



Current research shows that heartworm infection in cats is more common than previously thought. Feline heartworm disease was considered to be a rare condition – likely because this disease is difficult to diagnose in cats. New strategies for diagnosing heartworm disease in cats have improved detection rates.

Today we know that heartworm infection is a serious disease that does occur in cats. In fact, the incidence of heartworm infection in cats rivals that of Feline Leukemia Virus and Feline Immunodeficiency Virus. Because cats are not a natural host for the heartworm, the typical development of the parasite does not occur as it does in the dog and the symptoms related to infection differ as well.

To explain how a cat can become infected with heartworms, let's begin by looking inside the heart of a dog infected with heartworms:

Adult heartworms live and reproduce in the heart and lungs of an infected dog. Female heartworms release their offspring (termed microfilaria) into the bloodstream. Once released, the microfilariae circulate throughout the dog's body. The transfer of infection begins when a mosquito takes a blood meal from the infected dog. Once inside the mosquito, the microfilaria spends the next 30 days maturing into the infective L3 stage. Maturation of the microfilariae within the mosquito is required for transmission of heartworm infection. At the next blood meal, the mosquito injects the infective L3 larvae into the skin of a naïve cat. The presence of heartworm larvae in the cat's body strongly activates the immune system to begin attacking and destroying the heartworm larvae; very few larvae survive this stage. Those larvae that do survive migrate through the body, landing in the pulmonary arteries of the lungs (just as with dogs) to mature into adults 5-6 months later. Because cats are not the natural host for heartworms, occasionally the larvae get lost within the cat's body and land in unusual sites, such as the abdominal cavity, and create inflammation. The entire life cycle takes 6-8 months to complete.

Cats infected with heartworms typically have low numbers of worms in their pulmonary arteries and lungs. Although the number of worms is low, the amount of lung damage caused by the worms is tremendous.

Symptoms related to heartworm infection in cats vary widely:

Asymptomatic, Vomiting, Asthma-like symptoms such as coughing and wheezing, and Acute respiratory distress or death.

Diagnosis of heartworm infection in cats can be challenging due to the small number of adult heartworms that mature in the cat. Often, a combination of specialized blood tests, chest X-rays and heart ultrasounds aid in the diagnosis.

There is no safe treatment to eliminate heartworm infection in cats. Treatment for heartworm infection in cats is limited to symptomatic therapy only. The safest, most effective treatment for heartworm disease is prevention: treat the infection before the worms mature and lead to disease. Monthly, year-round prophylactic medication prevents this life-threatening disease.