

Stapedotomy

How do we hear?

The ear consists of the outer, middle and inner ear. Sound is funnelled through the outer ear and causes vibration when it reaches the ear drum. This vibration is transmitted to the three bones of the middle ear, and they are called malleus, incus and stapes.

This vibration then enters the inner ear into a snail shell-shaped bone structure which is filled with fluid. Within this structure is a nerve cell which transmits a signal to the brain where it is interpreted as a sound. If the transmission of vibration through the bones is interrupted hearing loss may occur.

The commonest sort of hearing loss is otosclerosis. This is a condition of the bone surrounding the inner ear. Excessive bone forms around the stapes, which leads to a reduction of sound reaching the inner ear.

The cause is not fully understood, but may run in families and often begins in the teens or early twenties. It usually affects both ears however in some people only one ear is involved.

How can otosclerosis be treated?

There is no known cure for otosclerosis but there are several options: Do nothing, be fitted with a hearing aid or Surgery. If the hearing loss is mild it may be felt that no treatment is required.

Preparation for the surgery

If one ear is affected, an operation may help. The operation is called a stapedotomy or stapedectomy. If both ears are affected, the operation is usually carried out on the poorer hearing ear.

You will see your surgeon in clinic to discuss your individual needs and to be given more details about your operation. You will have an assessment made of your general health and be given the opportunity to ask questions. The doctor will be available for you to ask any further questions you may have. A hearing test will be done within 2 weeks of your surgery.

How is the surgery done?

The surgery is usually carried out under a general anaesthetic and can take a number of hours. A cut maybe made either above or inside the ear canal to gain access to the inner ear.

Using a microscope the surgeon will remove the outer part of the stapes leaving the inner part in place. A small hole is then drilled into the footplate and the new stapes (piston) is placed into this.

How successful is the operation?

The aim of the operation is to improve your hearing. 8 out of 10 patients gain an improvement in hearing.

What complications could occur?

There are some risks that you should be aware off. These potential risks are rare and will be discussed with you before the surgery.

Loss of hearing

In a small number of cases hearing may be worse due to the damage in the inner ear. In 1-2% of cases there could be total loss of hearing in the operated ear; therefore the poorer hearing ear is usually selected for the first surgery.

Dizziness

Dizziness is common for a few hours following surgery, which can cause nausea and sickness. On rare occasions dizziness may take time to resolve.

Weakness of the facial muscles

The nerve that controls the muscles of the face runs inside the ear. A rare but potential hazard of this surgery is that the nerve could be damaged during the operation. If this happens the face may lose movement particularly on one side. This is usually temporary.

Taste disturbance

The nerve of taste runs close to the eardrum and may occasionally be damaged. This causes abnormal taste on one side of the tongue. This is usually temporary but it could also be permanent.

Tinnitus

Sometimes you may notice noise in the ear. This will usually settle as the ear heals.

What happens after the surgery?

You may wake up with a bandage on your head. Depending on your surgeon this may be removed either 4hours after surgery or the next day.

There may be a small amount of discharge from your ear. This usually comes from the dressing in your ear canal. Change the outer dressing of cotton wool daily.

- It is important that you rest for the first 24/48 hours after surgery and this will depend on your surgeon.
- It is important to keep your ear dry when bathing until informed otherwise.
- Take very gentle exercise for a few days avoiding vigorous activities.
- Avoid sudden head movements or straining and lifting heavy weights.
- Avoid flying.
- Avoid blowing your nose or sneezing violently. Opening your mouth when you want to sneeze helps.

If you are not given an outpatients appointment before leaving the ward one will be sent to you. This will be within 3 weeks after your surgery.

Please note that the information in this leaflet is to be used as a guide only.

Each individual's needs will be discussed by the Nursing Staff and Doctors before discharge from hospital.

Head and Neck Practitioner

(01803) 655739

or

Forrest Ward on (01803) 655507