...can infect people, too.

Can roundworms and hookworms infect people?

Yes. These infections, like others acquired from animals, are called zoonotic (*zoe-o-NOT-ick*) infections or zoonoses (*zoe-o-NO-sees*). You owe it to yourself and your family to find out about these zoonotic infections. Learn how to prevent them.



Take steps to prevent roundworm & hookworm infection

- Have puppies and kittens dewormed by your vet at an early age.
- Start or keep your pets on a preventive drug program that treats and controls these worms.
- Learn to recognize and avoid possibly contaminated soil, sand, plants, and other objects. Teach children to do the same.
- Keep play areas, lawns, and gardens around your home free of animal waste.
 - Bag and dispose of pet feces.
 - Cover sandboxes when not in use.
- Obey leash laws.



This information was produced through an educational grant from Merial.

The presence of the CDC logo on this brochure is not intended as an endorsement of any commercial entity referenced herein. The mark of the CDC is licensed under authority of the PHS.

HGD-2-1002.4.12.CBK



Worms that infect pets

What are roundworms & hookworms?*

You may already have heard that worms often infect puppies and kittens as well as older pets. The most common types of these parasitic worms are *roundworms* and *hookworms*. They are both *intestinal parasites*. They live and grow inside the intestine of your pet. Roundworms and hookworms develop from eggs into larvae (immature worms). The larvae later mature into adult worms.

Most pets show no sign of infection. However, some do. Signs may include vomiting, loss of appetite, or severe weight loss. Heavy infections in young puppies and kittens may be fatal.

* The term "roundworms" refers here to worms known as *ascarids*; it is sometimes used to include both ascarids and hookworms.

How do pets get worms?

Dogs and cats of any age may get roundworms and hookworms, but they are most vulnerable when they are very young. In fact, it is not unusual for puppies of only 2-3 weeks of age to harbor a significant number of worms. That's because these worms are often passed from a mother to her puppies before birth. Sometimes they are passed shortly after birth, through her milk.

How do these worms infect people?

Dogs and cats infected with these worms contaminate their surroundings by passing eggs or larvae in their feces (waste). Because pets will pass feces anywhere, they may contaminate a large area quickly. These eggs and larvae are resilient and can survive in areas such as parks, playgrounds, and yards. Even inside homes.



People get roundworm and hookworm infections through direct contact with infected feces. This usually happens by chance ingestion of contaminated soil, sand or plant life. Hookworm larvae penetrate the skin. Children are more vulnerable to infection than adults, perhaps because they play on the ground with dirt that may be contaminated. Maybe it's because kids are more likely to put dirty objects into their mouths. Some children pass through a stage in which they eat dirt (pica). Thus, they are more prone to get these infections.

How do roundworms harm people?

Roundworms enter the body when ingested as eggs that soon hatch into larvae. These larvae travel through the liver, lungs, and other organs. In most cases, these "wandering worms" cause no symptoms or apparent damage. However, in some cases they produce a condition known as *visceral larva migrans*. The larvae may cause damage to tissue and sometimes affect the nerves or even lodge in the eye. In some cases, they may cause permanent nerve or eye damage, even blindness.



Adult and advanced stage roundworms, illustrated at magnification

How do hookworms harm people?

Hookworm larvae typically move about within the skin, causing inflammation in the affected skin. This is called *cutaneous* (*skin*) *larva migrans*. One type of hookworm can penetrate into deeper tissues and cause more serious damage to the intestine and other organs.



Mouth of hookworm larvae, magnified greatly.

How can I protect my pets—and my family and myself against worm infections?

Your veterinarian can recommend treatments to eliminate and help prevent these worm infections. Since these products are available in many forms, you and your vet can choose which one works best for your dog or cat. Ask for the product that is most effective against the worms to which pets in your area are likely to be exposed.



For more CDC information about safe and healthy pet ownership see http://www.cdc.gov/healthypets