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Worming Through the Heartworm Disease Treatment Process: What to Expect

When a dog is diagnosed with heartworm disease, navigating the next steps can feel overwhelming for many pet owners. Understanding the basics of heartworm disease and how to treat it can help make the process smoother for you and your pet.

Heartworm disease involves worms living and growing inside your pet's heart. The disease was spread to your dog through a mosquito bite. Overtime, heartworms in your dog can cause damage to your dog's lungs, putting back-pressure on the heart and creating a risk for heart and lung disease and sudden death. Fortunately, most cases of heartworm disease that are diagnosed in the early stages of infection can successfully be treated. After treatment, life-long heartworm prevention is imperative to make sure he/she does not become reinfected.

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Additional Testing & Staging

Once your dog has been diagnosed with heartworm disease, the veterinary team will perform additional testing to determine what class (severity) of heartworm disease your dog has. Classification will help to determine your dog's overall prognosis, most effective treatment approach, and what additional precautions may need to be taken to ensure the best possible outcome for your dog.

The Treatment Process

Once your dog's heartworm disease has been classified, the veterinary team will begin treating your dog. Eliminating heartworm disease is a process done through several varying treatments over the course of a few months. This will include Immiticide® (melarsomine dihydrochloride), an injectable drug that kills the adult heartworms in your pet.

Strict exercise restriction and confinement are critical to reducing the risk for treatment complications. Exertion, excitement, and exercise increase blood flow to your pet's lungs, which can increase the likelihood that the blockages caused by dying heartworms can lead to illness or death.² It is recommended that your pet's activity be restricted for 6 to 8 weeks after treatment, with your veterinary team offering further guidance on when and how to return your pet to normal activity.^{1,2}

The veterinary team recognizes it will be difficult to keep your dog from exercising. Mental stimulation will be important for your dog's emotional well-being. Some tips for providing mental stimulation include rest areas inside and outside the home so your dog can experience a change of scenery, puzzle toys, food-dispensing toys, clicker training for new tricks that do not require physical activity, calming music or white noise, and calming pheromone products.³

Treatment Timeline

The following treatment protocol is recommended by the American Heartworm Society; however, those with more serious illness may require alternate treatment options.

The First 2 Months (Days 1-60)

- Your dog will be given his/her first dose of heartworm prevention.¹ This will affect immature heartworms and prevent new heartworm infections from occurring.^{1,2} The veterinary team

may choose to give the first dose to your dog in the hospital and monitor him/her for the day to ensure they have no reactions. You will need to keep your dog on heartworm prevention for the duration of your dog's life.

- The veterinary team will dispense 30 days of doxycycline for you to administer orally to your dog.¹ Doxycycline is an antibiotic that kills the bacteria commonly found in heartworms.¹ By giving doxycycline to your dog before he/she receives treatment, you are lessening the chance for complications and improving the chance for successful treatment.²
- Another dose of heartworm prevention will be administered by you on day 30. Then, a 30-day waiting period occurs to allow for elimination of the youngest stages of heartworms.¹

Month 3 (Days 61-90)

- Your dog will be admitted to the hospital for his/her first treatment.^{1,2} This will involve a single injection of Immiticide® (melarsomine dihydrochloride).^{1,2}
 - The veterinary team may decide to mildly sedate your dog if they feel it will make your dog less anxious.
 - Your dog will remain in the hospital for the day for observation to ensure that he/she does not have any major reactions to the medication.
 - Your dog may experience some soreness for a few days after injection.¹
- You will continue to administer heartworm prevention orally to your dog once a month.
- The veterinary team will likely give you a steroid to administer for 1 month to reduce the risk for complications associated with inflammation that may occur from treatment.^{1,2} They also will likely dispense oral pain medication for a few days, as there may be soreness at the site of the injection.

Month 4 (Days 90-91)

- One month after the first Immiticide® injection, 2 additional injections will be administered 24 hours apart.^{1,2} Your dog will be admitted to the hospital again for these treatments.^{1,2}
 - These injections will eliminate ≈98% of adult heartworms.²
 - Your dog will need to be strictly rested for an additional 6 to 8 weeks while the remainder of the heartworms die.^{1,2}
- The veterinary team will likely dispense another steroid for 1 month and may dispense oral pain medication as well.^{1,2}

Month 5 (Day 120)

- At the end of month 4 (day 120), the veterinary team will draw blood from your dog to assess whether he/she still has circulating microfilariae (heartworm babies) in their system.^{1,2} Additional medication and testing may be recommended if this test is positive.
- You will continue to administer heartworm prevention orally to your dog once a month.

1 Year (Day 365)

- The veterinary team will run a heartworm test on your dog 9 months after their last Immiticide® injection to assess whether he/she still has adult heartworms.¹
- Your dog will be considered “cleared” of heartworm disease once he/she has had 2 consecutive negative heartworm tests 6 months apart.¹
- Continue regular heartworm prevention throughout the life of your pet to safeguard them from becoming reinfected.

Your Role

The role you play in your dog's heartworm treatment process is an important one. Closely monitoring your dog throughout treatment is imperative, as heartworm treatment does carry risks. If signs of lethargy, panting, labored breathing, decreased appetite, or other concerning signs are noticed, it is important to seek immediate veterinary care.

The veterinary team can provide a wealth of information. Ask questions during your dog's treatment. Heartworm treatment is a collaborative effort between you and the veterinary team, and working closely together will ensure the best outcome and quality of life for your dog.

References

1. American Heartworm Society. Current canine guidelines for the prevention, diagnosis, and management of heartworm (*Dirofilaria immitis*) infection in dogs. AHS website. <https://www.heartwormsociety.org/images/pdf/2018-AHS-Canine-Guidelines.pdf>. Updated 2018. Accessed July 10, 2023.
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3. Horwitz D. Dog in a box but not bored. AHS website. <https://www.heartwormsociety.org/resources/vet/video/683-15-dog-in-a-box-but-not-bored-debra-f-horwitz>. Accessed July 10, 2023.

IMPORTANT SAFETY INFORMATION

IMMITICIDE Sterile Powder should not be used in dogs with very severe (Class 4) heartworm disease. **IMMITICIDE Sterile Powder should be administered by deep intramuscular injection in the lumbar (epaxial) muscles (L3–L5) only. Do not use in any other muscle group. Do not use intravenously. Care should be taken to avoid superficial injection or leakage.** Serious adverse reactions may occur in any dog with heartworm disease due to the killing of heartworms in the pulmonary arteries. Reactions may include thromboembolism, dyspnea, coughing, depression, right side heart failure, and death. Dogs should be cage rested following treatment due to possible thromboembolic disease. Post-injection site reactions (eg, pain, swelling) were the most commonly reported adverse events. See full prescribing information for dosing and administration directions prior to each use of IMMITICIDE Sterile Powder. For full prescribing information, visit **IMMITICIDEclinic.com**.