

# Heartworm

It's that time of year again, when our vets are calling our dogs into the clinic for their annual heartworm blood test and prescriptions. The annual blood test tells pet owners if their dogs have been exposed to heartworm in the last year. Although we know the medications are very necessary in the southern states, are they really that necessary here in Southern Ontario?

## How does a dog get Heartworm?

Heartworm is a parasite that is transmitted through bites from infected mosquitoes. The mosquitoes become infected when they bite a dog that is already infected by heartworm.

Now, this is where it gets interesting. The larvae must go through 3 stages of growth in the mosquito before they can infect another dog, these stages are called L1, L2 and L3. Only L3 stage can infect a dog so, if a dog is bitten by a mosquito with only L1 or L2 larvae they will not become infected. The outside temperature must stay above 14C day and night for 30 days in order for the larvae to develop into L3. If the temperature drops below 14C, the growth is suspended and resumes after the temperature is above 14C. This makes us wonder, what are the odds of a mosquito in Burlington living for 30 days or longer to allow this all to happen?

There is heartworm infection and heartworm disease, both are very different. The infection is when the larvae are young and still living in the muscles. A dog that has heartworm infection is not ill and will not act sick. The way it is usually discovered is through the annual blood test. Heartworm disease occurs once the worms have matured and migrated to the heart, which takes about 8 months from bite to maturity. A dog with heartworm disease is sick usually with clinical signs of coughing. Treatment for heartworm disease is quite aggressive and expensive.

A healthy dog that eats a good diet, is vaccine free and is currently not on any heartworm medication or chemical flea or tick preventatives should have a strong immune system that will fight off heartworm. Even if the worms live to be adults the strong immune system will weaken the heartworms and the dog should be able to fight them off with no lasting ill effects.

## Conventional Medications To Prevent and Treat Heartworm

The pills for heartworm are actually not a preventative, but the cure, which is toxic. Dr. Martin Goldstein, DVM, states in his book "The Nature of Animals Healing" that he believes that most of the liver diseases and cancers that we see in today's dogs are related to heartworm preventatives. His own dog and most of

the clients in his practice are not treated with heartworm preventatives.

Ivermectin is an anti-parasite medication given to dogs to prevent heartworm disease. There is a risk of ivermectin toxicity for collie breeds and owners of such breeds can find out more at

<http://www.vetmed.wsu.edu/announcements/ivermectin/index.asp>

### **A Friendlier Alternative**

Since mosquitoes play such a vital role in transmitting heartworm from one dog to another, it's important to keep mosquitoes from biting your dog. We have several dog friendly insect repellents that are great for keeping away mosquitoes, fleas and even ticks. Some even have some bling for your dog's collar.

For a heartworm preventative, try Black Walnut. It's a great nutrition booster, helping the metabolism and keeping your pet less desirable for parasites. It is also used as an astringent because it is rich in tannin, which is a toning substance. Black walnut is known for its cleansing properties and has been used to prevent worms. When using black walnut for heartworm a protocol needs to be followed and that is available in the store.

### **And Finally**

If you're not sure whether to give your dog heartworm preventative, why not drop by our heartworm table in the store and take the "Does Your Dog Need Heartworm Medication?" quiz.

#### References:

1. "Vital Animals Don't Get Heartworms!" - Dr. William Falconer, DVM <http://vitalanimal.com/drugfreeheartworm/>
2. Heartworm To Guard or Not to Guard...that is the question! - Corinna Bollmann - ask for a copy in the store
3. Are Drug Companies Honest About Heartworm? Dr. Peter Dobias, DVM <http://peterdobias.com/blogs/blog/11015045-are-drug-companies-honest-about-heartworm>
4. Seasonality of Heartworm Infections and Implications for Chemoprophylaxis - David H. Knight, DVM, Diplomate (ACVIM) and James B. Lok, PhD <http://www.terrierman.com/heartworm-seasonality-knight-LOK.pdf>
5. Protecting Your Dog From Heartworm, Dana Scott, Dogs Naturally Magazine <http://www.dogsnaturallymagazine.com/protecting-your-dog-from-heartworm/>



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