

Toxocariasis (Roundworm Infection)

Fact Sheet

1. **What are Roundworms?** - Roundworms are a common name for the parasites *Toxacara canis* and *Toxacara cati*. They are found in the intestines of dogs and cats, respectively. Adult roundworms resemble a six inch piece of cooked spaghetti. This parasite is found all over the world; however, severe infections in people are rare, and are often age-dependent. People that are at highest risk for developing infection are those from one to five years of age.

2. **What is Toxocariasis (Roundworm Infection)?** - Humans are infected when they ingest an infective parasite egg. This usually occurs when eating unwashed vegetables, or when young children play in contaminated playgrounds or sandboxes. An estimated 10,000 cases of *Toxocara* infections occur in humans in the United States each year.

3. **What are the clinical signs of a Roundworm infection in humans?** - Since humans are not the natural host for these roundworms, the worms will not stay in the intestines of the humans, but will instead migrate throughout the body, and end up in various organs. This is called Visceral Larval Migrants (VLM). Some worms may migrate to the eye, which is called Ocular Larval Migrants (OLM) and in severe cases can cause blindness. Symptoms in humans are related to the worm burden, as well as which organs are involved.

a. With VLM, clinical signs (swelling of the body's organs or central nervous system) can be seen anywhere from weeks to months after infection. Symptoms of VLM, which are caused by the movement of the microscopic worms through the body, may include fever, coughing, asthma, and/or pneumonia.

b. In cases of OLM, clinical signs (blindness) can take 4 to 10 years to appear. OLM occurs when microscopic worms enter the eye(s) where they may scar the retina.

4. **How do dogs and cats become infected?** - Most healthy adult dogs and cats will not shed the eggs of this parasite in their feces, but will have a dormant infection. The exception to this is a pregnant dog. In these situations, the

pregnancy stimulates a usually dormant infection with *Toxocara canis*, and the mother will release the infectious eggs to her young via her milk, as well as through the placenta. She will also shed the eggs in her feces, which can be another source of infection not only to her young, but to other dogs as well. Dogs and cats are infected when they ingest feces with infectious eggs. It takes one to three weeks for the eggs that are passed in the feces to become infectious; however, these eggs can survive in the environment for many months.

5. What clinical signs do dogs and cats have with roundworms? - Healthy dogs and cats, even with a heavy worm burden, may have no clinical signs. However, some puppies and kittens may exhibit diarrhea and be slightly lethargic, depending on the worm burden.

6. How will I know if my pet has Roundworms? - When you take your pet to your veterinarian, they will perform a fecal flotation test and look at a sample of your pet's feces under the microscope for the *Toxocara canis* eggs.

7. Is there a treatment for Roundworms in dogs and cats? - Yes! Regular deworming is recommended for treatment and prevention of roundworm infection. Puppies and kittens start to shed roundworm eggs as early as three weeks of age, so take your pets to the veterinarian as early as possible.

8. If there a test to diagnose Roundworms in humans? - An ELISA test is used. This is a blood test that detects the worms (antigen) in the infected human's body.

9. What is the treatment for Toxocariasis? - VLM is treated with antiparasitic drugs, usually in combination with anti-inflammatory medications. Treatment of OLM is more difficult and usually consists of measures to prevent progressive damage to the eye.

10. How can I prevent and control Roundworm infections?

- a. Clean up promptly after your pet defecates, and advocate for others to do so as well.
- b. De-worm your pet as recommended by your veterinarian.
- c. Make sure that all your produce is cleaned thoroughly before eating it.

d. Always wash your hands with soap and warm water *after* handling soil or removing feces and *before* eating.

11. For more information:

http://www.cdc.gov/ncidod/dpd/parasites/toxocara/factsht_toxocara.htm

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animals.