



Otitis Externa (Ear Infections)

What is otitis externa?

Otitis externa is inflammation or infection of the outer ear canal, the portion of the ear outside the eardrum.

What causes otitis externa?

There are many triggers, including:

- *Allergic skin disease (atopic dermatitis)* this is by far the most common cause
- *Foreign bodies* such as grass seeds
- *Parasites* such as ear mites
- *Hormone disorders* such as hypothyroidism or Cushing's disease, but this is less common
- *Tumours or polyps* but this is uncommon

Some dogs have factors which make them more at risk of otitis, such as:

- *Ear shape* like narrow ear canals (e.g. Shar Peis), floppy ears (e.g. Bassett Hounds), hairy ears
- *Swimming*

Dogs who have had previous ears infections become even more prone to future ear infections as their ears may become thickened and narrowed over time.

What are the signs of otitis?

Not all dogs will show the same signs, but look out for:

- Scratching at the ears
- Smelly ears
- Head-shaking or flapping, sometimes head tilting
- Redness or thickening in the ears
- Excessive wax or discharge from the ears

How is otitis externa diagnosed?

Your vet may suggest:

- *A physical exam* i.e looking down the ears with an otoscope, and assessing the rest of the skin
- *Cytology* where your vet takes a smear of material from the ear canal and looks under a microscope*
- *Culture* where your vet takes a swab to send to a lab, both to see which organisms are growing down there, and which antibiotics/antifungals they will respond to**
- *Blood tests* if a hormone disorder is suspected

**Cytology* is important because you cannot always tell whether an infection is present, or which organisms are responsible, just by looking down the ear. Cytology may be performed before treatment to select the best medication, and is often repeated after treatment to ensure the infection is gone.

***Culture* is especially important if an ear infection fails to respond to initial medications, recurs, or if your vet sees aggressive bacteria (rods) on cytology.

How is otitis externa treated?

Topical/In-Ear Treatments

If a *bacterial or yeast or parasite infection* is present, antibiotic/antifungal/anti-parasite medications are applied directly into the ear (antibiotics given by mouth often cannot reach the ear canal), either by:

- Daily or twice-daily drops (e.g. *Surolan/Canaural*), often alongside ear cleaning
- A one-off treatment gel applied by your vet (e.g. *Neptra*) which acts for 4 weeks

If a *foreign body* is present, your vet will need to remove it, often under sedation.

Oral/Tablet Treatments

Often, severely-affected ears are too narrow or painful to treat. If this is the case, your vet may prescribe steroid tablets to reduce the swelling and open the canals before applying treatment.

Ear Flushing

Some ears contain too much debris to treat, or need antibiotics that only work in a clean canal. In this case, your vet may suggest giving your dog a deep ear cleaning under sedation or anaesthetic.

Surgery

Severely-affected ears (usually those which have had repeated or long-term unresolved infections) may reach a point where the above treatments will no longer work. These patients may require surgery called a Total Ear Canal Ablation (TECA) to remove the canal and relieve the pain.

Key things to bear in mind about treating ear infections:

- *Any underlying cause must be treated to reduce the chances of the infection coming back. Usually, this means treating an underlying skin allergy, even once the ear infection is gone.*
- *The infection must be completely resolved to prevent it coming back, which may mean treating even after your dog's symptoms appear to have gone, and having repeat cytology performed*
 - *Please attend your recheck appointment after a course of ear treatment.*
- *Repeatedly using antibiotics in ears encourages resistant bacteria to grow in there, which may result in infections that don't respond to any antibiotics (multi-resistant infections). Your vet will try to avoid this by:*
 - *Only using antibiotics when they are sure an infection is present*
 - *Using cytology to predict which antibiotics will work, and check they have worked*
 - *Using culture to select an antibiotic when there is suspicion of aggressive bacteria*
 - *Working with you to treat the underlying trigger e.g. skin allergies*



What are the potential complications of otitis externa?

Occasionally, infections can rupture the eardrum and cause infection of the middle ear (called otitis media) and this requires different treatment. Uncontrolled or repeated infections can lead to chronic pain and deafness.

How can the risk of repeated infections be reduced?

Some dogs will always be at increased risk of repeated infections, but if your vet identifies your dog as at-risk, they may suggest:

- *Regular ear cleaning*, sometimes with a particular product targeted to your dog's problem
- *Diet modification or allergy medications* if your dog has an underlying allergy (see our Atopic Dermatitis sheet for more information)
- *Steroid ear drops* for dogs who have persistently inflamed ears due to allergies

Careful monitoring, seeing a vet as soon as you see signs, and attending rechecks is essential!

Useful Resources MSD Vet Manual Otitis Externa for Owners <https://www.msdtvetmanual.com/dog-owners/ear-disorders-of-dogs/ear-infections-and-otitis-externa-in-dogs>