MR TIM PRICE
EAR NOSE AND THROAT SURGEON
BSc, MBChB, MRCS, DLO; FRCS (ORL-HNS) and FRACS

Myringoplasty

What is a Myringoplasty?
A hole in the eardrum may be caused by infection or injury. In the first six weeks after it occurs, a hole in the eardrum may heal itself. Some people have holes in their eardrums and do not get any problems. However, many people find that the ear will discharge when they get the ear wet or if they have a cough or a cold. Additionally, there may be some hearing loss.

An operation to repair the perforation is called a 'Myringoplasty'. The main aim of the operation is to decrease the amount of discharge from the ear. It may also result in improved hearing, but repairing the eardrum alone seldom leads to a great improvement in hearing.

What does the operation involve?
The day of the operation:
Admission is almost always on the day of surgery. The nurses will complete some routine paperwork and tests. You will be asked to change into a gown ready for theatre. The anaesthetist will come to see you and discuss the anaesthetic side of things. A member of the ENT team will also see you before your operation.

The anaesthetic:
In children, the operation is performed under general anaesthetic. In adults, it may be possible to perform the operation under local anaesthetic.

The operation itself:
There are a number of ways of performing this operation. It may be necessary to make a cut behind the ear or just in front of the ear. In all cases, the operating microscope is needed and micro-instruments are used to lift the eardrum up. A tiny piece of tissue is taken and placed under the eardrum to encourage the hole to heal. This piece of tissue is normally taken from the cut that is made at the beginning of the operation.

You will wake up with a bandage around the head. This is to put some pressure on the wound to stop any bleeding. This will be removed before you go home.

In most cases, an antibiotic dressing will be placed in the ear canal. You may need to put some antibiotic ear drops into the ear to try to prevent an infection. If you do have drops to use, you should remove any cotton wool from the outer ear in order to instil the drops into the ear canal. A fresh piece of cotton wool can be placed in the outer ear if the ear is wet and leaking. The dressing will normally be removed in the clinic 2-3 weeks after surgery. Alternatively, an antibiotic ointment may be used which will slowly dissolve. Your surgeon will discuss this with you after the operation. There may also be some sticky plasters (steristrips) on the wound behind or in front of the ear. The stitches in the wound are usually buried under the skin and will dissolve.

After the operation:
After a short time in the recovery area, you will be taken back to the ward. You will be encouraged to drink and then eat as soon as the anaesthetic has worn off. The procedure is not normally painful but you will be given painkillers as required.

Your discharge from hospital:
Most patients are able to go home on the day of the surgery but some patients may have to stay overnight. You will need to arrange for a responsible adult to pick you up to take you home and stay with you for 24 hours after discharge (following a general anaesthetic). Depending on how fit and active you are before your operation, you may need to arrange for someone to stay with you for a few days.

POST OPERATIVE CARE

What should I do when I leave the hospital?
Activity:
Be sure to keep the ear dry and do not go swimming. The best way to achieve this is with cotton wool and Vaseline to the outer ear canal. The wound behind the ear can get wet. Pat, it dry with a towel but do not rub it as you might open up the wound.

Flying:
You should not fly until your surgeon is happy that the ear has healed. This is because changes in the ear pressure especially during take-off and landing can push the graft out of place. Healing can be confirmed by your surgeon in outpatients. This is usually at around 6 weeks after the surgery.

Driving:
You should not drive for at least 24 hours following your operation. You can then drive when you are able to perform an emergency stop safely.

Wound care:
There may be some blood-stained discharge from the ear canal for several days. This is to be expected and can be dealt with by placing some cotton wool in the outer ear. Do not use any earbuds in the ears as you will cause damage.

Some patients will have Steri Strips (thin, sticky plasters) on the wound. These can be removed by yourself after a week. Stitches are usually buried under the skin and will dissolve but if you have stitches that are visible on the surface, they need to be removed a week after the operation, usually at the GP's surgery. You will be informed by your surgeon which stitches you have. If there is a small dressing in the ear canal, this will be removed in the outpatient department by your surgeon. This is normally a straightforward procedure but in some very young children, it may be performed under a short day-case anaesthetic. If a large piece of dressing was to fall out of the ear soon after the surgery please contact your surgeon for advice as a new dressing may be necessary.

Follow up arrangements will be made to ensure that the eardrum has healed.

Work:
You may feel rather tired for a week or so, but this will steadily improve. You should be fine to return to work/school one week after surgery. If your work requires heavy manual labour, then your surgeon may recommend that you have more time off to allow the ear to heal.

Are there any risks involved in this operation?
Although modern surgery and anaesthetics are considered to be safe, all medical procedures carry some risks. The surgeon will discuss all these risks with you.

All surgical procedures involving the middle ear may cause the following rare complications:
• Taste disturbance: The taste nerve runs close to the eardrum and may occasionally be damaged. This can cause an abnormal taste on one side of the tongue. This is usually temporary but occasionally it can be permanent.

• Numbness of the ear: Temporary loss of sensation to the ear (pinna). This may last a few weeks until the nerves recover.

• Dizziness: Dizziness is common for a few hours following surgery. On rare occasions, dizziness is prolonged.
• Hearing loss: In a very small number of patients (<1 patient in 1000), total deafness can occur. The hearing may not improve despite a successful operation and a hearing aid may be needed.

• Tinnitus: Sometimes the patient may notice noise (ringing or buzzing) in the ear, in particular if the hearing loss worsens. This may be temporary or permanent and is more likely to be permanent if it was present before the surgery.

• Facial Paralysis: The nerve for the muscle of the face runs through the ear. Therefore, there is a slight chance of facial paralysis (<1 in 1000patients). The facial paralysis affects the movement of the facial muscles for the closing of the eye, making a smile and raising the forehead. The paralysis could be partial or complete. It may occur immediately after surgery or have a delayed onset. Recovery can be complete or partial.

• Reaction to ear dressings: Occasionally the ear may develop an allergic reaction to the dressings in the ear canal. If this happens, the pinna (outer ear) may become swollen and red and you may experience intense itching and a profuse watery discharge from the ear. You should consult your surgeon immediately so that he can remove the dressing from your ear. The allergic reaction should settle down with treatment after a few days.

• Failure of the repair: The graft may not work and there may still be a perforation after surgery. This occurs in about 20% of patients. A further operation may be necessary.

• Recurrent perforation: The eardrum may perforate again in the future after an infection etc. This may require further surgery to repair the hole.

• Abnormal scar tissue formation: This may result in a thickened, wide, red scar in front of or behind the ear. This may require further surgery.

• Cholesteatoma: very rarely the skin may grow from the edges of the perforation into the middle ear. This will result in a skin cyst (cholesteatoma) growing in the middle ear. This cyst can cause damage to the little bones of hearing and hearing loss so will need to be removed surgically in another operation.

• Delayed healing of ear canal skin: this is possible especially if there has been chronic infection of the skin prior to surgery. This requires careful cleaning and application of drops or ointment to prevent infection.

Your surgeon will discuss these risks with you further in the clinic.
Risks associated with a general anaesthetic are rare and include:
• Infection can occur, requiring antibiotics and further treatment.

• Bleeding can occur and may require a return to theatre. Bleeding is more common if you are on blood-thinning drugs.

• Chest infection. Small areas of the lung can collapse, increasing the risks of chest infections. This may need antibiotics and physiotherapy.

• Blood clots in the legs (DVT) can cause pain and swelling of the legs. Rarely pieces of the clot can break off and can travel to the lungs (pulmonary embolism). This is a particular problem in obese patients. Patients may wear tight stockings and are advised to keep moving their legs to help the circulation. Blood-thinning injections are often given to prevent this.

• Heart attack or stroke could occur due to the strain on the heart.

• Increased risk in obese patients of wound infection, chest infection, heart and lung complications and thrombosis (DVT).

• Death as a result of a general anaesthetic/ this procedure is possible.

How good are the results?
The success rate for Myringoplasty (success meaning an intact eardrum) varies from 60% to 90%, depending on the size and position of the perforation, past history of discharge, age of the patient and whether or not the operation has been tried before. Mr Price has audited his results and the success rate is 89%. It is usually possible to tell whether it has worked at your visit 6-8 weeks after the operation. Hearing improvement will depend on the amount of hearing loss before the operation, and whether the small middle ear bones are healthy.

Are there any alternatives to this operation?
Before surgery is recommended simple cleaning in the clinic and antibiotic drops or tablets may have been used already. If you are happy with your hearing level overall, the ear does not discharge often and you are not a keen swimmer and can keep the ear dry, you may not want any surgery. Your G. P. will be able to treat any infections with antibiotic drops or tablets. The hearing is unlikely to get any better or any worse, and the size of the perforation is not likely to change so surgery is not essential. If you would like a second opinion about the proposed surgery please ask your G.P or Surgeon to arrange this.

Are there any risks of not having this operation?
If you decide not to have surgery your symptoms may persist or worsen.