

General Information

- Giardiasis is a disease caused by a single-celled parasite called *Giardia intestinalis*.
- Infection does not result in any illness in most cases, but when it does it causes diarrhea, bloating and cramps.
- The most common source of *Giardia* infection is water contaminated by sewage.
- There are many types of *Giardia*. Some infect only animals, but others can infect animals and people. *Giardia* infection occurs commonly in dogs and cats, but it can also infect beavers, farm animals, ferrets, guinea pigs, gerbils, rats and chinchillas.
- The degree of risk of transmission of *Giardia* from pets to people remains unknown, but the potential exists. Taking a few simple steps can minimize the risk that you or your pet will get sick from *Giardia*.



How Common is *Giardia*?

- Giardiasis occurs all over the world. In developed countries, 1 to 7% of people are infected with *Giardia*, but most of them don't know it because they aren't sick. Giardiasis is much more common in developing countries.
- Children are more commonly infected and more likely to get sick than adults. Outbreaks can occur in day cares.
- Immunocompromised individuals (e.g. HIV/AIDS, transplant or cancer patients) are also more likely to get sick.
- *Giardia* is also a cause of "travellers' diarrhea," especially among hikers and campers who drink contaminated water from lakes, rivers or other untreated water sources. Sometimes the infection is called "beaver fever."

In North America it has been estimated that about 7% of dogs carry *Giardia*, but most of them are not sick at all. It is less common in cats. Young animals (puppies and kittens) and those that live in shelters or with a lot of other animals are much more likely to have *Giardia*. Although pets like mice, rats, ferrets, gerbils, hamsters, and guinea pigs may be infected by *Giardia*, in general it is likely uncommon. However *Giardia* is quite common in chinchillas.

How Does *Giardia* Spread?

- *Giardia* lives in the small intestine. Infected animals and people pass microscopic *Giardia* cysts in their stool, which can infect another animal or person only if ingested. This usually happens when stool contaminates untreated drinking or swimming water, but can also happen if there is contamination on a person's hands or face, or on their food.
- The cysts survive for weeks in water, but they are killed by freezing, drying, sunlight, and most disinfectants.
- As few as ten cysts can cause infection, whereas an infected person may pass up to 900 million cysts per day!



How Do I Know If My Pet Or I Have *Giardia*?

- In most cases *Giardia* infection does not make people or animals sick at all. If it does, signs may appear 1-3 weeks after the initial infection. In people it usually causes severe, watery diarrhea for a few days. In animals the diarrhea may also be intermittent, or milder but last longer. Most animals keep eating and do not vomit.
- In most cases the infection goes away by itself, but if the diarrhea is severe some people and animals need to be given fluids so they don't dehydrate. In a small number of cases the infection may become chronic.
- If you think you may have *Giardia*, contact your physician as soon as possible. If you think your pet may have *Giardia*, contact your veterinarian. You will likely need to supply several fresh stool samples to test for *Giardia*.

Do I (Or My Pet) Need Antibiotics?

Antibiotic treatment for giardiasis is usually not necessary if the person or animal is not sick, or if diarrhea only lasts for a few days. Immunocompromised persons are more likely to get sick, and more severely sick, if they become infected. Therefore if such a person, or a person who lives or works with immunocompromised people, becomes infected with *Giardia*, they should be treated with antibiotics. Children and pets who are sick should also be treated as they are more likely to get dehydrated from the diarrhea and to spread the infection. **When a person or animal is sick, taking steps to control the spread of *Giardia* to others and to prevent the person or animal from reinfesting themselves is every bit as important, if not more, than giving medication.**



Vaccination

A *Giardia* vaccine is available for dogs, but it is not able to prevent giardiasis altogether. Talk to your veterinarian about whether or not your pet should be given this vaccine. There is no *Giardia* vaccine available for people.

Can I Get *Giardia* From My Pet?

There is actually very little direct evidence of natural transmission of *Giardia* infection from pets to people, but contact with farm animals and pets does increase the likelihood of a person having giardiasis. It is therefore best to err on the side of caution by treating all *Giardia* infections as potentially transmissible between animals and people.

Giardia can only be transmitted by ingestion of cysts from the stool of an infected animal or person. Therefore preventing stool contamination of water, food and hands is the most important way to prevent the spread of *Giardia*.

Recommendations:

- Proper hand hygiene with soap and water after:
 - ✓ handling/playing with your pet
 - ✓ using the bathroom
 - ✓ changing an infant's diaper
 - ✓ prior to handling any food
 - ✓ after handling stool from your pet (i.e. cleaning the litterbox, poop-scooping)
- Pick up dog stool immediately, especially in public areas like parks where other dogs and children may play.
- Prevent your pet from drinking from puddles, ponds, lakes or other water sources that may be contaminated with feces from other animals.
- Ensure that any water that you or your pet may drink, particularly when hiking or camping, has been properly filtered or boiled well for 1-3 minutes.

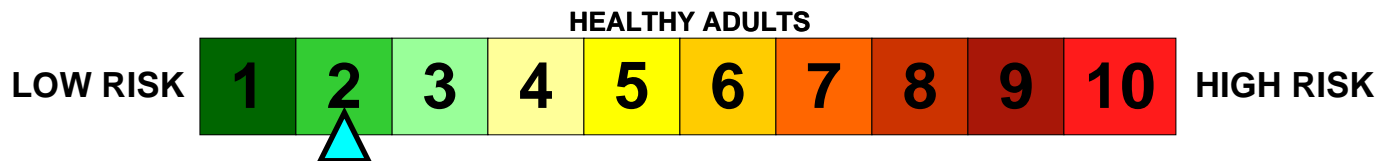


Cysts survive well in a cool, wet environment, but they may also be able to survive on an animal's haircoat for some time, particularly if it is damp. Animals with diarrhea are especially likely to have trace amounts of stool on their coats. Dogs that eat their own feces or those of other animals (a behavior which should be strongly discouraged), or any pet that grooms its hind end, may also have cysts in the hair around their muzzles. In these cases the infection can also be transmitted by contact with the animal's face and mouth. It is therefore also important not to let your pet (or any animal) lick a person's face.

Infected Animals

An animal infected with *Giardia* should be kept separate from other animals, children and immunocompromised individuals. Pet areas, particularly runs or kennels, should be regularly thoroughly cleaned of all visible dirt and then treated with an all-purpose disinfectant such as 10% bleach. *Complete* drying of the area will also help to kill cysts. Animals treated for infection should be bathed thoroughly before being brought into a clean area. Bedding and blankets that become soiled with fecal material should be removed and washed separately.

The risk of a **healthy adult** getting *Giardia* from a pet is:



Immunocompromised individuals (e.g. HIV/AIDS, transplant, cancer patients) and **young children** are more susceptible to many kinds of infections, including those which may be transmitted by pets, and they are more likely to get sick from *Giardia*. However they are more likely to be infected by drinking contaminated water than from their pet, especially if the recommendations above are followed as much as possible. Adults should always supervise children playing with pets and help them to wash their hands and face afterwards. For these groups, the risk of getting *Giardia* from a pet is:

