



Taenia segment

Tapeworms

Tapeworms are creatures that live within the intestine of many animals including dogs, cats, people and even whales. A typical tapeworm is white with a head composed of suckers and sometimes hooklets by which it attaches to the intestinal wall. Behind the head body are segments, like flattened beads on a string, which develop and mature as they grow backward from the head. As the segments mature, they come to contain eggs that are the means by which the tapeworm continues its life into the next host. The mature segments drop off the string and leave the dog or cat in its feces. The eggs then find their way into the next host where they must develop before they can infect the next cat or dog.

Two Types of Feline and Canine Tapeworms

The common tapeworms of dogs and cats come in two types. One that infects both dogs and cats is *Dipylidium caninum* or the “flea tapeworm,” where the pet gets infected by eating a flea. The other type is a group of tapeworms that are all closely related and have the same first or genus name, *Taenia*. These tapeworms all have larval stages in the bodies of rodents, rabbits or other animals preyed upon by the dog and cat. Several different species of *Taenia* infect cats and dogs (named after the host in which the larvae are found): the rabbit tapeworm *Taenia pisiformis*, the sheep tapeworm *Taenia ovis*, the deer tapeworm *Taenia hydatigena*, the moose tapeworm *Taenia krabbei*, another rabbit tapeworm *Taenia serialis*, a rodent tapeworm *Taenia crassiceps* and the rat tapeworm *Taenia taeniaeformis*. The only one that infects the cat is *T. taeniaeformis*; the others occur in dogs.

The Companion Animal Parasite Council

The Companion Animal Parasite Council (CAPC) is an independent council of veterinarians and other health care professionals established to create guidelines for the optimal control of internal and external parasites that threaten the health of pets and people. It brings together broad expertise in parasitology, internal medicine, human health care, public health, veterinary law, private practice and association leadership.

For more information about how parasites may affect your pet, please visit us at www.petsandparasites.org.

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Common Tapeworms of Dogs and Cats



How Are Pets Infected?

Dogs and cats do NOT get infected by eating eggs or segments passed in the feces of another animal. To become infected, the dog or cat must eat either a flea or something like a rat or a rabbit.

Flea larvae will seek out and feed upon *D. caninum* segments containing tapeworm eggs passed in the feces of the pet. Then in the flea larva, the tapeworm larva develops. After the flea becomes an adult, the larval tapeworm in the flea will develop to an adult if the flea is eaten by a pet. The pet will start shedding segments in its feces about 3 weeks later.

In the case of the *Taenia* tapeworms, the segments that pass in the feces of the dog or cat distribute eggs into the environment. If the appropriate prey animal eats the egg, the larva develops within the body of this host depending, e.g., liver, muscle, body cavity, etc. Again, dogs and cats can only become infected with the adult tapeworm if they eat the prey species. Segments appear in the feces of the pet 30 or more days after they have eaten the animal.

It is sometimes hard to believe how well the system works, but the large number of dogs and cats that harbor these two parasites argues for the fact that many cats and dogs eat fleas while grooming and that although people may not want to admit it, their pets are carnivores and they often catch and eat prey or will feed on animal bodies they come across in the wild.

Symptoms of Infection

Fortunately, most dogs and cats do not show clinical signs of their tapeworm infections. On rare occasions large numbers of *D. caninum* in puppies can cause intestinal blockage. In the cat, tapeworms can on rare occasions cause signs that require their surgical removal. The segments may cause irritation as they migrate about under the tail of the pet, but the major cause for dogs to be scooting their backside across the floor remains impacted anal glands.

Of course, the major irritation from tapeworms is the presence of segments that may be found crawling about on the pet or in places where the pet sleeps, and of course, on the fecal material itself.



Prevention and Treatment

- Tapeworm infections can be treated easily with excellent products that will remove the adults from the intestine of the pet. These products are given orally in the case of the dog, or orally, topically, or by injection in the case of the cat.
- Maintaining excellent flea control markedly reduces the risk of pets being infected with *D. caninum*.
- For pets that hunt or wander about outside there is a monthly heartworm preventive that works against these common dog and cat tapeworms.



Taenia egg

Human Infections

- Children, especially younger children in diapers, have been found infected with *D. caninum*, usually by parents who find the segments in the soiled diapers. With improved flea control, this scenario is much reduced compared to years passed. The children, like the dog or cat, gets infected by eating by accident (or maybe on purpose) an infected flea.
- Human infections with the larval stages of some of the canine and feline *Taenia* tapeworms are extremely rare. However, although the risk is almost nil, there is the possibility of obtaining a larval tapeworm infection from a passed egg; in immunocompromised hosts, the possibility is increased.

Protect Your Environment

Tapeworm segments and eggs in feces contaminate the environment. These eggs do not survive for extensive periods in the environment like the eggs of roundworms, but they do survive long enough to be eaten by a flea larva or a rabbit. This is one more reason for routinely collecting and properly disposing of fecal waste. Also, don't forget that a dog shedding *Taenia* segments will be putting other animals, like rabbits, sheep, deer, and woodchucks, at risk of developing infection with the larvae of these tapeworm.



Dipylidium egg packet