

Heartworm Disease

Heartworm Disease refers to the condition caused by the parasite *Dirofilaria immitis*. The parasite is carried by mosquitoes and can infect dogs, cats, and ferrets. In the United States, heartworm is commonly seen in the East, Southeast, Gulf Coast, and the Mississippi and Ohio River Valleys.

When a mosquito bites an infected animal, it ingests small “baby” heartworms known as microfilaria. These microfilaria develop to the infective stage within the mosquito. The mosquito then transmits the infective larvae to another animal when it bites. Once inside the animal, the infective larvae migrate to the heart and pulmonary arteries within 3-4 months. Adult heartworms can grow to 12 inches in length and can live for 5-7 years in the dog. In cats, the parasite only lives about 2 years but can still be quite harmful during this relatively short time. Infected animals may not show any symptoms until months or even years after infection.

Over time, heartworm infection causes the pulmonary arteries to become thickened and inflamed; this results in hypertension (high blood pressure) within the lungs. This increases the workload on the heart as it must pump more forcefully to move blood through the lungs.

Symptoms of heartworm disease typically include exercise intolerance, weight loss, and cough. More severe symptoms include labored breathing, severe coughing, and heart failure. Once heartworm disease has reached this advanced stage, affected animals may die even with extensive treatment. Cats are somewhat different from dogs in that they may not show any of the early symptoms of heartworm disease; because of their smaller heart size, they may die suddenly.

Diagnosis:

Heartworm Disease is not detectable until 6 months after being bitten by the mosquito. A simple blood test is highly accurate at detecting heartworm infection. We recommend screening all canines each spring prior to starting their heartworm preventative. Spring is the best time of year to test because the chances of missing a recently acquired infection are greatly reduced.

Prevention:

Heartworm Disease is quite easy to prevent by giving simple monthly medication. Although there are daily medications available, we prefer and recommend the monthly products due to their ease of use and much higher safety and efficacy margins.

Treatment:

A treatment is available for dogs who test positive for heartworm. We will discuss the treatment regimen in detail with you if your dog tests positive. Prior to treatment, additional bloodwork is performed along with X-rays of the chest. This helps us better stage how severely infected the patient is. The initial treatment usually involves a 3-day hospital stay. Treatment consists of several injections of an arsenic-based drug. This drug is designed to slowly kill the adult heartworms over 4-6 weeks. During this time, it is extremely important that patients be kept quiet since the body is not able to tolerate exertion while the worms are dying. Several follow-up outpatient rechecks are involved.

There are not currently any approved drugs for treatment of cats who have heartworm.