NHS
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Mastoid surgery

This leaflet covers information about mastoid operations which include: combined approach tympanoplasty, modified radical mastoidectomy and cortical mastoidectomy. If there is anything you do not understand or if you have any concerns, please speak to your doctor.

What is the mastoid?

The mastoid bone in the ear has a honeycomb-like structure that contains air spaces called mastoid cells. It communicates directly with the middle ear, the space on the other side of your ear drum.

Why am I having an operation?

Combined approach tympanoplasty (CAT) sometimes called closed cavity surgery and modified radical mastoidectomy, sometimes called open cavity surgery are normally performed for a condition called cholesteatoma.

Cholesteatoma is a condition where skin grows inwards, into a pocket that develops in the eardrum and can either just push into the middle ear or become more extensive and grow backwards from the middle ear into the mastoid bone behind the ear. It does this by eroding the bone of the ear and mastoid. Whilst very rare, cholesteatoma can cause serious complications such as face paralysis or meningitis.

Surgery is nearly always advised to remove the cholesteatoma, repair the eardrum and reconstruct the hearing mechanism. The aim of the operation is to give a safe, dry and hearing ear.

The CAT is often a two (rarely, more) stage operation separated by a 9-12 month period. This is because cholesteatoma can come back. In some cases rather than a second operation a repeat MRI scan may be performed to check the cholesteatoma has not come back. Sometimes, the hearing isn't reconstructed at the first surgery so another reason for a second operation would be to try and reconstruct the hearing bones.

What are the benefits of surgery?

The main aims of the surgery are, in order:

1. To make the ear "safe". In other words, to remove the disease to prevent serious complications.
2. To stop the ear from running.
3. To make the hearing as good as possible.

What are the risks of 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.

1. The hearing may be worse after the surgery or very rarely it may go altogether. In the two (occasionally more than two) stage (closed cavity) operation, the hearing is usually worse after the first operation and the chain of hearing bones are rebuilt at the second operation if there is no sign of further disease. Rarely, the hearing function of the inner ear can be lost meaning that a reconstruction would not help.
2. Taste disturbance: an altered or decreased sense of taste at the front of the tongue on the operated side can occur because one of the taste nerves runs through the middle ear. This normally becomes less noticeable over the course of a year.
3. Dizziness occasionally occurs in the few days after surgery but rarely lasts more than a week.
4. Tinnitus: If tinnitus is present before the surgery it may improve after but occasionally it becomes worse. Rarely, it occurs for the first time after surgery. Most patients experience tinnitus after surgery due to the ear packing.
5. Infection. Cholesteatoma is, by its nature, infected. Occasionally, the operation site can be infected post operatively and may increase the time taken for healing.
6. 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.
7. 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 happens in about 1 in 300-400 cases. We use a facial nerve monitor during the surgery that alarms if we are disturbing the nerve before any damage is done.
8. Leak of CSF. CSF is the fluid that surrounds the brain. Sometimes, the disease erodes the bony partition between the top of the mastoid and the brain. This can leave the thick fibrous lining over the brain (the dura) exposed. Very rarely, the dura is damaged while drilling and a leak of the CSF can occur. This would normally be repaired at the time of injury. The chance of a CSF leak is less than 1%. A small number of this 1% of patients who develop a CSF leak could develop meningitis, which would need antibiotic treatment.

We wish to emphasise that the potential risks and complications mentioned above are unusual but we believe it is essential to tell you about these rather than have you develop a complication without having been forewarned. If you are unclear about any of the information covered in this leaflet or if you are unclear about any other details of your operation, please ask your surgeon. It is important to remember that once you have made a decision about treatment, you can *change your mind* at any time, even after you have signed the consent form.

What happens during surgery?

The operation will be carried out under a general anaesthetic (you will be asleep) and usually is a day case procedure.

The surgery is performed by making a cut behind the ear as it attaches to the side of the head. This is closed with dissolving stitches which are under the skin.

What happens after surgery?

When you come around from surgery you may have a bandage on your head which will be removed before going home. Good news… normally the pain is not too bad and Paracetamol is usually a strong enough painkiller.

There will be a yellow antiseptic wick (a piece of gauze material) in the ear canal to protect things while healing takes place. This needs to stay in your ear canal and will be removed by your doctor.

There is often a squelching sound or popping in the ear when chewing or yawning; this is normal.

Advice following surgery

- **Wound care:**
  - You will have a wound behind your ear.
  - Depending on your surgeon, your wound may have some adhesive dressings on it or there will have been a spray dressing applied that you will not be able to see.
  - Once you have removed all the head bandage material, you will notice a yellow dressing at the entrance of your ear canal. This needs to remain in place and if any of it starts to come out, please cut this excess off rather than trying to put it back in.
- Make sure you wash your hands with soap and water before touching the ear or dressing.
- 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.
- You should keep the operation site dry until your surgeon tells you that you can get it wet… ask at your post-op appointment. When washing hair an empty clean yoghurt carton, or similar, can be 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:** Depending on your type of work (or level of schooling), the time recommended to stay at home will vary. Your doctor will clarify the timescales during the consent process. 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 well be able to work from home (or do homework…sorry kids) within about 5 days. If you need a fit note for your employer, please ask your nurse before you leave hospital. Further fit notes can be issued by your GP, if necessary.
- **Activity:**
  - For the first three weeks, gentle activity e.g. walking, housework only.
  - After 3 weeks, gentle exercise, bicycle at gym or walking on treadmill, golf.
  - After 4 weeks, normal gym activity.

- No physical contact sports for 6 weeks.
- **You should not fly for a minimum of 2 months but it may need to be a little longer.** Discuss with your surgeon.

What to look out for…

If you have a heavy discharge from the ear canal, pain, dizziness, bleeding or fever, report this to your surgeon by phoning the CAT team during office hours or the ward out of hours.

Contact the ward if you have any of the following:

- A temperature of more than 38.5 C.
- A severe headache not responding to over-the-counter painkillers.
- Severe vertigo (dizziness) or vomiting.
- If the whole of the yellow packing in the ear canal comes out before a week has passed after the surgery.
- Facial weakness.
- Any other concerns.

Follow-up

You will normally have a follow-up appointment approximately 2-3 weeks following surgery. We will send you a letter in the post confirming the date of the appointment.

I confirm I that I have read the above and have discussed any queries with the surgical team.

Name: _____

Signature: _____

Date: _____

How to contact us

Dorrell Ward Tel: 0118 322 7172

Clinical Admin Team (CAT1) (Monday to Friday, 9am to 4pm) Tel: 0118 322 7139 or email rbbh.CAT1@nhs.net

ENT Outpatient Department (Townlands) reception Tel: 01865 903274

Lion/Dolphin Wards (Children) Tel: 0118 322 7519 / 8075

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT ENT Department, September 2024.

Next review due: September 2026.