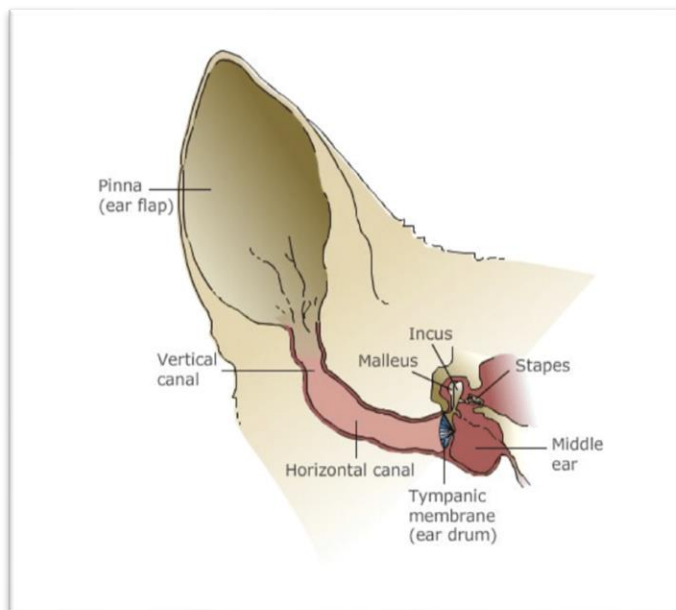


Total Ear Canal Ablation and Bulla Osteotomy (TECA-BO)

The Procedure

TECA-BO is performed mainly in dogs and cats with chronic ear disease that either doesn't, or has stopped responding to medical management. This may be due to the inherent conformation of the ear, or associated with long term changes that the ear canal can go through, due to long term ear disease and recurrent infection. It is on occasion performed in animals with tumours isolated to the vertical or horizontal ear canal.

The aim of the surgery is to remove the entire lining of the ear, so that further infection is not possible, or so that tumour tissue is removed.



Complications of this surgery, discussed further on in this information sheet, can involve facial nerve paralysis, vestibular (balance) dysfunction and Horner's syndrome. However, some of these problems may be caused by middle ear infection, therefore assessment of this prior to surgery will avoid having them considered as surgical complications.

The surgery involves removal of the entire ear canal (vertical and horizontal sections) hence "total ear canal ablation", as well as the lining of the middle ear, which is situated inside the tympanic bulla. The tympanic bulla is a bony prominence at the base of the skull. Opening of this bulla is termed "bulla osteotomy" and allows access to and removal of diseased tissue and epithelial lining.

Surgical Site - This will need to be protected from interference from your pet to minimise complications. This means that a buster collar will need to be worn for the duration of time that the skin needs to heal (10 days). It can be removed for your pet to eat or drink if they struggle with it on, but it must be replaced at all other times. Due to the surgical site being potentially being traumatised by taking the buster collar on and off, only do this if it is absolutely necessary.

This wound will need to be checked twice a day. Please report any swelling of, weeping from or breakdown (opening) of the wound.

We recommend cold and warm compress from a pain relieving and healing perspective:

- 3 days cold compress – a cold pack wrapped in a thin towel to protect the skin, to be applied over the surgical site for 10 minutes three times a day, for 3 days.
- 3 days warm compress – a warm pack wrapped in a thin towel to protect the skin, to be applied over the surgical site for 10 minutes three times a day, for 3 days.

Medication – This will be detailed on a separate post operative discharge sheet but will involve:

- 5 day course of antibiotics.
- Non Steroidal Anti-inflammatories (NSAID) for 2-4 weeks.
- Paracetamol for approximately 5 days.
- Gabapentin may also be dispensed.

Post operative checks – 3 days post operatively to check the surgical site and 10 days post operatively to check the surgical site, and remove skin sutures if present.

Exercise – As the tissue heals, we would recommend not walking your dog to prevent problems with sutures catching on anything, or unwanted play/interference from other dogs or cats. Toileting in the garden should be fine for dogs, with house rest and litter availability for cats. After 10-14 days normal activity can resume.

Post operative expectations and potential complications

The aim of this surgery is to remove a source of recurrent infection and pain, or tumour.

As the entire ear canal is being removed, hearing will be affected. Many of the patients having this surgery will have had a history of chronic ear disease, and with that, comes a degree of hearing loss. We have some patients who do not appear to have a “change” in what they can hear as it stays the same post operatively, as it was pre-operatively.

Despite modern antibiotics, preparation techniques and disposable drapes and gowns, infection can occur. Added to this, as it is often infected tissue that is being removed, the risk for post-operative infection is slightly higher with this specific surgery. The reality is that we do not often see infections, and the treatment is often just a course of antibiotics.

Due to the vasculature (blood supply) within in the region where this surgery is being performed, haemorrhage (bleeding) can occur.

The facial nerve which controls the blink reflex, tear production and some facial muscles runs very close to the horizontal ear canal that is removed and can therefore be stretched. In some cases, with very diseased ear canals, the facial nerve can become incorporated in the tissue that needs to be removed, so damage is inevitable. Temporary facial nerve paralysis due to nerve bruising or stretching during the procedure, can occur in 25% dogs and up to 56% cats. This normally resolves within 2-3 weeks but eye lubricants will be required in this time, as the blink reflex and tear production are reduced. Unilateral lip droop can also be evident.

Permanent facial nerve paralysis is less common, but can occur.

The nerves responsible for hearing and balance are found in the inner ear, which is next to the middle ear. Occasionally damage to these structures can occur. Damage to the balance

apparatus is a serious complication, and some patients may not recover. This complication is very rare.

In cats, a transient syndrome called “Horner’s syndrome” can occur. The eye appears to be sunken (with the third eyelid covering some of the front of the eyeball), the eyelids themselves will be closer together so it will look like the cat is squinting, the pupil will also be constricted. This should resolve within 2-3 weeks.

It is possible, but rare, for the infection associated with diseased ear lining, to recur. This usually happens if infected tissue removal is incomplete. The surgeon will on occasion need to balance the need to prevent infection, with the need to avoid damage to the inner ear. If insufficient middle ear lining is removed, then abscessation can occur requiring further surgery.