

# Heartworm Disease in Dogs

- Heartworm disease attacks the lungs, heart, and related blood vessels. It is serious and potentially fatal.
- Dogs are highly susceptible to heartworm. Nearly all exposed dogs will become infected. Heartworm is endemic in all 50 states.
- Heartworm disease is transmitted through the bite of an infected mosquito.
- Treatment can be costly and complicated.
- Illness is easily and effectively avoided by giving preventive medications.

## What Is Heartworm Disease?

Heartworm disease is a serious and potentially fatal condition that affects dogs, cats, and up to 30 other species of animals. It is caused by parasitic worms (heartworms) living in the major blood vessels of the lungs and, occasionally, in the heart. These worms are transmitted (as microscopic larvae) through the bite of an infected mosquito. The scientific name for the heartworm parasite is *Dirofilaria immitis*.

Heartworm disease can cause a variety of medical problems affecting the lungs, heart, liver, and/or kidneys. Any of these problems, alone or in combination, can lead to death. Although safe and effective treatment is available, it can be a costly and complicated process depending on how long the dog has been infected and how severe the infection is.

Despite the fact that heartworm disease is virtually 100% preventable, many dogs are diagnosed with it each year. The American Heartworm Society (AHS) estimates that one million dogs in the United States are infected with the disease today, and this number may be rising.

## Signs of Heartworm Disease

Some dogs may show no signs of infection. However, depending on the number of worms and

the duration of infection, dogs may begin to show the following clinical signs:

- Persistent cough
- Lethargy (tiredness)
- Difficulty in exercising
- Loss of appetite and weight loss

## Diagnosis and Treatment

Apart from clinical signs, heartworm disease can be diagnosed using laboratory tests that check the dog's blood for evidence of infection. These tests are accurate but can sometimes produce false-negative results.

Ultrasound images and radiographs ("x-rays") can also sometimes show evidence of heartworms in the heart or lungs.

If infection is detected early enough, heartworm disease can be treated before permanent damage to the heart, lungs, and blood vessels occurs. However, if the infection has been present for a long time or consists of a large number of worms, the risk of complications increases. In these cases, treatment can be more expensive and complicated, and dogs may take many months to recover from the infection. Hospitalization may be required.

Untreated heartworm disease can be fatal.

## Prevention

Safe, easy-to-give, effective medications are available to prevent heartworm disease. Some are given monthly and are either applied to the skin (topical or "spot on" medications) or given as a pill or treat. One product can be injected by your veterinarian every 6 months. Ask your veterinarian which method and schedule of heartworm prevention are best for you and your pet.