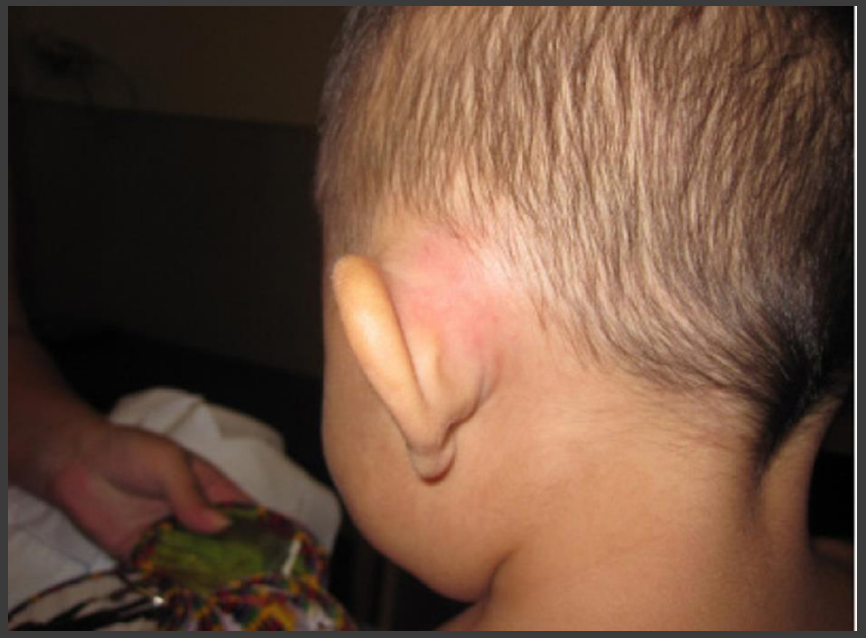


**Tips**

- NICE guidelines
- Self limiting condition
- Analgesia & antipyretic > age of 2
- Under 2 Amoxicillin or Co-amoxiclav (macrolide if penicillin sensitive)

# AOM 3

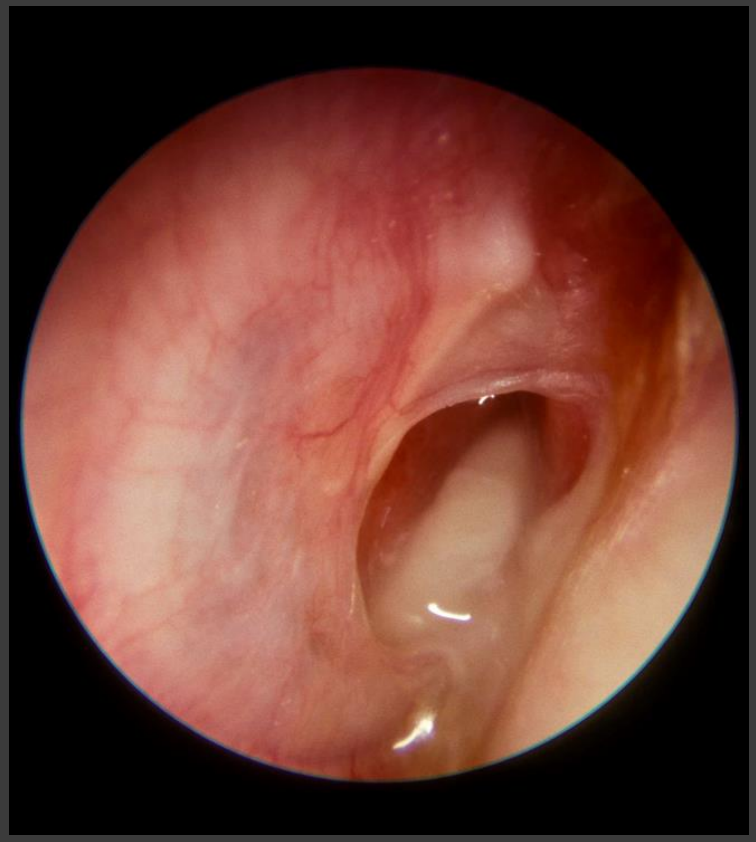
**Mastoiditis- loss of post auricular sulcus, skin changes, cymba concha tenderness & bulging drum**



## When to get worried

- Systemically unwell
- Meningitic
- Altered personality
- Acute vertigo with hearing loss and tinnitus or facial weakness
- AOM – worsening despite adequate antibiotic coverage

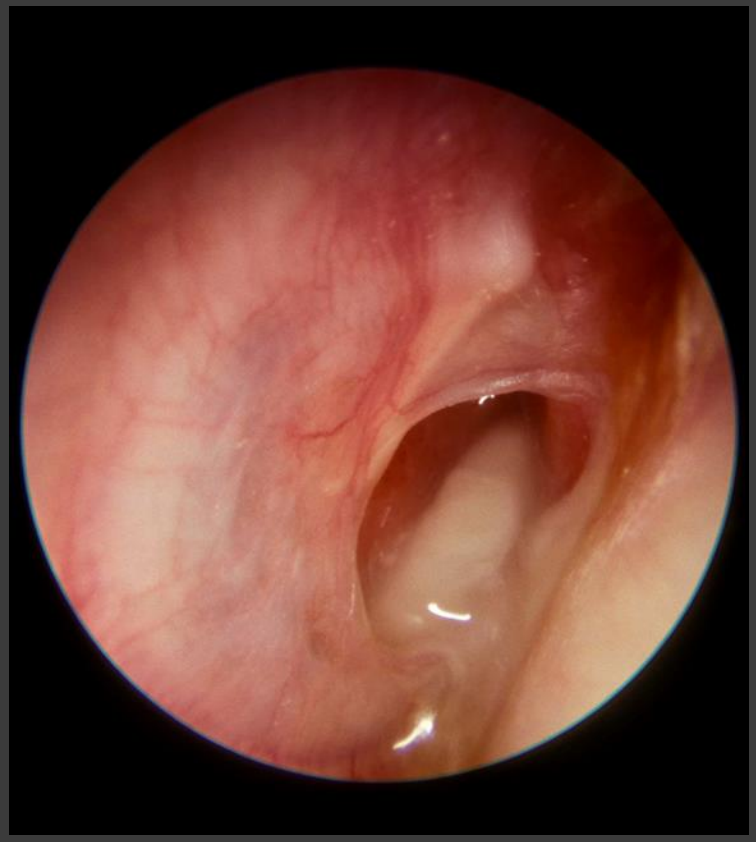
# Chronic Otitis Media (COM)



## Tips

- “ENT-UK recommends that when treating a patient with a discharging ear, in whom there is a perforation or patent grommet:
  A. If a topical aminoglycoside is used, this should only be in the presence of obvious infection.
  B. Topical aminoglycosides should be used for no longer than 2 weeks. The justification for using topical aminoglycosides should be explained to the patient.
  C. Baseline audiometry should be performed, if possible or practical, before treatment with topical aminoglycosides”.

# COM



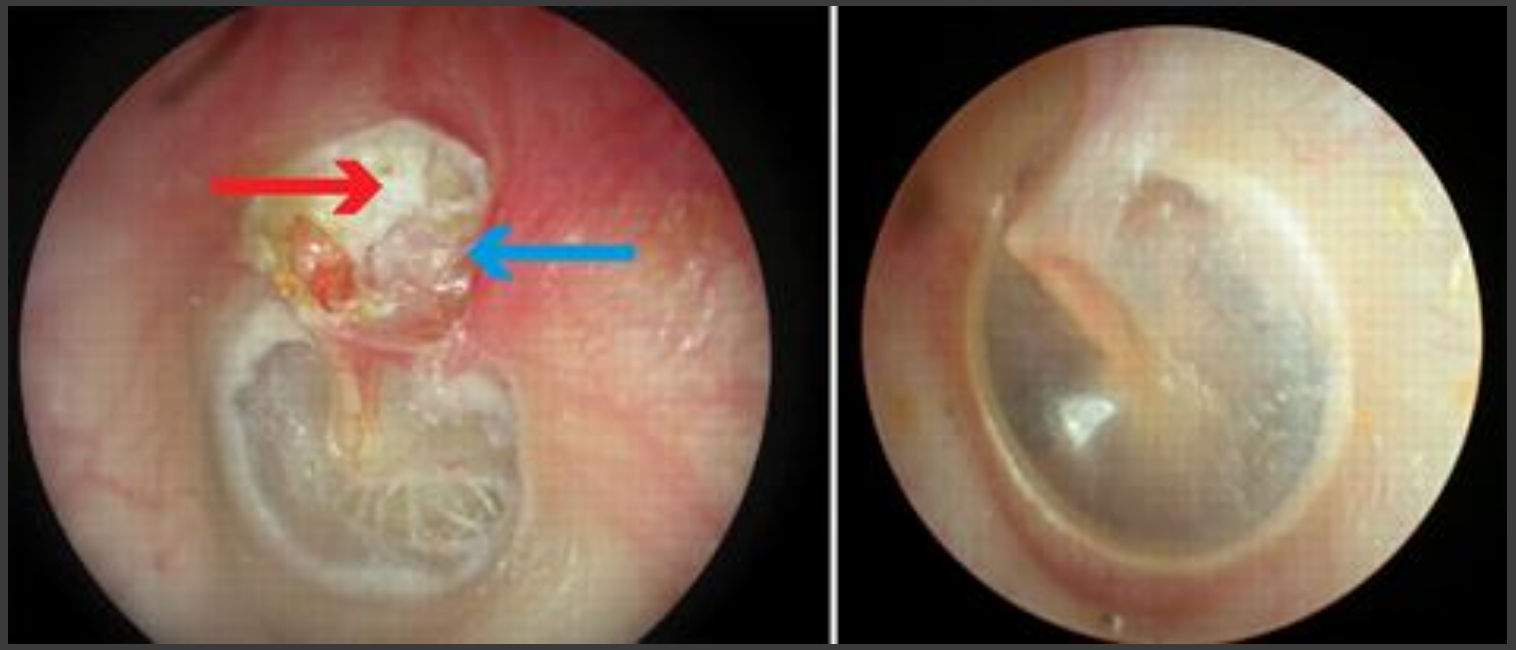
## Tips

- Drops- if in doubt use steroid and ciprofloxacin drops
- Keep the ear dry- commercial earplugs or vaseline mixed with cotton wool
- Keep aids out as much as possible
- If develops facial weakness acute hearing loss, tinnitus or signs suggestive of intracranial infection seek immediate ENT advice

# COM - cholesteatoma

- Bag of skin trapped in the middle ear
- Slowly destructive
- Can affect hearing, balance, facial nerve function and cause intracranial sepsis if left untreated
- Not a tumour but behaves in a similar fashion
- Long term follow up - risk of residual and recurrent disease
- Can be subtle and difficult to spot
- Recurrent infections with very offensive bloody discharge
- If previous surgery do not syringe ears

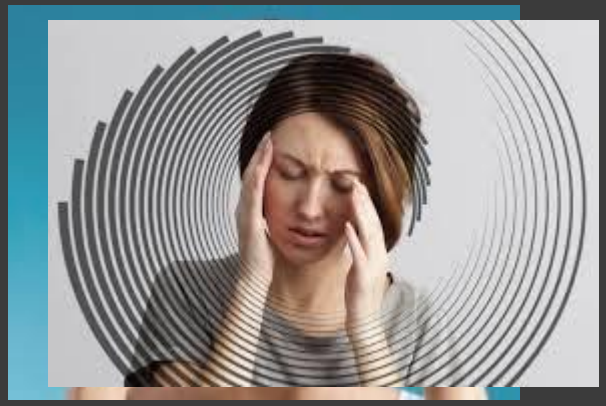
# Cholesteatoma



# Dizziness

- To fly straight you needs wings, two engines, clean windows and a good pilot (fed and watered)
- In other words you need good ears, good joints/proprio-reception/muscles, good vision and a functioning brain (glucose and oxygen)
- A problem with any of these components can lead to vertigo, dysequilibrium or imbalance, lightheaded or fainting

# Dizziness



- Complex-vestibule, MSK, vision, proprioreception, brain
- If there is hearing loss and vertigo - stroke until proven otherwise
- Please avoid labelling patients difficult to “rewind time”
- Avoid Dr Google
- Do not call it labyrinthitis - “balance or vestibular upset”
- Use prochlorperizine sparingly
- Control migraines
- Lifestyle modifications - stress, sleep, caffeine, MSG, chocolate, cheese, red wine ? OCP

# Dizziness - vestibular migraines

- Great mimicker - similar to BPPV/Meniere's
- VM - attacks of vertigo – “triggers”
- Not necessarily associated with headaches
- Light, sound, smell aversion
- Attacks can last hours to days
- Head motion sensitivity
- Lock up with neck stiffness aggravating headaches

# VM - treatment

- Stress/anxiety management
- Hydration
- Sleep hygiene
- Food triggers - deadly “C’s” cigarettes, caffeine, claret-red wine, chocolate, cheese
- OCP/HRT - fluctuation in hormones
- Buccastem/triptans
- Preventer - B blocker, Tricyclics, SSNRIs

# Benign Paroxysmal Positional Vertigo (BPPV)

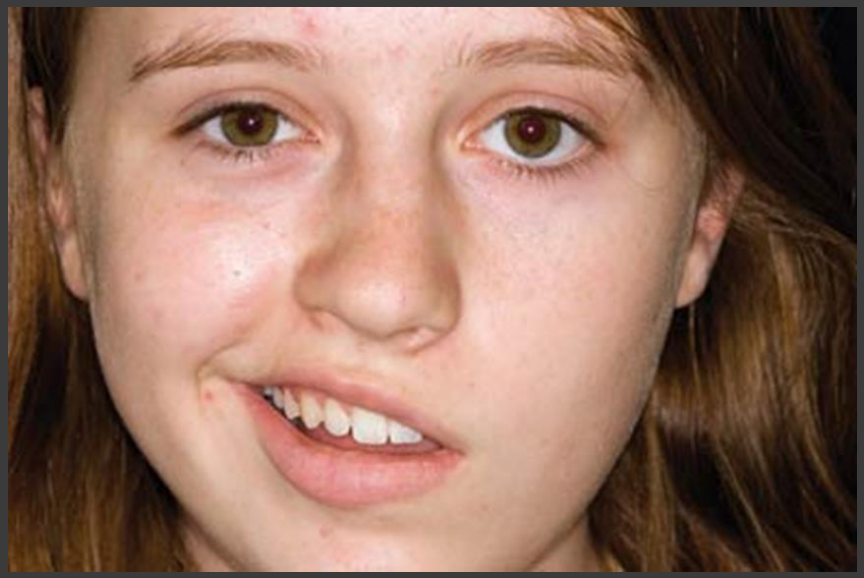
- Common
- Hand in hand with other conditions
- Do not try repositioning if not sure
- Do not get the patient to do at home
- Generally short lived vertigo related to end head position-looking up down or rolling bed

# Acute hearing loss

- Wax
- Foreign body
- Middle ear infection
- Difficult without audiometry
- Tuning fork not accurate 50% ABG > 20dB
- Presentation with acute loss and tinnitus with a normal ear and no other neurological signs or symptoms - start oral steroids and refer to emergency ENT clinic

# Facial palsy [4]

## LMN weakness



## Tips

- Avoid labelling “Bells”
- Check not acute/chronic middle ear condition
- Travel history or recent tick bites
- Check around ear for upper neck/parotid mass
- Eye care - artificial tears/lacrilube, taping, avoid AC, wear protective eyewear
- Start steroids
- Avoid straining during recovery
- Facial massage

# References


- 1 https://cks.nice.org.uk/earwax#!topicsummary
- 2 https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004740.pub2/full
  Interventions for acute otitis externa
- 3 https://www.nice.org.uk/guidance/ng91/resources/visual-summary-pdf-4787282702
- 4 Early Treatment with Prednisolone or Acyclovir in Bell's Palsy | NEJM
  https://www.nejm.org/doi/full/10.1056/nejmoa072006
  by FM Sullivan - 2007

# Questions?