A cholesteatoma is an abnormal skin cell growth found in the middle ear, behind the ear drum.

**What causes cholesteatoma?**

The cholesteatoma may have been present at birth (congenital). Doctors believe that during development in the womb, some skin cells develop in the wrong place within the ear. Cholesteatoma may also develop following repeated ear infections, causing skin cells to build up by the ear drum.

**What are the signs and symptoms of cholesteatoma?**

Common signs and symptoms of cholesteatoma include a smelly discharge from the ear, hearing loss and tinnitus (ringing in the ear).

If a cholesteatoma is not treated, it could continue to build up, causing damage to the inner ear. Structures inside the ear, such as the tiny ossicles, mastoid (bone behind the ear) and the cochlea (inner ear) may be damaged causing dizziness, balance problems and possibly permanent hearing loss.

Cholesteatomas are often infected – the main sign of infection is a smelly discharge. The infection can spread from the ear to the area of the skull near the ear, causing life-threatening conditions including meningitis (inflammation of the brain covering) and brain abscesses.

**How is cholesteatoma diagnosed?**

Doctors can diagnose a cholesteatoma using an otoscope – this is a tool containing a light and a magnifying glass that allows doctors to see into the canal. As well as seeing the cholesteatoma, they may be able to see a hole in the ear drum (perforation).
How can cholesteatoma be prevented?
A cholesteatoma cannot be prevented, although treating any ear infections promptly can be helpful. If your child has repeated ear infections, your doctor might suggest a series of tests and investigations to discover the cause.

How is cholesteatoma treated?
There are two options for treatment. Usually, the first course of treatment involves a course of antibiotics and ear drops. Doctors may also suggest an operation to remove the cholesteatoma and any damaged tissue. This is a short operation carried out while your child is under general anaesthetic.

What does the operation involve?
Once your child is under general anaesthetic, the surgeon will examine your child’s ear to locate the cholesteatoma precisely. They will probably need to make an incision (a cut) behind or in front of the ear to get a good view of the eardrum and the area behind it. The surgeon will remove the cholesteatoma and repair any hole in the eardrum using a piece of tissue from near the ear. They may also explore the mastoid (the air cavity behind the middle ear) during the operation if infection is suspected. The length of the operation depends on how much needs to be done. It may be as short as 20 minutes for repair of a small hole or between one and three hours if more work is necessary. Your child will return with a large head bandage which stays on overnight and is removed the next morning before you go home.

What happens before the operation?
You will receive information about how to prepare your child for the operation in your admission letter. The doctors will explain the operation in more detail, discuss any worries you may have and ask you to give permission for the surgery by signing a consent form. Another doctor will also visit you to explain about the anaesthetic. If your child has any medical problems, particularly allergies, please tell the doctors about these. Please also bring in any medicines your child is currently taking.

Are there any risks?
Every anaesthetic carries a risk but this is small. There is a risk of bleeding from the ear and possible infection, but we will give your child a course of antibiotics to reduce this risk. Please complete the course even if your child is feeling better. Your child's ear may be uncomfortable after the operation, but we will give them pain relief as needed.

What happens afterwards?
Most children usually stay overnight after the operation. The large head bandage will be removed the following morning and if they are recovering well, they will be able to go home. We will send you a letter with details of the outpatient follow up appointment, where the surgeon will check that your child is recovering well.
Going home
Your child should keep their ear completely dry until they have seen the surgeon at their follow up appointment.
Until the surgeon has checked your child’s ear has healed, your child should avoid the following:
- any exercise and sports;
- sudden head movements;
- straining and lifting heavy weights;
- blowing his or her nose too vigorously or sneezing violently.
Air travel should be avoided for two months after the operation. The ward staff will give you the date and time of your outpatient appointment before you leave.

Contact your family doctor (GP) or Peter Pan Ward if:
- there is any discharge from your child’s ear;
- your child has a high temperature;
- your child has a severe earache.

What happens next?
A cholesteatoma can come back, even if it has been removed in an operation.

Compiled by the Ear, Nose and Throat Department in collaboration with the Child and Family Information Group
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