

**A GUIDE TO REFERRAL OF COMMON ENT CONDITIONS**  
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**EAR**

**TINNITUS**

Tinnitus is the sensation of sound which does not come from an external source. Tinnitus is a troublesome and common condition which is not always curable. It can occur in any age group but is more common with increasing age. Persistent tinnitus occurs in about 10% of the population. It is essential to exclude serious pathology (such as an acoustic neuroma if the tinnitus is unilateral) and then to treat and to support the sufferer as best one can.

**Aetiology**

Local:	Any hearing loss.
General:	Hyperdynamic circulations (as in hypertension or anaemia), carotid bruits (associated with a carotid artery stenosis).
Drugs :	eg. NSAIDs, caffeine, alcohol.

**Symptoms:** Tinnitus affects people in different ways. On the one hand it may be non intrusive or on the other can contribute to suicide. Most patients recognise the link between their level of emotional and physical stress and the perceived "loudness" of the tinnitus.

**Treatment:** A full otological and general history must be taken to exclude other pathologies. Exclude obvious local causes such as wax impaction. A pure tone audiogram is of use in establishing the degree of hearing loss that may be associated with the tinnitus. The importance of unilateral tinnitus (versus bilateral symmetrical tinnitus) is that it is sometimes a symptom of an acoustic neuroma.

Direct the patient towards specialised help such as a hearing therapist, self help groups and the British Tinnitus Association. Relaxation techniques help some patients.

**When to refer:** Refer to the routine ENT clinic if the tinnitus becomes intrusive (sleep disturbance), if it is unilateral, or if the tympanic membranes are abnormal.

**VERTIGO and DIZZINESS**

The majority of dizziness in the elderly is of vascular or degenerative origin. Unsteadiness and lightheadedness are usually non-otological.

**Aetiology**

Medical:	Cardiovascular, metabolic and neurological conditions, anaemia, ocular disease, medications and cervical spine problems.
Psychological:	Anxiety and hyperventilation
Otological:	Benign paroxysmal positional vertigo, acute vestibular failure (labyrinthitis), Meniere's disease, some middle ear disease and very rarely acoustic neuroma.

**Symptoms:** If the symptoms are from the inner ear then the patient will describe an hallucination of movement, usually rotational in nature and frequently accompanied by nausea, vomiting and nystagmus. Meniere's syndrome consists of a triad of episodic vertigo, associated tinnitus and a fluctuating hearing loss. In benign paroxysmal positional vertigo (BPPV), short-lived episodes of rotational vertigo usually occur when turning over in bed. Loss of consciousness is unlikely to be caused by inner ear problems.

**Treatment:** A general medical examination, a careful history and blood pressure measurement may point to the cause of the dizziness.

If “the room is spinning” the patient may find it helpful to focus on a fixed object. Maintain hydration if nausea and vomiting are a feature. Vestibular sedatives such as prochlorperazine or cinnarizine are usually helpful in acute vertigo (eg. acute labyrinthitis, acute episode of Meniere’s), but long term use does not help with vestibular rehabilitation. Longer term treatment with betahistine may be helpful in Meniere’s disease.

**When to refer:** Some ENT departments run special neurotology clinics. Refer to ENT if there are ear symptoms or signs such as a discharging ear as some chronic ear disease can cause vertigo. For patients with BPPV, most can be helped by “repositioning” manoeuvres, performed in the ENT/audiology department. In the absence of otological signs or symptoms accompanying the dizziness the patient may benefit from a neurological opinion.

## WAX IMPACTION

If the normal migration of wax out of the ear canal is inhibited in some way then a build up can occur. 30% of people over the age of 64 years will suffer wax impaction and wax removal can improve the hearing.

**Treatment:** Wax can be removed by ear irrigation, aural toilet or microsuction. Sodium bicarbonate drops or olive oil can reduce build up and soften wax.

**When to refer:** Refer to the routine ENT clinic if there is difficulty removing the wax despite olive oil. Refer if a child is uncooperative or there is uncertainty about the condition of the tympanic membrane. The local ENT department may have a direct referral ear care clinic. Patients will require microsuction if contraindications to syringing exist.

Do not syringe if :

- The patient has a tympanic membrane perforation or a mucoid discharge which may suggest a perforation.
- The patient has had otitis media or acute otitis externa in the last six weeks.
- The patient has had previous ear surgery, seek advice.
- The patient has suffered complications with previous ear irrigation.
- The patient has a profound hearing loss in the other ear as it would be inadvisable to risk complications in the only hearing ear.
- The patient has had a cleft palate as he is more prone to middle ear disease.

## OTITIS EXTERNA

Otitis externa is extremely common. Predisposing factors are scratching of the external canal with cotton buds or other implements and narrow external auditory canals. A particularly important factor is wet ears (humid climates, swimming, syringing without drying the canal, frequent hair washing or lying in the bath to wash the hair).

**Symptoms and signs:** Whatever the predisposing factor, the skin of the external auditory canal becomes oedematous. Otalgia, otorrhoea and a blocked sensation in the ears with a mild hearing loss are common in the acute stage. In the chronic form itching is a frequent complaint.

**Treatment:** It is essential that debris in the ear canal is removed so that the ear drops are absorbed effectively. If the practice nurse is not trained in aural toilet, this may require the patient to be referred for suction clearance. Systemic antibiotics are not usually required unless there are signs of associated lymphadenitis, perichondritis or cellulitis. Advise the patient to keep the ears dry and not to insert implements.

The first line of treatment is a combination steroid and antibiotic (eg. neomycin) drop or spray. If the patient does not respond to this within a few days, take a swab, change to an alternative antibiotic / steroid combination and repeat the aural toilet. Consider fungal infections.

**When to refer:** If the patient does not respond to the second line treatment, refer to the emergency ENT clinic. Refer if there is persistent discharge or pain, diagnostic doubt about the condition of the tympanic membrane or if the patient is immuno-compromised or a poorly controlled diabetic as there is a risk of "malignant" otitis externa (temporal bone osteomyelitis). If the skin of the external canal is so swollen that drops will patently not enter the canal, then a dressing or wick may need to be inserted.

### **RECURRENT ACUTE OTITIS MEDIA (RAOM)**

Approximately 40% of children will suffer one or more episodes before the age of 7 years. At least 85% will resolve within 72 hours without treatment and it is uncommon in adults. A significant proportion of children with RAOM failing medical management appear to have a partial maturational IgA deficiency. Children with RAOM may require long-term low-dose antibiotic treatment or grommet insertion until they grow out of the condition. Grommet surgery in children with RAOM can prevent infection, pain and the need for antibiotics.

**Symptoms and signs:** Earache, hearing loss and a red bulging drum prior to tympanic membrane rupture. The child may be irritable with a fever and sickness. After rupture there will be relief of pain and a purulent discharge.

**Treatment:** Analgesia such as a combination of ibuprofen and paracetamol. If unresolved after three days prescribe amoxicillin or erythromycin. If antibiotics are prescribed the length of the course should be reviewed after three days. Encourage nose blowing. If treatment fails with the first line antibiotics, prescribe co-amoxiclav or clarithromycin.

**When to refer:** Refer to a routine ENT clinic if

- a) there is a failure of the infection to resolve despite the above treatment.
- b) there is a persistent perforation.
- c) there are more than 6 attacks in one year for a period of more than one year.

### **OTITIS MEDIA WITH EFFUSION (OME) 'GLUE EAR'**

85% of children experience glue ear at some stage. 50% will resolve spontaneously within three months. Peak ages are two and five years and a hearing assessment quantifies severity. Winter, URTI's, child care settings and passive smoking are accepted environmental risk factors.

**Symptoms and signs:** There will be a noticeable hearing impairment and/or speech and language difficulties and behavioural problems. There may be an association with recurrent acute otitis media. The salient features on otoscopy are a drum that appears dull, retracted or poorly mobile. There may be an air-fluid level or bubbles visible behind the tympanic membrane. Such changes, which are usually bilateral, are best seen using a pneumatic otoscope. Tympanometry can be used to confirm the presence of an effusion.

**Treatment:** Reduce exposure to cigarette smoke. Persistent effusions do not respond to oral decongestants or mucolytics. Treatment of rhinitis may be appropriate and helpful. Auto-inflation of the eustachian tube has been shown to produce short term improvement in older children. Generally, a three month period of watchful waiting is recommended prior to referral. If the condition persists and there is a clinically obvious effect on speech, language, learning or behaviour, then children over 3 1/2 years may benefit from adenoidectomy and/or ventilation tube (grommet) insertion. For children younger than 3 1/2 without gross airway obstruction due to adenoid or tonsillar enlargement, the treatment options are ventilation tubes or possibly the use of a hearing aid. Consider the possibility of a sensori-neural hearing loss. (1 in 1000 neonates will have a profound hearing loss).

**When to refer:** Refer children to the routine ENT clinic if there have been 8-12 weeks of hearing problems, associated speech delay or behavioural problems (4 weeks if the child has other disabilities making correction of the hearing loss more urgent). Referral should take into account parental concerns or those raised by the school or health visitor. Refer adults urgently if there is no history of URTI or barotrauma and especially if oriental (higher risk of nasopharyngeal carcinoma).

## DEAFNESS

### (A) Sudden-onset conductive hearing loss (usually unilateral)

After URTI / air flights / diving. The patient is unable to 'pop' the ear (no movement of the drum on performing the Valsalva manoeuvre). There may be the appearance of fluid behind the drum. The bone conduction is better than air conduction in that ear.

**Treatment:** Decongest the nose and encourage auto-inflation of the ears.

**When to refer:** If there are continued problems despite nasal treatment then refer to a routine ENT clinic.

### (B) Sudden-onset unilateral sensori-neural hearing loss

The patient will usually report suddenly going deaf in one ear  
There is a normal looking tympanic membrane.

**When to refer:** Refer to the ENT emergency clinic as the patient requires admission for bed rest and possibly steroids and cerebral vasodilators.

### (C) Presbycusis

Asymmetrical, gradual, high frequency hearing loss in old age.

**When to refer:** Direct referral to the audiology department should be used if this facility exists. If the hearing loss is asymmetrical then refer routinely to ENT as further investigations may be required to exclude an acoustic neuroma.

## FACIAL PALSY

Weakness on one side of the face, including the muscles of the forehead (lower motor neurone palsy).

Note any associated middle ear disease, parotid swelling and other neurological deficits. Intense pain around the ear and vesicles on the pinna or soft palate suggest Ramsay Hunt syndrome (herpes zoster). If there is no associated disease then "Bell's palsy" is likely to be due to HSV infection.

**Treatment:** If the palsy is complete a short course of high dose oral steroid may be prescribed, although its efficacy is unproven. If herpes zoster is suspected, prescribe acyclovir early. Protect the eye with artificial tears and nighttime tape.

**When to refer:** Refer urgently if there is a parotid mass, middle ear disease, a suspicion of Ramsay Hunt syndrome or doubt about the diagnosis.