

## THE BLOCKED EAR

A sensation of [blocked ear](#) is a common problem, however the symptom may not be otological in origin. History taking should concentrate on the major ear symptoms – pain, discharge, deafness, and vertigo. “Blockage” sensations may result from external, middle, or inner ear pathology, but also from extraneous sites, of which the temporo-mandibular joint is a common culprit. Generally, if the patient is deaf in the ear, the problem is true ear pathology. If the hearing is normal, or there is only a sensation of deafness without actual loss, the problem is very likely non-otological. Without the prime ear symptoms, a non-otological site should be suspected.

### ORIGINS

- i. **External Ear:** Wax occlusion is the most common cause of the blocked ear ([EAC Debris](#)), overcome by cleaning. Softer wax may be syringed clear, but harder debris may require specialist care, particularly if impacted on the drum. A less common problem is that of a fine film of dry debris adherent to the drum, often keratin, after prior inflammation. This requires fine instrumental removal under an operating microscope.
- ii. **Middle Ear:** Although a very common problem in children, “blockage” is rarely described by the infant group that suffers middle ear effusions, as opposed to adults who are often greatly troubled by this condition. Whilst in the latter group a diagnosis is usually possible from the yellow discolouration of the drum, minor calcific or fibrotic normal drum aging changes may frustrate ready detection and may only be ascertained by tympanometry or microscopic evaluation.  
A blockage sensation during adult acute otitis media is usually dominated by pain and deafness during the acute phase, but is prominent and troublesome for several weeks during resolution, or if a persistent effusion succeeds the infected phase
- iii. **Inner Ear:** “Blockage” is a less common phenomenon in inner ear conditions. Sudden profound sensorineural deafness may provoke this sensation, but is obviously associated with the hearing loss and fades with time. Conversely, the symptom is common in endolymphatic hydrops (ELH, Menieres’s disease) and may substantially precede the onset of vertigo. A fluctuating low frequency sensorineural deafness or pressure feeling may accompany the sensation.
- iv. **Non-otological:** Whilst referred sensations in the ear are common, the main cause for a “blocked” feeling is the temporomandibular joint (TMJ) 2. 3. 3, being approximate to the ear and has common sensory innervation via the trigeminal. An accompanying sensation of “water” in the ear is common, often insisted by the patient. Concurrent ache or pain is also frequent, perhaps severe/recurrent. In addition other symptoms are common. These include fullness, pressure, swelling, numbness, formication, pruritis or irritation. Importantly, the patient may feel deaf, but without actual hearing loss.

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#### Other Locations

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TMJ symptoms are common, being one of a group of musculo-skeletal tension phenomena that affect the head and neck. These include common migraine (scalp muscles), frontal headache (supra-orbital muscles), facial discomfort or ache (commonly attributed to “sinuses”), globus syndrome (laryngeal constrictor tension, “frog in the throat”) and stiff neck (cervical erector muscles). The TMJ tension causes bruxism, frequently with resultant recognisable dental wear patterns. The problem may be exacerbated by malocclusion or absent teeth, causing uneven strain on the respective joints.

## CLINICAL ASSESSMENT

### History

The presenting blockage sensation is interrogated along normal lines: nature, onset, initiating factors, severity, location etc. The important associated factors are the prime ear symptoms. Particularly assess the presence of deafness – without hearing loss the problem may well be non-otological. Given a hearing loss, the other major ear symptoms (pain, discharge, tinnitus, vertigo) should provide a good assessment of the likely culprits.

In the absence of demonstrable hearing loss, especially if the canal and drum appear normal, suspect other causes of which the TMJ is the most common. Enquire re bruxism or other dental problems: malocclusion, absent teeth, grinding. The sensation of water is common, plus the other symptoms as above. Intermittent ipsilateral aches or pains are frequently associated. In older children (8-12 years) and adolescents, blockage associated with otalgia is a common non-otological pattern associated with growing pains originating in the epiphysis just below the articular surface of the TMJ. This is often confused with the middle ear problems of childhood, which largely resolve around 5-7 years age.

### Examination

Inspection of the external canal and eardrum readily identifies blockage in the sites. Problems may arise due to constricted or tortuous canals, or opaque drums as a result of scarring or tympanosclerosis. Generally, blockage in these sites is accompanied by deafness. In a few cases of opaque drum, a CT scan may be required to check for fluid in the middle ear.

Should deafness be present, tuning fork testing may suggest a middle/inner ear origin of the blockage sensation.

If the drum and canal are clear and the patient denies hearing loss, the sensation is very likely non-otological, and probably related to the temporo-mandibular joint. Check for tenderness over the lateral and EAC aspects of the joint, the temporalis tendon immediately superior, and over the pterygoids posterior to the margin of the mandible. The teeth may show malocclusion, absent dentition or overt wear as a result of grinding. Palpation during opening/closure of the jaw may reveal crepitus or snapping due to subluxation of the joint cartilage.

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## INVESTIGATION

If deafness is present, pure tone audiology and tympanotomy will clarify any covert middle ear, inner ear or Eustachian dysfunction that may cause the blocked sensation. If these tests are clear, the ear is unlikely to be the cause. Of particular note is the presence of a low frequency sensorineural deafness that may be the earliest sign of endolymphatic hydrops (Meniere's disease) that often has a blocked sensation as a predominant feature.

An orthopantomogram may identify dental or true TMJ pathology.

## MANAGEMENT

The treatment of true otological origins are better described in the specific articles elsewhere in this series (cleaning the ear, otitis externa/media, inner ear conditions etc.)

Temporomandibular dysfunction is generally managed under dental auspices. Treatment included the use of occlusal splints to limit the effects of bruxism. Specialist TMJ physiotherapy, NSAIDS (non-steroidal anti-inflammatory drugs) or diazepam may mute more severe flare-ups. Specialist prosthodontal or oral surgery care may be warranted in many cases.

## CONCLUSION

The blocked ear sensation is a common symptom faced by the otologist. Whilst true ear disease is the usual origin, a significant minority arise from the TMJ. In the absence of hearing loss, this site should arouse suspicion.

## More information

- [Otalgia](#)

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