

# Ask A Vet: Heartworm Test Questions

*Sunday, January 19, 2014*

Dear Dr. Weldy's,

I've heard plenty about roundworms and hookworms, but am confused about heartworms and why all veterinarians require testing before giving heartworm preventatives.

Sincerely,

Mr. Wolbachia

Dear Mr. Wolbachia,

Heartworms are actually related to intestinal roundworms and hookworms, but are spread differently and live in a different part of the body. Heartworms (*Dirofilaria immitis*) have a relatively complex life cycle and can cause significant problems if your dog becomes infected. We will begin the example with a dog who already has heartworm disease. When a female mosquito bites that infected dog, she will ingest blood and microfilaria (baby heartworms). If she feeds on another dog 10-14 days later, the larvae of the heartworm will crawl out of the mosquito and infect the dog. They will take about 6 months to grow into sexually mature adults, but once to that life stage they have taken up residence in the right ventricle of your dog's heart, and in the blood vessels leading to the lungs. The adults will start to produce microfilaria, and the cycle will start over again.

Heartworm disease can appear like a lot of other conditions of the respiratory tract. The worms can cause constant irritation of the blood vessels leading into the lungs which can cause thickening and scarring of lung tissue. This can lead to coughing, raspy breathing, exercise intolerance, etc. If the disease goes on for long enough and enough worms are present, they can completely fill the right atrium and ventricle leading to heart failure. Sudden death is a potential in dogs with heartworm disease.

Testing does not involve a fecal sample like other dog parasites. Instead, we require 2-4 drops of your dog's blood. The reason for testing is two-fold. First, whether or not your dog is on preventative or if you get it from your vet or online, it is important to know your dog's status. Second, if your dog becomes infected with heartworms and you purchased your preventative from your vet and you can prove that you have given the medication year round, then the company will pay for the heartworm treatment. This deal will not work for dogs who are on preventative purchased from an online pharmacy. Heartworm treatment can range from \$400-\$1200, and takes quite a toll on your dog's body.

For more information on how to prevent heartworm disease in dogs, cats, and ferrets, ask your veterinarian. We spend a lot of time worrying about this disease and truly have an interest in testing and preventing this terrible disease.

-Dr. Jason Heitzman