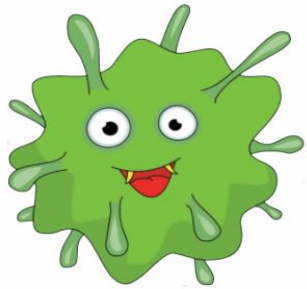


Gastro Intestinal System



Stool Collection



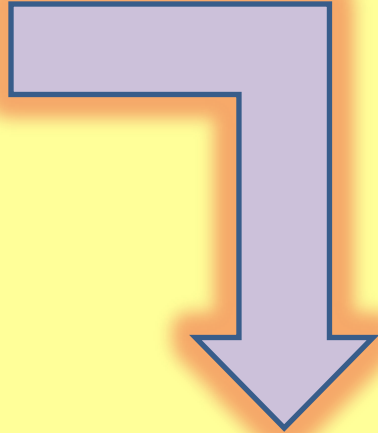
& culture



Stool should be collected in
clean wide mouth container
not sterile



Stool should be added to Selenite broth



Why? ?



- Inhibits the growth of coliforms
- Enhances the growth of Pathogen



❖ Most common pathogens (Bacteria) :

» **E.coli**

» Salmonella

» **Shigella**

» Vibrio

» **Proteus**

» Yersinia , Campylobacter , Clostridium,
Bacillus ...etc



Stool sample should be cultured on the following media using streak plate method



S-S agar



Hekton agar



T.C.B.S



S-S agar



SS Agar Plate
(Salmonella-Shigella Agar)

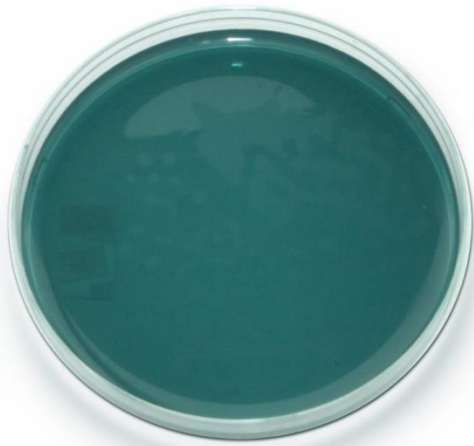
Salmonella



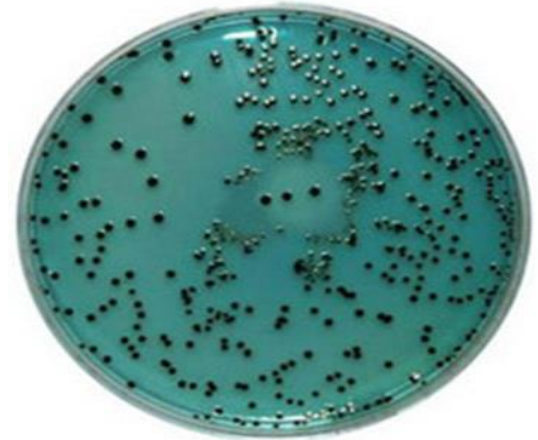
Shigella



Hekton enteric agar



Salmonella



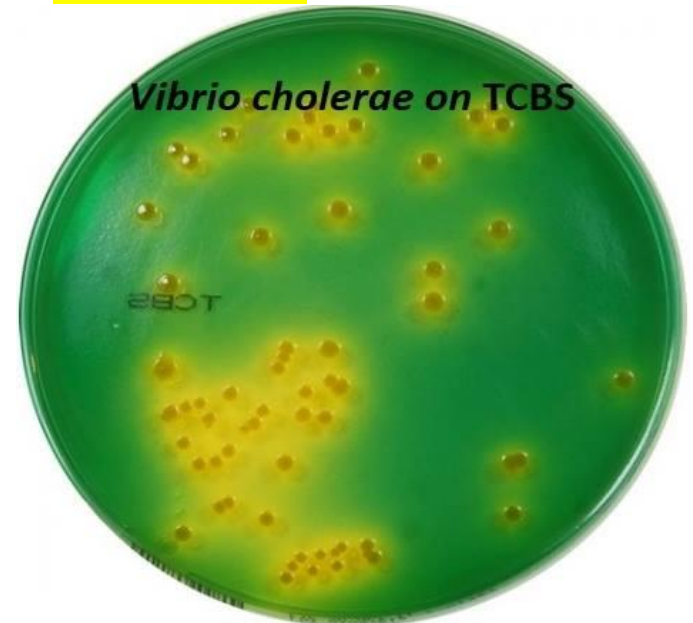
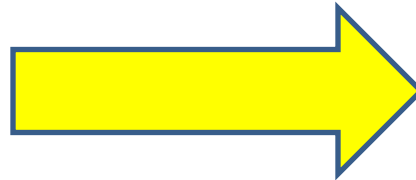
Shigella



T.C.B.S media

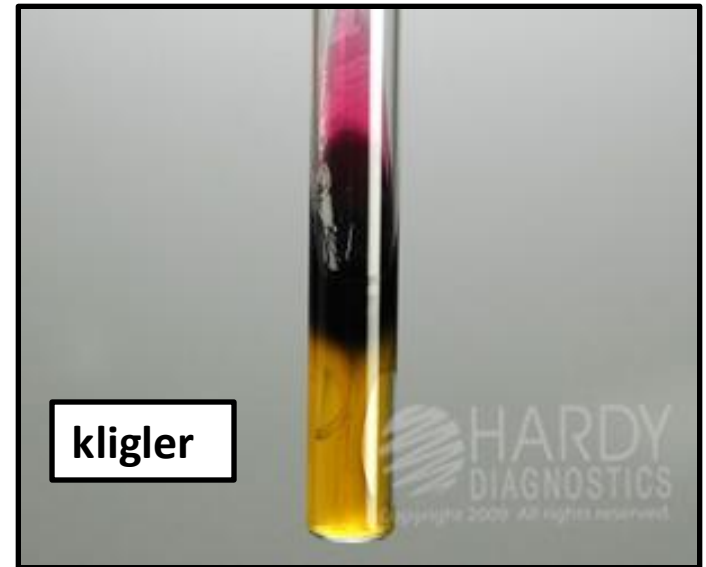


- **Selective for *Vibrio* Spp.**
- Ph (8.5-10)
- **When *Vibrio* ferment sucrose it turns the media from **green** to **Yellow****

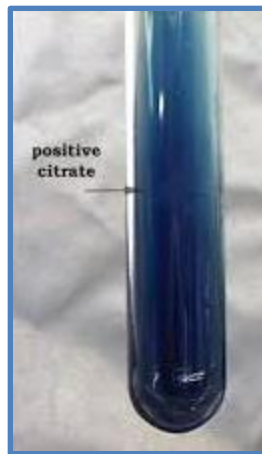


Salmonella

- Kligler : red/Yellow + H₂S
- Urease : Negative
- Citrate : Positive
- SIM : Positive / Negative / Positive



Urease test



citrate test

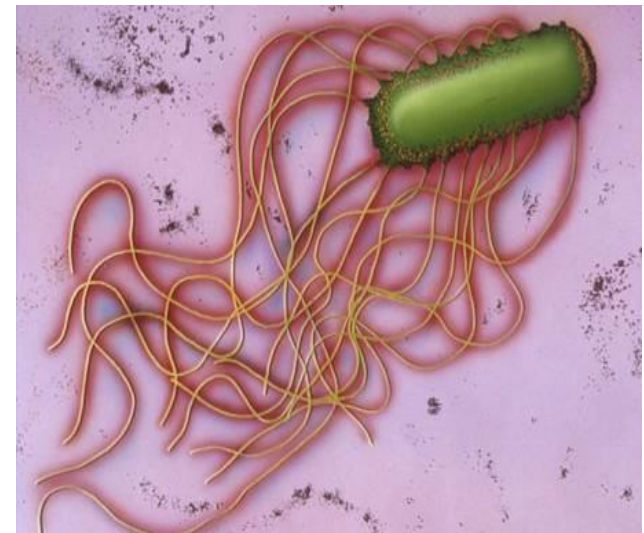
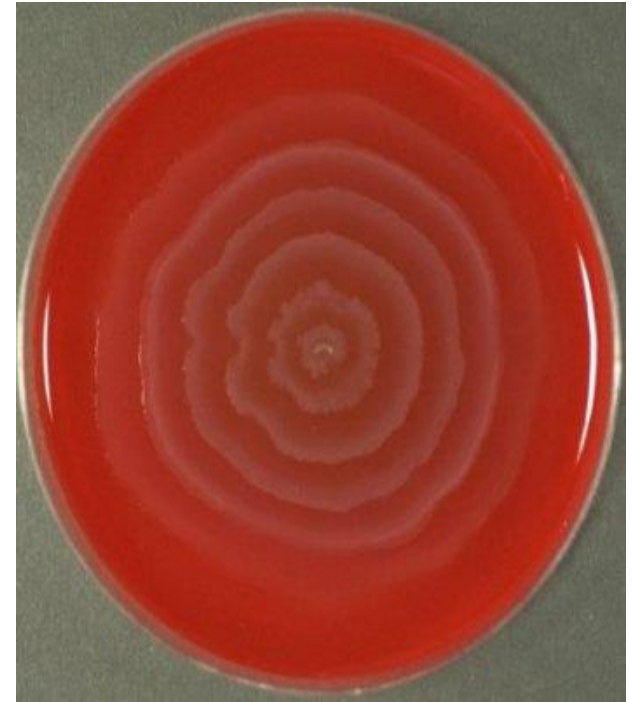


SIM test



Proteus

- Gram negative rods , non lactose fermenter
- **Swarming motility (flagellated)**
- Prevent swarming by culturing it on CLED or MacConkey media



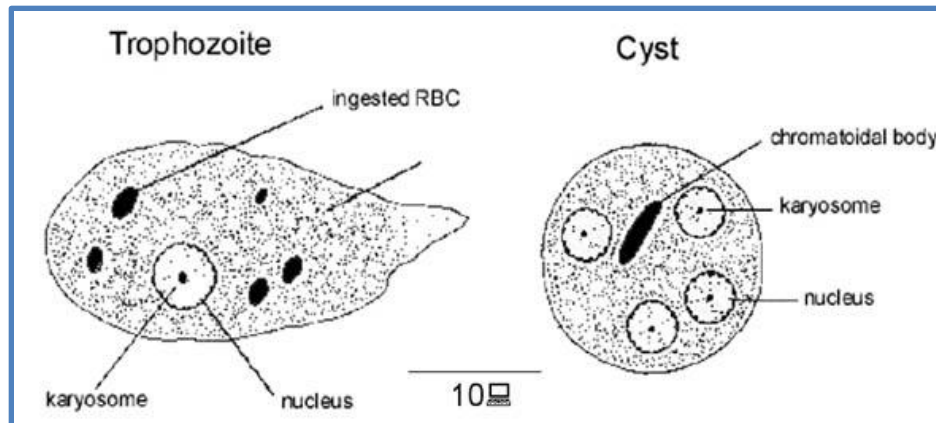
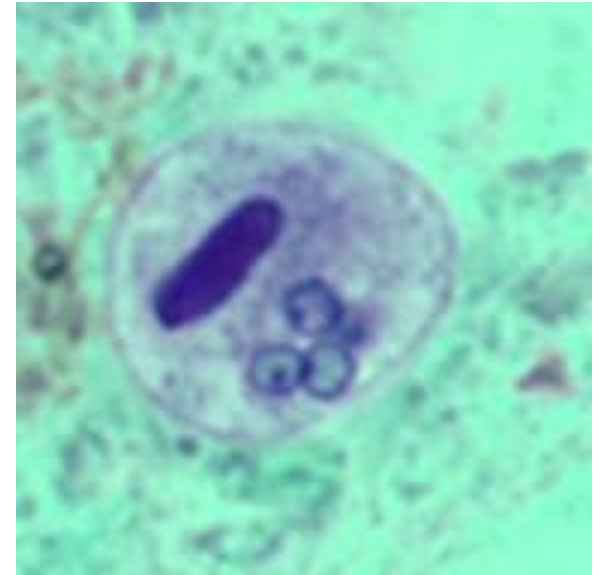
Entamoeba histolytica

Trophozoite



- trophozoites
- 15-20 μm
- extended pseudopodia
- progressive movement

Cyst

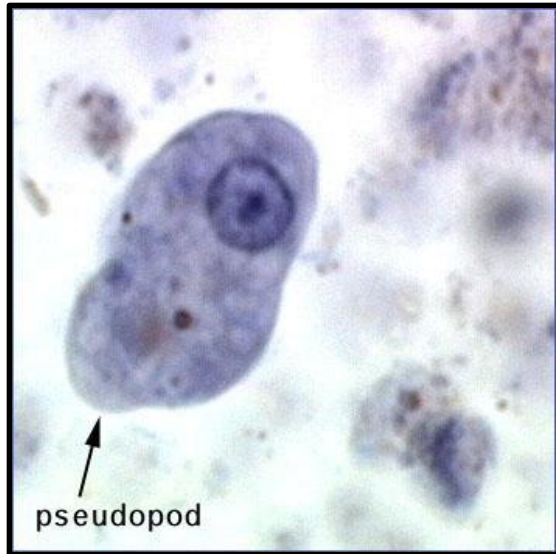


- cysts
- 12-15 μm
- 4 nuclei (mature)
- blunt chromatoid bodies

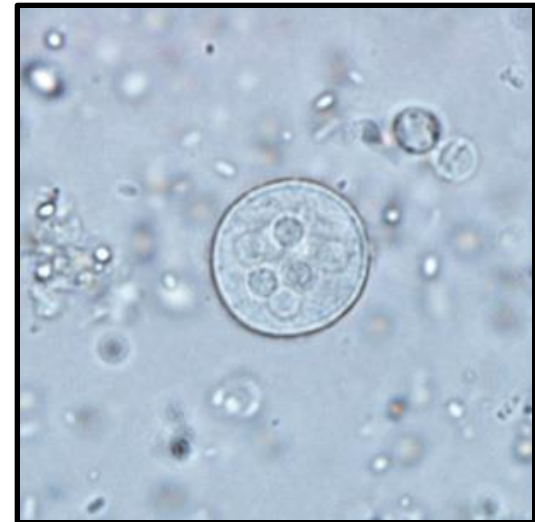
Entamoeba Coli

Trophozoite

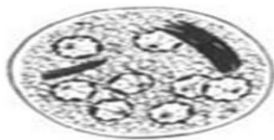
- trophozoites
- 20-25 μm
- broad blunt pseudopodia



Cyst



Entamoeba coli



Cyst

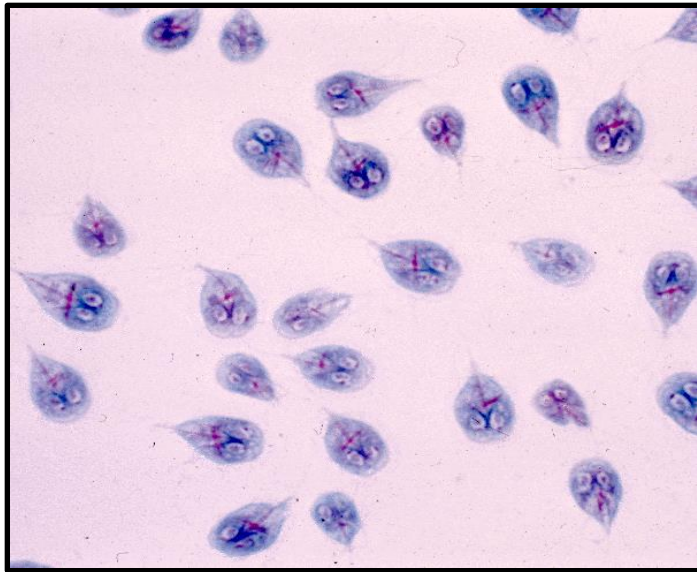


Trophozoite

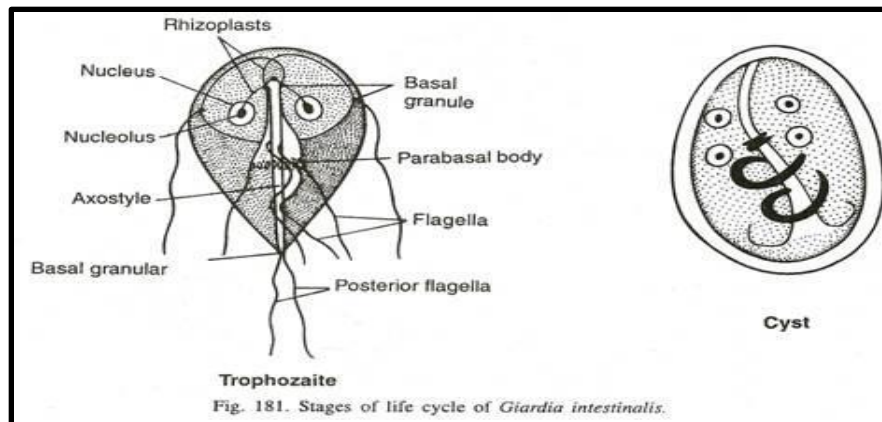
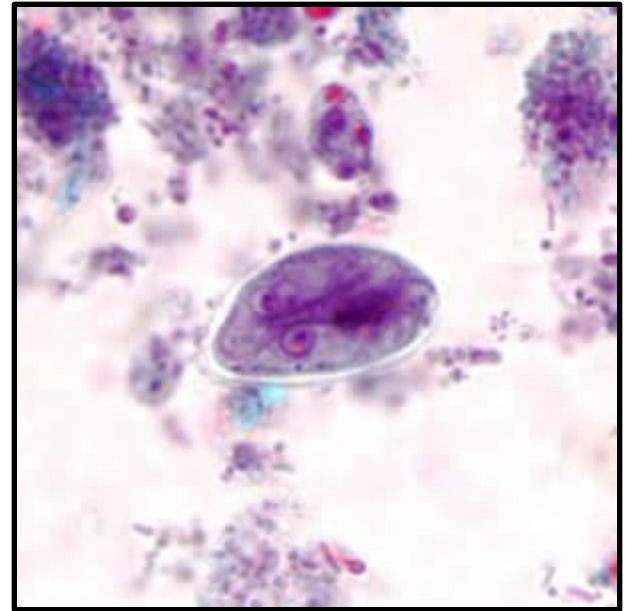
- cysts
- 15-25 μm
- 8 nuclei (mature)
- pointed chromatoid bodies (less prominent)

Giardia lamblia

Trophozoite



Cyst

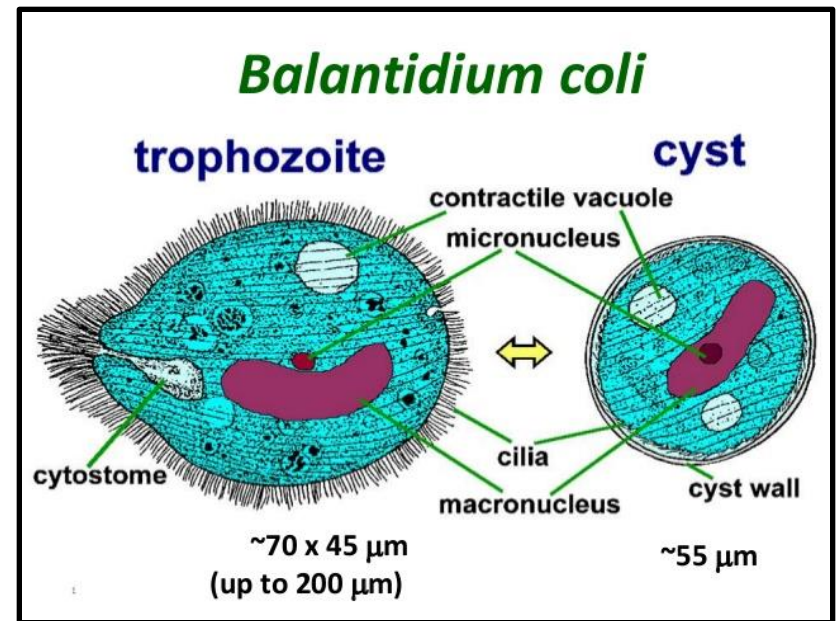


Balantidium coli

Trophozoite



Cyst

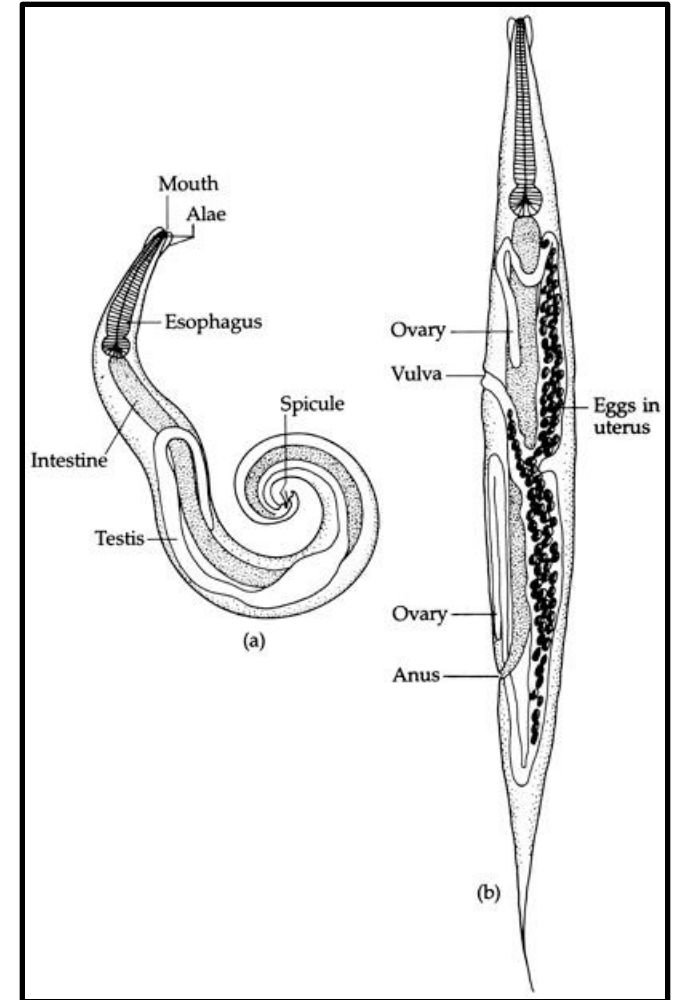


Enterobius Vermicularis

Worm

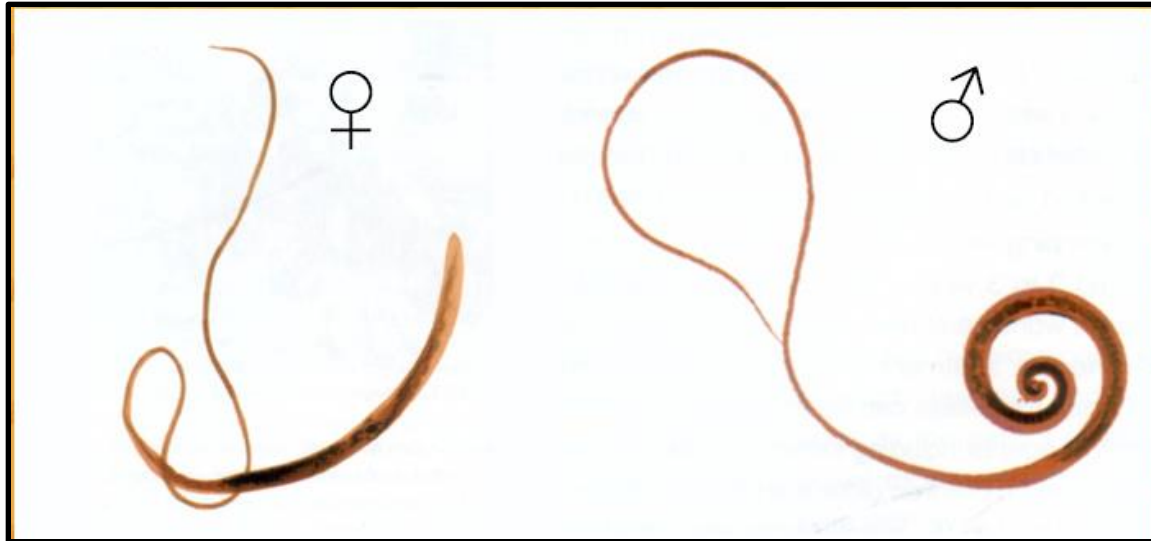


Egg



Trichuris Trichiura

Worm



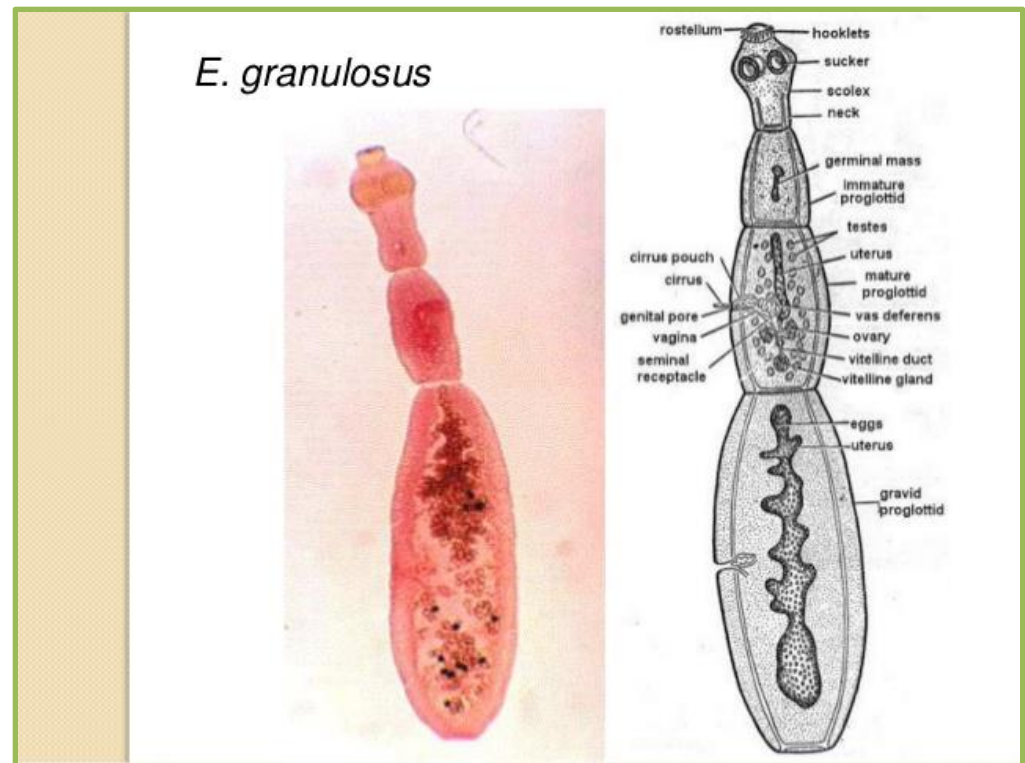
Egg



Echinococcus granulosus

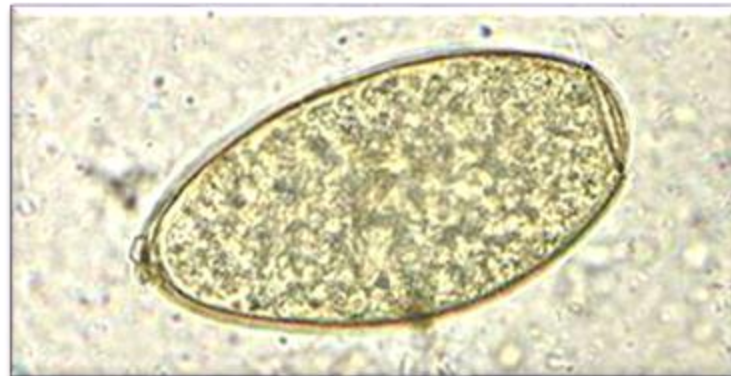
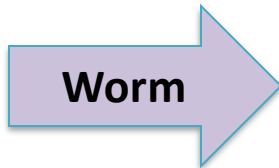
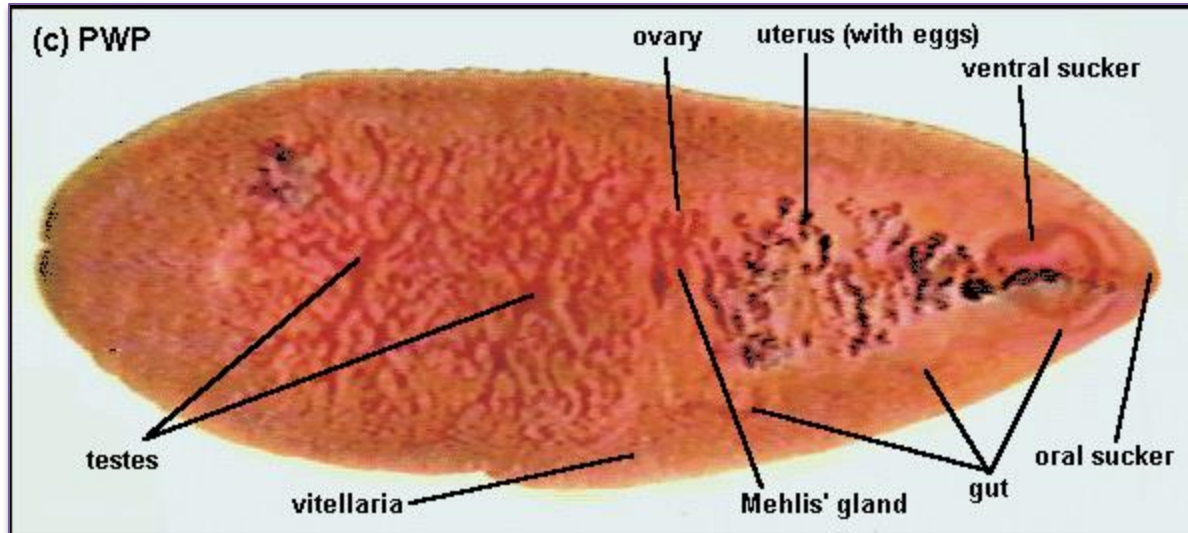
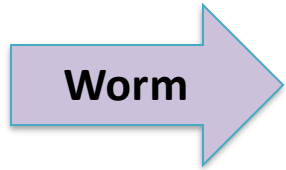


Ova



Worm

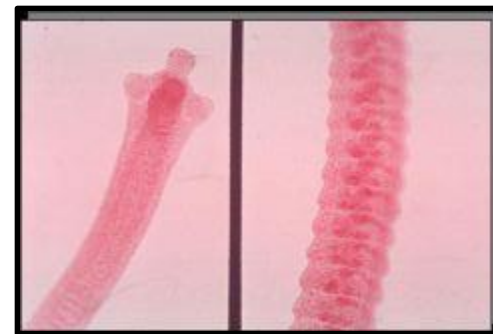
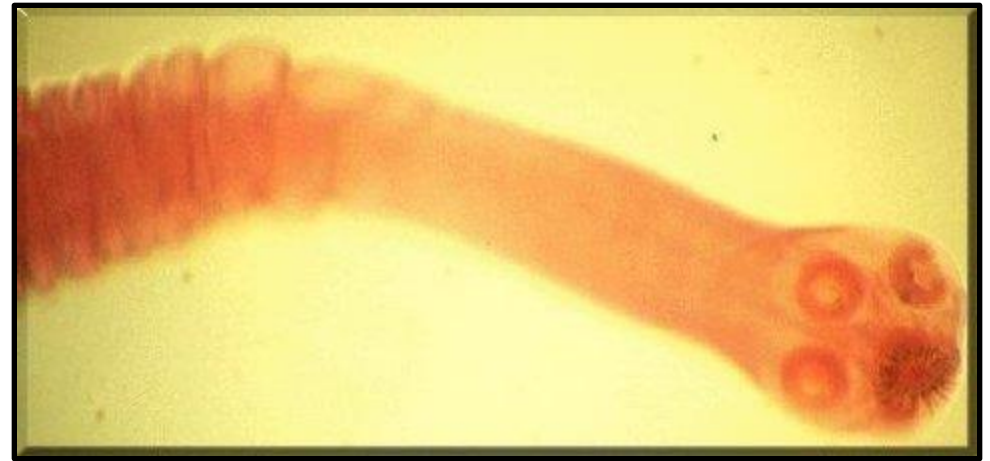
fasciolosis buski



Hymenolepis Nana

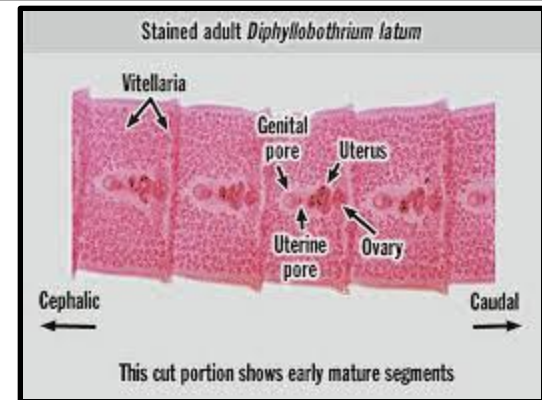
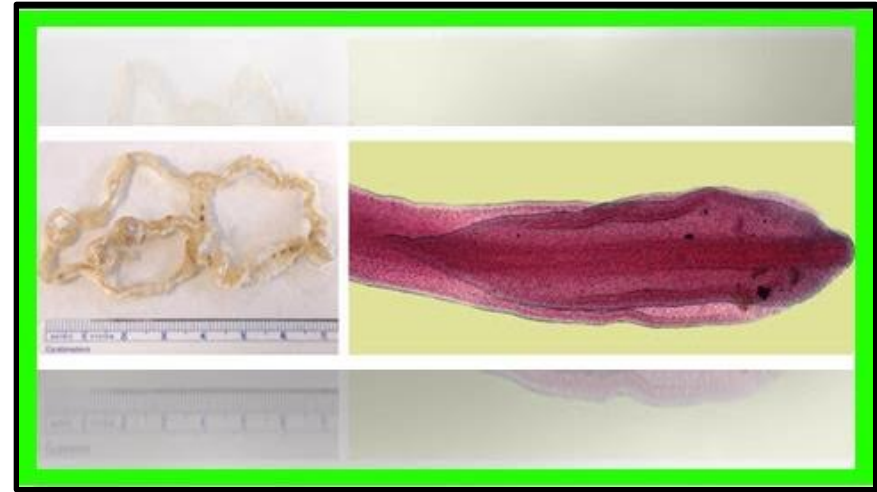
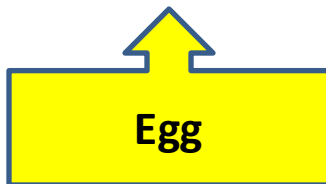


Ova

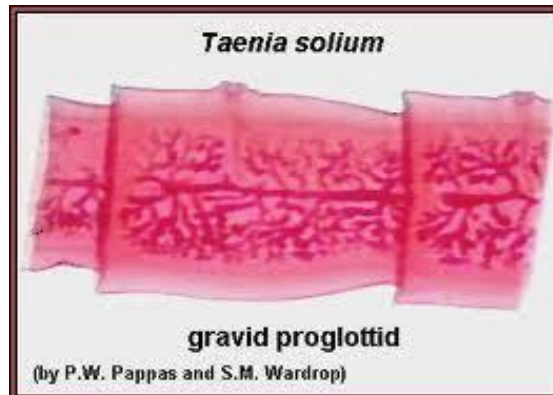
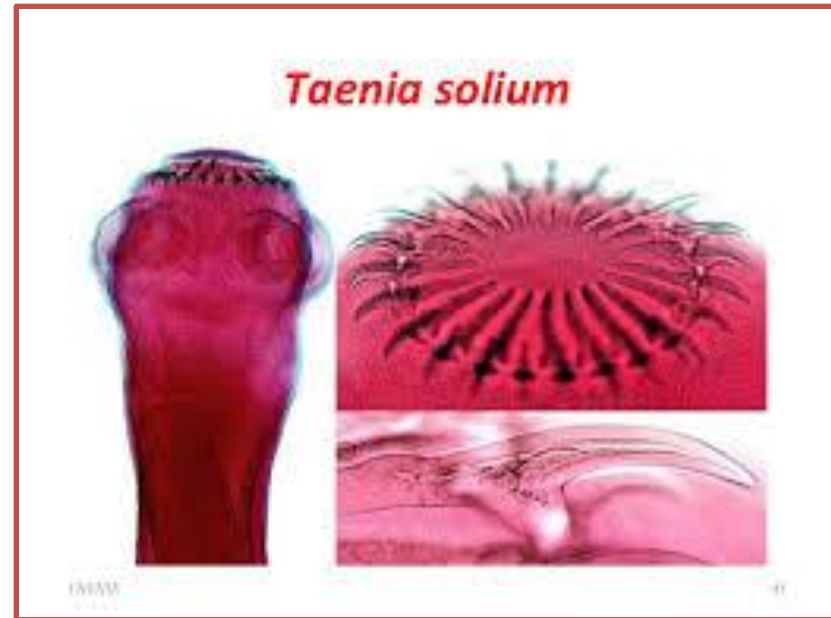


Worm

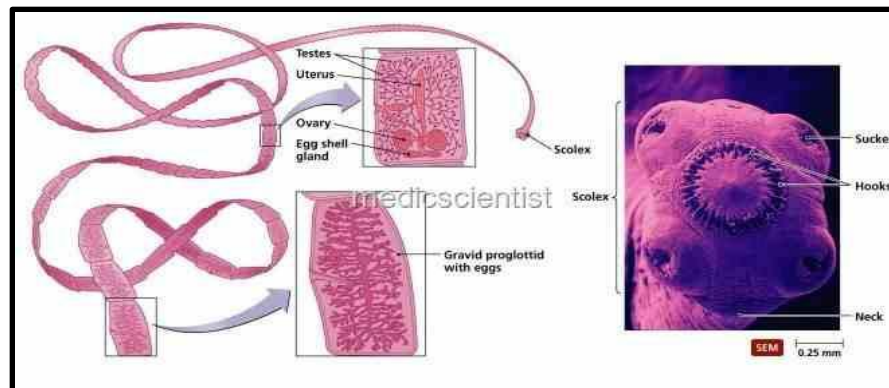
Diphyllobothrium latum

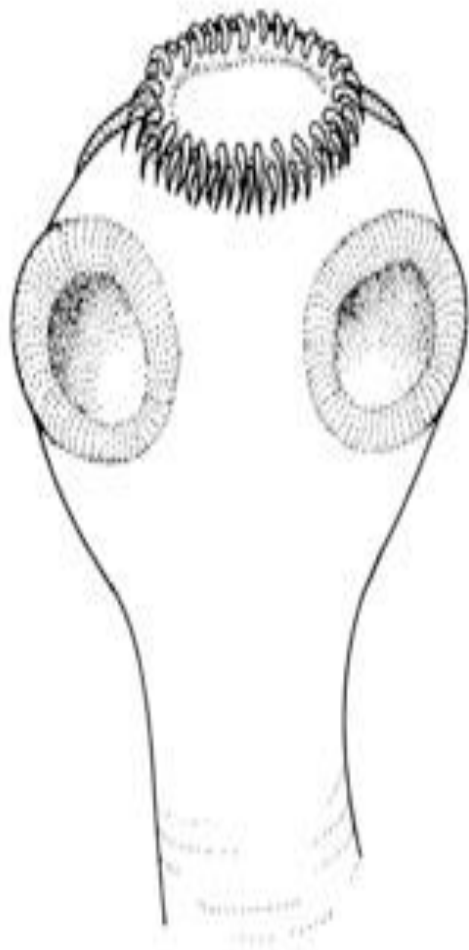


Taenia solium

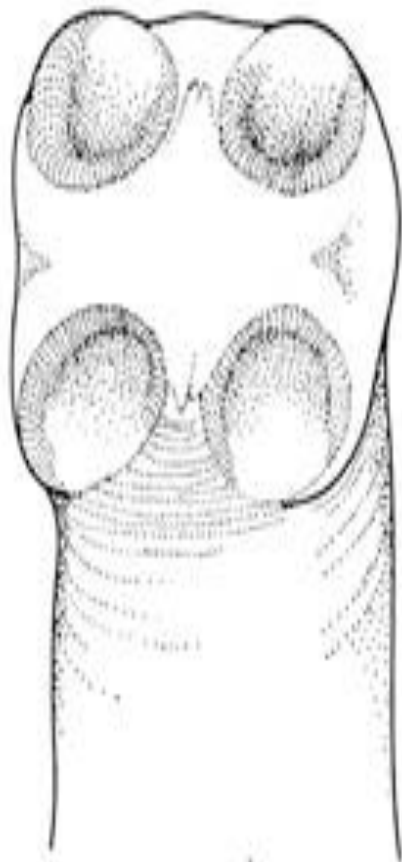


Taenia saginata





Taenia solium

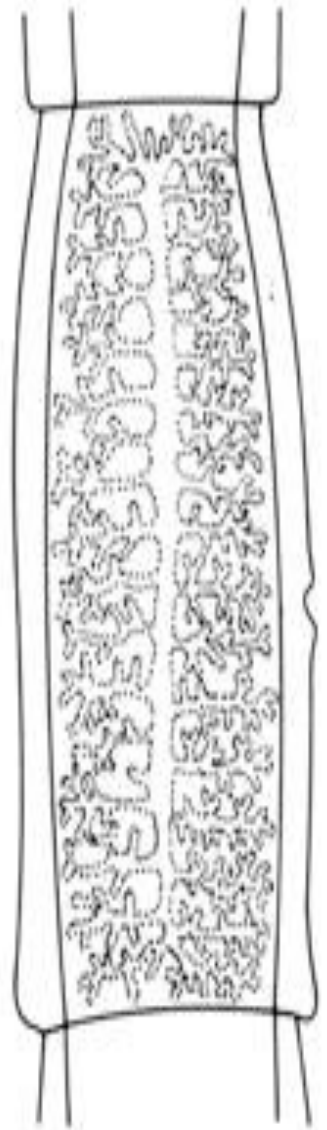


Taenia saginata

(a)



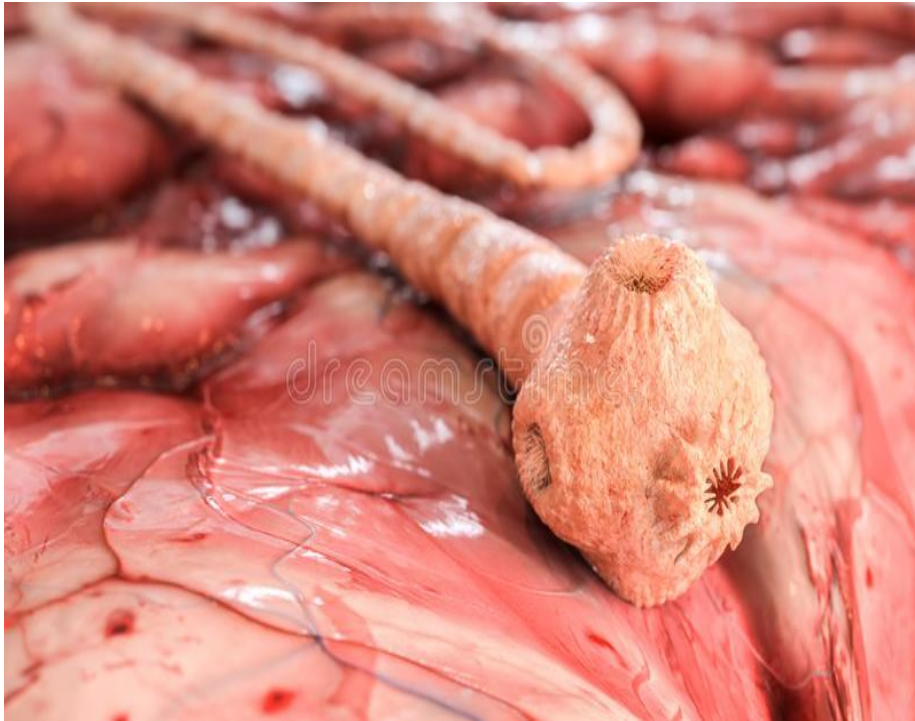
Taenia solium



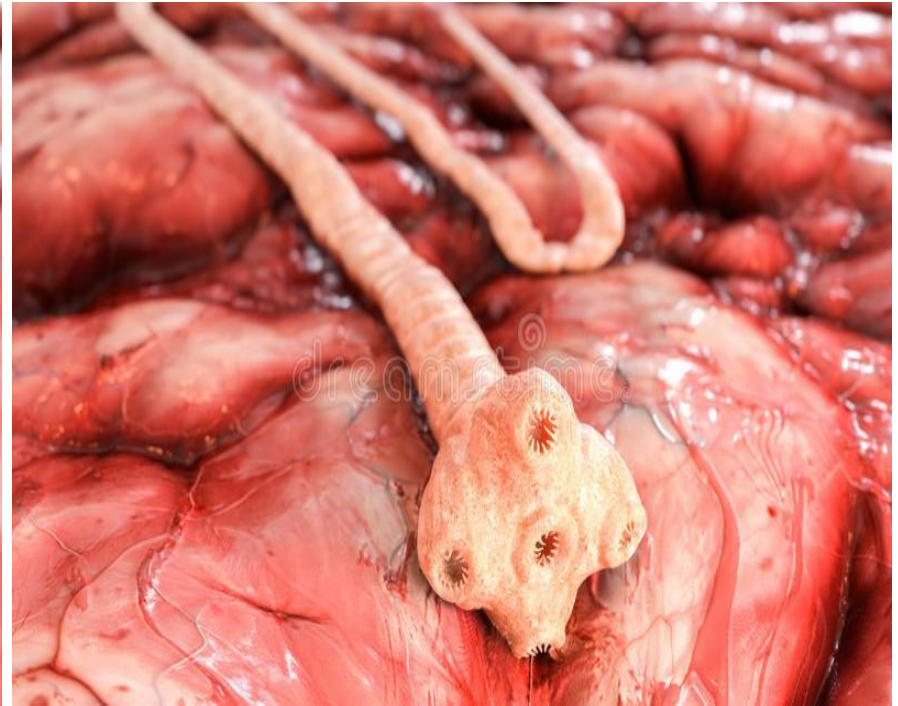
Taenia saginata

(b)

Taenia Solium



Taenia saginata







Thank you for listening!

QUESTIONS?
ALWAYS
WELCOME!