

# EARDRUM REPAIR (MYRINGOPLASTY)

## Risks, Complications and Post-operative Instructions

The eardrum is the outer wall of the middle ear. It is attached to the chain of small bones (ossicles) that are suspended in the air-filled cavity of the middle ear. These vibrate to pass sound from the drum into the cochlea. Here the sound is converted into electrical impulses that are passed to the brain.

The drum is normally a fine but robust membrane, shaped similar to a loudspeaker. A number of situations can damage or rupture the drum; this places the middle ear at risk from infection, or reduces the hearing. Drum repair may be needed to overcome either or both of these problems. Failure to repair the drum may also lead to other more serious disease. These include acute or chronic mastoiditis, or cholesteatoma formation.

### Surgery

Drum repair is performed by grafts laid on or under the drum (onlay or underlay grafts). A range of tissues may be used: vein, fascia, cartilage, perichondrium, or periosteum. Skin grafts are used if the damage is severe, but only if the other methods are not applicable. When drum collapse has occurred, or this drum is at risk of this, fine composite grafts of cartilage and soft tissue may be used as underlay grafts. These may also be used when hearing prostheses are used to repair the ossicular chain

In onlay techniques, the outer skin of the drum is removed and the graft is laid over the site. For underlay methods, the drum and an attached cuff of canal skin are raised and reflected forwards, The graft is placed on a bed of soluble gelatin sponge placed in the ear, then the drum is laid back over the graft, which adheres to the under-surface.

The external canal is stabilised with fine packs during the healing phase of 2-3 weeks.

The surgery is normally undertaken via the external canal. Some cases may require a drill-back of the anterior canal wall for access to the repair site. Alternatively, the repairs may be performed via an incision behind the ear, especially if other disease clearance is needed, e.g. by mastoidectomy surgery.

Routine trans-canal drum repairs generally take perhaps 30 minutes, longer if additional procedures are necessary.

#### **"Silverton Place"**

101 Wickham Terrace  
Brisbane Qld 4000

P: 07 38397677 F: 07 38325723

#### **Other Locations**

Beenleigh

Sunnybank

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Caboolture

## More Information

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## RISKS AND COMPLICATIONS

### Hearing

Together with disease removal, the surgery normally aims for the best possible hearing outcome (over 80% of cases), but this is sometimes not achieved, due to the extent of disease or other factors. Also although many cases have ringing (tinnitus) in the ears before surgery, this may not be eliminated and can be worse in a minority.

Generally, the hearing takes perhaps 1-2 months to fully recover after drum repair surgery. Gurgling, crackling, echoing or hollow sounds during this period are indicative of a good outcome.

### Dizziness

Balance upsets after myringoplasty surgery are rare, but in some cases of more advanced disease the balance organs are traumatised during removal of disease or similar actions in the course of the surgery. Fortunately this generally fades, perhaps over a two month course.

### Facial Nerve Paralysis

Even in expert hands paralysis of the side of the face may occur for a variety of reasons in ear surgery, but is very rare after myringoplasty. Chronic ear surgery not uncommonly encounters the nerve in a diseased state, requiring extra vigilance on the part of the surgeon. Paralysis may last several months and then recover completely or partially. Temporary paralysis may also occur from local anaesthetic injection, lasting a few hours and then recovering. Eye irritation from these incidents may require an ophthalmologist's care.

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## Drum Perforation

Generally, in drum repair cases drum healing is uneventful, but perforation may occur requiring limited revision surgery to overcome the problem; this is fortunately uncommon.

## Taste Disturbance

The chorda tympani is the nerve that provides taste sensation to the side of the tongue. It passes across the field of surgery in many ear disease cases and not uncommonly is bruised or cut in the course of the procedure. Taste disturbance occurs in about 10% of cases and this may last for up to 12 months, a few remaining permanent, sometimes with slight dryness of the mouth,

## Infection, Pain

The nature of this surgery predisposes to general surgical risks but fortunately the ear is generally not troubled by these problems to a severe or prolonged extent.

If an incision has been made behind the ear, it is common for the upper ear to feel numb for up to two months, before fading

Uncommonly, a collection of blood may form under a wound behind the ear. This may cause more noticeable swelling and discomfort.

## POSTOPERATIVE INSTRUCTIONS

### Surgical wound site

If an incision is present behind the ear, any head bandage will be removed before discharge from hospital. Keep the wound dry for a week, at which time you will have an appointment to have the sutures removed. The site may be washed thereafter. Normally a degree of swelling may cause the ear to be more prominent. This fades over two weeks. Bruising is common, around the ear and in the neck.

### External canal site

The ear bowl and canal will have dressings that may become moist from slight bloodstained discharge. Replace the ear bowl dressings as necessary, but leave to canal dressings unmolested until their removal, usually 2-3 weeks after surgery. Until removal of the dressings, avoid heavy exercise, to reduce perspiration moisture within the canal. Removal of dressings is usually brief and pain-free.

Also avoid forced nose blowing or occluded sneezing, as this may dislodge graft material in the ear. Aircraft flight should be avoided for one month.

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Antibiotics will be prescribed and provided prior to discharge. Take these as directed on the packet. Sometimes diarrhoea may occur; consult your pharmacist re medicine for this, but continue the antibiotics and take probiotics to help settle matters.

## Pain, Discomfort

Analgesics will be given both in hospital and supplied at discharge. Pain after ear surgery is normally limited, but if concerned contact us for advice. If an incision has been performed behind the ear, some intermittent stabbing type pain may be experienced and which fades in a few weeks. Nausea is less common, but advise our staff if you require medicine for this.

## Activities

- Rest well after surgery; recovery varies from person to person.
- Return to work when well; this is normally after a few days, unless dizziness or other problems intervene.
- The ear canal dressings are removed at 2-3 weeks after surgery, and the ear reviewed after that. Audiology is undertaken at two months. Subsequent reviews occur on an individual basis.

Our goal in ear reconstruction is to deliver the best results with the greatest certainty and minimal distress. But in surgery there are no guarantees of success. If you have had a lesser result after surgery, we will do our best to treat the problem, hopefully overcoming this.

Please let us know at Queensland Otolaryngology if you have any concerns or questions, whether before or after:

## Contact Numbers

Business Hours: (07) 3839 7677

After hours: (07) 3261 9570

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