## Canine Demodex Mites Alice M. Jeromin, DVM Veterinary Dermatologist

Demodex is a microscopic mite that lives on the skin of dogs, cats, and other animals. More specifically, it lives in the hair follicle. It is NOT CONTAGIOUS, humans or other animals cannot "catch it" from another animal. The mite is part of the normal composition of the skin and lives there in small numbers. Mites are detected by scraping the skin and then looking at the scrapings under the microscope. The animal is not born with demodex mites but rather gets them from the mother while nursing. Ordinarily the mite does not cause any problems to the animal because of the small population but for some reason in certain animals the mites will start to multiply and grow in large numbers. This can sometimes happen if the animal is stressed either by surgery, by taking medications that weaken his immune system i.e. steroids, has a serious underlying disease, or because he is of a particular breed that is predisposed to getting the mite-Old English Sheepdogs, Cocker Spaniels, Boxers, Bulldogs, Collies, Shetland Sheepdogs, Afghans, German Shepherds, Dalmatians, Dobermans, Great Danes, Shar peis, Pointers, to name a few. Because of a genetic predisposition is felt to occur, dogs with generalized demodex should not be bred.

Accumulation of the demodex mites can occur in just one isolated spot (focal) or the animal may have a total body infestation (generalized). Some animals will have a mite infestation of only the feet. Regardless of whether mites are localized to one spot or generalized all over the body, the treatment is the same. Treatment options include dips or oral medication. If dips are chosen, the dog is initially bathed in a benzyl peroxide shampoo which opens up the hair follicles (where the mite lives). The bath is followed by sponging of a dip, Mitaban, which is diluted 1 bottle in 2 gallons of water and sponged over the dog's entire body being careful not to involve the eyes. The dip is allowed to air-dry on the dog and the procedure is repeated in 1-2 weeks depending upon your veterinarian's instructions. The dog should not be bathed between dips. Side effects of the dip include sleepiness, diarrhea, and sometimes lowering of the body temperature. Dipping should be done in a well-ventilated area wearing an apron and gloves. Owners who are pregnant, diabetic, taking heart, blood pressure, or antidepressant medications should find someone else to dip their dog. The dips are continued until no mites are found on skin scrapings and then two additional dips are done as "insurance". Your pet may also be given an antibiotic for the bacterial infection of the skin that usually accompanies the mite. NO STEROIDS SHOULD BE USED. The prognosis for dogs with focal demodex is good. Dogs with generalized mites may also do very well while some require medication long-term to control the mites. Aside from the Mitaban dip, oral medications are now available for use in demodicosis-- Ivermectin, Interceptor, NexGard, Simparica, or Bravecto. Doramectin is a weekly injection that may also be used. Ivermectin should not be used in herding breeds. Interceptor can be used in herding breeds but should be used at an initially low dose so that no neurological side effects are likely to occur. Your veterinarian will decide which treatment method is best for your pet. Demodex is still a mystery to veterinary dermatologists because it is not known why it affects some dogs and yet leaves others alone. We do know that once the mite starts to multiply in large numbers, it causes the dog's immune system to weaken and he is more susceptible to infection.