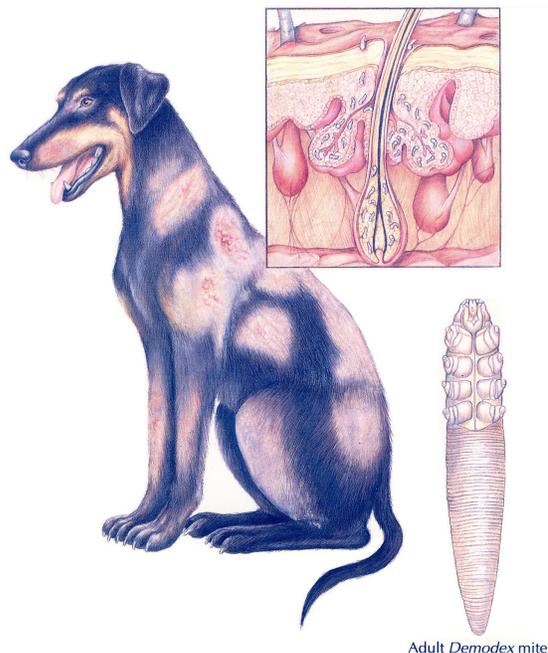


## MANGE

Mange is a parasitic skin disease caused by microscopic mites. Two different mange mites cause skin disease in dogs. One lives just under the surface of the skin, while the other resides in the hair follicles. Although both mites share some similar characteristics, there are also important differences. It is important not to confuse the two types of mange because they have different causes, treatments, and prognoses.

### *What causes demodectic mange?*

Demodectic mange, sometimes just called "demodex". It is the most common form of mange in dogs. It is caused by the demodectic mange mite, a parasite which lives in the hair follicles of affected dogs. Under the microscope, this mite appears shaped like an alligator with eight legs. All dogs (and many humans) have a few of these mites on their skin. As long as the body's immune system is functioning, these mites cause no harm.



Adult Demodex mite

Demodectic mange most often occurs when a dog has an immature immune system, allowing the mites to grow rapidly. Therefore, this disease occurs primarily in dogs less than 12-18 months of age. In most cases, as a dog matures, the immune system also matures. Adult dogs that have the disease usually have defective immune systems.

### *Does this mean that demodectic mange is not contagious?*

Yes. Since the mite is found on virtually all dogs, exposure of a normal dog to one with demodectic mange is not dangerous.

### *Why doesn't the immune system mature correctly in some dogs?*

Development of the immune system is under genetic control. Thus, an affected dog usually comes from a litter containing other affected puppies. Owners of littermates should be put on the alert to watch for it. Because the disease is due to a genetic defect, affected dogs should not be bred. Also, parents of the affected dog should not be bred again.

### *What does demodectic mange do to the dog?*

Surprisingly, a dog with demodectic mange does not itch severely, even though it loses hair in patches. Areas of bare skin will be seen. The hair loss usually begins on the face, especially around the eyes. When there are only a few patches of hair loss, it is termed **localized** demodectic mange. If the disease spreads to multiple areas of the skin, it becomes **generalized** demodectic mange.

## SunShine Animal Hospital Client Education Series

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### ***How is demodectic mange treated?***

The localized form may not require treatment. On average, 50% of young dogs with *limited* localized mange will “self-cure” with little to no treatment other than immune system support. Dogs with more than three affected areas or that have areas that total more than 4-square inches, are at high risk to progress to generalized form. Therefore, we recommend treating these “advanced” cases of localized mange as having generalized mange. The generalized form requires shampoo therapy and a special dip or oral medication if the dips fail. Shampooing with special cleansing shampoos helps to flush out the hair follicles prior to dipping. For dogs with generalized demodectic mange, secondary skin infections may represent a complicating factor requiring antibiotic therapy. Dogs with skin infections have very red, inflamed skin. This is the source of the term “red mange.”

### ***I heard that there is a drug that can be given orally for demodectic mange? Is that true?***

Yes, with some reservations. Ivermectin is a drug that is used for prevention of heartworms. It is also used for certain parasites on cattle. The cattle preparation has been used orally for demodectic mange in dogs. In dogs that fail to respond to topical treatment or that have adverse side-effects from the dips, Ivermectin would be appropriate to use. However, it is a very strong drug that can cause severe side-effects, including death, if it is not dosed properly.

### ***What is the prognosis for my dog?***

Treatment of the generalized form is also usually successful. However, if the immune system is defective, neither the mites nor the infection may respond to treatment. Certain long-hair dog breeds may not be curable and may require long-term treatment.

### ***Following successful treatment, is it likely to recur?***

Because the immune system does not mature until 12-18 months of age, a dog with demodectic mange may have relapses until that age. It is important for re-treatment to begin promptly to minimize the possibility of developing uncontrollable problems. Demodectic mange may also occur in very old dogs because function of the immune system often declines with age. Dogs who have immune suppression due to illness or medication are also candidates for demodectic mange.

The dip commonly used for demodectic mange contains the insecticide Amitraz. Its use requires some caution because it is a strong insecticide that can have some side effects to your dog *and to you* if it is not used properly. Your dog may experience vomiting and sedation for 24-36 hours following each application. If this occurs, medication can be given to counteract these side effects. Since each dipping results in the development of tolerance to the dip, your dog is less likely to have side effects with each subsequent treatment. Your dog should be dipped three times at 14-day intervals, then before the fourth dip, examined for the presence of live mites or mite eggs. Further treatment will be determined by the results. If your pet tests negative for mites on 2-tests performed 2-weeks apart, then no further dipping is needed. If you do the dipping yourself, be sure to wear rubber gloves to prevent getting it on your hands.