Heartworm Control & Prevention

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What are heartworms?
Heartworms (*Dirofilaria immitus*) belong to the same class of worms as roundworms. In fact, they look a bit like roundworms, but that is where the similarity ends. Heartworms are transmitted by mosquitoes that have bitten heartworm-infected animals and spend their adult life in the right side of the heart and the large blood vessels connecting the heart to the lungs.

Adult heartworms lay very tiny larvae called 'microfilariae.' The microfilariae can live up to 2 years in the dog's bloodstream. These microfilariae enter a mosquito when it sucks blood from an infected animal. In 2-3 weeks, the microfilariae develop into larger larvae in the mosquito and migrate to the mosquito's mouth.

When the mosquito bites another animal, the larvae enter the animal's skin. The larvae grow and after about three months finish their migration to the heart, where they grow into adults, sometimes reaching a length of 14 inches. The time from when an animal was bitten until adult heartworms develop, mate, and lay microfilariae is about 6-7 months in dogs and 8 months in cats.

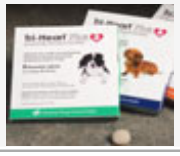
Can heartworms AFFECT my dog?
The adult worms can obstruct the different chambers of the heart and the various large blood vessels leading from the heart to the lungs. First, the right pumping chamber (ventricle) of the heart and the large pulmonary artery leading from it to the lungs becomes enlarged as the worms take up space. If worms die, they may follow the flow of blood into smaller vessels in the lung and obstruct those vessels.

In severe infections, the worms can also block the large vein (vena cava) bringing blood to the right side of the heart. As the blood backs up, the liver becomes enlarged and damaged.

SIGNS of heartworm infection...
Dogs with heartworm infections may show decreased appetite, loss of weight, and listlessness. Often, the first sign of the disease is a cough. Animals with heartworm disease will start to show lack of endurance during exercise. Some will accumulate fluid in their abdomen (ascites) that makes them look pot-bellied. In rare situations in which animals have many adult worms, the animals may die of sudden heart failure.

Heartworm Culprit

DID YOU KNOW?
There are more than 60 different species of mosquitoes that can transmit heartworms.



Can I PREVENT heartworm infection in my dog?
The best program for prevention of heartworm infection includes:

- Giving your dog a once-a-month heartworm preventive
- Have your veterinarian perform routine heartworm testing
- Reduce your dog's exposure to mosquitoes outdoors

Animals kept indoors are still at risk for heartworm infection, as mosquitoes may enter through broken or torn screens on windows and doors, or those left open or ajar.

A number of monthly heartworm preventives for dogs are on the market. There is also an injectable preventive that is given once every 6 months. Some heartworm preventives, or drugs that are combined with them, will control other parasites, as well.

In some areas of the country where mosquitoes are present year-round, preventives must be given year-round. In colder climates, preventives are started 2-3 weeks after the first mosquitoes appear and are given until after the first hard frost (when the mosquitoes are killed or hibernate).

TESTING for heartworm...
The American Heartworm Society advises all adult dogs being started on a heartworm preventive for the first time should be tested. After that, periodic but not necessarily annual retesting should be performed. The frequency of testing should take into account such variables as the prevalence of heartworm disease in your area, the possibility of missed or late doses of preventive, and your dog's lifestyle. Consult with your veterinarian to determine the appropriate testing schedule for your dog.

CONTROL & PREVENT heartworm in your dog...
Commonly used heartworm preventives for dogs include Heartgard Plus and Tri-Heart Plus.

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