



## Royal Animal Hospital – Ear Mites FAQ

### Answering Your Questions about Ear Mites (*Otodectes cynotis*)

#### What Are Ear Mites?

Ear mites are tiny infectious organisms resembling microscopic ticks. The mite can just barely be seen as a small white dot with the naked eye, but it usually must be detected by examination of a sample of ear wax under a microscope. Infection usually produces a characteristic dry black ear discharge commonly said to resemble coffee grounds. Because of the classical appearance of this discharge, infection is often diagnosed based on the presence of such discharge though without visual confirmation of the mite under the microscope, it is possible to be led astray. The discharge is composed of ear wax, blood, inflammatory biochemicals, and ear mites themselves.



#### The Bizarre Ear Mite Life Cycle

The mite lives on the surface of the ear canal skin, though sometimes migrates out onto the face and head of its host. Eggs are laid and hatch after 4 days of incubation. The larva hatches from the egg, feeds on ear wax and skin oils for about a week, and then molts into a protonymph, which in turn molts into a deutonymph. The deutonymph mates with the adult male. What seems especially bizarre to us mammals is that the deutonymph has not yet developed a gender at the time it mates with the adult male.

After mating, the deutonymph molts into either an adult male or an adult female. If she becomes a female, she will be gravid with eggs as a result of the mating. If he develops into a male, there are no consequences to the mating and he is ready to mate with deutonymphs of his own choosing. The adult mite lives approximately 2 months happily eating ear wax and skin oils. The life cycle (the time it takes for an egg to develop into an adult mite ready for parenthood) requires 3 weeks.

Most ear mite cases are found in cats. Dogs can be infected as well but since dogs more commonly get ear infections of other types, ear infections in dogs rarely involve mites.

#### How Did My Pet Get Ear Mites?

Ear mites readily transmit from host to host by physical contact. Ear mites came from some other animal with whom your pet has been socializing. Because mites are easily

transmissible by physical contact, treatment for mites often must include all household pets.

### **What Harm Comes from Ear Mite Infection?**

The presence of the mites is inflammatory and can generate very irritating ear infections. Skin disease can also result from infection by the ear mite.

### **Is This Contagious?**

Ear mite infection is certainly contagious among cats and dogs. Typically, the victim is an outdoor cat. Humans have been reported to develop skin rashes rarely; in general, we may consider that a human pet owner is extremely unlikely to experience any symptoms when their pet is infected with ear mites.

### **How Do I Get Rid Of Ear Mites?**

#### *Topical Treatments: At Least 3 Weeks Usage*

There are numerous products available for ear mite eradication. Most older and over-the-counter products contain insecticides that do not kill incubating mite eggs. Because of this limitation, such products must be used for at least the duration of the 21-day life cycle of the mite. Some specialists recommend a 30-day treatment course with such products.



Another topical product now available against ear mites is Revolution® (selamectin). A single application is used on the skin, the product is absorbed into the body where it kills numerous other parasites and then returns to be concentrated in the skin. Revolution® is primarily a flea control product but is approved for both dogs and cats for the treatment of ear mite infection. Continuing use of Revolution® for flea control has the added benefit of preventing further ear mite infections (especially helpful for outdoor cats). It is important to realize that Revolution® is a prescription medication and cannot be obtained without proper veterinary evaluation.

Further, while Revolution® use will kill the mites, ear cleaning is needed at the beginning of therapy (and possibly at the end) to remove the irritating wax and debris. Be sure to have the ears re-checked according to your vet's recommendations.



Success will not be met unless the ear canal is thoroughly cleaned. This is true whether a topical solution or one of the systemic products is used.

See general information on Revolution® from the manufacturer.

## What if They Just Don't Seem to Ever Go Away?

Occasionally, we receive messages regarding a case of ear mites for which "everything" has been used and the mites simply will not go away. In this situation consider the following tips:

1. Was the mite infection confirmed initially? Remember, it is easy to be fooled by the presence of a discharge that appears "mite typical."
2. Has the mite infection been confirmed after therapy? Sometimes, a telltale hard bit of ear wax must be removed from the ear before comfort is finally achieved. Sometimes a bacterial infection remains though the mites are long gone. Treating for ear mites when none are present will not achieve results.
3. Were all the hosts in the family treated? If all pets were not treated, begin again this time including all pets in the protocol.
4. Consider using one of the new products.

Do not make the diagnosis of ear mite infection yourself. If you think your pet has an ear infection, see the vet for proper evaluation rather jumping straight to an over-the-counter remedy. You will need the right diagnosis before you can intelligently choose an ear treatment product