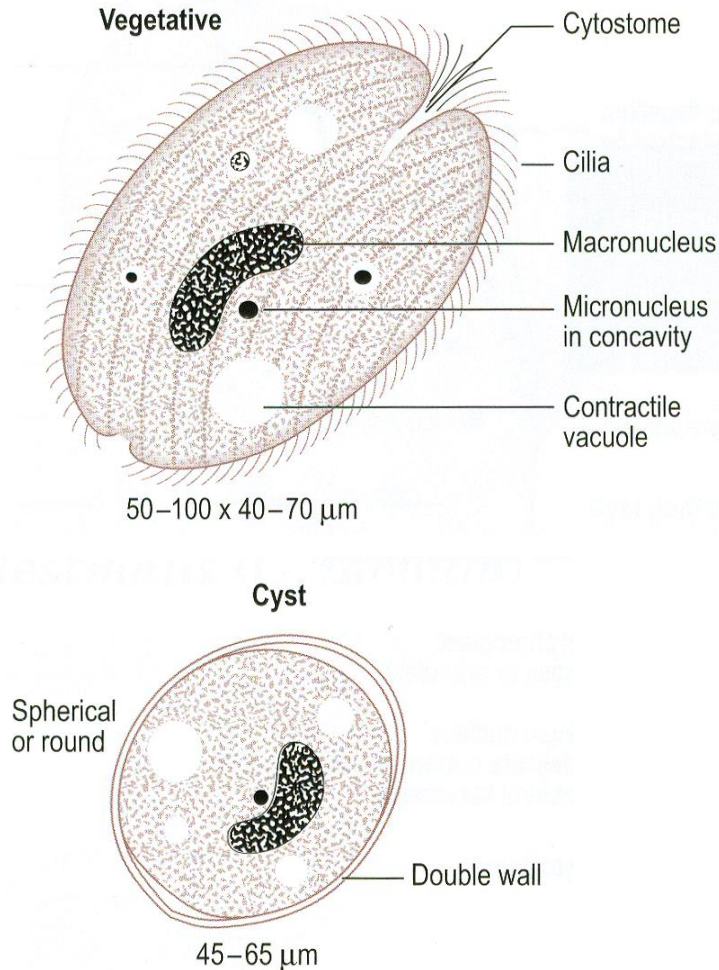


Ciliates



- *Balantidium coli* is the only human pathogen from this phylum
- Ciliates have 2 nuclei (one macronucleus and one micronucleus) and reproduce by transverse binary fission, conjugation, autogamy, and cytogamy.
- Typical ciliate organization (cilia, digestive vacuole, pulsating vacuole etc.)

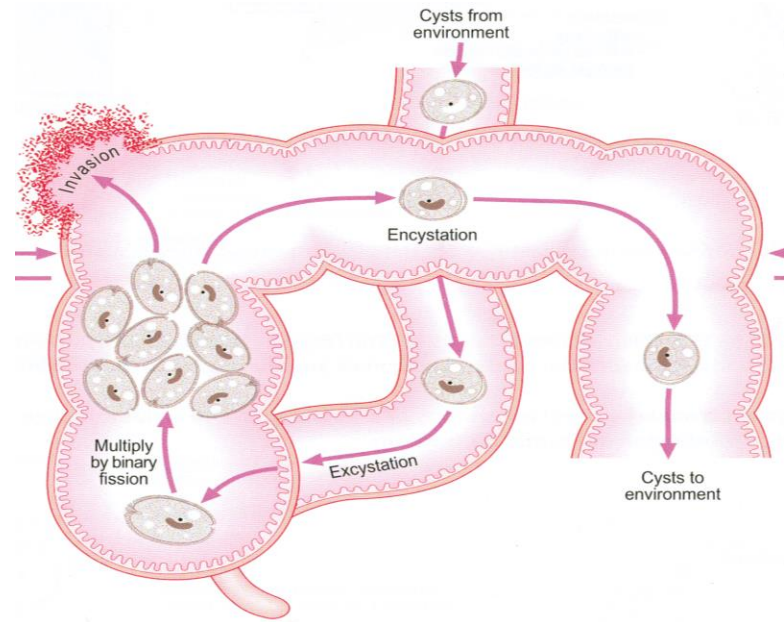
Ciliates

- Cosmopolitan distribution. توزيع عالمي.
- Relatively rare in humans.
- Unclear association with pig reservoir

- *Balantidium coli* has 2 developmental stages:
- a trophozoite stage and
- a cyst stage.

- Causes diarrhea and dysentery in both swine and humans.

- Trophozoites can invade the mucosa forming ulcers very much like *E. histolytica*. Disease can be fatal.



B. coli trophozoite: 50-70 μ M



B. coli cyst: 50x60 μ m

Balantidium coli

Cyst transmission (fecal oral)

Pathogenic in humans, mucosal erosion تآكل

Frank واضح blood in feces, sloughed منزوعة

mucosa

Reservoir hosts swine, probably other

Prevalence overall الانتشار العام, low

Diagnosis: fecal analysis for cysts, trophs,
proctoscopy for lesions/biopsy

spontaneous clearance occasionally

Balantidium coli Life Cycle

