Ossiculoplasty Surgery

The ear is divided into three parts – the outer (external) ear, the middle ear and the inner ear. In the middle ear there are three tiny bones (ossicles) – malleus, incus and stapes. These bones transmit sound from the environment to your inner ear. Your surgeon has recommended an operation called an ossiculoplasty to replace broken or missing middle ear bones. This will improve the conductive hearing loss due to damaged middle ear bones. It will not improve sensorineural hearing loss (hearing loss relating to the nerves sending messages to the brain).

**Indications for Ossiculoplasty Surgery**

- Conductive hearing loss due to damaged or missing middle ear bones.
- The aim is to reconstruct the middle ear bones (ossicular chain) and therefore improve hearing level. This does not mean a complete restoration of hearing. Your suitability for this surgery will depend on several factors such as your current hearing levels in both ears and the function of hearing nerves.
Your doctor will discuss all available management options including the use of hearing aid.

**Ossiculoplasty Surgery**

The operation is usually performed under a general anaesthetic but may also be performed using local anaesthesia. The surgery takes about 60-90 minutes. The anaesthetic doctor will see you before the operation to discuss the options with you and recommend the best form of anaesthesia for you. The aim of the operation is to replace the missing bone(s) usually with a specially designed implant. The operation is performed through the ear canal or a small cut is made in front of the ear, which tends to heal well.

Whilst you are asleep the eardrum is carefully lifted and diagnosis is confirmed. The missing bones are confirmed and an implant is placed. This is very delicate surgery. The eardrum is replaced and yellow anti-bacterial packing is placed in the ear canal.

**Complications of Ossiculoplasty Surgery**

1. Pain: This is not usually a problem and can be controlled by simple painkillers like paracetamol or ibuprofen.
2. Bleeding: A small amount of blood can be noticed from the incision. This is usually self-limiting and the cotton wool ball in the outer ear can be changed daily.
3. Scar: the scar in front of the ear usually heals very neatly.
4. Eardrum perforation: rarely on lifting the very thin eardrum, this can tear and can lead to a hole in the eardrum. This should heal up on its own.
5. Change in taste: the nerve of taste is lying on top of the second bone of hearing, and has to be moved gently to one side. This can lead to temporary change in taste (metallic) which will return to normal after a few months. It is rare to get a permanent taste change.
6. Facial weakness: very rarely the nerve to the muscles of the face can be bruised, which can lead to temporary weakness of the face muscles. This will return to normal. If you notice this, please inform the operating team and they will arrange to see you urgently for steroid treatment.
7. Dizziness and Vomiting: temporary dizziness and vomiting will improve after a few days. This can be common (5%) and usually settles conservatively.
8. Tinnitus: this can be part of the condition itself and may or may not be improved with the operation.
9. Decreased hearing: your hearing may go down in the future if the prosthesis moves. This would require another operation in due course.
10. Total hearing loss: there is <1% chance that you may completely lose your hearing. This can be due to difficult anatomy or infection of the inner ear. If you notice this, please inform the operating team and they will arrange to see you urgently.
Outlook after surgery

1. Ossiculoplasty is highly successful at improving the conductive element of your hearing loss (due to damaged middle ear bones), but it may not be perfect. It will not improve the hearing loss due to poorly functioning hearing nerve (sensorineural element) of your hearing loss. You may not need to use your hearing aid after the operation.

2. The implants if used usually last in excess of 10 years but a future operation may be necessary.

Expectations and advice following ossiculoplasty surgery

1. There will be a number of small yellow packs (soaked in Iodine) within the ear canal, which will remain for 2 weeks and removed at your first outpatient’s visit. The yellow packs should be left alone and the outer cotton wool ball be changed when soiled.

2. Some of the packing may fall out. If this occurs there is no cause for concern. Please trim the loose end of the packing with scissors and leave the rest in place.

3. Your hearing will still remain muffled whilst the packs are in, but should improve following pack removal. The best level of hearing is usually noticed at 6 weeks.

4. Some patients are slightly dizzy for the first two days after surgery and you may notice a slight headache. This is treated with simple painkillers.

5. You will usually go home on the same day of the operation or the day after.

6. Avoid all moderate to heavy physical activity for 3 weeks as this may displace the implant and your hearing will decrease.

7. Avoid straining with your bowels. Take laxatives if required.

8. Avoid blowing your nose vigorously or suppressing any sneezes.

9. Do not drive for 48 hours (because of the effect of the general anaesthetic and possible dizziness).

10. You are advised to take 2 weeks off work. A certificate can be provided by the hospital.

11. You should not fly for at least 6 weeks to allow the eardrum to heal. Please discuss with your surgeon.

12. When taking a shower, please ensure that NO water enters the ear. A cotton wool ball soaked in Vaseline can be placed in the outer ear to prevent this.

13. If there are any stitches in front of your ear, they may either dissolve naturally or will require to be removed by your practice nurse at your GP’s surgery after 1 week. You will be informed by your surgeon about the type of stitches used.

14. You should consult the surgeon at the hospital if you experience sudden onset of total hearing loss, dizziness, or severe pain after you are discharged from hospital.
Please note that the details in this section are for general information only. You should always discuss the risks, limitations and complications of your specific operation with your surgeon.