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Ears

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(Minor editorial changes by E. Sell for the health web page)

Otitis externa, commonly known as ear infections, occurs in 5 -20% of dogs. Given the floppy ears Beardies have that figure is conservative; it would seem that the majority of Beardies will have at least one ear infection in their life.

Causes. Ear infections can be caused by a number of bugs, be they bacterial or fungal (yeast), and generally there will be more than one bacteria causing the problem, and fungi may be contributing too. Treating ear infections with antibiotics may result in an elimination of bacteria, but leave the field open for the yeasts to take over. Ear mites are more commonly a cause of infection in cats, but dogs are by no means immune to mites. Fleas, spinous ear ticks, *Demodex* (the mite that can cause mange), chiggers, and *Cheyletiella* (walking dandruff) can all cause problems. Foreign bodies, especially grass lawns, can create an environment more favorable for bacteria to take hold. Allergies, including food allergies, and contact sensitivities may result in other skin diseases and make the ear more prone to infection. Hypothyroidism and seborrhea are metabolic diseases which can cause severe ear infections, and the immune-mediated diseases lupus and pemphigus (which Beardies are prone to) can first manifest as ear infections.

Bacteria and yeast thrive in the warmth of the ear canal. The folded ear of the Bearded Collie creates a wonderfully cozy den for these bugs. Hair in the ears is a bone of contention among both Bearded Collie owners and veterinarians alike. Hair definitely makes it harder to keep the ear canal clean and provides additional surfaces for bacteria to become established on. Removing the shed hair and debris from the ear canal routinely is essential if we are to avoid ear infections. However, there are those who argue that leaving hair around the opening of the ear canal helps prevent foreign objects entering the ear and causing problems. Certainly removing attached hairs does cause some discomfort for the dog, whereas removing the crud doesn't, unless the ear is already infected.



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Course of Infection. Whatever the cause of an ear infection, and usually there is more than one contributing factor, the progression is the same. Inflammation damages the outer surface of the ear canal, the sebaceous (oil) and ceruminous (wax) glands get bigger and increase production. White blood cells and other good Samaritan cells rush in to do battle. Unfortunately, given the shape of the ear canal, the debris of dying cells, glandular secretions, not to mention moisture, foreign objects and hair is trapped. The damaged lining of the ear becomes eroded and ulcerated, and serum oozes out with more dead cells to block the ear canal and provide more grist for the bacterial mill. The metabolic diseases cause an increase in fatty acid secretion into the ear; parasites elicit allergic cellular responses as well as physically damaging the canal, and all will further clog up the works. If otitis is left untreated the dermal and epidermal layers of the canal thicken and the canal becomes narrowed and may eventually be completely occluded, trapping debris down next to the tympanic membrane (ear drum). Eventually the eardrum bursts and middle ear infection and bony destruction can result. At that point the ear canal must be removed partially or completely resulting in deafness. Fortunately, most Beardies aren't left to go that far, although the condition is particularly common in the cocker spaniel.

Cleaning the ears regularly will generally prevent most infections and nip those that do start in the bud before they go too far. If your dog has recurrent ear infections despite good hygiene, look for an underlying cause - this may be a yeast overgrowth resulting from too assiduous an application of aural antibiotics or one of the metabolic or autoimmune diseases mentioned above.

When cleaning dogs' ears you need to forget everything your mother told you about cleaning your own or other people's. It is virtually impossible to reach the canine ear drum in the awake dog, so rupturing the ear drum with a cotton-tipped swab is not an issue. In fact, the extra long swabs with cotton only at one end are one of my favorite tools for getting deep down clean. However, use sweeping circular motions, don't ram the crud further down into the ear as if you are loading a musket. On the other hand, putting fluid into the ear can cause problems. Due to the shape of the ear canal, liquid can and does pool in the horizontal canal, and bacteria just love that added moisture. There are those who argue that the dog will drain its ear when it shakes its head. Maybe they will if they don't have that big, thick, hair-covered curtain over the open end, but as Beardies do, I prefer not to pour anything into their ears. That goes for powder too, which again creates



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more surfaces and nooks and crannies for bacteria to set up housekeeping in.

Instead clean the inner surface of the ear using gauze pads and cotton-tipped swabs moistened with one of the ear cleaning products. My favorite happens to be Chlorhexi Derm Flush, not least because you can also use it to clean out skin wounds. However, its main ingredient is potentially ototoxic (ie, it can rot the eardrum), so don't just pour it in the ear. Large wads of hair and debris are most easily removed using the hemostat, a forceps like device with gripping edges that enables you to lift it out in globs. I prefer these to the hemostats which many people use, and which are basically the same except the latter have a locking device. If the dog moves, or you lock onto what you thought was hair but your view was obscured, you pinch the dog's canal tissue (ouch), and in the ensuing attempts on your part to free the instrument and his to get the hell away from the pain, serious damage to said tissue can occur, which leaves him very vulnerable to a major ear infection.

If, despite your best efforts, your Beardie does get an ear infection, take him to your veterinarian. If the ear infection persists and you just keep receiving the same drops, request that a swab be taken from the ear. Yeast spores, which look like little dumbbells, and few or no bacteria indicate a yeast overgrowth. Fungal infections are harder to treat, but do respond to fungicidal treatment. Given that you own a Beardie, don't overlook the possibility that he may be hypothyroid, and get a thyroid panel done.