History

Pain Location, quality, course, aggrevating/relieving factors	Discharge (frequency, colour, consistency, odour)
Feeling of fullness/pressure	Hearing loss (uni/bilateral/partial/complete
Tinnitus	Vertigo
Loud noise exposure	Injury to the ear
Recent swimming/air travel	Infection
Past Ear surgery/treatment	Past serious illness
Family history of hearing problems/ ear conditions	Cold water sports

Hearing Loss

Types	Age
Congenital	Infant - Young children
Serous Otitis Media	Infant - Young children
Postinfective	Young children - Teenagers/adolescents
Noise Induced	Teenagers/adolescents - Over 60
Otosclerosis	20-60yo
Acoustic Neuroma	20-60+yo
Meniere's Disease	20-60 yo
Early Prebycusis	40-60 yo
Prebycusis	60+

Tinnitus Classfications

Subjective	Objective
Most common	Can be heard by patient and examiner - Rare
Sound can only be heard by patient - caused by abnormal activity in inner ear/CNS	Vascular Abnormalities, muscle related
Primary	**Secondary**
Idiopathic + sensorineural Hearing loss	Underlying cause - not sensorineural

Constant/intermittent/unilateral/bilateral:
Buzzing, Whistling, Hissing, Ringing, Roaring, Clicking, Pulsing (vascular), Whooshing, Humming

Causes of Subjective Tinnitus

Infections	Ear wax
Inner ear noise damage	Meniere's disease
Otosclerosis	Acoustic Neuroma
MS	Ototoxic drugs
Metabolic disorder	Psychological disorders

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Causes of Subjective Tinnitus (cont)

Mechanical disorders

If unilateral + sensorineural hearing loss consider:
Meniere's disease + Acoustic Neuroma

If Bilateral consider:
Age related hearing loss
Noise induced hearing loss
Drug induced ototoxicity

Subjective tinnitus + conductive hearing loss consider:
Disorders of middle/outer ear
Otosclerosis(family hx)

Examination

External Ear	Auscultate periauricular area, temporal bone, orbit, vascular structures of the neck
Otoscopy	TMD Exam
CN Exam (VII, VIII)	Check for anaemia, thyroid, hyperlipidemia +diabetes
Assess for other causes of pain, tinnitus/hearing loss	Regional lymphnodes

If Tinnitus is pulsatile - head, neck exam, blood pressure + CV system (Murmurs, carotid + temporal artery bruits

Red Flags

EMERGENCY REFERRAL

Sudden onset pulsatile tinnitus

Tinnitus with associated significant neuro symptoms

Tinnitus Secondary to head trauma

Tinnitus associated with sudden hearing loss

All patients with tinnitus should be referred to their GP - non-emergencies only
Referred to ENT - audiological assessment

URGENT REFERRAL - Same day to GP

Objective/pulsatile tinnitus

Unilateral tinnitus

Tinnitus with unilateral/asymmetric hearing loss

Tinnitus with persistent otalgia/otorrhoea that does not resolve with treatment

Tinnitus with vestibular symptoms -dizziness, vertigo

LESS URGENT

Tinnitus of unknown cause - not associated with hearing loss, ear pain, drainage or malodour, vestibular symptoms or facial weakness or hearing loss that cannot be distinguished

Tinnitus that is causing distress - despite primary care management

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Otoscopy

Before inserting Otoscope, observe the outside of the ear - hearing aid, shape, discharge, deformities, skin
Pull the pinna up and back for adults, up for children
Slowly insert no more than 0.5cm in

Ear disorders

Acute Otitis media	**S&S**	**Otoscopy Findings**
	Fullness in the ear	Retracted, pink/red tympanic membrane
	Fever	Pus and membrane can bulge
	Vomiting	
	Headache	
	Hearing loss	
	Fluid coming from the ear	
	Diarrhoea	
Serous Otitis media		
	Fullness, pressure, popping in the ear	Retracted Tympanic membrane - yellowish/blueish in colour
	Hearing loss	Bubbles/ air/fluid level can be seen
	Pain	
Chronic suppurative otitis media	Painless otorrhea	Defects in tympanic membrane
	Bacterial or fungal	Ear full of pus
Perforated Eardrum	Painful	
	Hearing loss	Hole in eardrum with redness
	Caused by: Repeated infections + trauma	
Exostosis	Surfer's ear - cold water	Nodular bony outgrowths covered with skin
	Can occlude ear canal	
Tympanosclerosis	Hearing loss if affects ossicles	White plaques in tympanic membrane /middle ear cavity

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