

Understanding Heartworm Disease in your Dog

What is heartworm disease?

Heartworm disease is a serious and potentially fatal disease in pets in the United States and many other parts of the world. It is caused by foot-long worms (heartworms) that live in the heart, lungs and associated blood vessels of affected pets, causing severe lung disease, heart failure and damage to other organs in the body. Heartworm disease affects dogs, cats and ferrets, but heartworms also live in other mammal species, including wolves, coyotes, foxes, sea lions and—in rare instances—humans. Because wild species such as foxes and coyotes live in proximity to many urban areas, they are considered important carriers of the disease.

How can my dog get heartworm disease?

Adult female heartworms living in an infected dog, fox, coyote, or wolf produce microscopic baby worms called microfilaria that circulate in the bloodstream. When a mosquito bites and takes a blood meal from an infected animal, it picks up these baby worms, which develop and mature into “infective stage” larvae over a period of 10 to 14 days. Then, when the infected mosquito bites your dog, the infective larvae are deposited onto the surface of the animal's skin and enter the new host through the mosquito's bite wound. Once inside a new host, it takes approximately 6 months for the larvae to mature into adult heartworms. Once mature, heartworms can live for 5 to 7 years in dogs. Because of the longevity of these worms, each mosquito season can lead to an increasing number of worms in an infected pet.

What are the signs of heartworm disease?

In the early stages of the disease, many dogs show few symptoms or no symptoms at all. The longer the infection persists, the more likely symptoms will develop. Active dogs, dogs heavily infected with heartworms, or those with other health problems often show pronounced clinical signs. Signs of heartworm disease may include a mild persistent cough, reluctance to exercise, fatigue after moderate activity, decreased appetite, and weight loss. As heartworm disease progresses, pets may develop heart failure and the appearance of a swollen belly due to excess fluid in the abdomen.

How significant is my pet's risk at getting heartworms?

In 2015, we had 3 dogs test positive at Queenstown Veterinary Hospital. These were all dogs who lived in our area and did not travel. For this reason, we recommend that you “think 12:” (1) get your pet tested every 12 months for heartworm and (2) give your pet heartworm preventive 12 months a year.

When should my dog be tested for heartworms and what is involved?

The earlier heartworm disease is detected, the better the chances the pet will recover. Since most dogs do not show signs of early disease, detecting their presence with a heartworm test administered by a veterinarian is important. The test requires just a small blood sample from your pet, and it works by detecting the presence of adult heartworm proteins.

All dogs should be tested annually for heartworm infection, and this can usually be done during a routine visit for preventive care. Following are guidelines on testing and timing:

- Puppies under 7 months of age can be started on heartworm prevention without a heartworm test (it takes at least 6 months for a dog to test positive after it has been infected), but should be tested 6 months after your initial visit, tested again 6 months later and yearly after that to ensure they are heartworm-free.
- Adult dogs over 7 months of age and previously not on a preventive need to be tested prior to starting heartworm prevention. They, too, need to be tested 6 months and 12 months later and annually after that.
- You need to consult your veterinarian, and immediately re-start your dog on monthly preventive—then retest your dog 6 months later. The reason for re-testing is that heartworms must be approximately 7 months old before the infection can be diagnosed.

Annual testing is necessary, even when dogs are on heartworm prevention year-round, to ensure that the prevention program is working. Heartworm medications are highly effective, but dogs can still become infected. If you miss just one dose of a monthly medication—or give it late—it can leave your dog unprotected. Even if you give the medication as recommended, your dog may spit out or vomit a heartworm pill—or rub off a topical medication. Heartworm preventives are highly effective, but not 100 percent effective. If you don't get your dog tested, you won't know your dog needs treatment.

Where can I get heartworm prevention? Why do I need a prescription for it?

You can purchase heartworm prevention from us here at Queenstown Veterinary Hospital. The U.S. Food and Drug Administration (FDA) labeling on heartworm preventives states that the medication is to be used by or on the order of a licensed veterinarian. This means heartworm preventives must be purchased from your veterinarian or with a prescription through a pet pharmacy. Prior to prescribing a heartworm preventive, the veterinarian typically performs a heartworm test to make sure your pet doesn't already have adult heartworms, as giving preventives to a heartworm positive dog can lead to rare but possibly severe reactions that could be harmful or even fatal. If the heartworm testing is negative, prevention medication is prescribed. It is not necessary to test very young puppies or kittens prior to starting preventives since it takes approximately 6 months for heartworms to develop to adulthood.