

# CONTROL OF GIARDIA IN THE SWIMMING POOL

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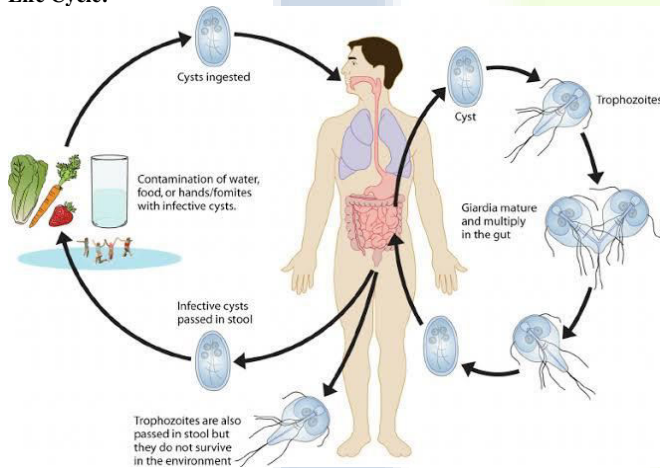
## ABSTRACT

Giardia is a parasite that can survive in swimming pools and can cause Giardiasis, a diarrheal illness. According to the Centers for Disease Control and Prevention (CDC), diarrhea caused by Giardia is very common in the United States especially among children in day care centers and abroad. The parasites are found on surfaces or materials contaminated with feces from an infected person or animal including water, soil, food, or hands. As such it is important to know about them and observe various precautions to prevent contamination.

### Introduction:

Giardia lamblia, a single-celled parasite from the diploid order, is the cause of the diarrheal disease giardiasis. Similar to other diploids, Giardia cells have two nuclei and eight flagella. *G. Lamblia* cells are also characterized by having small organelles called mitochondria. Because this virus has a cyst stage in its life cycle where it is encased in a hard shell, it can survive outside the host's body for long periods of time, including humans and other animals [1].

### Life Cycle:



### Signs and Symptoms:

The common signs and symptoms of giardiasis are of intestines which include Diarrhea, Gas, Foul Smelling, Stomach cramps, Nausea, and Dehydration [2]

### Treatment:

Metronidazole and Tinidazole are the most commonly used for giardiasis. Albendazole bolus can also be used for the treatment of giardiasis. Fenbendazole is usually given for 3 to 10 days. In animals, Cinamon and Ginger are effective on giardia.[5]

### Control In Water:

Chlorine can kill the giardia in the water so use water mixed with the chlorine. But it can survive for 45 minutes in the water if even chlorine is present in water. Heating the water(130F-145F) can kill the giardia. Giardia cysts can be killed by direct sunlight [4].

### Conclusion:

Finally, promoting healthy swimming practices and preventing Giardia contamination in swimming pools is important for the well-being of swimming pool users. By implementing a regular maintenance program, following proper water treatment protocols, and encouraging good hygiene practices, we can significantly reduce the risk of a Giardia outbreak and ensure everyone will have a safe swim. Water should be regularly tested and monitored to ensure water quality. This includes monitoring chlorine and pH levels, as well as periodic microbial testing for the presence of Giardia or other harmful pathogens Any deviations from recommended levels should be dealt with immediately and prevent the growth and spread of the contamination.

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