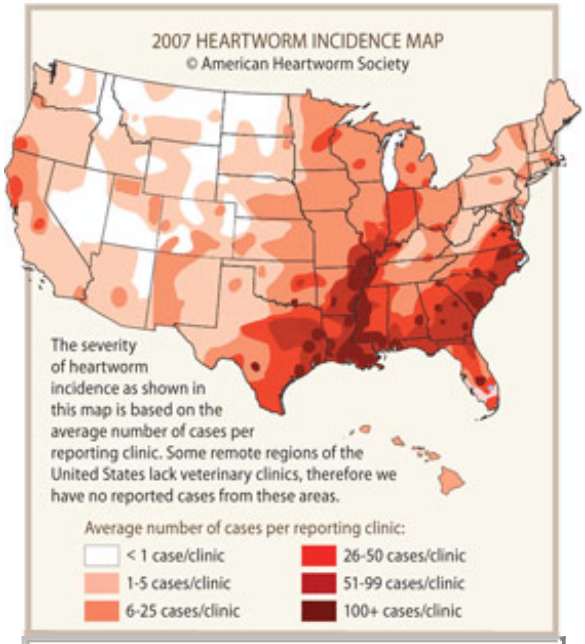
# Dog Heartworm: Risky to Treat; Prevention is Key

*Drs. Foster & Smith Educational Staff*

Occasionally, people ask us if it's really necessary to continue using a heartworm preventive for their dogs. They wonder if there's enough risk to justify the cost, especially since there is a treatment for adult heartworm disease in dogs.

THE FACT IS, HEARTWORM INFECTION is still an extremely serious health concern for your dog, and the risk of it is widespread. The American Heartworm Society notes that adult heartworm disease has been reported in dogs in all 50 states. Adult heartworm disease can cause severe damage to the heart, lungs and other organs, and can eventually lead to death. While it is true that there is a treatment for adult heartworm disease, the treatment can be costly, requires hospitalization, and is not without the risk of side effects.

IF A DOG DEVELOPS HEARTWORM INFECTION, the drug Immiticide (melarsomine hydrochloride) is the only one that is approved by the FDA for the treatment of adult heartworm




While heartworm disease is certainly a serious health risk, the good news is that it is also one of the most easily prevented



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disease in dogs. Immiticide is given by deep injection into the muscles of the back, usually in one or two doses over the course of several days.

AS THE DRUG WORKS, DEAD AND DYING WORMS in the heart and lungs can cause an inflammatory reaction in the body. While Immiticide is better tolerated by the body than the previously used drug Caparsolate, the dog must still remain hospitalized during treatment to be observed for the development of possible side effects.

conditions. Monthly heartworm preventives come in convenient oral forms (such as Heartgard Plus or Interceptor) or easily-applied topical applications (such as Revolution). We recommend using a heartworm preventive every month year-round. In the long run, maintaining your dog's heartworm protection is money well spent.

AFTER TREATMENT, THE DOG'S ACTIVITY LEVEL must be quite limited for several weeks, to reduce the chance of pulmonary thromboembolism (obstruction of blood flow in the arteries of the lungs, caused by dead heartworms), which can lead to death. The injectable treatment alone generally costs at least several hundred dollars, not including the blood testing and x-rays of the heart and lungs that are recommended beforehand to evaluate any damage the heartworms have already done and the patient's ability to safely tolerate the treatment.

FOLLOW-UP DIAGNOSTIC TESTING MAY BE NEEDED after treatment, also. Total cost varies depending upon the patient and the area of the country, but may be a thousand dollars or more in some cases. Finally, although treatment will kill the adult heartworms, it cannot repair any damage that they may have done prior to treatment.

THE HEARTWORM LIFE CYCLE depends on the mosquito. When the insect bites an infected dog, it takes in tiny heartworm larvae (microfilariae) that have been circulating in the animal's bloodstream. Once inside the mosquito, the microfilariae mature into infective larvae, eventually migrating to the mosquito's mouthparts, to be transmitted when the insect bites another animal. In the new host, the larvae continue to develop, eventually migrating through the bloodstream to the lungs, heart and associated vessels, where they cause inflammation and obstruct blood flow. As the larvae become adult worms, they mate and produce more microfilariae, continuing the cycle. The heartworm life cycle, from larva to adult worm, generally takes about 6 months.

For additional help, view our "How to Manage Heartworm" video.



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