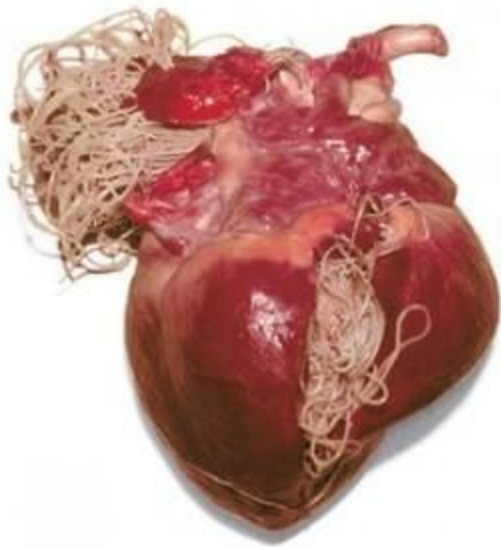


# Heartworm in Felines

AAECP follows the American Heartworm Society protocols for prevention and treatment of Heartworm in Felines. This protocol has changed as of 2015 meaning we recommend heartworm testing for cats before starting heartworm preventative.

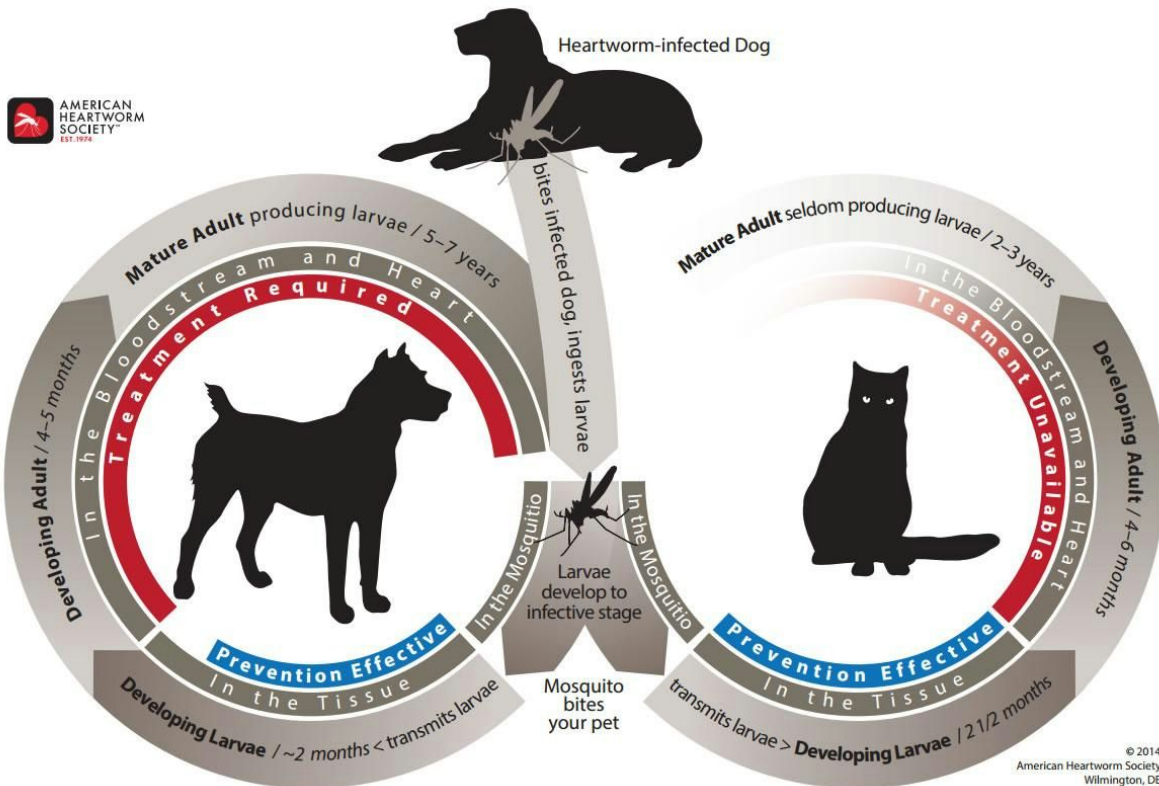


## What is heartworm disease in cats?

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, causing severe lung disease, heart failure and damage to other organs in the body.

Heartworm disease causes lasting damage to the heart, lungs and arteries, and can affect the cat's health and quality of life long after the parasites are gone. For this reason, prevention is by far the best option, and treatment—when needed—should be administered as early in the course of the disease as possible.

## 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.

## **EPIDEMIOLOGY**

Heartworm infection has been diagnosed around the globe, including all 50 of the United States, and is considered at least regionally endemic in each of the contiguous 48 states and Hawaii.

## **BIOLOGY OF FELINE HEARTWORM INFECTION**

Significant differences exist between feline heartworm disease and its classical canine counterpart. Although cats are susceptible hosts, they are more resistant to infection with adult *Dirofilaria immitis* than are dogs. Most heartworm infections in cats are comparatively light and consist of less than six adult worms. Cats with only a few worms are still considered to be heavily infected in terms of parasite biomass, however, because of their relatively small body size. The true prevalence of heartworm infection in cats is probably understated due to diagnostic limitations and the greater tendency of cats to exhibit only transient clinical signs or die without confirmation of infection. Nevertheless, heartworms are capable of causing severe disease in cats.

## **GUIDELINES**

Monthly heartworm preventives are a safe and effective option for cats in areas where heartworm infection is considered endemic in dogs and exposure to infective mosquitoes is possible. So-called “indoor” cats may also be at risk. Advantages of year-round administration of heartworm preventive include 1) activity against some common intestinal parasites and in the case of selamectin and topical moxidectin + imidacloprid, external parasites, 2) increased compliance, and 3) retroactive efficacy as a safeguard for missed doses. The primary reasons for heartworm testing cats are 1) to establish an etiologic diagnosis in those individuals that, based on other clinical evidence, are suspected to be infected, 2) to monitor the clinical course of those that have already been diagnosed with feline heartworm disease, and 3) to establish a baseline reference prior to initiating preventives.