

## Internal Parasites and Your Cat

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This handout is designed to give you an overview of some of the internal parasites that can infect your cat. For more detailed information, refer to our separate information sheets on roundworms, hookworms, whipworms, tapeworms and heartworms.

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

There are several types of internal parasites that cause problems in cats. These include nematodes or roundworms, of which *Toxocara cati*, *Toxascaris leonina* (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 and Canada.

### Are these infections serious in the cat?

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

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

Heartworm disease is a major life-threatening problem in dogs, and becoming more of a threat to cats. Heartworm disease is transmitted by mosquitoes.

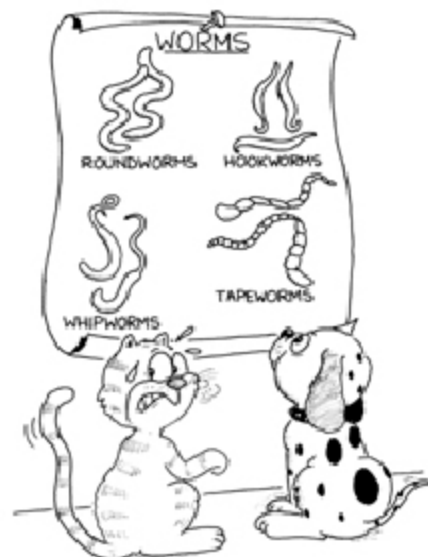
### What will happen if my cat gets worms?

#### Roundworms

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

#### Hookworms

Hookworms, particularly *Ancylostoma*, are one of the most pathogenic intestinal parasites of the cat. The hookworm is approximately ½ to 1" (1-2 cm) long and attaches to the lining of the small intestines, where it feeds on blood. As a result of blood sucking, hookworms can cause severe anemia. 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.



## **Tapeworms**

In order to get tapeworms, an intermediate host such as a flea, a bird or a certain species of rodent is required. In other words, your cat cannot get tapeworms directly from another cat or a dog.

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

*Taenia* species of tapeworms usually infect adult cats and cause few problems. Kittens are occasionally infected (mostly when they eat raw prey) and, depending on the type of worm involved, the large number of worms can cause intestinal blockage. The intermediate host for *Taenia* species is small mammals such as rodents or rabbits, and some species of birds.

*Echinococcus*, another type of tapeworm, is important because it is zoonotic, meaning humans can be infected. The adult tapeworm is tiny, only about  $\frac{1}{4}$ " (5-6 mm) long. Sheep and sometimes man can act as the intermediate hosts in which the immature forms of *Echinococcus* develop inside hydatid cysts in various organs. In man, these cysts can involve the lungs or brain.

## **Heartworms**

Heartworm disease is an uncommon disease in cats, but is increasing in incidence, especially in certain areas of North America. In the cat, symptoms associated with heartworm infection are non-specific. Heartworm causes a sudden onset of coughing and rapid breathing, weight loss and vomiting, symptoms that are also associated with several other, more common, diseases in the cat. Occasionally a cat that is infected with heartworms will be found dead, and the diagnosis will be made on a post-mortem examination. 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.