



FELINE ROUNDWORM INFECTION

Roundworms are one of the most common intestinal parasites of the cat. They can be an important cause of illness, and even death, in kittens. As their name implies, these are large-bodied round worms, averaging about 3-6 inches (8-15 cm) in length. They do not attach to the wall of the intestine, as do some worms. Instead, they are literally "swimming" within the intestine.

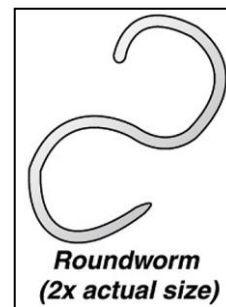
The scientific name for the feline roundworm is *Toxocara cati*. Another less common roundworm, *Toxascaris leonina*, can infect both dogs and cats. Roundworms are sometimes called "ascarids" and the disease they produce is called "ascariasis."

What cats are likely to get roundworms?

Risk factors for roundworm infection include female cats with pre-existing infection, heavily contaminated environments, and the presence of intermediate hosts (roaches, earthworms, birds).

What are the clinical signs?

Roundworms are not particularly pathogenic (harmful) to mature cats, but large numbers may cause life-threatening problems in kittens and debilitated adult cats. *In kittens, common signs include a pot-bellied appearance, abdominal discomfort, depressed appetite, vomiting and diarrhea, or poor growth. In both kittens and adult cats with small numbers of worms, no signs may be apparent.*



How are roundworms acquired?

Trans-mammary or milk-borne infection is the major route of roundworm transmission to kittens. The immature roundworms (called larvae) are present in the mother's mammary glands and pass through her milk to the kittens. Additionally, both kittens and adult cats may become infected by swallowing eggs that contain infective roundworm larvae. These eggs may come from the feces of infected cats or from the tissues of intermediate (called *paratenic*) hosts. Common intermediate hosts for roundworms include *earthworms, cockroaches, rodents, and birds*.

Once ingested, the larvae hatch out in the cat's gastrointestinal tract and migrate through the muscle, liver, and lungs. After several weeks, the larvae return to the intestine to mature. When these worms begin to reproduce, eggs will pass into the cat's stool, thus completing the life cycle of the parasite.

How are roundworms diagnosed?

To diagnose roundworm infection, a small amount of the cat's stool is mixed into a special solution that causes the eggs to float to the top. The distinctive eggs are easily recognized under the microscope. Roundworm eggs are usually plentiful but, in some cases, it may take more than one fecal examination to find them. Occasionally, intact adult roundworms can be found in the cat's stool or vomit.

What is the treatment?

Fortunately, treatment is safe, simple, and relatively inexpensive. The dead and dying roundworms pass into the stool after administration of the deworming medication (*anthelmintic*). Because of their large size, they are easily identified. *At least two or three treatments are needed; they are typically performed at 2-3 week intervals.* Ideally, kittens are then dewormed again with each visit for kitten vaccinations. None of these treatments will kill the immature forms of the worm or the migrating larvae.

Will my cat recover?

The prognosis of a roundworm infection is good if appropriate medication is given promptly. However, in some instances, extremely debilitated kittens may die.

Is prevention possible?

Prevention of roundworm infection should include the following measures:

- Deworming of breeding queens prior to pregnancy and again in late pregnancy. This will reduce environmental contamination for new kittens. New kittens should be appropriately dewormed as recommended by your veterinarian. The first deworming should be given at 2-3 weeks of age. **Note that this is prior to the time most kittens are seen for first vaccines. It is entirely appropriate to present new kittens for deworming only.*
- Adult cats remain at risk for re-infection with roundworms throughout their lives. Whenever roundworms are seen, the cat should be promptly dewormed. It is appropriate to routinely deworm all cats that remain at high risk for reinfection. For example, it is advisable for cats with predatory habits or indoor/outdoor cats to have a fecal examination several times a year.
- Stool should be removed from litter boxes daily, if possible. Litter boxes can be cleaned with a bleach solution (1 cup of chlorine bleach in a gallon of water) to facilitate removal of eggs. Rinse the litterbox thoroughly to remove all bleach since it is toxic to cats. Similarly, surfaces that may be contaminated with roundworm eggs can also be treated with this bleach solution. It makes the eggs easier to rinse away but does not kill the eggs. Always wash your hands after handling litterbox material.
- Appropriate disposal of cat (and dog) feces, especially from yards and playgrounds, is important. Once an environment is contaminated with roundworm eggs, they may remain viable for long periods unless they are exposed to direct sunlight or very dry conditions.
- Strict hygiene is especially important for children. Do not allow children to play in potentially contaminated environments. Be mindful of the risk that public parks and non-covered sandboxes pose. *Even though stool may not be visible, roundworm eggs may be present.* Sandboxes that have fitted covers are popular and are well-advised to prevent infection of children with roundworms.
- Control of insects and rodents is important since they may serve as sources of roundworm infection for cats.

Are roundworms a danger to me or my family?

Roundworms can be a health risk for humans. The most common source of human infection is by ingesting eggs that have come from soil contaminated with cat (or dog) feces.

As many as 10,000 cases of roundworm infection in humans have been reported in one year in the United States. Children, in particular, are at risk for health problems should they become infected. A variety of organs may be affected as the larvae migrate through the body. In suitable environments, the eggs may remain infective to humans and cats for years.

