

# Protozoa\ practical \ lab 1

.1 Kingdom: Protista

.2 Sub kingdom: Protozoa

.3 Phylum: Sarcomastigophora (Sarcomastigina) Sub phylum:  
Mastigophora (Flagellata)

.4 Class: Zoomastigiana (zooflagellata)

.5 Order: Diplomonadina:

.6 Genus: Giardia

.7 Species: G. lamblia

Giardia lamblia is a parasite living in Human Rabbit and Rat small intestine. Transmission occurs during ingestion of viable cysts with contaminated food and drink. It causes (Giardiasis or Lambliaiasis) disease. This parasite possesses two forms (stages) in their life cycle are which: Trophozoite form 1 -bilaterally symmetrical, pear shaped with broad rounded anterior and pointed posterior end

2 -dorsally it is convex and ventrally concaves forming sucking discs (important for attachment)

3 -contain two nuclei one on each side with centric karyosome 4 -Contain of the midline one pair of axostyles and one a fused pair of deeply staining Curved bars (parabasal bodies) present on the axostyles lies posterior to the sucking discs 5\_ contain four pairs of flagella on the ventral side of the body (2 anterior 2 posterior,, 2 ventral ,, 2 lateral arise from four pairs of blepharoplast.

Cyst form, 1\_avid shaped

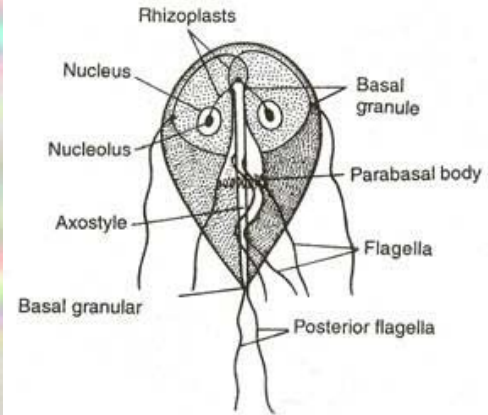
2 -Contain four nuclei, which may remain clustered at one end or lie pairs at Opposite end

3 -Contain the axostyle with the remain of the flagella and margins of the sucking disk in it is cytoplasm



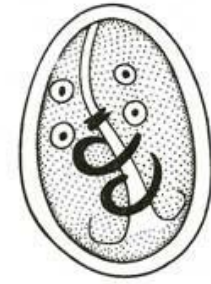


Giardia  
lamblia  
Trophozoite



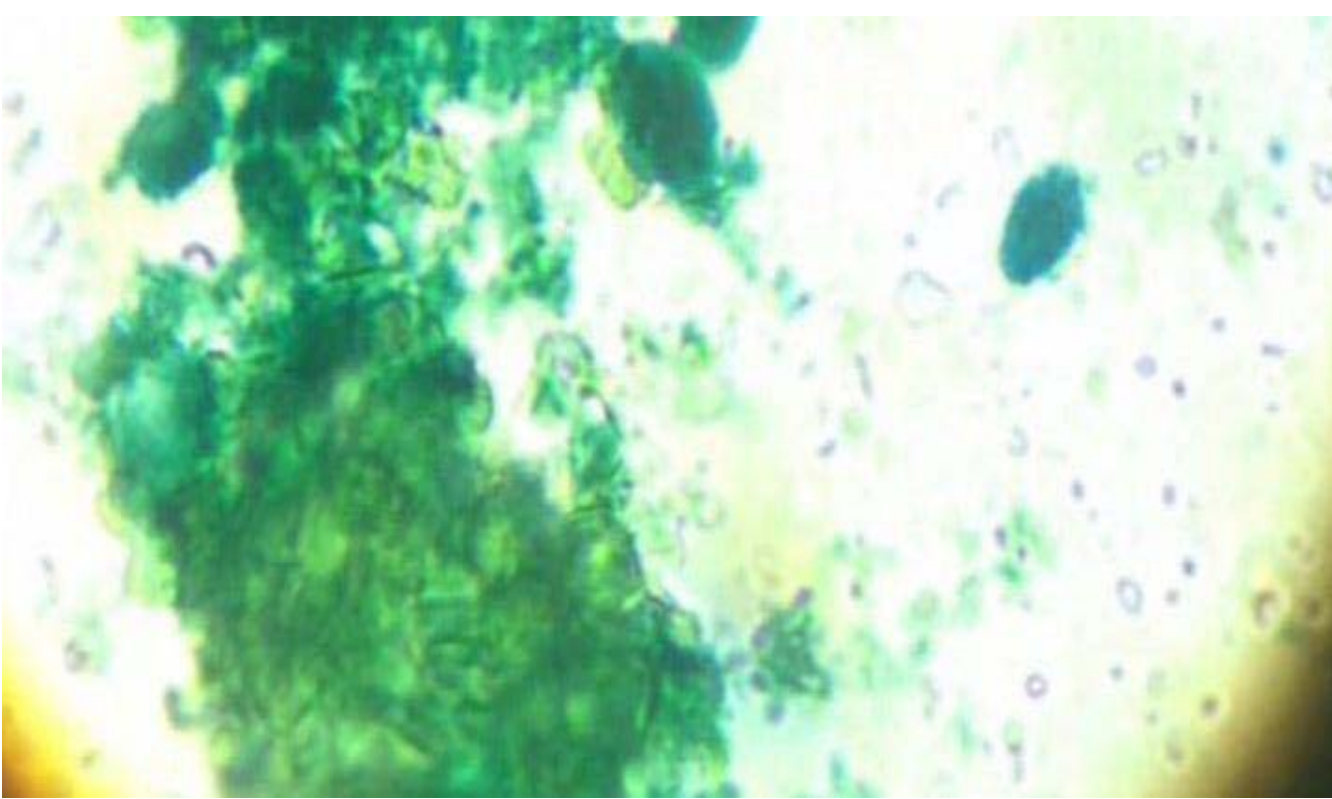
**Trophozoite**

Fig. 181. Stages of life cycle of *Giardia intestinalis*.



**Cyst**

Giardia  
lamblia  
Cyst  
infection  
stage



Giardia lamblia  
Cyst infection  
stage

Order 2: Polymnastigina

Genus: Trichomonas

There are three common species in human which:

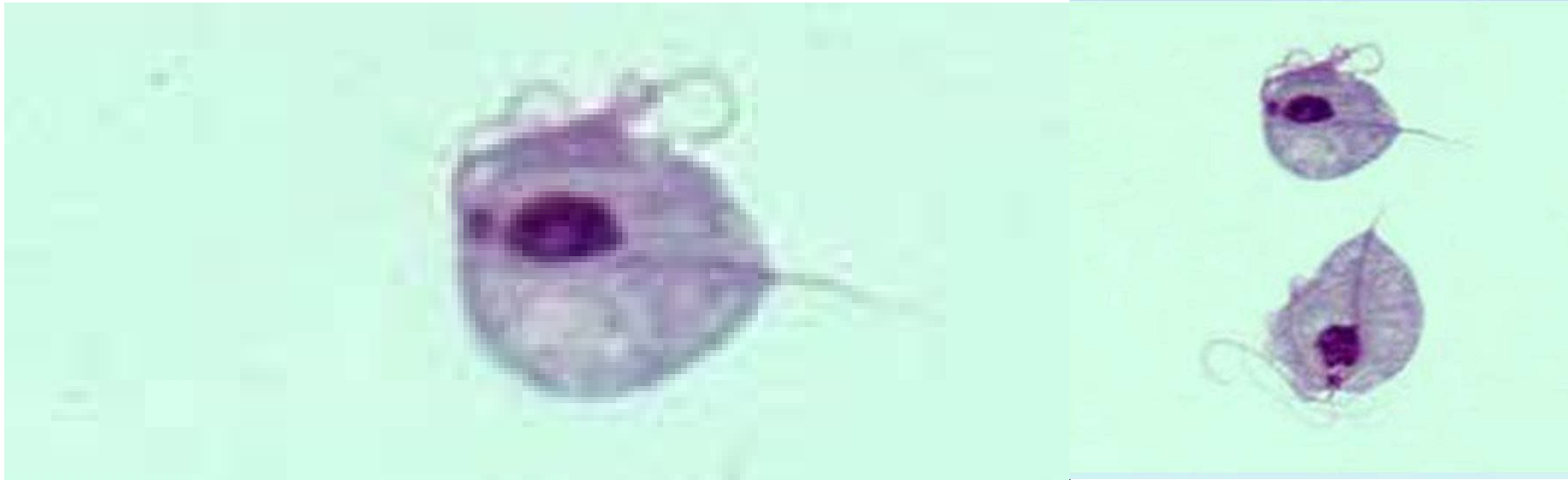
Species: T homonis parasite in large intestine.

Species: T tenax parasite in mouth.

Species: T vaginalis parasite in vagina



**Trichomonas vaginalis** is a parasite living in sexual organ , the vagina , urethra and prostate of human , and its transmission occurs during sexual intercourse and contaminated toilet seats , and it causes trichomonas vaginitis , urethritis and prostatitis disease- Only the trophozoite stage is found in its life \_ cycle . The trophozoite is ovoid or pear shaped . It has four free anterior flagella and one posterior flagellum which turns back and is attached to the body by an undulating membrane which is half of this body length , and has one large ovoid nucleus with few chromosome granules and the axostyle projects posteriorly of the body , and also has a parabasal fiber of costa ( chromatic basal rod ) has the same length as the undulating membrane



Trichomonas  
vaginalis

# Trichomonas vaginalis

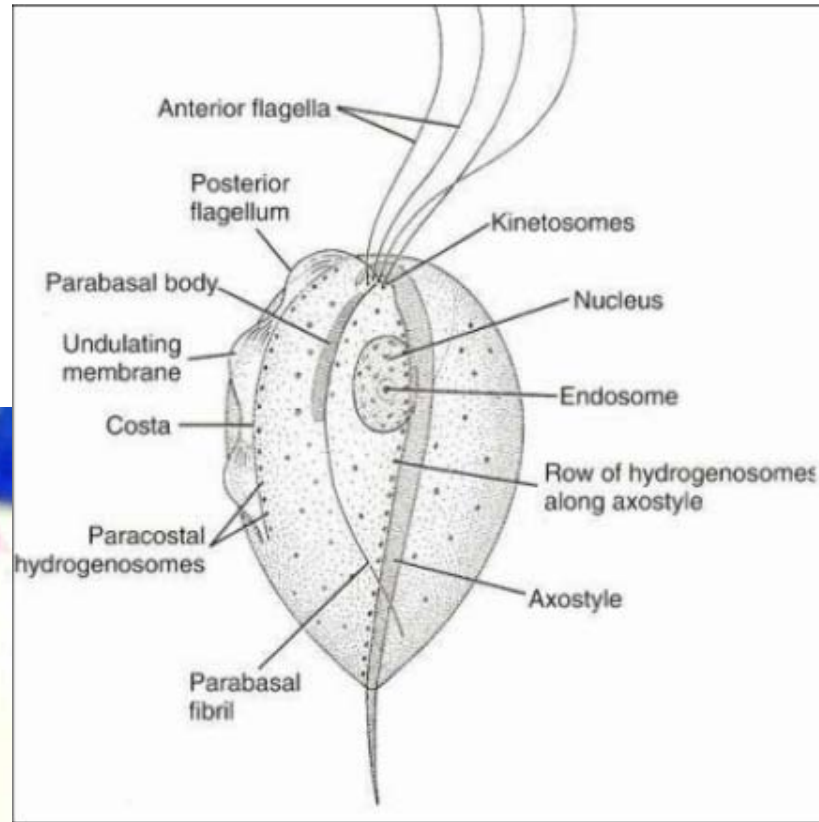


Figure 2.2: Trophozoite form of *T. vaginalis*. (Adapted from Strous, 2008).

