

GIARDIASIS (lambliasis)

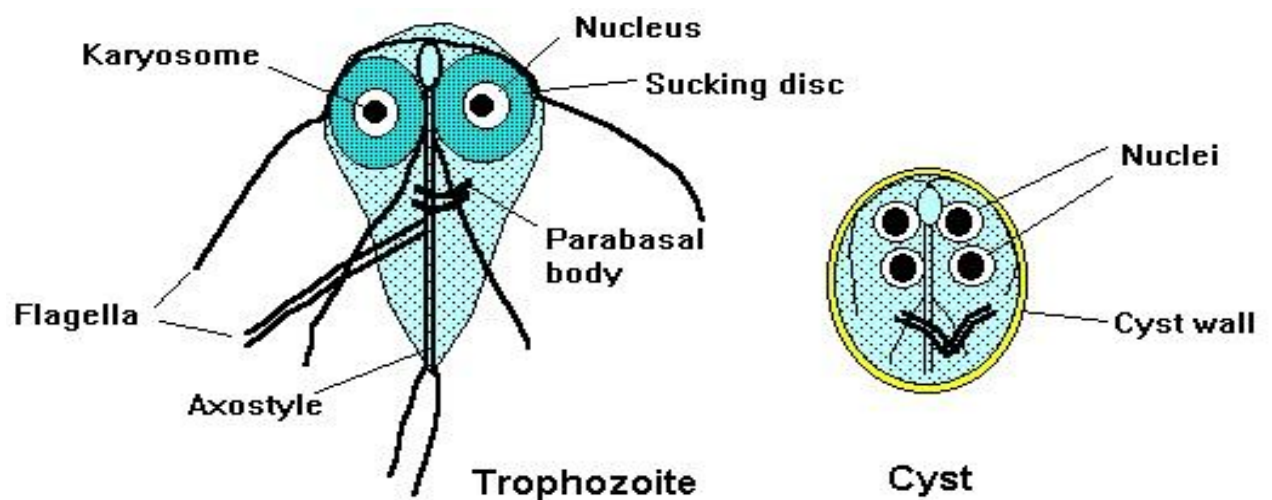
Domin : Eukaryota

Phylum ; Sarcomastigophora

Order: Diplomonadida

Family : Hexamitidae

Species : *G. lamblia*



Giardia lamblia (12-15 um)

Modesto del Castillo

Etiology

Giardia lamblia (a flagellate)

Epidemiology

Giardia is a microscopic parasite that causes the diarrheal illness known as giardiasis. *Giardia* (also known as *Giardia intestinalis*, *Giardia lamblia*, or *Giardia duodenalis*) is found on surfaces or in soil, food, or water that has been contaminated with feces (poop) from infected humans or animals.

Giardia is protected by an outer shell that allows it to survive outside the body for long periods of time and makes it tolerant to chlorine disinfection. While the

parasite can be spread in different ways, water (drinking water and recreational water) is the most common mode of transmission

Morphology

1. **Trophozoite:** •
2. Tennis or badminton racket shaped • Dorsal surface convex; ventral surface concave with a sucking disc • Size: 14µm long by 7µm broad • Anterior end broad and rounded and posterior end tapers to a sharp point • Bilaterally symmetrical with all organs paired • 2 axostyles, 2 nuclei, 4 pairs of flagella
- 3.
4. • **Cyst** • Oval in shape • 12µm long by 7µm broad • Diagonally lying axostyle • 4 nuclei – clustered at one end or lying as pairs in the centre • .

Life cycle

1-Infection occurs by ingestion of **cysts**, usually in contaminated water.

2-Decystation occurs in the duodenum and trophozoites (trophs) colonize the upper small intestine where they may swim freely or attach to the sub-mucosal epithelium via the ventral suction disc

3- The free trophozoites encyst as they move down stream and mitosis takes place during the encystment. The cysts are passed in the stool..

Symptoms

Early symptoms include flatulence, abdominal distension, nausea and foul-smelling bulky, explosive, often watery, diarrhea.

The stool contains excessive lipids but very rarely any blood or necrotic tissue

The more chronic stage is associated with vitamin B₁₂ malabsorption,

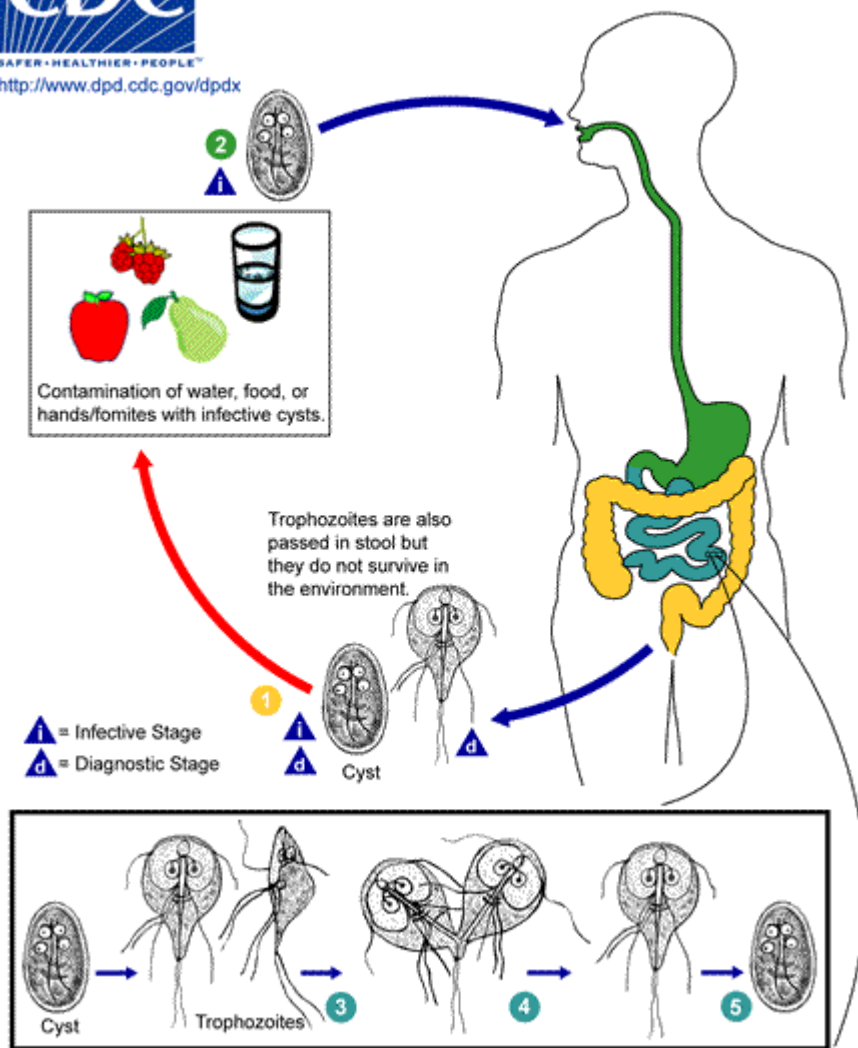
Diagnosis

1-Symptoms, history, epidemiology are used in diagnosis

2- Cysts in the stool and trophs

Treatment

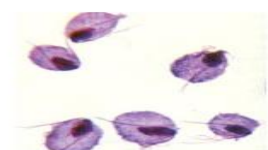
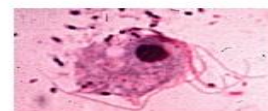
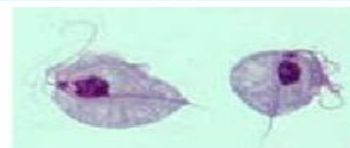
Metronidazole is the drug of choice.



TRICHOMONIASIS

Trichomonas vaginalis

- Phylum Parabasalia
- *Trichomonas vaginalis* is a flagellated protozoan
- Median axostyle; up to 5 flagellae
- Trophozoite is the only stage present in the life cycle
- It is 7-30µm long by 5-10µm wide
- It can survive outside the body at temp as low as 15° C for up to 48 hours



Etiology

Trichomonas vaginalis

Domin: Eukary

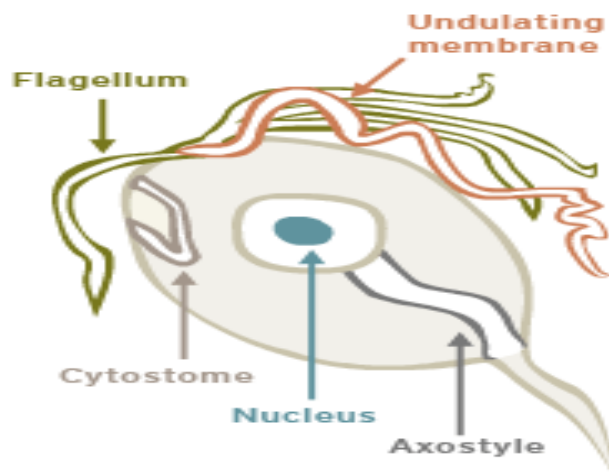
Phylum: Metamonada

Class: Parabasalla

Order: Trichomonadida

Genus : Trichomonas

Species : *T. vaginalis*



Epidemiology

Trichomonas vaginalis has a world-wide distribution;

Morphology *Trichomonas vaginalis* (a flagellate)

The **trophozoite** form is 15 to 18 micrometers in diameter and is half pear shaped with a single nucleus,

four anterior flagella and a lateral flagellum attached by an undulating membrane.

Two axostyles are arranged asymmetrically

The organism does not encyst.

Life cycle

T. vaginalis colonizes the vagina of women and the urethra (sometimes prostate) of

men. Infection occurs primarily via sexual contact, although non-venereal infections are possible. The organism does not encyst and divides by binary fission which is favored by low acidity (pH > 5.9; the normal pH is 3.5 to 4.5). There is no non-human reservoir.

Symptoms

T. vaginalis infection is rarely symptomatic in men, although it may cause mild urethritis or occasionally prostatitis. In women, it is often asymptomatic, but heavy infections in a high pH environment may cause mild to severe vaginitis with copious foul-smelling yellowish, sometimes frothy discharge

- **Diagnosis**

Clinical suspicion may be confirmed by finding the organism smears of vaginal discharge,...

- **Treatment**

Metronidazole) is effective in both males and females

-