



ROUNDWORM PARASITISM

ABOUT THE DISEASE

Roundworm (Ascaris) parasitism in canine and feline patients is caused by the *Toxocaris* species. Young or pregnant patients are most susceptible, and it is often seen with other intestinal parasites.

For most **roundworm** species, microscopic eggs are passed into the feces from infected animals. These eggs are not immediately infectious, as they require the embryo to develop before they can be infectious when consumed. This typically means that fresh feces are not infectious, but heavy egg burden in the soil can be if soil is ingested.

Aside from ingesting infected soil, patients can be infected while developing in the uterus or through their mother's milk.

There are three recognized species of **roundworms**:

- *T. canis* – found in canine patients
 - Transmissible to humans (zoonotic), typically when contaminated soil is ingested.
 - Mainly transmitted to puppies through the placenta in pregnancy.
 - Transmission through infected milk possible, but less common.
 - Primarily found in the intestines (may migrate through the liver, and into the lungs).
- *T. cati* – found in feline patients
 - Transmissible to humans (zoonotic), typically when contaminated soil is ingested.
 - Mainly transmitted to kittens through the infected mother's milk.
 - Primarily found in the intestines (may migrate through the liver, and into the lungs).
- *T. leonina* – found in both canine and feline patients
 - Not transmissible to humans.
 - Found in the intestines.

Commonly this parasitism is unremarkable and incidentally found on routine fecal testing. In patients that exhibit clinical signs, they often exhibit a pot-bellied appearance and may have visible worms in diarrhea, feces, or vomit. These parasites have a classic angel-hair pasta appearance.

OBTAINING A DIAGNOSIS

Roundworm eggs are detected by performing a routine fecal floatation.

Once infected, patients may take 3-4 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

Puppies, kittens, and adult patients have different deworming protocols, but are typically given the deworming medication pyrantel pamoate. Other medications exist (milbemycin, moxidectin, selamectin, etc.) which are often found in monthly heartworm preventatives.

Puppies and kittens should enter a deworming schedule even if feces have tested negative. Puppies should be dewormed at 2 weeks, 4 weeks, 6 weeks, and 8 weeks of age. Ongoing monthly deworming typically comes through combination heartworm prevention medications. Kittens should be dewormed at 6 weeks, 8 weeks, and 10 weeks of age.

If pregnant or lactating canine patients 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

- Puppies and kittens should be on a deworming schedule to reduce environmental contamination and human risk.
 - The zoonotic risk outweighs the impact on the canine and feline patients.
- Bleach is not an effective measure to destroy parasite eggs in the environment.