

HEARTWORM DISEASE IN CATS

WHAT IS HEARTWORM DISEASE?

Heartworm disease is a serious and potentially fatal disease in pets in the United States and many other parts of the world. It is caused by foot-long worms (heartworms) that live in the heart, lungs and associated blood vessels of affected pets. These worms cause severe lung disease, heart failure and damage to other organs in the body.

Heartworm disease affects dogs, cats and ferrets, but heartworms also live in other mammal species, including wolves, coyotes, foxes, sea lions and—in rare instances—humans. Because wild species such as foxes and coyotes live in proximity to many urban areas, they are considered important carriers of the disease.

Heartworm disease in cats is very different from heartworm disease in dogs. The cat is not the natural host for heartworms, and most worms in cats do not survive to the adult stage.

Cats with adult heartworms typically have just one to three worms, and many cats affected by heartworms have no adult worms. This makes it harder to diagnose, because current blood tests are based on detecting an antigen from adult female heartworms. It means heartworm disease often goes undiagnosed in cats.

Heartworms are less common in cats than in dogs, but cats can get them too. Affected cats usually have only a few of these worms in their heart, but because the cat's heart is very small and the worms are quite large, even 1 or 2 worms can be fatal.

Signs of heartworm disease in cats include:

- Chronic coughing or wheezing
- Vomiting
- Sudden collapse or death

Unfortunately, even immature worms cause real damage in the form of a condition known as heartworm associated respiratory disease (HARD). Moreover, the medication used to treat heartworm infections in dogs cannot be used in cats, so prevention is the only means of protecting cats from the effects of heartworm disease.

HOW IS HEARTWORM DISEASE TRANSMITTED FROM ONE PET TO ANOTHER?

The mosquito plays an essential role in the heartworm life cycle. Adult female heartworms living in an infected dog, fox, coyote, or wolf produce microscopic baby worms called microfilaria that circulate in the bloodstream. When a mosquito bites and takes a blood meal from an infected animal, it picks up these baby worms, which develop and mature into “infective stage” larvae over a period of 10 to 14 days. Then, when the infected mosquito bites another dog, cat, or susceptible wild animal, the infective larvae are deposited onto the surface of the animal's skin and enter the new host through the mosquito's bite wound.

Once inside a new host, it takes approximately 6 months for the larvae to mature into adult heartworms. Once mature, heartworms can live for 5 to 7 years in dogs and up to 2 or 3 years in cats. Because of the longevity of these worms, each mosquito season can lead to an increasing number of worms in an infected pet.



The image above is from the Companion Animal Parasite Council, <https://capcvet.org/guidelines/heartworm/>

Outdoor cats are most at risk, but interestingly enough, a study of feline heartworm disease in Texas and South Carolina showed that **36% of infected cats were kept totally indoors**. Since it takes so few of the heartworm parasites to cause disease in cats, even the occasional mosquito finding its way into the home can carry more than enough heartworm larvae to be fatal.

Though effective preventive medications have been available for dogs for years, more than 1/3 of dogs in our area are not being protected. Many of them are harboring the heartworm parasite. Virtually 100% of coyotes in the Midwest have heartworms, too. Mosquitoes then carry the disease from infected animals to other pets, and occasionally to people as well.

WHAT CAN BE DONE?

Luckily, cats can take once a month preventive medication just like dogs. There are two ways to prevent heartworms. The first is chewable, beefy Heartgard®, a good tasting tablet your cat should like. The price is quite reasonable, and the medication also helps prevent roundworms and hookworms – common intestinal parasites - as well.

If your cat can't or won't eat Heartgard, we can also use topical ointments containing selamectin.

Sadly, because we don't routinely test for heartworm disease in cats, we may not have any warning at all before a cat collapses and dies. This is why prevention is so important in felines.

WHAT IF MY CAT TESTS POSITIVE FOR HEARTWORMS?

Because a cat is not an ideal host for heartworms, some infections resolve on their own, although these infections can leave cats with respiratory system damage. Heartworms in the circulatory system also affect the cat's immune system and cause symptoms such as coughing, wheezing and difficulty breathing. Heartworm larvae may even migrate to other parts of the body, such as the brain, eye and spinal cord. Severe complications such as blood clots in the lungs and lung inflammation can result when the adult worms die in the cat's body.

Unfortunately, there is no approved drug therapy for heartworm infection in cats, and the drug used to treat infections in dogs is not safe for cats. The antibiotic doxycycline kills bacteria that are symbiotic to the heartworms, which can weaken the worms, so we can do that much. We can also administer anti-inflammatory medication to reduce lung damage. The goal is to stabilize your cat and prevent further infection.

For a variety of reasons, even in regions of the country where winters are cold, the American Heartworm Society is now recommending a year-round prevention program. Mosquito species are constantly changing and adapting to cold climates. Some species successfully overwinter indoors as well, especially in garages and sheds. Those overwintering adults can be active on sunny days in a warmer location. Remember too that many of these products are de-worming your pet for intestinal parasites as well as heartworms. Year-round prevention is the safest, and is recommended.

Go to <https://www.pethealthnetwork.com/cat-health/cat-diseases-conditions-a-z/feline-heartworm-disease> to watch a good video on heartworm disease in cats.

Caring People Helping Pets



2082 Cheyenne Court, Grafton, WI 53024 • phone: 262-375-0130 • fax: 262-375-4196 • www.bestfriendsvet.com

