

## **Heartworm Testing and Prevention Information**

## What is heartworm disease?

Heartworm disease is a serious and potentially fatal disease in pets. It is caused by large worms (heartworms) that live in the heart and lungs of affected pets, and can cause severe lung disease, heart failure and damage to other organs in the body. Heartworm disease can affect dogs, cats, and ferrets but is most common in dogs. heart

## How does an animal get heartworm disease?

Heartworm disease is spread by mosquitoes. The mosquitoes inject immature heartworm parasites into the bloodstream of the dog or cat during a bite. After about 7 months, they will mature into adult heartworms.

## Is my dog at risk?

Any dog who spends time outside in areas where there are mosquitoes could be at risk of heartworm disease. Dogs who travel outside of Toronto, spend time in warmer countries, or spend a lot of time outdoors may be at increased risk. Historically there have been



Silas, a Toronto Humane Society dog, who received heartworm treatment.

low levels of heartworm disease within the city of Toronto. However, with warmer weather lasting longer and dogs traveling more, heartworm disease is increasing across North America.

#### How can heartworm disease be prevented?

The best way to protect your dog from heartworm is by using a heartworm prevention medication throughout the heartworm season. In Southern Ontario, this is June through November. If your pet routinely travels to warmer climates, prevention may be needed year-round. Heartworm prevention is usually a pill or a topical solution that is used once monthly throughout heartworm season. Many of these products are also effective for other parasites such as fleas, ticks, or intestinal worms. Starting these prevention products earlier in the spring may be needed for the flea and tick prevention benefits.

## What is heartworm testing? Is a heartworm test the same as a 4DX test?

A heartworm test is a quick blood test that checks for the presence of adult heartworms in a dog. Often this test is run in combination with a test for exposure to tick-borne diseases such as Lyme, Anaplasma, and Ehrlichia. This combination test is called a 4DX. This is the test that is used at Toronto Humane Society Public Veterinary Services.

#### How often is heartworm testing needed?

Yearly testing for heartworm disease is recommended for dogs. This is to make sure that your dog hasn't become infected with heartworm disease. If your dog has heartworm disease, early detection and treatment are essential to prevent serious health effects.

#### When is the best time to test for heartworm disease?

For dogs that live in Toronto, a heartworm test is encouraged in the spring before beginning heartworm prevention for the year. If a dog is bitten by a mosquito carrying heartworm disease,



the test will only become positive 7 months later, once the worms are mature. For this reason, a heartworm test is checking for worms from the previous heartworm season. Testing can be done at any time during the year, but because of how long it takes the test to become positive, a fall or winter test will not detect infections that happened in the summer.

### When should my dog be tested if they have travelled?

Heartworm tests can be done at any time of year for dogs that have travelled to areas where heartworm is more common. The test should be timed to be at least 7 months after possible exposure.

## Is heartworm testing needed even if my dog has been on prevention all season?

Dogs who are on heartworm prevention throughout the heartworm season are at much lower risk of becoming infected than dogs who are not on prevention. However, annual heartworm testing is recommended even if your dog has been on prevention. While the modern medications used for heartworm prevention are extremely effective, dogs can still become positive if a dose is missed, if the medication is vomited up, or if mosquitoes come out earlier or survive later than the typical heartworm season.

# I've heard that heartworm testing is required before starting prevention medication since it can be dangerous to give these medications to a dog who has heartworm disease. Is this true?

Modern heartworm prevention medications are very safe, and some are even used as part of the treatment for dogs who have become infected with heartworm disease. We know now that we don't necessarily need to test for heartworm to "make sure it is safe to take the medication".

Although they are considered safe, only one type of preventive is formally licensed for use in heartworm-positive dogs. Giving the other products to a heartworm-positive dog is considered off-label use, which can be authorized by a veterinarian with informed consent from the client.

We test for heartworm so that we can identify any infected dogs as early as possible and begin treatment before serious health effects develop. For that reason, it is still encouraged to test for heartworm annually and the best time to test is in the spring before beginning preventative medication.

## Does my puppy need a test before starting prevention?

Puppies under 7 months old do not need a heartworm test. It can take up to 7 months from the time of an infection for the test to show up as positive, so testing dogs less than 7 months will not give a reliable result.

## Does my cat need a test?

We do not routinely test cats for heartworm disease as the blood test is not as reliable in cats as in dogs. Cats are only tested if they have symptoms of heartworm disease, such as coughing.

#### Does my cat need heartworm prevention?

Cats who go outdoors should ideally be on heartworm prevention from June to November just like dogs, as they can be exposed to mosquito bites as well. Indoor cats are at much lower risk of heartworm infection.

