

ID number: _____

Date of treatment: _____

RESTRICT ACTIVITY UNTIL: _____

Heartworm preventative due: _____

Heartworm test due: _____

The dog you are interested in has been treated for heartworms but was not showing evidence of heartworm disease. Before our dogs are adopted, they all have a blood test to see if they have heartworms and this dog tested positive.

What is heartworm disease?

Some dogs can have heartworms but not have 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.

The dog is a natural host for heartworms, which means that heartworms that live inside the dog mature into adults, mate and produce offspring. If untreated, their numbers can increase, and dogs have been known to harbor several hundred worms in their bodies. Heartworm disease causes lasting damage to the heart, lungs and arteries, and can affect the dog's health and quality of life long after the parasites are gone. For this reason, prevention is by far the best

option, and treatment—when needed—should be administered as early in the course of the disease as possible.

How is heartworm disease transmitted from one pet to another?

The mosquito plays an essential role in the heartworm life cycle. 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 another dog, cat, or susceptible wild animal, 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 and up to 2 or 3 years in cats. 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 dogs?

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. Dogs with large numbers of heartworms can develop a sudden blockages of blood flow within the heart leading to a life-threatening form of cardiovascular collapse. This is called caval syndrome, and is marked by a sudden onset of labored breathing, pale gums, and dark bloody or coffee-colored urine. Without prompt surgical removal of the heartworm blockage, few dogs survive.

What you need to know:

There are different ways for dogs to be treated for heartworms. At the animal shelter, we are doing a course of two injections 24 hours apart. Although there are variations on this treatment, this is how the drug is labelled to be used. For thirty days after the second injection, it is very important that treated dogs have restricted activity. Confinement is the most important aspect of treatment because the worms will be slowly breaking down and absorbed within the arteries. Signs that a dog needs to see a vet after treatment include a fever, heavy or fast breathing, or coughing. If the dog exhibits any of these signs within 30 days of treatment, s/he will need to be seen by a veterinarian as soon as possible. To prevent complications, **the dog must be kept in a crate or closely confined area. You can walk her/him outside on a leash to urinate and defecate.**

All dogs need to be kept on monthly heartworm preventative. It is available as either an oral medication or topical treatment. Dogs receive their first dose at the shelter when the heartworm medication is administered.

To confirm the treatment has been successful, the dog should be retested for heartworms in 6 months. A small percentage of dogs may still test positive at 6 months but be negative by 9 months. Although treatment failure is rare, it is possible. For dogs that remain positive at 9 months, further treatment may be necessary.