



Demodicosis

Also Known As: Demodex, Demodectic mange, Red mange, follicular mange

Demodex is a type of microscopic skin mite that has a head and eight legs extending from a long, tubular body; this shape allows the mites to live in hair follicles of mammals (every mammal has its own species of demodex mite uniquely adapted to their host). In the skin of healthy dogs and puppies, the mites can exist in small numbers, but when the dog's immune system is weakened or not functioning normally, the population of mites begin to increase to the point that skin disease begins. Demodicosis can manifest itself in two forms. The first is a milder form that occurs commonly in young puppies that get the mites from their mother while nursing. The Demodex mite, which will be localized to just a few regions of the puppy's skin, may cause hair loss, mild redness, scaling, and occasional itchiness. However, with time, the puppy's immune system will usually strengthen so that it resists the mites and prevents them from overgrowing. In some dogs, the demodex infection spreads all over the body. Generalized demodicosis may occur in a dog that, as a puppy, had localized demodicosis that never went away, or in older dogs with immune suppression due to hormonal diseases, immunosuppressive medications, immune deficiency, or cancer. This form of the disease can be very serious because it usually means that another disease is causing the dog's immune system to function poorly, allowing the mite to proliferate at an uncontrolled rate. Because the mites burrow deep into the skin, they cause irritation leading to severe inflammatory skin disease. Many times, secondary bacterial infections occur, causing severe infections that make the illness worse. The diseased skin of a dog with generalized demodicosis is often hairless, reddened, scaling and, in certain areas, will ooze a pus-filled, bloody material that forms thick crusts.



Diagnosis: The veterinarian will be able to diagnose demodicosis after analyzing skin scrapings from the dog and detecting the presence of the mites under a microscope. In an adult dog that has the more severe, generalized form, additional diagnostic tests such as bloodwork may need to be performed to find the underlying disease that has caused the immune system to be weak and has made the dog susceptible to demodicosis as a result.

Treatment: When the demodicosis is localized or only affects a few regions of a puppy's skin, it will usually heal within six to eight weeks with minimal or no medical treatment. Generalized demodicosis, however, often requires a very intense and lengthy treatment plan. Thus, the underlying disease should be determined and the dog's overall health should be improved before attempting to treat demodicosis. Sometimes in older dogs the disease cannot be cured but only controlled. Oral antibiotics are often needed for 1-2 months to treat secondary bacterial infection. In the past, options for treatment of the demodex mites include topical therapy with weekly amitraz dips, or systemic antiparasitic medication with daily oral ivermectin, weekly doramectin, or daily milbemycin. These potentially toxic medications should be dispensed by a veterinarian at a carefully calculated dose, and ivermectin (in the dose needed to treat demodex) should never be used in herding breed dogs such as collies, shelties, Australian shepherds, Old English sheepdogs, or border collies, as death can ensue. Recently, there has been an exciting new development in the treatment of canine demodex; the new long acting flea/tick pills (including Simparica, Credelio, Nexgard and Bravecto) have been shown in many dogs to also be effective and economical for the treatment of demodectic mange, and these medications do not have the concerning potential side effects of ivermectin. Treatment for canine demodicosis is continued until one month beyond a negative skin scraping (no live or dead mites), which is an average of 3-4 months. Regular rechecks with your veterinarian are important to assess progress and determine need for continued therapy.

