

Mastoid surgery

This leaflet explains more about mastoid surgery, including the benefits, risks, any alternatives and what you can expect when you come to hospital

If you have any further questions, please speak to a doctor or nurse caring for you.

What is the mastoid bone?

This is the prominent piece of bone that you can find behind your ear. This bone has a honeycomb like structure inside, and is joined to the space behind your ear drum, called the middle ear.

Why should I have mastoid surgery?

This type of surgery is typically performed to treat a condition called cholesteatoma.

Cholesteatoma is a condition where the skin of the ear grows into the ear drum. The skin can grow into the space behind the ear drum (middle ear) which contains the bones of hearing. In some cases, the skin grows into the middle ear space and into the mastoid bone. This small ball of skin can damage and destroy bone over a long period of time.

This skin can damage the hearing bones, causing loss of hearing. and damage the balance organ, causing dizziness. In rare cases the nerve that controls movement of the muscles in the face can be permanently damaged, and the thin layer of bone protecting the lining of the brain can be weakened: in very rare cases this may leads to brain infections. How quickly this skin grows, and the damage it causes varies from patient to patient, and it is often a slow process.

What are the benefits of mastoid surgery?

The main aims of the surgery are, in order of priority:

1. To make the ear "safe" (by removing the cholesteatoma and preventing more damage).
2. To stop the ear from leaking fluid/getting infected.
3. To maintain or improve your hearing if possible.

What are the risks?

The operation is done under a general anaesthetic, and all operations under a general anaesthetic carry a small risk. You will be able to discuss this with your anaesthetist on the day of the surgery.

As with all surgery, there are some associated risks. The risks are by and large the same as if the disease is left untreated.

- Dizziness for a few days after the surgery, rarely lasting more than a week
- Extra noises in the ear (often caused by the dressing in the ear). It is rare for tinnitus to develop permanently if you didn't have it before the operation.
- The wound site can become infected and may take longer to heal. Your ear may also take several weeks or even a couple of months to completely stop leaking.
- Your hearing may be worse after the surgery, and in very rare cases it may go altogether. We can often improve the hearing by inserting using metal or plastic prosthesis, however this not always possible in every case.
- Some patients can experience a change in their taste at the front of the tongue on the same side of the ear being operated on. This is because one of the taste nerves runs through the middle ear. This normally becomes less noticeable over the course of a year.
- Numbness of the top of the ear. There is often some decreased sensation at the top of the ear which improves over time. This is because the nerve supply to the top of the ear is normally interrupted by the skin incision. Most people do not find this a problem.
- Facial weakness. The nerve supplying the face muscles runs through the middle ear, normally in a bony channel. If the disease has damaged the bony channel or the nerve runs in an abnormal position, or the bony channel has not developed fully, then the nerve may be damaged causing a degree of facial weakness. This is very rare and there is less than a 1% chance of long-lasting damage.
- Leak of cerebrospinal fluid (CSF). CSF is the fluid that surrounds the brain. Sometimes the disease destroys the bony protection between the middle ear, mastoid bone and the brain. Very rarely a leak of the CSF can occur into the ear during or after surgery. This would normally be repaired at the time of surgery. The chance of a CSF leak is less than 1%. A small number of patients who develop a CSF leak could develop meningitis, which would need antibiotic treatment.

Are there any alternatives?

The only way to remove the infection and skin completely is a mastoid operation. In patients who are unfit for surgery, the only alternative is the regular cleaning of the ear by a specialist and the use of antibiotic eardrops. This at best would only reduce your ear discharge.

How can I prepare for mastoid surgery?

- You will need to have had a hearing test at most 3 months before your operation. If you think you need another hearing test prior to the surgery, please contact the Admissions team.
- Arrange two weeks off work (if you require a sick certificate please ask the nurse on the day of your surgery).
- Arrange for someone to come and pick you up after the surgery. This is because you cannot drive for 24 hours after a general anaesthetic
- Bring all the medication you are currently taking with you on the day of your surgery.

- Make you sure you have pain killers at home such as paracetamol and ibuprofen (unless you GP has told you can't take these drugs)
- Inform the hospital if you have a cold, flu or tonsillitis in the two weeks before admission as your operation may need to be postponed.

Asking for your consent

It is important that you feel involved in decisions about your care. For some treatments, you will be asked to sign a consent form to say that you agree to have the treatment and understand what it involves. You can withdraw your consent at any time, even if you have said yes previously. If you would like more details about our consent process, please ask for a copy of our policy.

What happens during mastoid surgery?

Please remember that your surgeon will confirm how your surgery is performed and finalise your aftercare plan with you, as practices sometimes slightly vary. The below is a general guide.

You will be asleep during the operation and it can take 3 hours or more to do. You may be able to go home on the day of surgery or may have to stay overnight. Always bring an overnight bag just in case. The surgery can be performed by making a cut behind the ear, a small cut in front or if with a camera down the ear canal. Any skin wounds made will be closed with dissolvable stitches.

Will I feel any pain?

It is common to experience a dull, occasionally throbbing pain in the ear after the surgery. Most patients don't require more than simple painkillers.

What happens after mastoid surgery?

When you wake up you may have a head bandage. We may ask you to remove the head bandage yourself at home. There will often be a yellow antiseptic ribbon in the ear canal to protect things while healing takes place. Occasionally, a dissolvable sponge may be placed in the ear instead. There is often a squelching sound or popping in the ear when chewing or yawning; this is normal. The ear will often leak fluid for several days to weeks after the surgery. This is also normal. Occasionally you may see bright red blood.

What do I need to do after I go home?

- There will be cotton wool at the entrance to the canal; you need to change this when it gets soaked with liquid. This may be several times a day immediately after surgery but may be only once a day a few days after surgery. Please insert a new piece of cotton one at least once a day.
- Try to sneeze with your mouth open, and don't blow your nose for the first two weeks after surgery to prevent build-up of pressure in the ear. Sniff if you need to.
- There will be a paper-like strips if you have a wound behind or on the front part of the ear. You can remove these gently after 7 days.
- You should keep the ear dry until your surgeon tells you that you can get it wet: ask at your post-op appointment. When washing hair, please cover the ear canal with a piece of cotton wool covered in Vaseline. In addition, you can use an empty clean yoghurt carton, or similar, to put over the ear and it

is easier if there is someone to help you. Being able to go swimming depends upon type of surgery and healing speed, so please ask your surgeon.

- Work/school: You should be off work for 10-14 days, depending upon how you feel. One of the main reasons is to try to prevent you picking up a cold when mixing with other people. If you feel up to it, and have the sort of job that allows, you may be able to work from within about 5 days. If you need a medical certificate for your employer, please ask your nurse before you leave hospital; otherwise, your GP can give you one.

Will I have a follow-up appointment?

Yes, you will be asked to return to the clinic to check your progress or to have any ear pack/dressing removed. Usually you will be asked to come to the clinic 2 to 4 weeks after the operation.

Useful sources of information

You may visit www.nhs.co.uk, www.patient.co.uk and <https://www.entuk.org/patient-information-leaflets> to read more about glue ear and grommet surgery.