



Introduction

Raccoon roundworm is caused by the parasitic nematode, *Baylisascaris procyonis*. Its main host is, appropriately, the raccoon (*Procyon lotor*), but it can infect multiple species including mammals, birds, and people. The roundworm can be spread through ingestion of feces or other material with larval eggs. Some infections lead to neurologic effects.

Species Affected

Raccoons are the definitive species for *B. procyonis* but can infect other animals such as birds and mammals (including humans). Domestic dogs are a definitive host as well.

Clinical Signs

Raccoons infected with raccoon roundworm are typically asymptomatic unless the parasite load causes an intestinal obstruction. In intermediate hosts, clinical signs can include lethargy, depression, and unkempt hair. Larvae can cause inflammation and tissue damage. *B. procyonis* can also affect the central nervous system and eyes. In humans, *B. procyonis* can cause neurologic signs, but clinical disease in humans is rare. Rodents,

rabbits, and birds are highly susceptible to neurological disease from larval migrants in the brain.

Transmission

B. procyonis lives and matures inside the definitive hosts digestive tract, producing 150,000 eggs a day. Eggs are passed with bowel movements and develop in the environment for 2-4 weeks. They are then transmitted to new hosts when they are ingested. Intermediate hosts do not shed eggs. Larvae can migrate within hosts to the eyes, brain, abdominal organs, connective tissue, or muscle through the bloodstream.

Diagnosis

In definitive hosts, diagnosis can be made using fecal testing to observe eggs. It is difficult to make a definitive identification in intermediate hosts as they do not shed any eggs. Diagnosis is made with observation of clinical signs and exposure to the environment and can be detected by histopathology.

Treatment

Raccoons and other definitive hosts such as dogs and cats can be treated with anti-parasitic drugs.

Epidemiology

Raccoon roundworm is found throughout the United States. Birds, rodents, rabbits, domestic dogs, and cats are susceptible to becoming infected with *B. procyonis*. It is possible for humans to contract *B. procyonis*. Humans are at higher risk when they or their pets come into contact with raccoon feces. In the United States, as of 2018, there have been 23 confirmed cases of human infection, of which 6 people died. Children may be at higher risk due to their curiosity and potential to encounter

contaminated soil or put objects in their mouth.

What to Do/Who to Contact

If you or your child have come into contact with raccoon roundworm, contact a medical professional. If you believe your dog or cat has been exposed to roundworm, please contact your veterinarian.

Additional Information

[Raccoon Roundworm | Cornell Wildlife Health Lab](#)

[CDC - Baylisascaris - Epidemiology & Risk Factors](#)

Cover Images:

[Raccoon roundworm—a hidden human parasite? \(medicalxpress.com\)](#)

[DNR: Fish & Wildlife: Raccoon \(in.gov\)](#)

[Raccoon Roundworm: Not Just A Raccoon Parasite - UCNRS](#)



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