

Roundworm Infection in Dogs

What are roundworms?

Roundworms (also known as nematodes or ascarids) are parasites that live freely in the intestine, feeding off partially digested intestinal contents. Their name is derived from their tubular or 'round' shape. Roundworms are the most common gastrointestinal worm found in dogs and can also be transmitted to people.

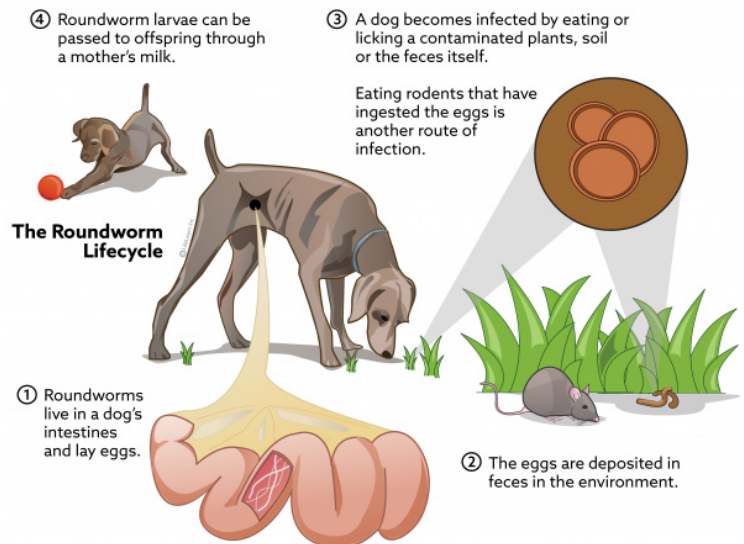
What causes roundworm infections in dogs?

Infected dogs shed the microscopic roundworm eggs in their feces. Other dogs may become infected by sniffing or licking infected feces. Roundworm eggs can also be spread by other animals such as rodents, earthworms, cockroaches, and birds.

In these animals, the roundworms are merely transported, and do not mature into adults; if a dog eats one of these animals, the roundworm is able to continue its life cycle.



In the dog, the roundworm undergoes a complicated life cycle before mature roundworms are found in the intestinal tract. This involves several stages and includes migration through various bodily tissues. Immature worms (larvae) can migrate and become enclosed in a cyst in the tissue of the host's body. This is important in the female dog because these encysted larvae will start to develop during pregnancy and ultimately cross the placenta into an unborn puppy. Puppies can be born with roundworms and can pass fertile eggs from adult worms in their stools by the time they are approximately eleven days old. Roundworm larvae may also enter the mother's mammary glands and be passed to the puppies through the milk. Dogs are usually affected by roundworms as puppies.



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Are roundworms dangerous to my dog?

Roundworms are of most concern to puppies. The most common consequence of roundworms is stunted growth. Since roundworms eat partially digested food in the intestinal tract, they will rob the growing puppy of vital nutrients if present in large numbers. Roundworms can complete their life cycle in immature dogs, but as the puppy's immune system matures (usually by six months of age), the larval stages of the roundworm will become enclosed in a cyst in the puppy's muscles. They can remain encysted in the dog's tissues for months or years.

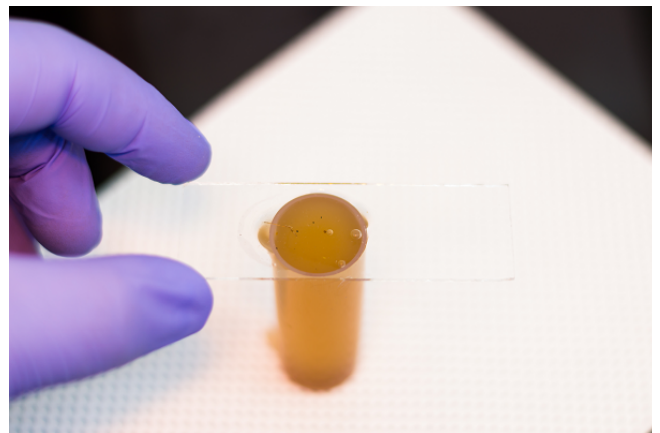
Roundworm larvae swallowed by adult dogs usually encysts in the dog's tissues with very few maturing into adults in the bowel of the dog. As a result, very few eggs are passed in the stool leading to difficulty in diagnosis and treatment.

In an intact female dog, encysted larvae can resume development after estrus (heat), and she can shed eggs in the stool at that time. With dogs that have been spayed, the development of a roundworm infection may indicate that there is an underlying immune system disease that has allowed the encysted larvae to complete their life cycle.

How is a roundworm infection diagnosed?

In puppies, clinical signs of roundworm infection include stunted growth, a pot-bellied appearance, and recurrent diarrhea. A definitive diagnosis is made by microscopic examination of the dog's feces (fecal flotation). Adult roundworms can sometimes be observed in a dog's feces or vomit.

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How are roundworms treated?

Treatment is simple and effective. There are many safe and effective preparations available to kill adult roundworms in the intestine. Many heartworm preventives including Heartgard® Plus, Interceptor® Plus, Simparica® Trio, Nexgard® Spectra, and Advantage® Multi, are effective against intestinal roundworms and help prevent future infections. Some of these preparations kill only the adult worms and do not affect migrating or encysting larvae. Your veterinarian will advise you on the best treatment and prevention plan for your pet.

How can I prevent a roundworm infection in my dog?

- Deworm pregnant dogs after six weeks of pregnancy. This will help reduce potential contamination of the environment for newborn puppies.
- All puppies should be dewormed routinely, starting at about two weeks of age and repeated every two weeks for four treatments. Your veterinarian will recommend the most appropriate deworming schedule for your pets.
- The use of a heartworm preventive product that is effective against roundworms will stop the shedding of eggs into the environment.
- Rodent control is important since rodents can serve as a source of infection.

Are roundworms dangerous to people?

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 are at an increased risk for health problems should they become infected. If the infectious eggs are swallowed by people, the larvae can invade the tissues and become encysted in various organs. Humans act like any other accidental host. If a young child ingests a large number of infected eggs, clinical disease may become apparent. Very rarely, liver problems may result from roundworm larval migration. Even less commonly, the larvae can migrate into the eye and cause blindness.

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In suitable environments, the eggs may remain infectious to humans and dogs for years. It is important to wash your hands thoroughly after playing with your pet or after being in areas where they may have defecated. 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 uncovered sandboxes pose. Even though feces may not be visible, roundworm eggs may be present.

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