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((Parasitology))

2 stage

Lab 1

ENTAMOEBA

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Entamoeba histolytica is an anaerobic parasitic amoebozoan, part of the genus *Entamoeba* . Predominantly infecting humans and other primates causing amoebiasis,

Scientific classification

Domain: [Eukaryota](#)

Phylum: [Amoebozoa](#)

Family: [Entamoebidae](#)

Genus: [Entamoeba](#)

Species: *E. histolytica*

Entamoeba histolytica have three stages

Trophozoite stage

precyst

cysts stage

The active (trophozoite) stage exists in colon of the host and in fresh loose feces; precyst in colon and outside cysts survive outside the host in water, in soils, and on foods, especially under moist conditions on the latter. The infection can occur when a person puts anything into their mouth that has touched the feces of a person who is infected with *E. histolytica*, swallows something, such as water or food, that is



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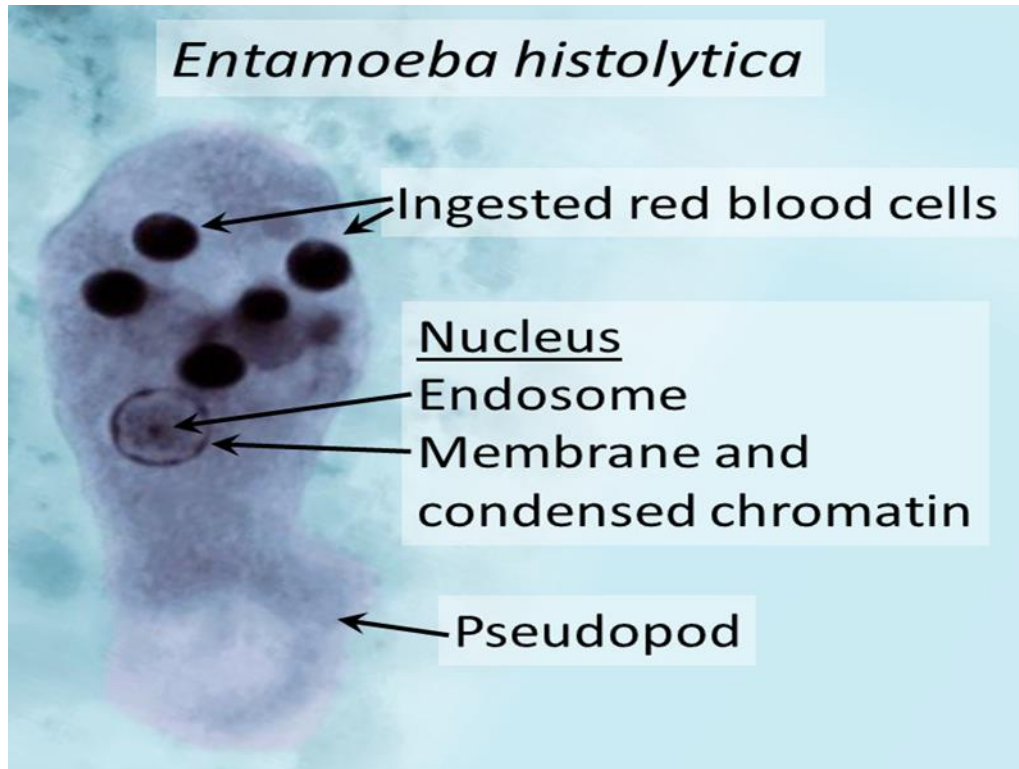


contaminated with *E. histolytica*, or swallows *E. histolytica* cysts (eggs) picked up from contaminated surfaces or fingers

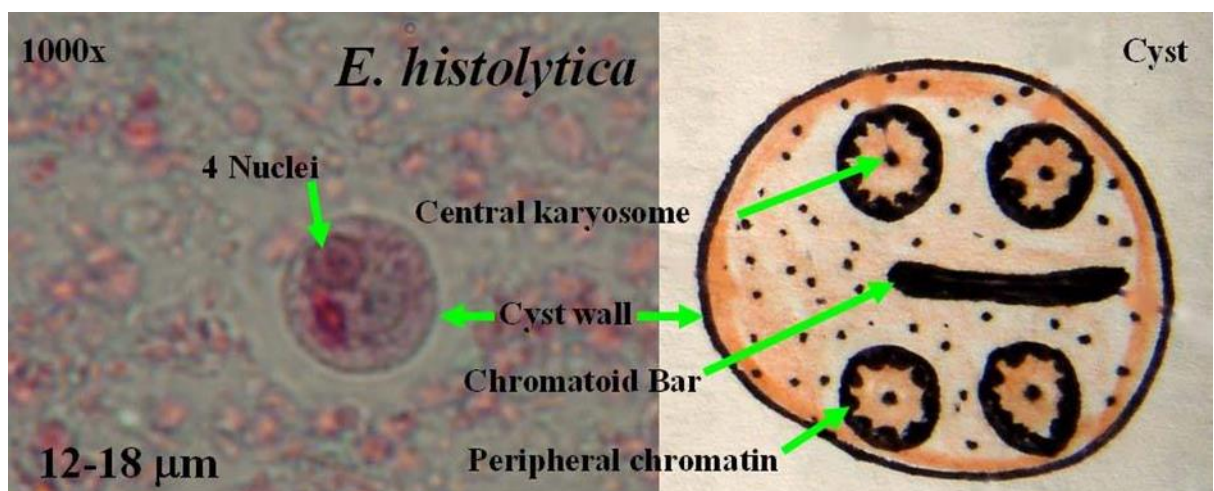
The cysts are readily killed by heat and by freezing temperatures; they survive for only a few months outside of the host. When cysts are swallowed, they cause infections by excysting (releasing the trophozoite stage) in the digestive tract. *E. histolytica*, as its name suggests (histo-lytic = tissue destroying), is pathogenic; infection can be asymptomatic, or it can lead to amoebic dysentery or amoebic liver abscess. Symptoms can include fulminating dysentery, bloody diarrhea, weight loss, fatigue, abdominal pain, and amoeboma. The amoeba can 'bore' into the intestinal wall, causing lesions and intestinal symptoms, and it may reach the blood stream or peritoneal cavity. From there, it can reach vital organs of the human body, usually the liver, but sometimes the lungs, brain, and spleen. A common outcome of this invasion of tissues is a liver abscess, which can be fatal if untreated. Ingested red blood cells are sometimes seen in the amoeba cell cytoplasm.



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Entamoeba histolytica trophozoite



Entamoeba histolytica precyst



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Life Cycle. Cysts are passed in feces . Infection by *Entamoeba histolytica* occurs by ingestion of mature cysts in fecally contaminated food, water, or hands. Excystation occurs in the small intestine and trophozoites are released, which migrate to the large intestine.

Life cycle of *Entamoeba histolytica*

