



## Heartworm Disease: Removal of Adult Heartworms

### General Information

Heartworm disease is becoming more common in many parts of the United States. It is caused by the heartworm, *Dirofilaria immitis*. This parasite lives in the right side of the dog's heart and the nearby large vessels (pulmonary arteries). The female worm produces large numbers of microscopic, immature heartworms that circulate in the blood. These immature worms (microfilariae) are taken up with the blood by a mosquito feeding on an infected dog. After living in the mosquito for 10 to 14 days, the microfilariae can then infect another dog that the mosquito feeds on. The feeding mosquito deposits infective microfilariae into the skin of another dog, and these enter the body through the mosquito bite wound. The microfilariae eventually travel to the heart where they develop into adult heartworms. The adult heartworms produce new microfilariae within 3 months. It takes at least 190 days from the time the dog is bitten by an infected mosquito until the dog becomes a new source of infective microfilariae.

Most cases of heartworm are diagnosed by finding the microfilariae in the blood. Sometimes, however, no microfilariae are found in the blood (occult heartworm disease). These cases are diagnosed by a combination of blood tests and chest radiographs (x-rays).

Failure to treat heartworm disease may result in heart failure and/or serious disease of the liver and kidneys. Untreated heartworm disease is usually fatal.

### Important Points in Treatment

1. Treatment for heartworms consists of two phases: destruction of the adult heartworms, followed by elimination of microfilariae from the blood.
2. Before treatment, a thorough physical examination, including blood tests, chest radiographs (x-rays) and an electrocardiogram, is advised. Any underlying liver or kidney disease is usually treated first.
3. Heartworm disease is very serious, and complications may arise during and after treatment. The doctor will discuss the risks involved in your pet's treatment.
4. *Medication:* Give all medication as directed. Call the doctor if you cannot give the medication.
5. *Activity:* Your pet's activity must be severely restricted for 8 weeks after treatment. Do not allow unrestricted running. Short on-leash walks are the only exercise allowed until both phases of treatment have been completed. Also, prevent your pet from engaging in vigorous or extended barking, rough play, or other excitement.
6. *Diet:* Follow the instructions checked.

\_\_\_\_\_ Feed the normal diet.

\_\_\_\_\_ A special diet is required. Feed as follows: \_\_\_\_\_

7. *Special instructions:* \_\_\_\_\_

### Notify the Doctor if Any of the Following Occur

- Your pet refuses to eat.
- Your pet has diarrhea or vomiting or seems in pain.
- Your pet coughs frequently or has trouble breathing.
- There is a change in your pet's general health.