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## **GIARDIA**

Giardiasis is an intestinal infection of man and animals. It occurs worldwide and is a common cause of “Traveler’s Diarrhea” in people. It is a fairly frequent infection of outdoor enthusiasts who drink contaminated water. “Beaver fever” is another name for Giardia in people. Giardiasis is caused by a protozoal parasite called *Giardia intestinalis*. Other examples of protozoal parasites that can cause enteric disease are Coccidia, Cryptosporidia and Toxoplasma.

Giardiasis can be an important cause of illness, mainly diarrhea, in animals and man. However, many animals are infected without clinical signs, or the diarrhea is treated as ‘non-specific’. Giardia infections in cats are undoubtedly more common than recognized.

The Giardia organism has two forms. A fragile, feeding form that exists in the gut of infected animals, and a hardy cyst form that is shed in feces and can survive several months in the environment, particularly in water.

### ***Which pets are likely to get giardiasis?***

Disease is relatively rare in *healthy* animals. It is more common in densely-populated groups of animals, such as in a cattery, pet store, or animal shelter. Also, kittens and puppies have been shown to shed more Giardia cysts in their feces than older cats. The likelihood of disease is increased when large numbers of cysts are ingested.

### ***What are the clinical signs?***

These microscopic parasites attach themselves to the intestinal wall and cause an acute (sudden-onset) foul-smelling diarrhea. The stool may range from soft to watery, and occasionally contains blood. Infected cats tend to have excess mucus in the feces. Vomiting may occur in some cases. The signs may persist for several weeks and gradual weight loss may become apparent. The diarrhea may be intermittent. Most cats do not have a fever but may be quite lethargic. The disease is not usually life-threatening but can be more serious in kittens or older cats, or cats with an immune system that has been damaged by Feline Immunodeficiency Virus (FIV) or Feline Leukemia Virus (FeLV) infections.

### ***How do animals get infected with Giardia?***

Ingestion of the cyst stage of the parasite leads to infection. Once inside the cat's intestine, the cyst goes through transformation to the trophozoite form that attaches to the intestinal wall to feed and if sufficient numbers are present, clinical signs of damage to the wall will develop. Trophozoites multiply by dividing and some transform into the cyst form. Eventually, the cat is able to pass infective cysts in the stool, where they can contaminate the environment and infect other cats.

Infection can also occur from drinking water that has been contaminated with the cysts.

### ***How is the diagnosis made?***

Stool (feces) samples are examined in the laboratory. Because of the prevalence of *Giardia* in the pet, the presence of cysts in the stool does not necessarily indicate that a problem is present. However, when the cysts are present in a pet with diarrhea, it is likely significant.

Although a fecal examination is needed for diagnosis, the routine flotation test may fail to detect these small cysts. A special solution may be needed for accurate identification of the cysts in the stool. Occasionally, the parasites may be seen on a direct smear of the feces. A test is available for detection of antigens (cell proteins) of *Giardia* in the feces. A delay of several days may occur as the test is only performed in specialized laboratories. Also, the reliability of this test in the cat remains under investigation.

### ***What is the treatment?***

Metronidazole and Panacur are the drugs most commonly used to treat *Giardia*. Metronidazole is a tablet that is given orally for 5-7 days. Panacur is a powder that is mixed with meals daily. Other drugs may be needed as supplemental therapy should diarrhea and dehydration occur.

Another antiparasitic drug, fenbendazole, is being investigated as a potentially useful treatment. It appears to be very effective and may be used in cats with refractory diarrhea as a means of diagnosing and treating *Giardia*.

### ***What is the prognosis?***

The prognosis is good in most cases. Debilitated or geriatric animals and those with incompetent immune systems are at increased risk for death.

### ***Can Giardia affect me or my family?***

Giardiasis is the most common intestinal parasitic infection of man. In the past, it has been assumed that cats and dogs, along with wildlife, served as an important source of infection for humans. However human-to-human transmission is also important and contaminated municipal water supplies are responsible for some outbreaks. Caution is advised when a pet has been diagnosed with giardiasis. In particular, people with immunodeficient states such as with AIDS or chemotherapy, should use extreme care.

For environmental disinfection, a cup of chlorine bleach in a gallon of water (66ml/L) is effective. However, be sure that the surfaces and premises can be safely treated with bleach.