



Ear, Nose and Throat (ENT) Department

Myringoplasty/ Cartilage Tympanoplasty

(Repairing a hole in the eardrum)

How does the ear work?

Sound travels through the outer ear canal down to the eardrum and makes it vibrate. This vibration is transmitted through the 3 middle ear bones (ossicles) into the inner ear. The vibrations stimulate the nerves in the inner ear which then pass signals up to the brain where they are interpreted as sounds.

What is a hole in the eardrum?

A hole in the eardrum is called a perforation. It can be caused by infection or an injury to the eardrum.

What problems can it give?

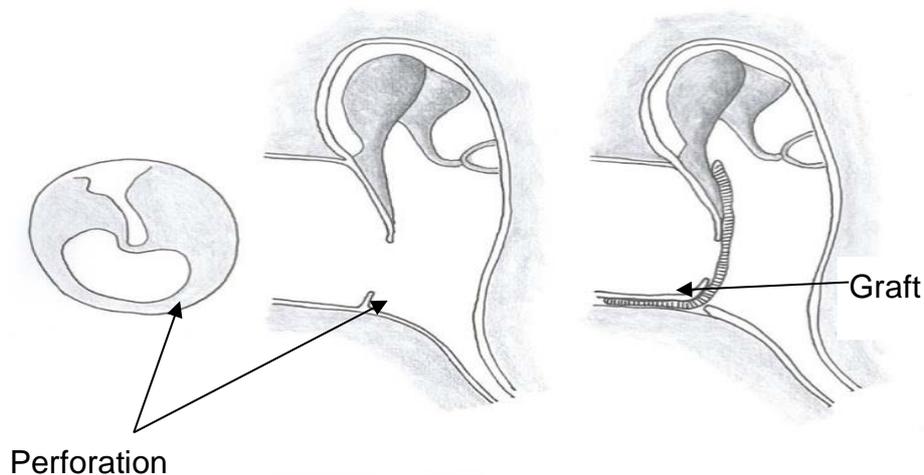
In many cases a hole in the eardrum will heal itself. If there is a hole in the eardrum, it will not vibrate as well and there will be some hearing loss. The bigger the hearing loss, the more it affects the hearing. A hole in the eardrum may lead to infection with discharge from the ear.

How can a hole in the eardrum be treated?

If the hole has only just occurred, it may well heal by itself. You just need to keep the ear dry and leave it to nature to close the hole over. If there is some infection present, you may be prescribed some antibiotics. If you are not having any problems because of the hole in the eardrum, you do not have to have any treatment. If you have hearing loss, repeated infections or if you do not want to have to keep the ear dry, you may wish to have a myringoplasty operation to repair the hole.

How is the operation done?

The operation takes about an hour and is done under a full general anaesthetic. Usually the operation can be performed through the ear canal (without any external cuts), but sometimes it is necessary to make a small incision behind the ear. The material for the graft is taken from just inside your ear canal. This eardrum graft is placed under the hole in the eardrum with dissolving sponge soaked in antibiotic drops in the middle ear to support the graft. The skin wound is closed with a dissolving stitch, and sometimes a head bandage put on.



Usually you will be able to go home on the same day. If you have a head bandage on, you can take this off yourself at home 24 hours later.

We leave some packing in your ear canal to protect the graft and we will take this out after 2 weeks in the clinic. Don't worry if some of the packing falls out, as there will be more packing deeper inside. We then arrange another appointment for about 6 weeks later with a hearing test. We cannot usually tell if the operation has been successful until the second follow-up appointment about 8 weeks after the operation.

After your operation, your hearing will be worse on the side of the operation because of the packing in the ear. You will have some soreness around the ear, especially when chewing. You should keep the ear as dry as possible. Over the next few weeks you will perhaps notice some crackling and popping sounds in the ear. You will notice some numbness of the back of the top of the ear if the skin incision was behind the ear. This will settle over a number of weeks.

What is the success rate of the operation?

We say that the operation is successful if the hole is completely healed over on review in the outpatient clinic. The average success rate would be about 80%. The figure would be a little lower if the hole is very large or in children under the age of 13 years. The figure would be a little higher if the hole is quite small. If the hole is closed, we would expect a slight improvement in hearing (this depends on how large the hole was to start with) and for there to be no further infections.

What are the possible complications of the operation?

The operation is done under a general anaesthetic, and all operations under a general anaesthetic carry a small risk. You would be able to discuss this with your anaesthetist.

The nerve which supplies the muscles of the face passes through the middle ear. In a myringoplasty operation there is a small risk of damage to this nerve, which may be partial or complete. It may come on immediately after the operation, or be delayed by a few days, and recovery can be partial or complete.

Total and permanent inner ear hearing loss is a rare, but serious, risk after middle ear surgery.

Dizziness may occur for a few hours after surgery but would rarely be prolonged.

The small nerve which deals with taste from the front of the tongue is on the undersurface of the eardrum and, if this is damaged, you may notice an alteration in your sense of taste which usually settles in a few weeks, but can rarely be permanent.

Before the operation

Arrange for a couple of weeks off work.

Check that you have a friend or relative who can take you home after the operation, as you **must not** drive for at least 24 hours after a general anaesthetic.

Make sure that you have a supply of simple painkillers at home.

Where can I find out more about the operation?

We would recommend the ENT UK website: www.entuk.org. This has information about perforation of the eardrum and myringoplasty surgery.

Or just Google 'myringoplasty information leaflet' and many ENT departments around the country have produced their own patient information leaflets.

If you have any questions about general anaesthetics, the Royal College of Anaesthetists website has a lot of information: <http://www.rcoa.ac.uk/patientinfo>

Useful contact numbers:

Dorset County Hospital switchboard - 01305 251150

ENT secretaries (Dorchester)

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If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email pals@dchft.nhs.uk



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