



Heartworm Disease in Dogs

Heartworm infection in dogs has been diagnosed in all 50 states. Environmental changes created by people, natural climatic conditions, and animal movement have increased the heartworm infection potential. Heartworm disease is especially endemic in the south, and is a common cause of persistent coughing in dogs.

How it is transmitted?

Heartworms are transmitted to canines from the bite of an infected mosquito. Following a blood meal by the mosquito, the microfilaria (immature heartworms) gains entrance to the animal from the wound created by the mosquito. Once inside the tissue, the microfilaria undergo numerous stages over a period of 3 to 4 months. The juvenile heartworms are circulated by the bloodstream and eventually enter the small blood vessels in the lungs where they mature into adult heartworms. As the heartworms grow in size they are forced into the larger blood vessels. Depending upon the number of heartworms present and the size of the dog some of these worms may actually enter into the heart. Depending upon the location, some dogs have very few symptoms and others can be severe.

What are the symptoms?

After a dog develops adult heartworm infection, the signs and symptoms can vary tremendously. As stated earlier, this is largely dependent upon the number and location of the heartworms as well as the size of the dog. Clinical signs of heartworm disease are classified into categories by the American Heartworm Society. Early infection and mild disease is usually present with either no signs at all or coughing. As the disease progresses to moderate and severe disease the dog may exhibit coughing, exercise intolerance, and weight loss. With severe infection syncope (sudden loss of consciousness from reduced blood flow to the brain), ascites (fluid accumulation in the abdomen) and sudden death are commonly seen. The final classification of canine heartworm disease is Caval Syndrome. This syndrome is characterized by sudden onset of severe lethargy and weakness from a disruption of the blood flow into the heart. One might also see dark or tea colored urine (hemoglobinuria) with caval syndrome.

How is it treated?

Once a diagnosis of heartworms is confirmed by a simple blood test, several treatment options may be discussed depending on the breed, age, activity level and severity of disease. With any of these treatments the primary goals are to improve the clinical condition of the animal and to eliminate all life stages of the heartworms with minimal post treatment complications. The mainstay of treatment is Melarsomine Dihydrochloride. With this adult heartworm treatment it is recommended to give a series of three injections that are given over a two month period. This treatment has proven to kill 98% of the heartworms and decrease the possibility of serious and sometimes fatal side effects of adulticide treatment for heartworm disease.

IT CAN BE PREVENTED!!!

Despite the relative high susceptibility of dogs to infection of heartworms, it is preventable. The most commonly used products whether they are oral or topical are labeled for a monthly dosing interval. These drugs are very effective at killing the microfilaria (immature heartworms) and are also among the safest drugs given in veterinary medicine when given following label instructions. Most products are relatively inexpensive and are packaged for dogs within specific weight ranges. As stated earlier, heartworm disease is endemic in the south; therefore, monthly preventatives should be given year round and should be a high priority in maintaining a healthy pet. Puppies should be started on heartworm prevention as soon as possible, sometimes as early as eight weeks old and no later than 6 months. Dogs older than seven months old **MUST** be tested for heartworm disease prior to starting any preventative regimen.

Heartworm Disease continues to be a severe and challenging disease. Many dog owners are unaware of the potential serious complications that can easily be prevented by a safe, inexpensive monthly medication. If your dog is not current on heartworm medication or is exhibiting any symptoms that are concerning, consult your veterinarian and find out if your pet is infected with heartworms.