



OTITIS EXTERNA (EAR INFECTIONS) IN DOGS

Infection of the external ear canal (outer ear infection) is one of the most common types of infections seen in dogs. It is called *otitis externa*. Some breeds, particularly those with large, floppy or hairy ears like Cocker Spaniels, Bassett Hounds, Miniature Poodles or Old English Sheepdogs, are more prone to ear infections, but ear infections may occur in any breed.

What are the symptoms of an ear infection?

Ear infections are painful. Many dogs will shake their head and scratch their ears trying to get the debris and fluid out. The ears often become red and inflamed and develop an offensive odor. A black or yellowish discharge commonly occurs.

Diagnosis

First, the ear canal is examined with an otoscope, an instrument that provides magnification and light. This examination allows your veterinarian to determine whether the eardrum is intact and if there is any foreign material in the canal. When a dog is in extreme pain and refuses to allow the examination, it may be necessary to sedate or anesthetize the dog for a thorough examination.

The next step is to examine a sample of the material from the ear canal under a microscope to determine the type of organism causing the infection (ear cytology). Microscopic examination is important in helping the veterinarian choose the right medication to treat the inflamed ear canal. Culture and sensitivity tests are often used in severe or chronic ear infections.

How are ear infections treated?

The results of the otoscopic and microscopic examination usually determine the diagnosis and course of treatment. If there is a foreign body, wax plug or parasite lodged in the ear canal, the dog is sedated for removal. Some dogs must be sedated to allow thorough ear flushing and cleaning. Cytologic study of debris from the ear canal determines which drug to use. Many dogs will have more than one type of ear infection present (e.g., a bacterium and a fungus, or two kinds of bacteria).

An important part of the evaluation of the patient is the identification of underlying disease. The most common primary reason for ear infections is allergies. If an underlying disease is suspected, it must be diagnosed and treated, or the pet will continue to experience chronic ear problems. In most cases, recommendations for primary allergy treatment will be made in addition to treatment of the ear infection, such as immunotherapies like Apoquel or Cytopoint.

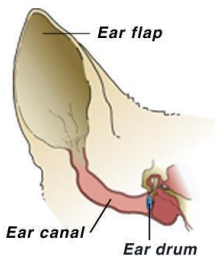
The mainstay of treatment for an ear infection includes topical therapy that usually includes an antimicrobial, anti-fungal and glucocorticoid. These topical medications are often deactivated by discharge/debris, therefore proper ear cleanings before applying are performed.

In some cases, the degree of inflammation and pain can influence the veterinarian's decision to add in an oral anti-inflammatory during the course of treatment as well, such as glucocorticoids or steroids. Not only can steroids relieve pain/inflammation to aid in cleaning and administration of medication in the ears, but they can also disrupt the biofilm formation and help to prevent the development of chronic otic changes.

Nearly all ear infections that are properly diagnosed and treated can be successfully managed. However, if an underlying cause remains unidentified and untreated, the outcome will be less favorable. It is important to recheck with your veterinarian as instructed to ensure clearance of infection.

How important is it to treat an ear infection and what complications can occur?

Dogs with ear infections are miserable. Their ears are a source of constant pain resulting in head shaking and scratching. Head shaking and scratching can also cause broken blood vessels in the ear flap called ear hematoma, which requires surgical treatment. Chronic ear infections can penetrate the eardrum and result in an internal ear infection and permanent hearing loss. Additionally, repeated chronic inflammation within the ear canal can result in overgrowth of tissue, scarring of the canal, reformation of tissue, mineralization, etc. These changes can result in narrowing of the ear canal resulting in reduction in normal functions of the ear, making it much harder to clear infections. In some cases, the canal can become so narrowed, surgery is indicated through a referral facility.



Normal ear anatomy of the dog

It is important to get the medication into the horizontal part of the ear canal. Unlike our ear canal, the dog's external ear canal is "L" shaped. The vertical canal connects with the outside of the ear and is the upper part of the "L". The horizontal canal lies deeper in the canal and terminates at the eardrum. Our goal is to administer the medication into the lower part of the "L" - the horizontal ear canal.

The ear canal may be cleaned by following these steps:

1. Gently pull the earflap straight up and hold it with one hand.
2. Apply a generous amount of cleanser into the vertical part of the ear canal while continuing to keep the earflap elevated (enough cleanser that you can see the cleanser start to spill over out the top).
3. Put one finger in front of and at the base of the earflap and put your thumb behind and at the base.
4. Massage the ear canal between your finger and thumb. A squishing sound tells you that the cleanser has gone into the horizontal canal.
5. Use cotton balls, cotton rounds, or gauze pads (can soak these in cleanser as well) to wipe the accessible portion of the ear until no debris is remaining. Do not use cotton tipped applicators.
6. Video to reference: <https://www.youtube.com/watch?v=scy7sxJKhII>
7. Recommended routine ear cleansers include Dechra EpiKlean or Virbac EpiOtic

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<https://www.ncbi.nlm.nih.gov/patent/?term=patent%20for%20the%20treatment%20of%20canine%20otitis%20externa>

<https://pubmed.ncbi.nlm.nih.gov/3061659/>

<https://pubmed.ncbi.nlm.nih.gov/30629407/>

Bajwa J. Canine otitis externa - Treatment and complications. Can Vet J. 2019 Jan;60(1):97-99. PMID: 30651659; PMCID: PMC6294027.

This client information sheet is based on material written by Ernest Ward, DVM.
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