

## Heartworm Treatment for Dogs

This handout contains information to assist you in understanding the Heartworm Treatment plan that your doctor from Maple Small Animal Clinic has recommended for your dog.

Heartworm disease is a serious condition. Left untreated your dog may develop serious complications, such as heart disease, lung disease, multi-organ failure or even death.

### What to expect when your pet is treated for Heartworms:

Heartworm treatment performed in dogs at Maple Small Animal clinic is done in the following steps.

**Step 1:** Your dog tests positive for heartworms and your doctor discusses heartworm disease, treatment and prevention. Your dog needs to be kept quiet, with exercise restriction and rest to reduce the risk of complications, including sudden death.

**Step 2:** Your dog is put on a course of Doxycycline (an antibiotic). This is to weaken the heartworms by killing a bacteria that lives symbiotically with the heartworms. Your dog will also be started on heartworm prevention, specifically, Heartgard. Heartgard is the safest heartworm prevention for heartworm positive dogs; it is important to remain on heartworm prevention throughout your dog's life. Your dog is on Heartgard for 2-3 months prior to initiating treatment because it kills some of the circulating larval forms before they become adult worms in the heart. You are to closely observe your dog after re-starting prevention medication because some dogs can have an anaphylactic reaction (weakness, panting, etc.) and you need to notify a doctor if this occurs.

**Step 3:** Staging: Your dog is admitted to the hospital for a day of testing where the extent and severity of the heartworm disease is assessed. We will take chest x-rays and do bloodwork (complete blood count and chemistry panel) in order to evaluate your dog's condition and to establish the appropriate means of treatment and evaluate the risks. When a parasite exists in an organ as important as the heart, it will affect other organ systems, especially the lungs, liver, kidneys, and blood vessels. Therefore, staging is necessary to evaluate the extent of heartworm disease on your dog's body.

**Step 4:** After staging, your doctor will discuss the necessary medications needed throughout the treatment. You may be given a dosing schedule to help remember when to start medications. Heartworm Treatment 1A can be scheduled after your pet has been on Heartgard for two consecutive months.

**Step 5:** Heartworm Treatment 1: This is the first heartworm treatment. You bring your dog for admission in the morning between 8:00 am and 9:00 am and they will stay 1 night (2 days) in the hospital. Your dog will be examined by a doctor and given the 1<sup>st</sup> heartworm adulticide injection. We admit your dog into the hospital for close observation and monitoring of (temperature, heart, lungs, etc) and also to make sure they are strictly cage-rested. Your dog is examined by a doctor the next day – 24 hours after the injection. When your dog is discharged the next day, be sure to schedule Heartworm Treatment 2 one month later (the second heartworm treatment).

- During this treatment your pet will begin taking Prednisone (a steroid) to help reduce inflammation in the lungs and vessels, caused by the worms before and after they die. Prednisone also helps reduce the risk of an acute pulmonary embolism (clot) that can cause sudden death. Your pet will be on a tapered course of this medication for four weeks.
  - Prednisone may cause an increase in thirst, increase in urination and appetite. You should be aware not to over-feed your dog, provide plenty of water, and allow your dog more frequent opportunities to urinate.

**Step 6:** Heartworm Treatment 1B: This treatment is usually done 1 month after Heartworm Treatment 1A so that the heartworms can be killed in stages, rather than all at once, which is not safe for your dog. You bring your dog for admission in the morning and they will stay 2 nights (3 days) in the hospital. Your dog should be finished with the doxycycline, but still on the prednisone according to schedule. Exercise restriction is still important for the remainder of the prednisone schedule. Afterwards, if your dog is doing well, exercise can be gradually incorporated back into your dog's routine, per the recommendations of the doctor.

**Step 7:** One month after completion of Heartworm Treatment 1B, you will be asked to bring your pet in so that we can draw a blood sample and perform a "Knott's Test" to check to see if your pet has any remaining circulating microfilaria.

**Step 8:** Five months after the Knott's Test (6 month post-treatment) we will ask you to bring your pet in so that your Doctor can examine and evaluate your pet, and draw a blood sample to perform an occult antigen heartworm test. Hopefully the test is negative and treatment was a success. Your dog will remain on heartworm prevention, but at this time, it is safe for you to switch from Heartgard to another heartworm prevention if you so desire.