

## **Owner Information About Heartworm Treatment given at SANTA**

There are two protocols that can be used to treat heartworms in dogs: the ‘**Short**’ protocol and the ‘**Long**’ protocol.

The **short protocol** is two doses (injections) of Immiticide given 24 hours apart followed by 6-8 weeks of strict exercise restriction.

The **long protocol** begins with one dose of Immiticide followed by strict exercise restriction for 4 weeks. A second dose of Immiticide is then given followed by a third dose 24 hours later. Again, there must be at least 4 and preferable 8 weeks of strict exercise restriction.

The **American Heartworm Society** recommends that all heartworm patients be treated with the long protocol because it has been proven safer than the short protocol. There; SANTA only offers the long protocol for heartworm treatment.

Other recommended tests prior to Heartworm Treatment

A complete work up for heartworm disease prior to treatment includes chest x-rays, in depth blood work, urinalysis, and an ultrasound of the heart. Our pre-treatment protocol of heartworm disease does not require that these things be done. This is how we are able to offer the heartworm treatment at a lower cost. ***We do recommend that if you can afford to have these tests done, please do so at your full service vet prior to treatment.***

These additional diagnostic tests will be able to help determine how bad the heartworm disease is and if complications are more likely after treatment.

### **How does the treatment work?**

The first dose of Immiticide works by killing some of the worms and allows the dog to recover for 4 weeks. The remaining worms are killed during the 2<sup>nd</sup> and 3<sup>rd</sup> doses of Immiticide. After the worms die, they gradually break down in to small pieces that are tiny enough for the body to get rid of them completely. The long protocol allows for the worms to be killed over a longer period of time, thus allowing the body not to have a large mass of dead worms at one time that can cause more complications than if there are less dead worms.

### **How to care for your dog after heartworm treatment.**

The care for your pet after heartworm treatment is extremely important to reduce the occurrence of complications that may be associated with heartworm treatment.

Some patients are very tired and sleep a lot for two to four days after treatment. Because the injections are given in the back muscles, some dogs may experience muscle pain and may be very uncomfortable if the area of the injection is touched. We send home with you an anti-inflammatory to give to help decrease the any pain or discomfort that your dog may experience. Some dogs act as if nothing ever happened and feel no discomfort at all.

The most common complication of heartworm treatment is *pulmonary thromboembolism*. This occurs when the pieces of dead worms leave the heart and enter the blood vessels of the lungs. Increased heart rate associated with exercise and activity will pump the dead worms out of the heart and into other areas of the body. This can be a

serious and sometimes fatal situation. **This is why absolutely no activity after treatment is so important.**

After the first injection is given, your dog must have strict exercise restrictions. There can be no running, no playing, and no jumping. The ideal situation is to have the dog in a crate or a confined area to limit activity as much as possible. A dog that normally lives outdoors should become an indoor dog during the treatment period. The dog should only be allowed to go outside to urinate and defecate. He/she should be placed on a leash to ensure that he/she does not run away from you or start to run around the yard having a good time. The dog should not be taken on walks, not even short ones. Any increase in activity can cause problems. If the dog lives with other dogs or children that like to play, you must separate the dog during the treatment period.

After the 2<sup>nd</sup> and 3<sup>rd</sup> injections are given, strict exercise restriction as stated above should be done for 6-8 weeks after. After this period of time, the dog can slowly start to have more activity.

Monthly heartworm prevention is then started and must continue to be given once a month for the rest of the dog's life.

#### **Things to watch for after treatment**

As mentioned above your dog may experience pain at the site of the injection. There may also be some swelling. This usually only lasts 24-48 hours. If your dog is experience excessive pain or swelling, please contact us.

Other things to look for are coughing, lack of appetite, listlessness, troubled or labored breathing, vomiting, diarrhea, lethargy, fever, pale gums, difficulty walking, and bleeding from the nose. If you see any of these symptoms please contact us, your nearest full service veterinary clinic, or a veterinary emergency clinic.

#### **Treatment follow up**

Your dog will need to be retested for heartworms six months after the last injection to ensure that the treatment has been a success. Your dog should be taking a monthly heartworm prevention during these six months.