Heartworm

What is Heartworm?
Heartworm disease occurs primarily in dogs, but can occur in cats and other animals. Heartworm disease is caused by a parasite called *Dirofilaria immitis* which, in its adult reproductive forms, lives most commonly in the right side of the heart and the adjacent blood vessels.

Its presence in these blood vessels and chambers causes reduced heart function, reduced lung capacity and on occasion, death. When a mosquito draws blood from an infected dog or cat, it consumes microscopic immature forms of the parasite called microfilariae.

Later, when the mosquito bites a new victim, the parasites in the insect saliva are injected and that dog or cat becomes infected. The microfilariae will grow into larvae and, after a delay of months, will mature to become adults in the heart and blood vessels.

What are the Signs of a Heartworm Infection?
Once infected, a pet becomes a "carrier" or reservoir of infection. It takes about six and a half to seven months for the infective larvae to migrate to the heart, mature into adult worms and begin producing new microfilariae inside the circulatory system.

Depending on the parasite burden, the adult worms may end up occupying the right chamber of the heart and the arteries that supply the lungs, while the microscopic microfilariae circulate throughout the bloodstream.

A dog or cat may be infected with heartworms and show no clinical signs. If clinical signs occur, the disease is well advanced and more difficult to treat. Pets may exhibit a chronic cough and reduced exercise tolerance and in rare situations, sudden death.
How often should my Pet be tested for Heartworm?
In Canada, parasite prevention is dealt with on a case-by-case basis, and your pet’s risk of parasitic disease is taken into consideration.

Factors that may influence your veterinarian’s decision to test for heartworm may include your pet’s lifestyle, health status, your geographic location, any household considerations that may be relevant, and the proposed preventive therapy. Your veterinarian will advise you regarding the recommended frequency of testing for your dog.

How can I Protect my Pet from Heartworm?
Prevention is strongly preferred to treatment. While there is a treatment available, it can be associated with health risks and is costly. Oral and topical medications that are administered monthly (or on another schedule depending on the product) have been shown to be effective for prevention of heartworm disease and are available from your veterinarian.

Avoidance of outdoor exercise during peak mosquito activity (evening, early morning) can help reduce, but not eliminate, the risk of mosquito bites. Note that indoor pets are not immune to heartworm disease, as mosquitoes can fly into a home or apartment through open doors or on people’s clothes and thus gain entry to the home.

(3.11.2016)

Reviewers:
Dr. Kathleen Cavanagh, Online Editor, CVMA
Dr. J Scott Weese, Canada Research Chair in Zoonotic Diseases