

Giardia in Dogs and Cats

Giardia are a type of single-celled organisms and they are infectious to many species of animals. Different types of *Giardia* infect different species of animals. It is rare for *Giardia* from a dog or cat to transmit to a human, and it is rare to spread between dog and cat. The presence of *Giardia* in the host intestine can cause diarrhea, though some hosts are symptom-free carriers. No one is completely sure why some infected hosts get diarrhea while others never do.

Giardia have two stages that can be shed in fresh feces: the trophozoite and the cyst. The trophozoite is the contagious parasitic stage that lives within the host. The trophozoite may change its shape, forming a cyst with a hard shell. Cysts are the contagious stage that live in the environment, potentially for months until they are consumed by a host. The cyst's hard shell allows it to survive in water and soil as long as the environment is relatively cool and wet. Contaminated water is the classical source of a *Giardia* infection. A host animal will accidentally swallow a cyst when drinking from a puddle, or when licking contaminated fur. After the cyst has been swallowed, the cyst's shell is digested away, releasing two trophozoites into the intestine. In about 5 to 16 days *Giardia* can then be found in the host's stool.

There are different types of fecal parasite tests available to detect *Giardia*. The most frequent test submitted for parasite detection is an ova and parasite test. This test looks for intestinal parasites and their eggs by checking a sample of stool under a microscope. Because *Giardia* is shed in the stool intermittently it is difficult to detect with this method. Sometimes pets must be retested in order to find an infection, and asymptomatic carriers are common. A more accurate test, the KeyScreen PCR, rapidly and accurately identifies the genetic material of a wide range of parasites from a small fecal sample, including parasites (like *Giardia*) that otherwise might go undetected by other techniques.

The most reliable treatment for *Giardia* at this time is a broad-spectrum dewormer called Panacur® (fenbendazole). In addition, a probiotic kit is often prescribed in patients with diarrhea symptoms. Three to five days after treatment is complete, it is recommended to recheck a fecal sample.

Because cysts can stick to the fur of the infected patient and be a source for re-infection, the infected animal should receive a bath at least once in the course of treatment and again at the end of treatment. It is especially important to promptly remove the stools from the yard or litterbox to minimize environmental contamination. While human infection is rare, it is always wise to maintain good hygiene practices such as regular hand-washing.

Giardia cysts are killed in the environment by freezing temperatures and by direct sunlight. If neither of these is practical for the area to be disinfected, a chemical disinfectant will be needed. Organic matter such as dirt or stool is protective of the cyst, so a basic cleaning is necessary before disinfecting. Animals should be thoroughly bathed before being reintroduced into a clean area. As for areas with lawns or plants, decontamination will not be possible without killing the plants and allowing the area to dry out in direct sunlight.