

# Heartworm Treatment Guidelines for the Pet Owner

The American Heartworm Society recommends the following heartworm treatment protocol for dogs. This method effectively eliminates most heartworm infections when closely followed by both you and your veterinarian. The overall goals of treatment are to safely and successfully eliminate current adult and immature heartworms, prevent new infections and minimize treatment related complications in your dog. The recommended treatment consists of the 5 steps outlined below.

## Initial Treatment (Day 0)

From the moment your dog is diagnosed with heartworm disease your dog must be kept strictly confined! That means your dog should be restricted to a very small area at all times throughout the entire treatment period (the use of a small cage or crate may be necessary), and continuing for 6 to 8 weeks after the last injection of melarsomine (the drug that kills adult heartworms). To ensure activity restriction, your dog must be kept on a leash when going outside. Your veterinarian will tell you when it is permissible to gradually allow your dog to be active again.

Your dog will be started on a once-monthly medication called a “preventive,” to kill immature heartworms and prevent new infections from developing. You should continue to give it to your pet throughout treatment as well as for the rest of his/her life.

Your dog will also be given the antibiotic doxycycline or minocycline for 28 days. This medication kills bacteria which live in the heartworms. These bacteria help the worms survive and reproduce. They also may cause worsening inflammation when adult heartworms die. By giving this antibiotic prior to the medication that will kill your dog’s heartworms, we decrease the likelihood of complications from the treatment and optimize the chance for complete elimination of the infection. Your veterinarian may also prescribe a topical product to repel or kill mosquitoes that transmit heartworm to dogs.

## Follow-up with Your Veterinarian (Day 30)

Your veterinarian will contact you to confirm that your dog has completed the course of doxycycline, remind you to give the next dose of the monthly heartworm preventive (unless an injectable preventive was given), and make sure you are using the topical mosquito-killing product.

## First Adulticide Treatment (Day 60)

Two months after starting heartworm preventive, you will need to bring your dog to the clinic for the first injection of melarsomine, the drug that kills adult heartworms. Because complications can occur, your veterinarian might require your pet to stay in the clinic for observation. Upon discharge, your veterinarian may also prescribe prednisone or another anti-inflammatory medication for your dog to reduce side effects.

## Second and Third Adulticide Treatments (Days 90/91)

One month after the first injection, two additional injections of melarsomine must be given 24 hours apart. Once again, your dog may need to stay at the clinic during this treatment period.

## Interim Assessment of Health and Microfilaria Status (Day 120)

Your veterinarian will examine your dog to determine his/her status following treatment. This examination will include a careful physical examination with an emphasis on the heart and lungs as well as testing for circulating immature stages of heartworm (microfilaria). This interim assessment will help your veterinarian determine when your pet can gradually resume more vigorous physical activity. If microfilaria are still present, your veterinarian may prescribe an additional medication to help eliminate them and then retest at Day 150 to assess effectiveness.

## Final Assessment of Efficacy (Day 365)

Your veterinarian will test your dog’s blood to assess the success of adulticide treatment. The goal is to eliminate all stages of heartworms from your dog.

## Home Care – Your Responsibility

Throughout the recovery period, please watch your pet for coughing, gagging, vomiting, diarrhea, or loss of appetite. Excessive sluggishness, respiratory distress, and coughing up blood are signs of a serious problem that require immediate veterinary attention.

The most important thing you can do to minimize complications during treatment is to restrict your pet’s activity before, during and after the melarsomine injections. When adult worms die, they collapse and are pushed deeper into the smaller branches of the vessels that supply blood to the lungs. Because activity increases blood flow to the lungs, it increases the likelihood that dead worms will block blood flow. This can result in severe complications and possibly death. The importance of restricting your dog’s activity cannot be overemphasized.



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