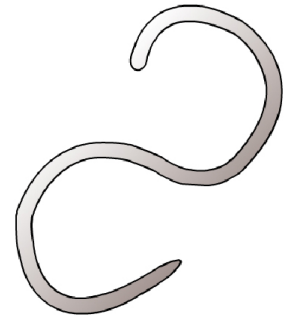


Roundworm Infection in Cats

What are roundworms?

Roundworms are one of the most common intestinal parasites of the cat. They can be an important cause of illness, 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 some intestinal parasites do. Instead, they are literally "swimming" freely 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 cause is called *ascariasis*.



Actual size 3-6"
(8-15cm)

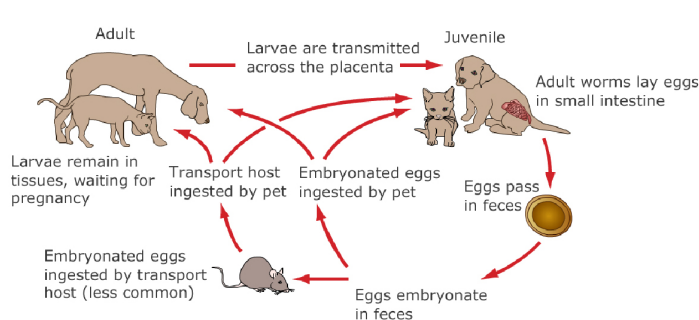
What are the clinical signs of roundworm infection?

"...large numbers may cause life-threatening problems in kittens and debilitated older cats."

Roundworms are not particularly pathogenic or harmful to adult cats, but large numbers may cause life-threatening problems in kittens and debilitated older cats. In kittens, common clinical 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, there may be no clinical signs of infection.

How do cats get roundworms?



Trans-mammary or milk-borne infection is the major route of roundworm transmission in kittens. The immature roundworms called *larvae* are present in the mother's mammary glands and pass through her milk to the kittens during nursing.

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 *paratenic* hosts. In a paratenic host, the roundworm eggs do

not mature into adults, but are merely transported. If a cat eats the paratenic host, the roundworm is able to complete its maturation. Common paratenic hosts for roundworms include earthworms, cockroaches, rodents and birds.

The lifecycle of the roundworm is complicated. 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 into adults. When the adult worms begin to reproduce, eggs will pass into the cat's stool, thus completing the life cycle of the parasite.

During migration, some roundworm larvae may encyst in a dormant state in the host's body. In female cats, the larvae can come out of dormancy during pregnancy and be passed to the kittens across the placenta or through the milk.

How are roundworms diagnosed?

To diagnose roundworm infection, a small amount of the cat's stool is mixed in a special solution that causes the eggs to float to the top of the solution. The sample is covered with a glass slide on which the floating eggs will collect, and the slide is examined under a microscope.

"The distinctive eggs are easily recognized under the microscope."

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 for roundworms?

Fortunately, the treatment for roundworms is safe, simple, and relatively inexpensive. The dead and dying roundworms pass into the stool after administration of the *anthelmintic* or deworming medication. Since none of these treatments will kill the immature forms of the worm or the migrating larvae, at least two or three treatments are needed; they are typically performed at two to three week intervals. Ideally, kittens are dewormed with each visit for booster vaccinations. If your adult cat goes outdoors, you may wish to administer periodic doses of an anthelmintic.

What is the prognosis for a cat diagnosed with roundworms?

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

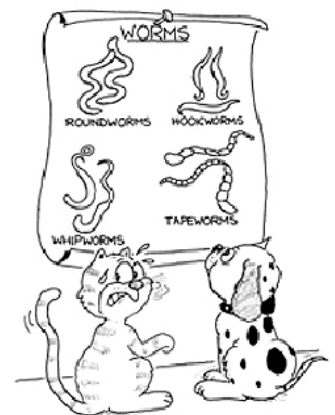
Can I prevent my cat from getting roundworms?

Prevention of roundworm infection should include the following measures:

- Breeding queens (females) should be dewormed prior to pregnancy and again in late pregnancy. This will reduce the risk of environmental contamination or transmission from the mother to her new kittens.

"First deworming should be given at two to three weeks of age."

- Kittens should be appropriately dewormed as recommended by your veterinarian. The first deworming should be given at two to three 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 initial examination and 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 re-infection. For example, it is advisable for cats with predatory habits or indoor/outdoor cats to have a fecal examination several times a year.
- Many heartworm preventative products contain medications that will treat roundworm infections. This is the easiest and simplest method for preventing roundworms. Your veterinarian can advise you of the appropriate time to give these products, based on your specific geographical area.
- Control of insects and rodents is important since they may serve as sources of roundworm infection for cats.

"Rinse the litterbox thoroughly to remove all bleach since it is toxic to cats."

- Stool should be removed from litter boxes daily, if possible. Litter boxes can be cleaned with a bleach solution (one cup of chlorine bleach in one gallon of water) to facilitate removal of eggs. Rinse the litterbox thoroughly to remove all bleach since it is toxic to cats. Surfaces that may be contaminated with roundworm eggs can also be treated with this bleach solution. This solution 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. Roundworm eggs may remain viable in the environment 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 help prevent infection of children with roundworms.
- Contact your animal control officials when homeless animals are found.

Are roundworms a danger to my family or me?

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.

"In suitable environments, the eggs may remain infective to humans and cats for years."

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

This client information sheet is based on material written by: Ernest Ward, DVM

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