



## OTITIS EXTERNA (EAR INFECTIONS)

### How common are ear infections in dogs?

Infection of the external ear canal (outer ear) by bacteria or yeast, is one of the most common types of infections seen in dogs. It is called otitis externa. Some breeds, particularly those with large or hairy ears like Cocker Spaniels, Miniature Poodles or Old English Sheepdogs, seem more prone to ear infections, but they can occur in any breed.

### What are the symptoms of an ear infection?

A dog with an ear infection is uncomfortable and the ear canals are sensitive. The dog shakes its head and scratches its ears trying to get the debris and fluid out. The ears often become red and inflamed and develop an offensive odour. A black or yellowish discharge commonly occurs.

### Don't these symptoms usually suggest ear mites?

Ear mites can cause several of these symptoms, including a black discharge, scratching, and head shaking. However, ear mite infections occur most commonly in puppies. Ear mites in adult dogs occur most frequently after a puppy carrying mites is introduced into the household. Sometimes, ear mites will create an environment within the ear canal which leads to a secondary infection with bacteria and yeast (fungus). By the time the dog is presented to the veterinary surgeon, the mites may be gone, but a significant ear infection remains.

### Since these symptoms are similar and usually mean an infection, can I not just collect some medication?

There are several kinds of bacteria and at least one type of fungus which might cause an ear infection. Without knowing the kind of infection present, we do not know which medication to use. In some cases, the ear infection may be caused by a foreign body or tumour in the ear canal. Treatment with medication alone will not resolve these problems. Also, the dog must be examined to be sure that the eardrum is intact. Administration of certain medications can result in loss of hearing if the eardrum is ruptured. This determination is made by the veterinary surgeon at the surgery.

### How do you know which drug to use?

First, the ear canal is examined with an otoscope, an instrument that provides magnification and light. This permits a good view of the ear canal. This examination allows us 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 completely anaesthetise 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 which organism is causing the infection. Microscopic examination is very important in helping the veterinary surgeon choose the right medication to treat the inflamed ear canal. Further bacteriological examination may also be necessary before treatment is started.

## **How are ear infections treated?**

The results of the otoscopic examination and bacteriology usually determine the course of treatment. If there is a foreign body or tick lodged in the ear canal, the dog is sedated so that it can be removed. As stated previously, some dogs have such a heavy buildup of debris that sedation is needed to cleanse the canal and examine it completely. Cytologic study of debris from the ear canal dictates which drug to use. Sometimes, it reveals the presence of more than one type of infection (i.e., a bacterium and a fungus, or two kinds of bacteria); this situation usually requires the use of multiple medications or a broad-spectrum medication.

An important part of the evaluation of the patient is the identification of underlying disease. Many dogs with chronic or recurrent ear infections have allergies or low thyroid function (hypothyroidism). If underlying disease is suspected, it must be diagnosed and treated, if at all possible. If this cannot be done, the dog is less likely to have a favourable response to treatment. Also, the dog might respond temporarily, but the infection will recur (usually when ear medication is discontinued).

## **What is the prognosis?**

Nearly all ear infections that are properly diagnosed and treated can be cured. However, if an underlying cause remains unidentified and untreated, the outcome will be less favourable. Several examinations may be needed before the process is completed and we can expect ultimate success.

## **How important is it to treat an ear infection?**

Dogs with ear infections are miserable. Their ears are a source of constant pain resulting in head shaking and scratching. However, that is not the only problem. Head shaking and scratching can also cause broken blood vessels in the ear flap, requiring surgery, and chronic ear infections can penetrate the ear drum and result in an internal ear infection.

## **My dog's ear canal is nearly closed. Is that a problem?**

Closing of the ear canal is another result of a chronic ear infection. There are medications that can shrink the swollen tissues and open the canal in some dogs. However, some cases will eventually require surgery.

## **What is the goal of surgery?**

The surgery for a closed ear canal is called a lateral ear resection. The goal of the surgery is to remove the vertical part of the ear canal and to remove swollen tissue from the horizontal canal. Removing the vertical canal should be successful, but removal of large amounts of tissue from the horizontal canal is more difficult. In some cases, the ear canal is surgically removed which may result in some permanent impairment of hearing.

## **Is there anything I need to know about getting medication in the ear?**

It is important to get the medication into the horizontal part of the ear canal. Be aware that the dog's external ear canal is "L" shaped. The vertical canal connects with the outside of the ear; the horizontal canal lies deeper in the canal and terminates at the eardrum.

The ear canal may be medicated by following these steps:

1. Gently pull the ear flap straight up and hold it with one hand.
2. Apply a small amount of medication into the vertical part of the ear canal while continuing to keep the ear flap elevated. Hold this position long enough for the medication to run down to the turn between the vertical and horizontal canal.
3. Put one finger in front of and at the base of the ear flap, 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 medication has gone into the horizontal canal.
5. Release the ear and let your dog shake its head. If the medication contains a wax solvent, debris will be dissolved so it can be shaken out.
6. If a second medication is to be used, apply it in the same manner.
7. When all medications have been applied, clean the outer part of the ear canal and the inside of the ear flap with cotton wool soaked in some of the medication. Do not use cotton tipped applicators to do this as they tend to push debris back into the vertical ear canal.