# **Heartworm Disease**

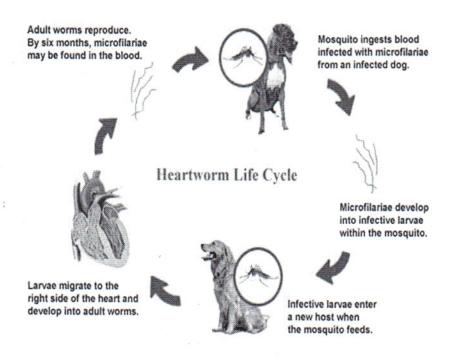
#### What causes heartworm disease?

Heartworm disease, or dirofilariasis, is a serious and potentially fatal disease in dogs and cats. It is caused by a blood-borne parasite called *Dirofilaria immitis*. Adult heartworms are found in the right side of the heart and adjacent large blood vessels of infected pets. The female worm is 6 to 14 inches long (15 to 36 cm) and 1/8 inch wide (5 mm). The male is about half the size of the female. One pet may have as many as 300 worms!

### How do pets get infected?

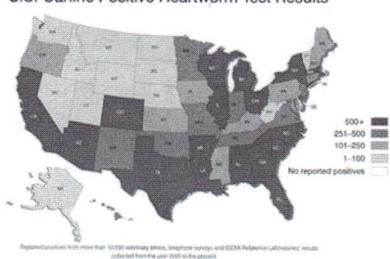
The disease is not spread directly from pet to pet. An intermediate host, the mosquito, is required for transmission. As many as 30 species of mosquitoes can transmit heartworms! Mosquitoes are required for some stages of the heartworm life cycle. The *microfilaria* (baby heartworms) cannot grow to adulthood in the animal – although they do cause problems. So how do adult heartworms end up in your pet?

The female mosquito bites the infected animal and ingests the microfilariae during a blood meal. The microfilariae develop further for 10 to 30 days in the mosquito and then enter its mouthparts. The microfilariae are now called *infective larvae* because at this stage of development, they will grow to adulthood once they enter a pet's bloodstream. One simple bite from the infected mosquito transmits the larvae to your pet. Once transmitted, they move to the heart and adjacent blood vessels where they grow to maturity in two to three months. Finally, at maturity, they start reproducing and thereby complete the full life cycle.



#### Where are heartworms found?

Heartworm disease occurs all over the world. In the United States, it was once limited to the south and southeast regions. However, the disease is spreading and is now found in most regions of the United States and Canada, particularly where mosquitoes are prevalent. Spread of the disease therefore coincides with mosquito season. The number of pets infected and the length of the mosquito season are directly correlated with the incidence of heartworm disease in any given area. However, even if you don't have a long mosquito season, protect your pet! It only takes one bite to transmit this disease.



U.S. Canine Positive Heartworm Test Results

### What are the symptoms of heartworm disease?

The most common symptoms of heartworm disease are coughing, tiring easily, lethargy, weight loss and sometimes even fainting. Since heartworms impair blood circulation, there can be internal damage to the heart, lungs, liver and kidneys. Unfortunately, it can be awhile before any symptoms start to show, and by then serious damage could have already happened. That's why it's very important for your pet to be tested once a year for heartworm disease.

## What can you do to prevent heartworm disease?

This question has an easy answer. Use prevention every month, year-round, for your pet's entire lifetime! We offer different types of prevention in the form of chewables or topical applications and will be more than happy to discuss the best option for your pet. Yearly testing for heartworm disease is also important, and we recommend any pets that have stopped their prevention, for any reason, to be retested before starting it again. Remember, heartworm disease can happen to your cat or dog, big or small, long or short haired, indoor or outdoor. Prevention is the best medicine.