

EAR DISEASE IN DOG

Every day we see dogs that have problems with their ears. Signs of these ear problems include:

- Odor
- Scratching or rubbing of ears and head
- Discharge in the ears
- Redness or swelling of the ear flap or canal
- Shaking of the head or tilting it to one side
- Pain around the ears
- Changes in behaviour such as depression or irritability

Ear disease is one of the most common conditions we see in pets. The medical name for inflammation of the outer ear canal is 'otitis externa.' It is estimated that up to 20% of the dog population is affected by this disease. Dogs can have ear problems for many different reasons. When we see a dog with ear disease we need to think about the possibility of:

- Allergies such as atopy or food allergies
- Parasites – ear-mites.
- Infections - bacteria and yeast
- Foreign bodies, e.g., plant awns
- Trauma
- Hormonal abnormalities, e.g., hypothyroidism
- The ear environment, e.g., excess moisture and ear anatomy
- Hereditary or immune conditions, and tumors

Allergies: Dogs with allergies, either to food or something they either inhale or that contacts their skin, often have ear problems. As a matter of fact, the ear problem may be the first sign of the allergy. Since the allergy changes the environment within the ear, we sometimes see secondary infections with bacteria or yeast. If we just treat the ear infection, we are not getting to the root of the problem. We need to treat the allergies too.

Parasites: The ear mite, *Otodectes cynotis*, is a common cause of ear problems in cats, but less common in dogs. Some dogs are hypersensitive to the mites, however, and the resultant itching can be intense. These dogs may scratch so much they severely traumatize the ear.

Ear Infections: Numerous types of bacteria and the yeast, *Malassezia pachydermatis*, cause ear infections. The normal, healthy ear has a good defence against these organisms, but if the ear environment changes due to allergies, hormone abnormalities, or moisture, the bacteria and yeast can greatly multiply and break down these defences.

Foreign Bodies: Plant awns, those little "stick-tights" that cling to our clothes and our dogs' fur, can sometimes enter the ear canal. Their presence causes irritation, the dog scratches, and before you know it we have a traumatized, infected ear so when you groom your dog after a walk in the woods, be sure to check the ears, too.

Trauma: As we described above, self-inflicted trauma to the ear due to scratching can exacerbate ear problems.

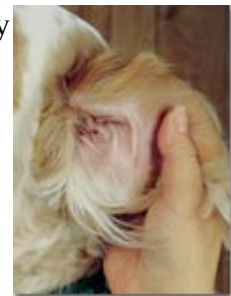
Hormonal Abnormalities: Deficiencies or excesses of various hormones can result in skin and ear problems. Thyroid hormone, glucocorticoids produced by the adrenal gland, and sex hormones all influence the health of the skin and ears.

Ear Environment: Bacteria and yeast could not ask for a better environment to live in than a warm, dark, moist ear canal. Dogs with heavy, floppy ears such as Cocker Spaniels may have ear problems due to the excess moisture that builds up in their ears.

Other Causes: There are various rare hereditary diseases that occur in different breeds or lines and affect the ears. These include dermatomyositis in Collies and Shetland Sheepdogs, and primary seborrhea in Shar Peis and West Highland White Terriers. Squamous cell carcinomas, melanomas, and other tumors can be seen in the ears.

DIAGNOSIS

Because there are many potential causes of ear problems, we cannot just say it is a bacterial ear infection, dispense antibiotics, and it will go away. Often, more work is needed. Your veterinarian can use an otoscope to look down into the ear canal and determine the amount of inflammation present, if the tympanic membrane (ear drum) is involved, and if there are any foreign bodies, tumors, or other potential causes of the problem. Swabs of the ear can be taken, smeared on a microscope slide, stained, and examined for bacteria, yeast, and mites. A thorough history and physical exam may help determine if this could be a hormonal, allergic, or hereditary problem. If these are suspected, further diagnostic testing would be needed. If a bacterial infection does not respond to the first antibiotic therapy, a culture and sensitivity may need to be performed to select a different antibiotic.



TREATMENT

The treatment is going to depend on what caused the ear problem and what secondary conditions are there as a result. Antibiotics are used for bacterial infections and antifungal for yeast infections. Glucocorticoids such as dexamethasone are often included in these preparations to reduce the amount of inflammation in the ear. Ear problems caused by a systemic disease such as a hormone abnormality or allergy must include a therapy that treats the whole dog, such as hormonal replacement or allergy testing and hypo sensitization (immunotherapy).

Allergies: Allergies are commonly treated with regular ear cleaning with an ear cleaning solution, antihistamines, and fatty acid supplements. Sometimes corticosteroids are needed. These may be given in an oral or injectable form, or they can be applied topically. Allergy testing and immunotherapy (hyposensitization) may be the best way to cure the ear problem.

Ear mites: Ear mites can cause dry, dark, crumbly debris in the ear that resembles coffee grounds. For this condition, ear cleaning followed by an ear medication to kill mites will

eliminate the problem, although the treatment may need to be continued over several weeks depending upon the product used.

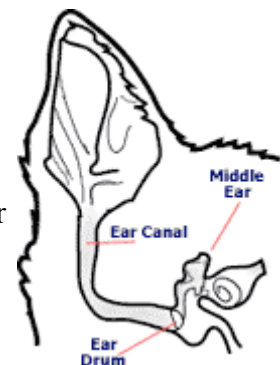
Yeast: Yeast can cause severe ear problems. We usually observe a brown waxy exudates and a bad odour. Daily cleaning of the ears will help, but often these infections are difficult to treat, and special medications need to be given since antibiotics do not kill yeast. If you suspect a yeast infection in your dog's ears, consult your veterinarian.

Bacterial Ear Infections: Bacterial ear infections can also have a bad odour and often have more yellowish exudates. If it is a severe or chronic condition, ear cleaning alone will not take care of the problem and antibiotics will almost always be necessary. Again, consult your veterinarian. Ear infections of the canal, if severe, can spread to the middle and inner ear, so prompt attention to the problem is always best.

Regardless of the cause of the ear disease, we must always keep the ear canal clean.

Cleaning ears

Your dog's ear is more L-shaped than yours, and debris loves to collect at the corner of the L. To remove this debris, apply an ear cleaner into your dog's ear canal. Ear cleaners should be slightly acidic but should NOT sting. Massage the base of the ear for 20-30 seconds to soften and release the debris. Wipe out the loose debris and excess fluid with a cotton ball. Repeat this procedure until you see no more debris. Let your dog shake his head to remove any excess fluid. When you are through, wipe the dog's ear flap and area below the ear gently with a towel. Depending on your dog's ear condition, you may have to start out cleaning the ears twice a day. Always follow your veterinarian's recommendations.



Cotton applicator swabs can be used to clean the inside of the earflap and the part of the ear canal you can see. They should NOT be used farther down in the ear canal since that tends to pack debris in the ear canal, rather than help to remove it.

Some ear problems are so painful; the dog must be anesthetized to do a good job of cleaning the ears. You may find your dog does not like to have his ears cleaned because it is uncomfortable. Talking to him during the process, stopping momentarily to give him a treat if he is doing well (we do not want to reward fussiness!) and doing something fun afterwards may all help.

After the ear is clean, allow some time for the ears to dry. Then you can apply any ear medication that was prescribed.

PREVENTING EAR DISEASE

The key to healthy ears is to keep them clean. Check your dog's ears weekly. A slight amount of waxy build-up may be present in normal ears. If your dog swims a lot, has pendulous ears, or a history of ear disease, routine cleaning (often once to three times per week) is recommended. Use the same procedure as described above. Excess hair around the ear can be clipped to allow more air flow. Follow your veterinarian's recommendation on how to treat any underlying condition that predisposes your dog to ear problems.

Remember, if your dog is showing severe discomfort, the ears have a bad smell, or the ear canals look very abnormal, do not delay in contacting your veterinarian. If your dog has a ruptured or weakened eardrum, some ear cleansers and medications could do more harm than good.