

GIARDIA IN DOGS AND CATS

Giardiasis is an intestinal infection caused by a protozoan organism called *Giardia intestinalis*. It affects people and wildlife as well as pets. In humans, it is widely known as one source of "traveler's diarrhea," being especially common in hikers, hunters and campers. It is water-borne, which means it survives in lakes, streams, ponds, puddles, wet grass and damp soil.

Infection is very common in puppies and kittens, affecting about 1/3rd of them. It is especially common, too, in kennels and breeding facilities, because the organisms survive a long time in damp concrete runs or yards. A pet becomes infected with *Giardia* by swallowing the cyst stage of the parasite. Licking or smelling the stools of other pets or drinking contaminated water easily spreads them. The cyst goes through several stages of maturation in the intestines before it can reproduce. It will then be shed in the stool and be infective to other pets. Many, if not most, adult dogs and cats are thought to harbor at least a few *Giardia* in their intestines.

Many pets do not seem to be bothered by the *Giardia* in their intestines, but others become ill. The immune system can cope with a small number of these parasites but in large numbers or with stress on the immune system or gastrointestinal system symptoms may develop. Examples of triggers would be staying in a kennel, changing pet foods, or having another parasite or infection. Elderly or debilitated animals and young puppies and kittens are the most likely to show symptoms.

Symptoms include vomiting, diarrhea, belching and flatulence. There may be blood or mucous in the stool. Signs may be acute (come on suddenly) or the pet may have milder but persistent symptoms such as on and off diarrhea or occasional nausea. *Giardia* symptoms often wax and wane, flaring up repeatedly. Occasionally the disease is fatal. During flare-ups pets are especially contagious to other animals and people.

Sometimes *Giardia* may be seen on a routine fecal flotation test looking for intestinal parasites. We are finding *Giardia* more frequently on routine fecal testing since we have started using a centrifuge to do our routine fecal tests, which is a better method of testing than what most veterinary hospitals currently do. More often, though, infection may be missed, as *Giardia* are passed only intermittently in the stools and they die quickly outside the body unless kept moist. Instead, we rely on a special *Giardia* antigen stool test that is specific for *Giardia* and is 98% accurate. We run this test, in addition to the regular parasite check, on all puppies and kittens, and on pets with diarrhea. We recommend testing for adult pets, too, if they have diarrhea or other symptoms.

Because of their immature immune systems, *Giardia* is more likely to cause serious illness in young pets. When we find *Giardia* in a puppy or kitten we will treat for it even if the pet doesn't currently have diarrhea. A healthy adult pet with no diarrhea is unlikely to spread *Giardia* to humans or other pets, so we only test and treat for it in adult pets if the dog or cat has signs of illness.

Metronidazole (Flagyl) used to be commonly used to treat for *Giardia* but sometimes, depending on the strain of *Giardia*, the parasites are resistant to this antibiotic. Benzimidazole dewormers such as Panacur are now more effective and commonly used. They are very safe medications to give, though more expensive than the metronidazole. If there are multiple pets in the household testing or treatment may be recommended for all of them. Repeat treatments are sometimes necessary & in some cases we may use both drugs.

Vaccines are available for *Giardia* in dogs and cats, but unfortunately the vaccine was developed before it was known that the strain of *Giardia* that pets have is not the same as that of other species. A sheep strain of *Giardia* was used for the vaccine but it's been found that it is ineffective against dog and cat *Giardia* strains, so it is no longer used.

The environment may need to be treated as well, to prevent reinfection. One cup of chlorine bleach in a gallon of water is an effective disinfectant for *Giardia* cysts. If your dog has a kennel or an outdoor concrete or gravel run you should disinfect it, and cat litter pans should also be treated with bleach solution. Be sure to let the bleach sit for a few minutes to completely

kill the Giardia cysts, and then rinse thoroughly as bleach is caustic and can be harmful to pets.

In addition, Giardia cysts can cling to a pet's fur and reinfect the pet when it licks itself. Bathing the dog or cat at least twice during the Giardia treatment period will decrease the risk of reinfection. FortiFlora (probiotics) and extra fiber in the diet may help with recurrent cases.

Giardiasis is the most common intestinal parasite of man, as well as being common in pets. However, current research suggests that most people do not acquire the parasite from their pet, as people and pets tend to have different strains of the disease. In some cities without adequate water treatment, *Giardia* may be acquired from drinking water. Never the less, take precautions if your pet has been diagnosed with Giardiasis - wash your hands, keep the yard free of stools and clean litter boxes often, using bleach and then rinsing well. Small children, the elderly, and people with AIDS or other immune system-compromising diseases should use extreme care.



Giardia

Diagnostic Plan

History
Physical examination
Stool analysis
Analysis of intestinal scrapings collected during endoscopy

Therapeutic Plan

Drugs to kill the parasite

Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

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