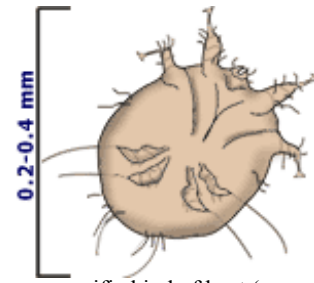


Sarcoptic Mange

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Canine scabies, also known as sarcoptic mange, in dogs, is caused by the parasite *Sarcoptes scabiei*. These microscopic mites can invade the skin of healthy dogs or puppies and create a variety of skin problems, the most common of which is hair loss and severe itching. While they will infect other animals and even humans, sarcoptic mites prefer to live their short lives on dogs. Fortunately, there are several good treatments for this mange and the disease can be easily controlled.



Who gets canine scabies?

Canine scabies can infect all ages and breeds of dogs. While it prefers to live on dogs, this particular mite will also infect cats, ferrets, humans, and fox. Cats, fox, and humans all have their own particular species of mite within the *Sarcoptes* family. Each species of mite prefers one specific kind of host (e.g.; dog), but may also infect others.

What is the life cycle of *Sarcoptes scabiei*?

The mites usually spend their entire life on a dog. The female mite burrows into the skin and lays eggs several times as she continues burrowing. These tunnels can actually reach the length of several centimeters. After she deposits the eggs, the female mite dies. In 3-8 days, the eggs hatch into larvae which have 6 legs. The larvae mature into nymphs which have 8 legs. The nymph then molts into an adult while it is still in the burrow. The adults mate, and the process continues. The entire life cycle requires 2-3 weeks.

The mites prefer to live on the dog, but will live for several days off of the host in the environment. In cool moist environments, they can live for up to 22 days. At normal room temperature in a home, they will live from 2 to 6 days. Because of the mite's ability to survive off the host, dogs can become infected without ever coming into direct contact with an infected animal.

What are the symptoms of canine scabies?

The symptoms of canine scabies are varied, but usually include hair loss and severe itching especially on the elbows, ears, armpits, hocks, chest, and ventral abdomen (belly). The mites prefer to live on areas of the skin that have less hair. As the infection worsens it can spread over the entire body. Small red pustules often develop along with yellow crusts on the skin. Because of the severe itching and resultant scratching, the skin soon becomes traumatized and a variety of sores and infections can develop as a result. The itching seems to be much worse in warm conditions such as indoors or near a stove or heat vent. If the infection goes untreated or is mistakenly treated as an allergy, the skin may darken due to the constant irritation, and the surrounding lymph nodes may become enlarged.

Sarcoptic mange is a somewhat common infection and many cases have often been misdiagnosed as severe atopy (inhalant allergy). Any time we see a dog who does not have a prior history of allergies and develops severe itching, or if the itching is not seasonal but year-round, we have to suspect canine scabies.

The intense itching caused by the sarcoptic mite is actually thought to be caused from a severe allergic reaction to the mite. When dogs are initially infected with *Sarcoptes* they do not develop itching for several weeks. If the animals are treated and then reinfected at a later time, severe itching starts almost immediately, which indicates the itching may be due to an allergic reaction. However, the standard treatments for allergies generally will not decrease the symptoms of scabies, and will do nothing to cure the disease.

How is canine scabies diagnosed?

Trying to make a diagnosis of canine scabies can be very frustrating. The standard method is to perform a skin scraping and then identify the mite under the microscope. Unfortunately, on average, only twenty percent of the infected dogs will show *Sarcoptes* mites on any given scraping. Therefore, if a dog has a positive skin scraping, the diagnosis is confirmed but a negative scraping does not rule out sarcoptic mange. Therefore, most diagnoses are made based on history and response to treatment for scabies.

How is scabies treated?

There are several ways to treat scabies. In the past, the most effective treatment had been to clip the dog if he had long hair, bathe him with a benzoyl peroxide shampoo to cleanse the skin, and then apply an organophosphate dip (Paramite). Amitraz dips and Mitaban (also organophosphates), and lime sulfur dips (Lymdip) have also been used effectively. The dogs are usually dipped once every two weeks for two to three times. While effective, these dips are very unpleasant to apply for both the owner and the dog. Because the dip must come in contact with the mites and many mites live on the face and ears of dogs, great care must be exercised when applying these dips to these sensitive areas. The dips can be toxic to humans and are not suitable for very young, old, or debilitated animals. In addition, there are some reported cases of resistance to these dips in some cases of sarcoptic mange.

Fortunately, there are several other products that have been extremely effective, safe, and convenient in treating sarcoptic mange. [Selamectin](#) (Revolution) is a topical solution that is applied once a month and also provides [heartworm](#) prevention, [flea control](#), some tick protection and protection against Sarcoptic mange. Frontline Plus, Frontline Top Spot, and Frontline Spray are also labelled for use as aids in controlling sarcoptic mange. Liquid [ivermectin](#) is an off label alternative that is sometimes used. It is used at much higher concentrations than are found in heartworm preventives (e.g., Heartgard). Ivermectin should not be used in Collies or Shetland sheep dogs and should be used with caution in the herding breeds. In dogs that are sensitive to ivermectin, some veterinarians have been having success using [milbemycin oxime](#) (Interceptor) at an off-label dose. All of these products should only be used under direct veterinary supervision and care.

In addition to treating the dog, the environment such as the dog's bedding can be treated with a residual insecticide. Since *Sarcoptes scabiei* is easily transmitted between animals, all dogs in contact with an infected animal should also be treated. Because of the length of the life cycle and ability of the mite to live off of the animal, treatment must continue for a minimum of 4 weeks.

Because of the damage to the skin in sarcoptic mange, many dogs also have bacterial and or yeast infections. These need to be treated as well.

How is canine scabies prevented?

Because your dog does not have to come into direct contact with an infected dog to contract scabies, it is difficult to completely protect him. Places where large numbers of dogs congregate are obviously more likely to harbor the mange mite. Since fox and the environment in which fox may spend a large amount of time can transmit the mite to dogs, keep dogs away from fox and these areas.

Can I get *Sarcoptes* from my pet?

Yes, although when humans get *Sarcoptes scabiei* from animals, the disease is generally self-limiting, causing only temporary itching. There is a human species of *Sarcoptes*, which is transmitted from person to person. This human species of sarcoptic mite causes a rash on the wrists, elbows, or between the fingers. In infants, the rash may appear on the head, neck, or body.