MYRINGOPLASTY AND TYMPANOPLASTY

This information leaflet is to support your discussion with your specialist

This leaflet will explain how your ear works and what surgery can be offered for your condition. Before you agree to any treatment you will always have an opportunity to discuss your procedure and raise any concerns or questions.

HOW DOES THE EAR WORK?

The ear consists of the outer, middle and inner ear. The outer part of the ear is covered by skin which forms the covering to the ear canal and the eardrum. The middle ear is covered by a mucus producing membrane (mucosa) which produces a liquid. The inner ear is surrounded by a bony covering which is very hard (the hardest bone in the body). This contains the sensitive mechanisms for hearing and balance and these structures are both linked.

Sound travels through the outer ear and reaches the eardrum causing it to move or vibrate. This vibration is then transmitted through the smallest bones of the body (the ossicles) which are found in the middle ear area. This vibration increases and is then passed to the inner ear structures where nerve cells are stimulated. These nerve cells then send signals through the nerve for hearing towards the brain. These signals are then interpreted as sound by the brain.

The eardrum is a thin membrane, which separates the middle and outer ear areas. It forms part of the mechanism to increase sound entry into the middle ear. In The eardrum there can be a perforation (opening or hole) from an accident or infection. Most of these perforations heal by themselves but surgery may be required if they do not.

WHAT IS MYRINGOPLASTY OR TYMPANOPLASTY?

Myringoplasty is an operation that is performed to close the hole (perforation) in the eardrum. A tympanoplasty helps to address any damage or scarring around the bones for hearing. Sometimes both these procedures are performed at the same time.

Why Have a Myringoplasty?

If the eardrum is perforated there may be an effect on hearing which may cause difficulties with day to day activities. A hole in the eardrum may also lead to frequent discharge from the ear and hence the ear must be kept dry to prevent repeat infections. Such infections can damage the middle and inner ear structures causing permanent loss of hearing. If the perforation is closed there is a reduced likelihood of getting infections in the middle ear and there may be some improvement in hearing.

Do I have to have a Myringoplasty?

A myringoplasty is normally offered for patients when there is a persistence of a hole in the eardrum. A period of observation is usually considered for approximately three to six months and if there is no sign of closure of the hole in the eardrum then the

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option of surgery may be discussed. If there are frequent ear infections then this may be a reason for considering surgery earlier. If there is a hole in the eardrum then this may also affect hearing and if this is a significant effect on day to day life then this may be a reason for considering surgery.

**How is Myringoplasty/Tympanoplasty surgery done?**

You may be admitted to the hospital either the night before or the morning of the surgery. A general anaesthetic is used to make you fall asleep during the whole procedure. There are several ways of doing the operation depending on the access to the eardrum. A cut may be made either within the ear canal, in front of the ear (in the line of face lift incision surgery), or behind the ear. If an operation is done through the ear canal a separate cut, or incision, may be made in the hair line to allow for some muscle lining to be removed. This is a graft. The graft is usually shaped so that it can be used to plug the hole in the eardrum. The ear canal is then cut and the eardrum is lifted with the skin of the ear canal to provide a view of the middle ear. The edges of the hole in the eardrum or perforation are roughened to encourage them to heal and grow onto the graft. A graft is then placed under the eardrum and the skin of the ear canal. The eardrum is re-placed back into its normal position with the graft used to plug the eardrum defect. The ear is then packed with an antiseptic paste or ribbon (containing iodine). Some stitches (sutures) are used to close the cut in the skin and the surgeon will determine whether these will dissolve on their own (self-absorbing) or whether they will need to be in the clinic.

**WHAT TO EXPECT AFTER THE OPERATION**

There may be a head bandage placed over the ear and head which helps to reduce bleeding after the surgery and this may be removed (from a few hours to twelve hours later). The ear may feel a little sore, especially after waking up, and you can use simple pain killers for this. You should be able to go home the same day or in the evening after the operation. The stitches that have been placed in the wound either in front of or behind the ear may need to be removed one week after surgery. This is normally done the surgeon or can be arranged with your GP. The packing inside the ear is normally kept for two weeks and will be removed in the ENT clinic. This ensures that the ear canal is not exposed to infection. You will be reviewed in the clinic to ensure that the eardrum has healed.

**HOW SUCCESSFUL IS THE OPERATION?**

The chances of obtaining a dry, trouble free ear from this operation by experienced surgeons is over 80%. In some patients there may be an improvement in hearing though this is difficult to determine until the time of surgery. You should enquire from your surgeon the likelihood of success in your particular case.

**THE RISKS AND COMPLICATIONS OF SURGERY**

There are some risks that you need to be aware of prior to giving consent for surgery. The potential complications are uncommon. Listed below are some of the problems associated with surgery, This is not a comprehensive list of the complications associated with surgery but does cover most problems including rare ones associated with this procedure. If you wish to discuss further specific issues, please do not hesitate to do so with your doctor.
Graft Failure

There is approximately a 10 – 20% risk of failure of the graft. This may require a second operation to repair the perforation. Where there is a very large hole in the eardrum the graft may lead to a smaller hole or perforation which then would be successfully cured by the second stage procedure.

Tinnitus

Tinnitus (noise in the ear) is common post-operatively. This problem usually settles as the ear heals and as the dressings from the ear canal are removed.

Infection

Infection in the ear may present with pain, redness around the ear or infective discharge from the ear. This may require eardrops or antibiotics for treatment. Be aware that the iodine-containing dressing also has a yellow colour and so a yellowy coloured discharge may be normal.

Dizziness and Balance Disturbance

Dizziness may be possible for a few hours following the surgery and may lead to nausea or vomiting. It is very rare for this to be persistent or prolonged.

Allergy

There is a small risk of an allergic reaction to the iodine-containing dressings. This may cause some redness and swelling to the skin around the ear.

Taste

Damage to the nerve which supplies taste on one side to the front half of the tongue (the anterior two-thirds) may occur. This may be temporary or permanent.

Bleeding

Blood stained discharge from the ear is common after surgery. Significant bleeding is rare.

Hearing

Damage to the hearing is very rare. It is not always possible to improve hearing if there is already a hearing loss in the ear.

Facial Nerve Damage

The facial nerve supplies the muscles of facial expression and help with eye closure and movement of the lips. Damage to this nerve will result in weakness of the side of the face (paralysis) which will cause difficulty with eye and mouth closure. This damage may be temporary or permanent. This is an extremely rare complication.
Discomfort Following Myringoplasty/Tympanoplasty

There will be some discomfort around the ear which can be helped with mild pain killers. You will have a head bandage on for approximately twelve to twenty-four hours after the operation. The packing in the ear will remain for at least one week. The pack will cause hearing to be muffled or reduced. You may also feel slightly dizzy following the surgery (vertigo). This settles after a few days.

If there is anything that you do not understand please ask the doctor for further information.