

# Sarcoptic Mange

Sarcoptic mange is the name for the skin disease caused by an infection of the *Sarcoptes scabiei* mite. Mites are not insects; instead they are more closely related to spiders. They are microscopic and cannot be seen with the naked eye.

The motion of the mite in and on the skin is extremely itchy. Further, the presence of burrowed mites and their eggs generates a massive inflammatory response in the skin which creates yet more itchiness.

## Diagnosis:

Classically, mite infection is diagnosed by scraping the skin surface with a scalpel blade and examining the skin debris under a microscope for the presence of mites. If the mite's presence is confirmed by skin scraping, then one knows immediately the cause of the itching and other conditions need not be pursued. When an animal with sarcoptic mange scratches itself, it breaks open the tunnels that the mites have burrowed into and the mites are killed (though the itch persists due to toxins in the skin). The result is that the mites can be very difficult to confirm by skin scraping tests. (Probably mites are confirmed in 50% or fewer of sarcoptic mange cases).

## Treatment:

**IVERMECTIN** - This is one of the most effective treatments against *Sarcoptes scabiei* yet is off-label as far as the FDA is concerned. There are several protocols due to the very long activity of this drug in the body. Typically an injection is given either weekly or every two weeks in 1-4 doses. In most cases this treatment is safe and effective but some breeds such as the Collie family have a mutation which makes ivermectin very toxic at the doses used to kill mites.

**SELAMECTIN (REVOLUTION®)** - Selamectin is an ivermectin derivative for the control of fleas, ticks, heartworms, and sarcoptic mange mites. Normal monthly use of this product should prevent a sarcoptic mange problem but to clear an actual infection studies show an extra dose is usually needed after 2 weeks for reliable results. This product is probably the best choice for Collie breeds.

**MOXIDECTIN (ADVANTAGE MULTI®)** - Moxidectin is yet another ivermectin derivative. In Advantage Multi, it is combined with imidocloprid, a flea killing topical, to create a product used against heartworms, hookworms, roundworms, whipworms, and fleas. In the U.S. this product is not FDA labeled for sarcoptic mange but it is in other countries and should still be effective even though technically it is off-label.

**DIPPING** - Anti-bacterial or anti-itch shampoos precede one of several anti-mite dips. Mitaban dip (Amitraz), or Lime-Sulfur dips given weekly are usually effective. Disease typically resolves within one month. Dipping is labor intensive and rarely done any more as the other products are easier and more rapidly effective.