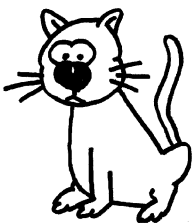




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Heartworm treatment

Adult heartworms are thin white worms, about 5 inches long, living mostly in the heart and major arteries. These worms produce hundreds of thousands of microscopic baby worms (microfilaria) that circulate throughout the body waiting to be picked up by a mosquito and carried to other dogs. In addition to adult worms and microfilaria there may also be immature worms (larvae) growing in the body that have not reached adulthood. The three stages involve different treatment considerations.

Although treatment involves risk, when we discover heartworms in dogs that are still in reasonably good shape, the risk is small. It's not unusual to have complications, but nearly all dogs survive treatment and are much healthier afterwards.

Restrict activity

The first thing we need to do is restrict your dog's activity (no ball chasing, running, or playing excitedly with the kids). The increased blood circulation from heavy exercise can push heartworms out of the major blood vessels and into the lungs, increasing the chance of developing congestive heart failure and possibly causing sudden collapse and death.

Eliminate harmful bacteria

Heartworms live in a mutually helpful relationship with bacteria that are responsible for a lot of the damage caused by heartworm infection and cause many of the complications that can happen during treatment. We can eliminate most of these bacteria with antibiotics.

Eliminate heartworm larvae

We also need to immediately start your dog on a monthly heartworm prevention drug. This will kill heartworm larvae and reduce the number and size of adult heartworms, making them easier for the body to absorb when they eventually die. Using prevention medicine for two months before starting the in-hospital treatment also gives heartworm larvae time to reach adulthood, making them easier to kill later on.

Reduce inflammation

Depending on the severity of the symptoms and the stage of treatment we will prescribe an anti-inflammatory drug called prednisone. Don't be concerned if you notice increased thirst and appetite, which are normal side effects of the drug.

Patient evaluation

Immediately before starting treatment, we perform a physical examination, run basic laboratory work and take chest x-rays. If everything looks ok, we can start treatment the same day.

Treatment to kill adult heartworms

Adult heartworms are killed by giving injections of Immiticide, a drug containing arsenic and as you might expect, it can cause problems.

Pain management

Immiticide is irritating to tissue and must be given by injection deep into the muscle, where it can be slowly absorbed without causing a lot of discomfort. If accidentally given in the wrong place, which can easily happen when dogs jump or struggle, the injection is very painful. We eliminate this once-frequent complication by first administering xylazine, a powerful painkiller and sedative. When we give the Immiticide, our patients are sedated and comfortable. The injection goes exactly where it's supposed to and we rarely see the extreme pain symptoms that happened occasionally in the past. Even so, it's obvious to us that our patients are very uncomfortable for several hours after their injections. We eliminate most of this discomfort by administering a synthetic narcotic called buprenorphine every few hours during hospitalization. Pain management is not part of standard heartworm treatment protocol and most animal hospitals don't bother with it. Yes, pain management does add to the cost but that's how we do it.

Heartworm emboli

The biggest problem is what happens after the heartworms die. Most dead worms remain in the heart and large blood vessels where they've been living and as they disintegrate, white blood cells come along and clean up the debris. It's when dead worms leave the major blood vessels and begin blocking small arteries that we have problems. There will be a few obstructed blood vessels no matter what we do but if your dog engages in heavy exercise it will be much worse. **This is important: From the first stage of hospital treatment until 4 weeks after the second (about two months) your dog must be confined – in the house or on a leash.** After that, only limited activity (no ball chasing, running, or playing excitedly with the kids) is allowed for an additional two months.

During the critical two months, most dogs are going to cough some and have days when they don't feel well. Please call us if you see repeated vomiting, serious depression, morning temperatures higher than 102.4, or a persistent lack of appetite.

How to check your dog's temperature

Use an ordinary human thermometer. Lubricate, insert halfway and wait two minutes (or until it beeps). Dogs' normal morning temperature is between 100 and 102. After heartworm treatment, we don't usually worry unless it's higher than 102.4.

Starting heartworm prevention

The first dose of heartworm prevention medicine will kill a large number of microscopic heartworm larvae, which can cause a reaction. We minimize this by pretreatment with a cortisone drug followed by the first heartworm pill about an hour later. This can be done at home.

Do this on a weekday, when our office will be open and you can be with your pet all day. Give the prednisone tablet(s) at 7:00 in the morning and the first heartworm pill an hour later. Give food and water normally. If there is going to be a significant reaction, it will probably happen within two to four hours after giving the heartworm pill. Signs of a significant reaction might be panting, weakness, vomiting, or diarrhea. If your dog does any of these things or acts sick in other ways, please call us. Although extremely rare, severe reactions require IV fluid support and additional treatment with cortisone drugs.

Summary of treatment steps

Immediately (day 1)

Restrict activity (no ball chasing, running, or playing excitedly with the kids). Begin monthly heartworm prevention medicine and continue throughout treatment. (See “starting heartworm prevention” above). Administer doxycycline during the first month. We administer prednisone during the first month only if needed to control heartworm symptoms.

Two months later (day 61)

First in-hospital treatment. Physical exam, lab work and x-rays followed by a single Immiticide injection. Usually two days in the hospital, followed by prednisone and complete rest (in the house or on a leash) at home for a month.

One month later (day 91)

Second in-hospital treatment, a series of two injections. Usually three days in the hospital, followed by prednisone and complete rest (in the house or on a leash) at home for a month.

One month later (day 121)

Begin limited activity (no ball chasing, running, or playing excitedly with the kids) for an additional two months. Continue on heartworm prevention medicine throughout treatment and permanently thereafter.

Follow up heartworm test six months after treatment is completed