



O A K B A Y A N I M A L H O S P I T A L

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ROUNDWORM INFECTION

What are roundworms?

As their name implies, these are worms which have round bodies. On average, they are about 3-5 inches (7-12 cm) long. They live in the dog's intestines and consume partially digested food. Unlike hookworms, they do not attach to the intestinal wall; rather, they literally swim in their food. Roundworms, sometimes called ascarids, pass moderate numbers of microscopic eggs which are found in the dog's stool. Like hookworm eggs, they must be found with a microscope.

How did my dog get roundworms?

Puppies born to mothers that have had roundworms at any time in the past can transmit them to their puppies before birth. This is true even if the mother tests negative for roundworms because roundworm larvae (immature worms) encyst in the mother's muscle tissue and are not detected by our tests for adult worms. Another major source of roundworm infection for puppies is the mother's milk. Roundworm larvae may be present in the mother's mammary glands and milk throughout the period of nursing the puppies.

Both puppies and adult dogs may become infected by swallowing roundworm eggs which contain infective larvae. The larvae hatch out in the dog's stomach and small intestine and migrate through the muscle, liver, and lungs. After several weeks, the larvae make their way back to the intestine to mature. When these worms begin to reproduce, new eggs will pass in the dog's stool, and the life cycle of the parasite is completed.

Obviously, roundworm eggs passed in one dog's stool may be infectious to other dogs. Interestingly, a large number of other animal species have been found to harbor roundworms and represent potential sources of infection for dogs. These include cockroaches, earthworms, chickens, and rodents.

What kinds of problems do roundworms cause for my dog?

They are not highly pathogenic (harmful) to adult dogs, but large numbers can cause weight loss and a pot-bellied appearance to puppies and weak adults. Decreased appetite, vomiting or diarrhea will be observed on occasion. Puppies will sometimes die with serious roundworm infections.

How is roundworm infection diagnosed?

Roundworms are diagnosed by a microscopic examination of the dog's stool. They pass a moderate number of eggs, so examination of more than one stool sample may be necessary to find them. Occasionally, the mature worms can be found in the dog's stool or vomit.

How are roundworms treated?

Treatment is quite simple. Several very safe and effective drugs are available to kill roundworms in the intestine. Some of these drugs temporarily anesthetize the worms so that they pass out of the dog with a normal bowel movement. The live or dead worms are found in the stool. Because of their large size, they are easily seen. At least two or three treatments are needed; they are typically performed at 2-4 week intervals. None of these treatments will kill the immature forms of the worm or the migrating larvae.

The eggs are highly resistant to most commonly used disinfectants and to even harsh environmental conditions. Therefore, removal of the dog's stool is the most effective means of preventing reinfection. A 1% solution of household bleach can be used to remove the sticky outer coating of the eggs, making it easier to rinse them away. This does not, however, kill the eggs. Remember the obvious limitations about where bleach may be safely applied.

Are canine roundworms infectious to people?

Yes. The roundworms of both dogs and cats pose a health risk for humans. 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 dogs) for *years*.

What can be done to control roundworm infection in dogs and to prevent human infection?

1. Pregnant queens should be dewormed in late pregnancy to reduce potential contamination of the environment for newborn puppies.
2. All new puppies should be treated by 2-3 weeks of age. To effectively break the roundworm life cycle, puppies should be dewormed on the schedule recommended by your veterinarian.
3. Prompt deworming should be given when any parasites are detected; periodic deworming may be appropriate for dogs at high risk for reinfection. Adult dogs remain susceptible to reinfection with roundworms throughout their lives.
4. Dogs with predatory habits should have a fecal examination several times a year. Rodent control is desirable since rodents may serve as a source of roundworm infection for dogs.
5. Prompt disposal of all dog feces is important, especially in yards, playgrounds, and public parks.
6. Strict hygiene is especially important for children. Do not allow children to play in potentially contaminated environments.
7. Most heartworm prevention products contain a drug that will prevent roundworm infections. However, these products will not kill the adult roundworms so they must be treated if present.