

## **Heartworm Disease / Dirofilariasis**

### **Symptoms of Heartworm Disease in Dogs**

In Quebec, the heartworm is considered of endemic prevalence, meaning that it is present especially south of Quebec City and more prevalent in certain specific areas, but possibly also a little everywhere in major cities given the movement of people traveling with their dogs...

Heartworms (*Dirofilaria immitis*) can cause mild symptoms, such as coughing, but over time, more severe symptoms appear, including congestive heart failure, weight loss, fluid accumulation in the abdomen, loss of consciousness, anemia, collapse, and often death.

On the other hand, it takes more than six to seven months after a bite from an infected mosquito for symptoms to manifest.

We recommend checking all dogs every 2 years by performing a screening test, even if your dog is on preventive medication.

If a dog has microfilariae and is given a dose of preventive medication, it can have an adverse reaction to its health, which could even be fatal.

Treatment for adult heartworms in dogs is expensive and potentially dangerous.

This is why prevention is so important.

### **Heartworm Prevention**

Fortunately, we have several highly effective medications that can prevent heartworm disease if administered according to the instructions.

There are medications given orally or topically on the animal's back that must be administered once a month and also help protect against certain intestinal parasites.

Heartworm disease has been diagnosed in dogs in every state in the United States and all across Canada.

It is a very common disease, with a prevalence rate of nearly 100% in unprotected dogs living in highly endemic areas.

The heartworm, *Dirofilaria*, is transmitted by mosquitoes.

The mosquito injects a microscopic larva that develops into an adult worm measuring six to eighteen inches long and lodges itself inside the heart of the affected animal.

There can be up to 300 worms in a dog's heart.

N.B. Cats can also contract the parasite, but more rarely here in Quebec. They present more vague clinical signs such as asthma or breathing difficulties... We recommend a preventive treatment for cats that go outdoors in at-risk areas.

### **The Life Cycle of Heartworms**

- Adult worms reproduce in the heart. Microfilariae are then released into the bloodstream.
- Mosquitoes bite an animal infested with heartworms and ingest the microfilariae in its blood.
- The microfilariae transform into infective larvae inside the mosquito within 10–28 days.

- The larvae enter a new host when it is bitten by an infected mosquito.

The larvae migrate to the heart and develop into adult worms.