

# ATRESIA: RECONSTRUCTION OF THE EXTERNAL EAR CANAL

## Risks, Complications and Post-operative Instructions

Creation of a new canal when atresia is present is usually combined with tympanoplasty. The surgery is done via a trans-canal approach, without major external incisions. Skin grafting is required to recreate the canal. These grafts are taken from the medial aspect of the upper arm. The surgery is perhaps the most demanding in otology and as with any surgery the gains also incur some risks. Importantly, keep in mind that surgery is not infallible; you may not benefit from the surgery and it is possible that the hearing may instead deteriorate. We hope that the information below will aid you in understanding the risks but also the expected results from your procedure. The surgery is very similar to the canalplasty techniques used for a variety of other chronic ear conditions, but is complicated by the atypical anatomy of congenital abnormalities

### More information

- [Inherited Conditions](#)
- [Microtia and Atresia](#)

## RISKS AND COMPLICATIONS

**Skin healing:** To obtain a well healed and wide external ear canal it is necessary to use a split skin graft from the inner aspect of the upper arm. The site is chosen for cosmetic purposes in the event of any visible subsequent skin irregularities. This may happen in perhaps 10-15 % of cases, but is usually minimal and unobtrusive.

### Hearing

Atresia is prone to unpredictable pathology. We take care to select only those cases that we feel have the best chances of hearing restoration, and achieve this in over 80% of cases. However, some cases will not gain the desired result. Many of these will benefit from second surgery, but a small minority will not, especially if nerve damage has occurred.

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#### **Other Locations**

Beenleigh

Sunnybank

Mt Ommaney

Caboolture

## Dizziness

Balance upsets after this form of ear surgery are unusual, but the ear is an organ of balance and this problem cannot be totally excluded, occurring in approximately 1 of 500 patients.

## ringing

Tinnitus (ringing or buzzing) is a problem in many ear surgery patients, due to the causative disease. After surgery it is common for this to become louder as the ear is shut off from extraneous noises, but generally fades as hearing recovers after the surgery. As with dizziness, a very tiny percentage of patients experience lingering louder tinnitus after surgery if complicated disease removal traumatises the nerve of the ear, which may be unavoidable.

## Facial Nerve paralysis

Even in expert hands paralysis of the side of the face may occur for a variety of reasons in ear surgery, in perhaps every 1-1000 cases. Congenital ear surgery not uncommonly encounters the nerve in an aberrant position, 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.

## Drum perforation

Generally in atresia cases drum healing is uneventful, but perforation may occur requiring limited revision surgery to overcome the problem, which is fortunately relatively rare.

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

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## POSTOPERATIVE INSTRUCTIONS

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 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.

Further cleaning is needed once or twice, then on less frequent occasions, perhaps once a year.

The upper arm skin graft site has an adhesive dressing. Leave this in place for one week then remove the dressing and clean the site, which will be reddened, similar to a "gravel rash" and perhaps a little moist, Cover with a light dressing until dry, to avoid chafing. The redness fades over 2-3 months leaving a slightly pale and irregular skin texture.

Water sports are not possible until the canal is well healed: 6 weeks.

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. 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 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 reconstruction of the canal and hearing in atresia cases 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.

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Please let us know at Queensland Otolology 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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