

Roundworm Infection (Ascariasis)

Roundworms are the most common intestinal parasite. They can represent 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 hookworms. Instead, they are literally “swimming” within the intestine.

Contributing Factors

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

Clinical Signs

Roundworms are not particularly pathogenic (harmful) to mature pets, but large numbers may cause life-threatening problems in young and debilitated adults. In young animals common signs include a pot-bellied appearance, abdominal discomfort, depressed appetite, vomiting and diarrhea, or poor growth.

In both dogs and cats with light infections (small numbers of worms), no signs may be apparent.

Causes

Transmammary, or milk-borne, infection is the major route of roundworm transmission to kittens. Additionally they may become infected by swallowing eggs that contain infective roundworm larvae. These eggs may come from the feces of infected animals or from the tissues of intermediate (called *paratenic*) hosts. Common intermediate hosts for roundworms include earthworms, cockroaches, rodents, and birds.

Diagnosis

To diagnose roundworm infection, a small amount of the 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 stool or vomit.

Treatment

Fortunately, treatment is safe, simple, and relatively inexpensive. After administration of the deworming medication (called an *anthelmintic*), the worms will pass into the stool. At least two or three treatments are needed; they are typically performed at 2-3 week intervals.

Prognosis

With diagnosis of roundworm infection and appropriate deworming, the prognosis is good. In some instances, extremely debilitated kittens may die.

Prevention

Prevention of roundworm infection should include the following measures:

1. Deworming of breeding animals prior to pregnancy and again in late pregnancy. This will reduce environmental contamination for new kittens.
2. New kittens and puppies should be appropriately dewormed as recommended by your veterinarian. The first deworming could be given at 2-3 weeks of age. Note that this is *prior* to the time most animals are seen for first vaccines. It is entirely appropriate to present new kittens for deworming only, as kittens are more susceptible than puppies.

3. Adult cats remain at risk for re-infection with roundworms throughout their lives. It is advisable for cats with predatory habits to have a fecal examination several times a year.
4. Control of insects and rodents is important since they may serve as sources of roundworm infection.
5. 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.
6. 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.
7. A new medication to prevent new infections is Selemectin. The product name is *Interceptor*. Ask your veterinarian for more information.

Human Infections

Roundworms pose a very real 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. 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 to cats) for *years*.