

CANINE HEARTWORM DISEASE

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Heartworm is a parasite that is passed from dog to dog through the bloodstream by mosquitoes. When a mosquito carrying infective heartworm larvae (immature heartworms) bites a dog, the larvae make their way to the heart and grow into mature worms (up to 12 inches in length). There are male and female worms, and they can produce offspring or microfilaria. Microfilaria move through the blood stream and this is how mosquitoes become infected. The time from when an infected mosquito bites a dog until the time we can get a positive heartworm test is about 6 months.

The onset and severity of the disease is secondary to the number of heartworms present, and the age and activity level of the dog. Dogs with higher number of worms are generally found to have more severe heart and lung disease changes. If left untreated, heartworm disease can be fatal.

Prevalence of Canine Heartworm Disease

Canine heartworm disease is widely distributed in the United States. It has been found in dogs native to all 50 states. Some states have higher infection rates than other states, but all dogs should be considered at risk. All dogs are susceptible to heartworm infection and should be tested for the disease and placed on prevention.

Clinical Signs of Canine Heartworm Disease

Signs of heartworm disease can include cough, exercise intolerance (fatigue), difficulty breathing, fainting, fluid in the abdominal cavity and death. Some dogs that only have a few heartworms and are not very physically active may not have any signs at all.

Testing for Canine Heartworm Disease

There is a blood test for heartworms called an antigen test which tests for the presence of adult heartworms. We generally run this test on a yearly basis on dogs that are at least 6 months of age. If this test is positive, then we start to do other tests to confirm the diagnosis and also to find out how advanced the disease is. These tests may include general blood work to look at organ function, a test for microfilaria (baby heartworms) and x-rays of the heart and lungs.

Treatment of Canine Heartworm

Most dogs with canine heartworm disease can be successfully treated. The goal of treatment is to kill the adult heartworm as well as the baby heartworms (microfilaria). If the dog is healthy and there are little or no signs of heartworm disease, treatment is usually successful with little complications. Patients with advanced disease are more difficult to treat and may have more complications from the treatment. We may elect to not treat some dogs because of the risk of problems with the treatment.

For healthy, uncomplicated heartworm disease, we use a drug called immiticide. We give 2 injections of this into the muscle 24 hours apart. The dogs are kept in the hospital for monitoring during the treatment. We repeat the heartworm test 3 months after this treatment to make sure all of the adult heartworms are dead.

As the adult worms die, parts of the dead worms can lodge in the blood vessels in the lungs. We recommend keeping your dog as quiet as possible for 4-6 weeks following this treatment to try minimize this problem. Signs that can occur include fever, coughing and coughing up blood.

The next step is to kill the baby heartworms which we do 1 month after the initial treatment. We give them a drug called ivermectin to kill the microfilaria and keep them in the hospital for 1 day to monitor for any adverse side effects.

Prevention of Canine Heartworm Disease

There are several products available to prevent canine heartworm disease. It is much easier, less expensive and safer for your dog to use these on a monthly basis to prevent heartworm disease. Some of the products available are:

Sentinel is a chewable, once a month heartworm prevention. It also prevents 3 intestinal parasites (roundworms, hookworms and whipworms) and it prevents fleas by not allowing the adult flea to reproduce (it does not kill adult fleas). This product needs to be given with a full meal.

Interceptor is a chewable, once a month heartworm prevention. It also prevents 3 intestinal parasites (roundworms, hookworms and whipworms).

We recommend giving one of these products on a year-round basis for their intestinal parasite protection. Roundworms and hookworms are parasites that you and your children can get from your dog.