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MACARTHUR ENT

Perforated Eardrum and Tympanoplasty

Eardrum repair (myringoplasty / tympanoplasty) for adults and children

Please read first – this is general information, not advice about your own situation

- This sheet is a **summary of the published medical literature**. The figures quoted are averages from studies of groups of patients.
- It is **not specific to your condition**. The findings in your ear, your hearing, your general health and your preferences all change which options suit you and what your individual risks are.
- Your ENT surgeon will discuss your own examination, tests and options with you. Please bring any questions to your appointment.

What is a perforated eardrum?

The eardrum (tympanic membrane) is a thin layer of tissue between the ear canal and the middle ear. A hole in it is called a perforation. It can happen at any age.

Common causes

- Middle ear infections – acute or long-standing (chronic otitis media), the most common cause
- Injury – a slap or blow to the ear, or a cotton bud or other object pushed too far
- Sudden pressure change (barotrauma) – flying, diving or an explosion
- A hole that stays open after a grommet (ventilation tube) comes out

Symptoms

- Hearing loss, which may be mild or more noticeable
- Discharge from the ear, especially with colds or after water gets in
- Ringing in the ear (tinnitus)
- After an injury: sudden pain, sometimes bleeding, and occasionally dizziness

Will it heal by itself?

Many perforations – especially small ones from a recent injury or pressure change – heal without surgery. Studies report that about **53–94% of acute traumatic perforations close on their own**, usually within 1–3 months. For a recent, small, dry perforation, the usual advice is to keep water out of the ear, avoid blowing the nose hard, and have the ear checked again in a few weeks.

Perforations are less likely to heal by themselves when they are large, long-standing, or caused by chronic infection.

When is repair recommended?

- The perforation has not healed after a period of observation (often 2–3 months)
- Repeated ear discharge or infections, particularly with water exposure
- Hearing loss that is bothersome
- To allow swimming and water activities without infection
- When there is concern about cholesteatoma (skin growing behind the eardrum), which needs its own assessment

How is the eardrum repaired?

A small graft of your own tissue is placed across the hole, and the eardrum heals over it. The operation is usually done under general anaesthetic as day surgery.

Graft material

- **Temporalis fascia** – thin tissue from above the ear, the traditional graft.
- **Cartilage** – usually from the small flap in front of the ear canal (tragus) or the bowl of the ear. Pooled comparative studies show a higher graft take with cartilage than fascia (about **92% vs 82%**), with similar hearing results.

Surgical approach

Approach	What it involves	What the evidence shows
Endoscopic (keyhole), through the ear canal	A small telescope is used through the ear canal, usually with no cut behind the ear.	Graft success of about 93–95% in recent series, with hearing results similar to microscopic surgery and often less discomfort afterwards.
Microscopic	Done under an operating microscope, through the ear canal or through an incision behind the ear when more access is needed.	Similar graft success and hearing results; an incision behind the ear may be needed for large or difficult perforations.

How successful is surgery?

- Overall, the eardrum closes fully in roughly **86–95%** of operations, depending on the size of the hole, the graft and the technique.
- Most patients have a meaningful improvement in hearing, with average gains of about 6–14 decibels in the “air–bone gap” (the part of the hearing loss caused by the hole).
- Final results are usually assessed 3–12 months after surgery.

Possible complications

Complication	What the literature reports
Graft failure	The hole does not close or reopens in roughly 5–15%. A repeat repair is possible.
Taste change	The taste nerve runs just behind the eardrum. Temporary change in taste is not uncommon and usually settles within weeks to months; permanent change is rare.
Inner ear hearing loss	Uncommon; hearing is checked after surgery.
Dizziness	Brief dizziness for a few days is possible.
Infection or discharge	Uncommon, more likely if water gets in the ear too early.
Rare	Facial nerve injury, or skin trapped behind the new eardrum (cholesteatoma) forming later.

Recovery

- A dissolving pack or dressing is placed in the ear canal; the first check is usually at about 1–3 weeks.
- **Keep the ear completely dry** for several weeks (commonly 4–6) until you are told it has healed – no swimming, and protect the ear when showering or washing hair.
- **Flying:** usually avoided for a few weeks, as pressure changes can disturb the healing graft. Your surgeon will advise when it is safe.
- Avoid forceful nose blowing, heavy lifting and strenuous exercise for about 2 weeks. Sneeze with your mouth open.
- A blocked feeling, crackling noises and muffled hearing are normal in the first weeks while the pack dissolves.

Follow-up

Check-ups are usually at about 1–3 weeks, then around 2–3 months, with a hearing test once the ear has healed. Final graft and hearing results are assessed at 3–12 months.

Contact the rooms promptly if you notice

- Increasing pain, fever, or swelling or redness behind the ear
- Offensive discharge, or bleeding that does not settle
- Severe dizziness, a sudden drop in hearing, or facial weakness

Remember

- The numbers on this sheet summarise the published literature and describe groups of patients, not you as an individual. Your own risks and the best option for you will be discussed at your consultation.
- Appointments: Macarthur ENT, Gregory Hills and Campbelltown – (02) 4625 1682 · macarthurent.com.au. A GP referral is needed for a Medicare rebate.