# INTERNAL PARASITES AND YOUR DOG

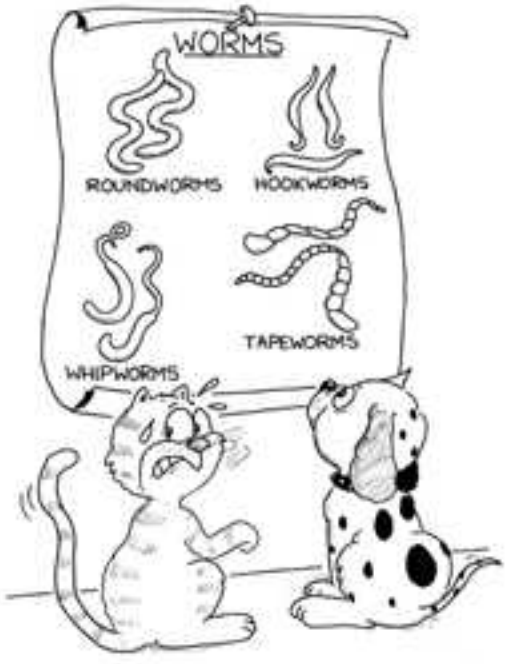
This handout is designed to give you an overview of some of the internal parasites that can infect your dog. There are also separate information sheets on roundworms, tapeworms and heartworms that will provide you with more details.

### *Are there different sorts of internal parasites or worms?*

There are several types of internal parasites that cause problems in dogs. These include nematodes or roundworms, of which *Toxocara canis* **(**intestinal roundworm) and *Dirofilaria immitis* (heartworm) are the main examples and cestodes or tapeworms of which *Dipylidium caninum***,** *Taenia* species and *Echinococcus* species are important examples. *Ancylostoma* species **(**hookworms) are also common internal parasites in many parts of the United States.

### *Are these infections serious in the dog?*

Intestinal parasites are only occasionally life-threatening in adult dogs, and are usually seen in debilitated animals or those that are immunosuppressed.




Heartworm disease is a major life-threatening problem. Heartworm disease is considered to be one of the most serious conditions seen in small animal practice. Heartworm disease is transmitted by mosquitoes.

Intestinal worms can be a serious problem in young puppies. Hookworms can cause anemia and roundworms can lead to poor growth and development.

**Roundworms**

Roundworms do not require an intermediate host to spread from dog to dog. Nematodes (roundworms) are free-living in the bowel. If a growing puppy is infected with a large number of roundworms, they can stunt growth, cause serious digestive upsets and result in excessive gas formation. These puppies have a characteristic 'pot bellied' appearance. Roundworms can be transmitted from dog to dog via infective eggs shed in the feces.

**Tapeworms**

An intermediate host, the flea or some species of small rodents, is required.

*Dipylidium caninum*, the common tapeworm of the dog, causes few problems in the adult host but can result in digestive upsets and stunting of growth in puppies. The intermediate host of Dipylidium is the flea.

*Echinococcus*, another type of tapeworm, is important because it is zoonotic, meaning humans can be infected. Sheep and sometimes man can act as the intermediate hosts in which the immature forms of Echinococcus develop inside hyadatic cysts in various organs. In man, these cysts can involve the lungs or brain.

Cestode tapeworms are usually found in adult dogs and cause few problems. Puppies are occasionally infected and, depending on the type of worm involved, the large number of worms can cause intestinal blockage.

**Hookworms**

Hookworms, particularly Ancylostoma, are one of the most pathogenic parasites of the dog. The hookworm is approximately 1/2 to 1" (1-2 cm) long and attaches to the lining of the bowel. As a result of blood sucking, hookworms can cause severe anemia. In addition, the infective larvae can enter the host either by mouth or through the skin, particularly the feet. Eczema and secondary bacterial infection can result due to irritation as they burrow through the skin.

**Heartworms**

Heartworms are large worms reaching 6-14 inches (15-36 cm) long. They are primarily located in the right ventricle of the heart and adjacent blood vessels.

The typical clinical signs of heartworm infection are fatigue, coughing and poor physical condition.

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