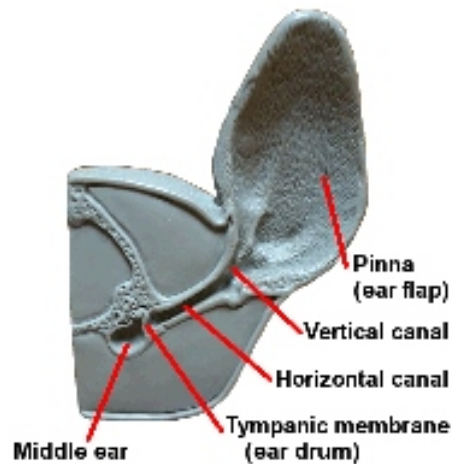


YEAST OTITIS

(EAR INFECTION WITH YEAST FUNGUS)



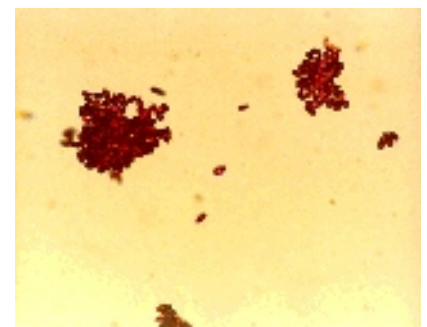
Dogs seem to get ear infections with a surprising frequency and some dogs have to deal with ear infections nearly constantly. When one considers that human ear infections seem few and far between, one wonders how man's best friend came to be so unlucky. It turns out there are a couple of factors at work: the shape of the ear canal and the common frequency of conditions leading to excess ear wax.

the dog's ear is structural. As demonstrated by the above illustration, the dog's ear canal has both a vertical and a horizontal component, unlike the human ear canal which goes straight in. This "J" shape of the dog's ear creates a predisposition to ear infections as debris must work its way upward rather than straight out. If ear wax cannot get out, it accumulates. Accumulation of ear wax, skin oil, and other debris feed the bacteria and fungi that live in the normal ear canal leading them to proliferate. Soon an infection results.

Anything that facilitates ear wax accumulation, sets the stage for ear infection. It might be the narrowed ear opening of the Shar pei further hampering ear drainage, irritation from water in the ear canal after a bath, or actual disease causing over-production of ear wax. Allergic skin disease affecting the ears is the most common cause for recurring increased ear wax production/ear infection; other causes of ear infections include ear mites, and foreign bodies in the ear (such as grass awns or foxtails), or hair growth deep in the canal (common in poodles and schnauzers especially). The moisture of the wax promotes bacterial growth, yeast proliferation, and perhaps even pus development.

Yeast infection is the most common type of ear infection in dogs. The yeast organisms are fungi called *Malassezia pachydermatis* and they are normal on the skin and in the ears. When the ear becomes inflamed and the canal environment changes, the yeast overgrow and create a brown or gray, greasy ear discharge. It is especially itchy and somewhat smelly. It isn't long before the pet is seen scratching at his or her ears, shaking his or her head or holding one ear slightly dropped. Discharge and odor may be noticeable to the owner.

Yeast overgrowth can have many underlying causes but allergy is particularly common. If the ear infection involves the ear flap or entrance to the ear canal rather than the canal itself, this is a special hint that allergy is at the root of the problem. In these patients, ear infections are often recurrent and accompanied by other skin disease. Regular ear washes at home are frequently needed to disinfect the ear and control the recurrent inflammation.



The dark footprint-like structures seen here are the yeast organisms: *Malassezia pachydermatis*.

TREATMENT OF EAR INFECTIONS

LEVEL ONE: THE SIMPLE EAR INFECTIONS

Most ear infections are cleared up simply with professional cleaning followed by medication at home. If only mild debris is present in the ear canals, simple disinfection and washing of the ear is adequate; however, in many cases, a full ear flush is needed to even examine the eardrum. For patient comfort, we recommend sedation for this procedure as the ears are sore and the instruments can be damaging if the pet jumps at the wrong time. A sample of ear discharge is commonly examined under the microscope so as to assist in selecting medications for home use. After a couple of weeks of home treatment, the ear canals are rechecked to be sure the infection is gone. In most cases this completes treatment but for stubborn cases, we must proceed to the next step.

LEVEL TWO: ON-GOING EAR INFECTIONS

Some dogs have chronic ear problems (the infection is not controlled by general medication or returns when general medication is discontinued). In these cases, the ear discharge should be cultured so that the precise organism can be pinpointed and treated specifically. Regular treatment at home with disinfecting ear washes should become part of the pet's grooming routine.

Further testing may be in order to determine why the infection continues to recur. Allergy is the most common reason for recurrent ear problems but hormone imbalances can also be underlying causes.

LEVEL THREE: THE END-STAGE EAR

Some ear infections simply cannot be controlled with the above steps. These cases have transcended medical management and must proceed to surgical management. What this entails will depend on the state of the ear canal. Your veterinarian will make recommendations accordingly.

COMPLICATIONS OF YEAST EAR INFECTION

AURAL HEMATOMA

When a dog with uncomfortable ears shakes and scratches vigorously, a blood vessel in the earflap may rupture. This leads to bleeding into the tissues of the pinna (ear flap). The usual recommendation is to have the blood clots removed and the ear bandaged and cleaned under anesthesia. If the hematoma is not so big as to occlude the ear canal (thus preventing medication of the ear canal), the option to forgo surgery exists; but without surgery, the ear may scar down into an abnormal appearance.



Aural hematoma in a dog's earflap.

PROLIFERATIVE EAR CANAL CHANGE AND MIDDLE EAR INFECTION

A routine ear infection is uncomfortable enough but if the infection persists, it can become an even bigger problem. The infection can lead to proliferation and scarring in the canal which makes the infection especially difficult (and potentially impossible) to clear up. Yeast organisms are joined by resistant bacteria and the infection becomes even more difficult to address.

The ear canal may mineralize and the middle ear may come to be involved, leading to nerve damage. Affected animals may have a head tilt, a lack of balance, and unusual back-and-forth eye movements (called "nystagmus.") These symptoms are called "vestibular signs" and represent a special complication of middle ear infection. Middle ear infections can also cause paralysis of the facial nerve, leading to a slack-jawed appearance on that side of the face.

Severe cases may require surgical intervention to remove the vertical portion of the ear canal (lateral ear resection) or even remove and seal the ear canal (ear canal ablation). It is important to control ear infections before they reach this stage if at all possible.



**Chronic inflammation has
lead to proliferation**

Ear infections are common and can be challenging. Fortunately, most cases are simple and easily cleared up. Be sure to recheck the ears as your veterinarian recommends as premature discontinuance of treatment can lead to a continuing infection.

