

## “That Mangy Dog”

“I think my dog has mange”. This is a common lament from pet owners who have dogs with skin problems. The fact is, if your canine companion has skin problems he may have mange- but not likely. “mange” is a term used by many pet owners to describe any skin condition that looks particularly bad. Veterinarians use “mange” as a term to describe a narrow group of skin diseases caused by small parasitic skin mites. The severity of these skin problems can range from mild, almost unnoticeable hair loss to severe dermatological disasters. With few exceptions, mite induced skin disease is primarily a problem of young dogs. Mature animals can be infected with mange mites but it is much less common.

While there are several kinds of mange mites that can infect dogs, only three species are seen with any real frequency: Otodectes (or “ear mites”), Scabies, and Demodex. Each type of mite causes a distinctly different kind of skin problem.

Lets start with Otodectes. Most pet owners have heard of ear mites. These small mites are actually visible to the naked eye, but only if you have very good lighting and very good vision. Usually it’s easier to just look at them under the microscope. These mites only live in the ear and feed on the lining of the ear canal. As you might expect they can cause a lot of ear discomfort.

This ear itchiness can be so severe the pet may cause self-induced sores around the ears and face from all the scratching. The dog with ear mites typically has dry, dark brown debris in the ear canal. Some have called it a “coffee grounds” appearance. Finding a living, moving, mite among the debris makes the diagnosis rather easy.

Treatment for ear mites is also fairly straightforward, but there are some critical steps that cannot be left out. With all this “coffee-grounds” debris filling the ear canal, medications alone applied into the ear canal are destined for failure. A critical first step in treating ear mites (and any ear infection for that matter) is a gentle flushing out of the debris from the ear canal. This is a procedure that should be done by your veterinarian as it entails some risks of ear injury if not done carefully. Once the canal is flushed appropriate medication can be instilled into the ear canal to kill the adult mites. But this is not the end of the story.

In addition to adult mites in the ear canal, there are also mite eggs that are less susceptible, if not outright resistant, to commonly used medications. If we forget about these eggs and only treat the ears for a few days, these eggs will eventually hatch and “re-infect” the ears. Ear mite eggs take about 21 days to hatch. For this reason, treatment must continue daily for at least three weeks to assure there are no new generations of mites in the ear canal to cause further problems.

We see a lot of over-the-counter earmite medications in our practice. Pet owners bring them in to show us what hasn’t worked. The bottom line is any ear problem in a pet should be checked and treated by your veterinarian promptly. It will likely save you and your pet a lot of trouble.

Another mange mite that causes itchiness is the Scabies mite. This mite infection, again seen primarily in adolescent dogs, involves the skin and indeed causes intense itchiness. Some pet owners describe their dogs as so itchy that the dog cannot even sleep at night. The Scabies mite causes the severe itchiness by burrowing just under the skin surface. Common areas infected are the undersides of the legs and abdomen, the face and particularly the earflaps. Anywhere the hair-coat is naturally thin is a common site to see Scabies induced mange.

Where ear mange (ear mites) may be easy to diagnose, Scabies is much more difficult. The only way to conclusively diagnose scabies is to find a mite with a test called a skin scraping. Just as it sounds, a skin scraping involves scraping the surface of the skin with a surgical scalpel blade to try to pick up a mite or two. The problem is that the Scabies mites can be small in number and therefore difficult to find. Treatment of Scabies is relatively easy. Sometimes, if Scabies is highly suspected, treatment is started even if we cannot find a mite with a skin scraping. Very effective oral, topical, and even injectable medications are available for this purpose.

On occasion, the canine Scabies mite will infect people. In fact I often ask owners of itchy dogs if they too are itchy (commonly around the waist or midsection). If the answer is yes, Scabies mange is strongly considered as a reason for their dog’s itchiness. Fortunately, the canine Scabies mite really prefers

to live in dog skin. For this reason, most human infections with the dog Scabies mite are brief and self limiting; provided the dog is appropriately treated.

The third common mange mite of dogs is my personal favorite. Demodex mite is a unique mite that is specially designed to inhabit the hair follicle of the skin. The mite is actually cigar-shaped to fit into the hair follicle right next to the hair shaft. Mange caused by the Demodectic mite is also unique in two other ways. It generally is not an itchy disease, and it's not contagious to other pets or people.

The hallmark symptom of Demodectic mange is hair-loss; not a real big surprise considering where the mite resides. The hair loss is often spotty, frequently around the face and legs, with little other skin disease in most cases. As with other forms of mange, Demodex is seen usually in immature dogs.

Demodectic mange is my favorite because 85% of mildly affected cases spontaneously resolve as the pup matures, usually without any treatment. Mother Nature makes every veterinarian look good in these cases. Treatment, if necessary for severely affected dogs, involves applying special prescription rinses/dips to the skin surface at regular intervals to help kill the mites. There are also some medications that recently have shown some promise in helping control the problem for these patients. Like ear mite and Scabies mite infections, where appropriate treatment results in a cure, most Demodex mite infections can be resolved. Rarely, a patient cannot be cured and lifetime treatments will be needed.

All in all, with modern treatments now available, true mange mite infections in dogs are relatively straightforward problems to address. I only wish all canine skin problems were so simple to solve.

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