



HOOKWORM PARASITISM

ABOUT THE DISEASE

Several different species of **hookworm** exist and can affect both canine and feline patients by infecting the gastrointestinal tract. Typically, young animals are more significantly affected.

Hookworms feed on blood directly from the lining of the intestinal tract and cause intestinal blood loss. In some severe cases, patients can have a significant blood loss anemia.

Life cycles and modes of transmission are very similar between the canine and feline **hookworm** species. Most patients will develop clinical signs 2-4 weeks after exposure.

Hookworms are primarily transmitted through ingestion or migration through the skin from walking on infected soil. In canine species it is possible to become infected through the placenta or through the mother's milk while nursing.

Those infected by consuming **hookworm** larva will have the parasite directly enter the gastrointestinal tract. Whereas those patients that have **hookworms** migrate through their skin, will first have the larva travel to the lungs, where they then are coughed into the trachea, and then swallowed to the gastrointestinal tract.

One feline species (*A. braziliense*) and one canine species (*A. caninum*) can be spread to humans, but primarily migrate through the skin and cause very long, itchy, red tracts in the skin.

OBTAINING A DIAGNOSIS

Hookworm eggs are detected by performing a routine fecal floatation.

Once infected, patients may take 2-4 weeks to start shedding parasite eggs in the stool. Because of this, one fecal test is not adequate to completely exclude a parasite infection.

All puppies and kittens should have routine fecal testing performed at least twice before they are six months of age.

TREATMENT

Hookworms can be treated with several different deworming medications, including pyrantel pamoate, febantel, fenbendazole, or ivermectin. These medications are also found in monthly heartworm preventatives.

Puppies and kittens should enter a deworming schedule even if feces have tested negative. They are recommended to be dewormed at 2 weeks, 4 weeks, 6 weeks, and 8 weeks of age.

For those patients that are clinically infected, they typically only require two deworming treatments. However, if the patients are severely anemic, they may require hospitalization for supportive care, blood transfusions, iron supplementation, or general supportive care.

If pregnant or lactating canines are infected, it is recommended that they are treated with fenbendazole towards the end of pregnancy through the second week of nursing.

TIPS FOR SUCCESS

- Blood loss often occurs at its highest before parasite eggs are shed in the feces.
- A negative fecal test does not completely exclude an infection.
- Best prevention is an early and regular deworming protocol.
- Prognosis is typically very good but guarded in cases of acute (sudden) severe anemia.