

Cholesteatoma

What is a cholesteatoma?

A cholesteatoma is an abnormal collection of skin cells in the middle ear, which gather when part of the eardrum is sucked into the middle ear space forming what is called a pocket. This can occur if the eardrum has been weakened by middle ear infections or it may sometimes be present from birth.

Dead skin cells normally migrate out of the ear, but when a pocket forms, they collect in the pocket. It is as this occurs that the cholesteatoma begins to damage the bones of the middle ear, causing hearing loss. As the pocket gets bigger it can become infected and can produce a discharge which has a foul smell.

Although cholesteatomas are slow growing, left untreated they can cause serious damage to the structures of both the middle and inner ear, leading to permanent hearing loss and balance problems. If they affect the facial nerve, they can also cause facial paralysis. In rare and extreme cases, the damage they cause can put a person at risk of serious infections such as meningitis.

What are the symptoms?

Cholesteatomas are not easy to detect without an ear examination. However, noticeable symptoms can include:

- Hearing loss
- Recurring smelly discharge from the ear
- A feeling of 'fullness' or pressure in the ear
- An ache behind or in the ear (especially at night)
- Facial muscle weakness (in advanced cases)
- Dizziness (in advanced cases)

How is a cholesteatoma identified?

Any person experiencing problems with their ears should discuss them with their GP as soon as possible. A GP will examine your ear and if appropriate refer you to an ears, nose and throat (ENT) specialist for further examinations.

Because a cholesteatoma occurs in the middle ear, the type of hearing loss it initially causes is a conductive hearing loss. This means sound waves are unable to pass as easily from the middle to inner ear. If when your hearing is tested you are found to have a conductive hearing loss and the ENT surgeon sees a problem in your ear then you may then be referred for a scan. Sometimes it may prove necessary to have an examination under an anaesthetic to establish where and how big the choleateatoma has become so that treatment can be planned.

How is a cholesteatoma treated?

A cholesteatoma can only be treated with surgery, to remove the growth and limit damage to the ear. The aim of surgery is to remove all the disease but preserve as much of the workings of the ear as possible. The surgery may potentially also improve hearing.

However, as a cholesteatoma is slow growing, if there is some reason why you are unable to have surgery for other health reasons, the cholesteatoma may be watched and regular cleaning of the pocket in which the cholesteatoma exists, along with the use of topical antibiotic eardrops, may prevent further progression of the cholesteatoma.

The general name given for the operation is a mastoidectomy. However, there are different surgical approaches and these

may be referred to by a variety of names. If you have been diagnosed with a cholesteatoma your surgeon should explain the surgical approach he feels will be appropriate in your case.

What are the different surgical methods?

Modified radical mastoidectomy

A radical mastoidectomy is also known as a canal wall down mastoidectomy. This approach involves removing part of the wall of the ear canal to reach the cholesteatoma. This gives good access to the disease and makes it easier to remove so there is less chance of any of the disease being left behind and a second operation being needed.

The removal of part of the wall leaves what is called a mastoid cavity which disrupts the natural cleaning mechanism of the ear canal, so anyone who has this surgery will need to have their ear cleaned of earwax and dead skin on a regular basis at an ENT clinic. The cavity can also be inspected in the clinic for any recurrence of the disease.

With a modified radical mastoidectomy, the cholesteatoma is removed before the eardrum is repaired with a skin graft. Some attempt may also be made to repair damage to the middle ear bones.

Intact canal wall mastoidectomy

This approach may also be called a canal wall up mastoidectomy or combined approach tympanoplasty. In this approach the aim is to access the disease by disturbing the ear structure as little as possible, therefore the canal wall is not removed and the patient is not left with a mastoid cavity.

However, as this approach can make it difficult to remove all of the cholesteatoma a patient must return after a period of 9 months to see if there is any disease remaining, which must currently be done with an exploratory operation. As this is a much more difficult operation, ask your surgeon his or her experience and results.

Where can I get more information?

Contact the Deafness Research UK Information Service for further assistance. Our Information team will either answer your enquiry directly or refer it to one of our scientific or medical advisers.

Open: 9.30 a.m. to 5.30 p.m., Monday to Friday (a message can be left at other times).

Freephone: 0808 808 2222

E-mail: info@deafnessresearch.org.uk or click the 'ask question' option from our website homepage:

www.deafnessresearch.org.uk

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