

# Heartworms

Heartworm is a disease that is common in dogs and cats in all areas throughout the world. The disease can easily be prevented if the right steps are taken. This handout contains information about the disease, its cure and prevention. Heartworm infections are a major risk for dogs and cats in all areas throughout the world, with Antarctica being the only exception. Some of the highest incidence of heartworm infections is found in animals that live within 150 miles of the Atlantic coast from Texas to New Jersey and along the Mississippi River. In these areas, up to 45% of dogs that are not on heartworm preventatives have been found to become infected. While the heartworm infection rate in most other areas is somewhat lower, the heartworm disease still represents a major risk to all dogs and cats in all states of the United States and other countries throughout the world.

## How is Heartworm Disease Transmitted?

Heartworms are passed by mosquitoes. Adult heartworms live in the heart and large adjacent vessels of infected animals. Adult heartworms produce baby heartworms (microfilaria) which circulate in the blood. These microfilaria are picked up by mosquitoes and are passed on to unprotected dogs and cats.

## How is Heartworm Disease Prevented?

The most common heartworm prevention is a monthly pill or spot on product. Heartguard and Interceptor are two of the most common monthly preventatives. Revolution is a spot on product which can be used for dogs or cats. Proheart is a shot for dogs only which provides six months of protection against heartworm infections. Missed doses can mean serious consequences for pets. If you miss a dose, you should contact your veterinarian immediately for recommendations. Do not start heartworm prevention without contacting your veterinarian. A dog that is positive for heartworms is at risk for a fatal allergic reaction if put on heartworm preventative.

## What are the Clinical Signs of Heartworm Disease?

Heartworms may cause dysfunction affecting blood circulation, heart, liver and kidneys. Heart and lung are the most common organs that can contain heartworms. Often, dogs do not show signs of heart worm disease for up to two years. The most common sign of heartworm infection in cats is sudden death. When the disease is recognized due to clinical signs, it is often well advanced. Below is a list of common heartworm symptoms.

Clinical Signs Associated with Heartworm Disease	
Acute	Chronic
collapse difficulty breathing convulsions diarrhea/vomiting blindness tachycardia sudden death	coughing difficulty breathing vomiting lethargy anorexia weight loss exercise intolerance

## How Can Heartworms Damage My Pet's Health?

Adult heartworms cause medical problems by clogging the heart and major blood vessels near the heart. Heartworms can also interfere with the valve action in the heart. If heartworms are present, the blood supply to other organs in the body is reduced, particularly to the lungs, liver and kidneys. If the heartworm disease is not controlled, these organs may eventually fail and your dog may suddenly die during exercise or excitement. Adult heartworms can also cause the destruction of tissue of major organs such as the lung, liver and kidney, leading to coughing, anemia and weakness. Microfilariae may block blood flow in small vessels.

## How Can Heartworm Disease Be Diagnosed?

Your veterinarian can detect the presence of heartworms by conducting a blood test. If you suspect that your dog might show the symptoms of heartworm disease, or if you missed doses of your pets preventative, you should immediately contact your veterinarian who will conduct the required tests and provide advice on heartworm medicine.

## Heartworm Treatment

Heartworm treatment is a serious medical procedure that should be carried out by a qualified veterinarian. Heartworm treatment can only be done in dogs. The drugs used to kill heartworms contain an arsenic component. During heartworm treatment the dog's liver and kidney will work hard to rid the dog's body of byproducts from the drugs and from the dead heartworms.

Dogs need to be kept still for several weeks after heartworm medication has been given to your dog. The heartworm treatment drugs and injections often cause nausea, loss of appetite and vomiting in dogs.

Because of the risks and the pain and suffering involved with heartworm treatment, it is much better to prevent heartworms in the first place. Heartworm disease can be easily prevented by giving your dog or cat a dose of heartworm preventatives each month.

## KEY POINTS

- Heartworms can kill your pet
- Heartworms are easily prevented
- Preventative is much cheaper than treatment – in the case of cats, there is no treatment
- Preventative should be given monthly all year round for the life of your pet
- Do not start preventative without discussing it with your veterinarian – dogs need to be tested first to prevent fatal reactions