

CANALPLASTY SURGERY

Risks, Complications and Post-operative Instructions

Canalplasty surgery is undertaken when the entire external canal requires reconstruction to overcome congenital abnormalities, external canal disease, complications of previous surgery or other situations.

The surgery may require removal of diseased tissue from the entrance of the canal, the superficial soft tissue canal or the deeper bony section. Concurrent repair of the hearing may be also necessary.

The causative situation usually results in absence or destruction of the normal canal skin. Unlike other bodily skin, this tissue has the ability to grow out, along the canal, to self-clean the area. This function is lost if the skin is irreversibly damaged, when the canal must be grafted with fine grafts from elsewhere. As a result, fine shedding of dead skin gradually occurs. This requires occasional cleaning, and the canal should be slightly widened to aerate the site to prevent humidity and infection.

Canal reconstruction surgery is optimally performed via a direct approach along the canal itself. Occluding superficial skin and soft tissues are removed as a small “core”, then the deeper bone canal obstruction overcome by drilling away the obstruction down to the eardrum site. Any drum or chain repairs are then performed.

Fine skin grafts are shaved, usually from the armpit, and are then used to line the new canal completely, stabilised by non-adherent canal dressing that are left in place for three weeks. After removal, the canal is cleaned and ear drops are used for a further fortnight at which time the canal is totally healed.

The axilla graft removal site resembles a superficial “gravel rash” and is dressed with non-adherent dressing, removed after a week.

More information

- External Canal Surgery
 - i. [Theory](#)
 - ii. [Canal Widening Surgery](#)
 - iii. [Total Canalplasty](#)
 - iv. [Canal Surgery Outcomes](#)

“Silverton Place”

101 Wickham Terrace
Brisbane Qld 4000

P: 07 38397677 F: 07 38325723

Other Locations

Beenleigh Sunnybank Mt Ommaney Caboolture

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. After removal of the dressings, it is wise to cover the site for a fortnight to minimise abrasion or irritation.

Hearing

Canalplasty uses extensive intra-canal grafting, prone to unpredictable pathology. Usually this has little effect on hearing as such, but occasional scarring may occur; this can normally be corrected. Any associated drum or chain repairs may encounter problems that are unrelated to the canal repair. Many of these will benefit from second surgery, but a small minority will not, especially if nerve damage has occurred.

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. Canalplasty procedures may encounter 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.

"Silverton Place"

101 Wickham Terrace
Brisbane Qld 4000

P: 07 38397677 F: 07 38325723

Other Locations

Beenleigh

Sunnybank

Mt Ommaney

Caboolture

Drum perforation

Generally in these 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 just under the drum, and if this is damaged the nerve may be bruised or cut in the course of the procedure. Taste disturbance occurs in some 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.

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.

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

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.

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.

"Silverton Place"

101 Wickham Terrace
Brisbane Qld 4000

P: 07 38397677 F: 07 38325723

Other Locations

Beenleigh

Sunnybank

Mt Ommaney

Caboolture

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 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

"Silverton Place"

101 Wickham Terrace
Brisbane Qld 4000

P: 07 38397677 F: 07 38325723

Other Locations

Beenleigh

Sunnybank

Mt Ommaney

Caboolture