

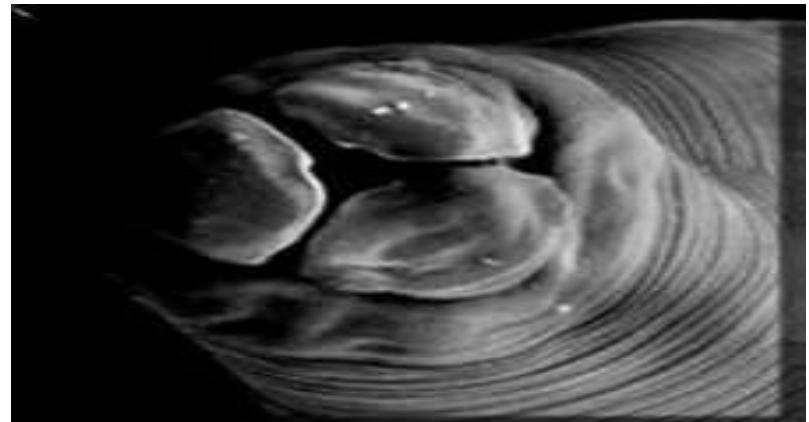
# GIT Micro Lab 1

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Dr. Mohammad Odaibat  
Department of Microbiology and Pathology  
Faculty of Medicine, Mutah University

## *Ascaris lumbricoides* adult

- Long, cylindrical with tapering ends.
- Creamy or pink in color.
- Mouth surrounded by 3 lips, one dorsal and 2 subventral.
- Each lip is provided with 2 sensory papillae and fine teeth.
- Club-shaped oesophagus.



# *Ascaris lumbricoides* adult female

- Female:

- ❖ Straight posterior end.
- ❖ 2 sets of genitalia.
- ❖ Each female lays about 200.000 eggs / day (oviparous).



# *Ascaris lumbricoides* adult male

## •Male:

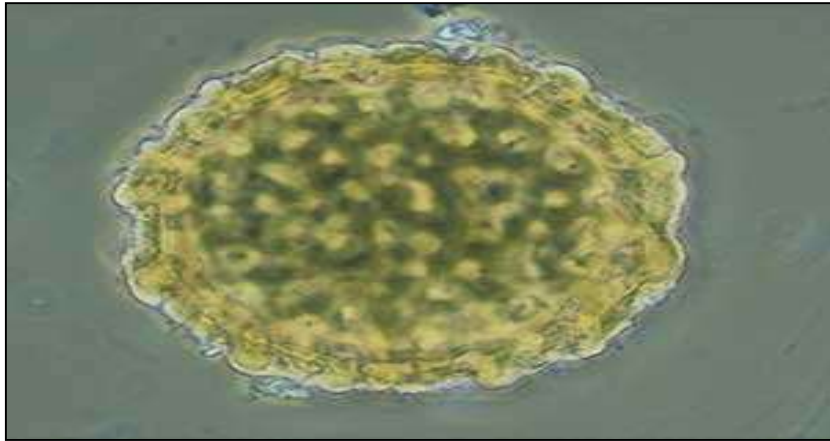
❖ Shorter than female.

❖ The posterior end is curved ventrally

❖ 2 equal spicules.

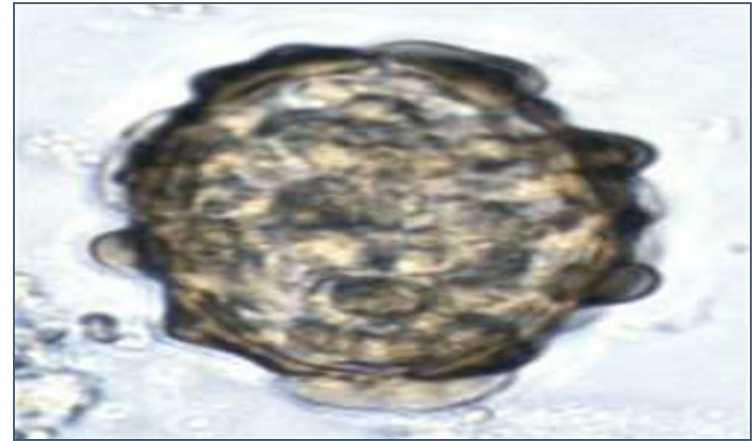


# Eggs of *Ascaris lumbricoides* (D.S)



**Fertilized egg**

- Size:** 60 × 45 μm
- Shape:** Oval to round.
- Shell:** Inner thick shell & outer mamillated coat.
- Color:** Golden brown (bile stained).
- Content:** Immature (one- cell stage).



**Unfertilized egg**

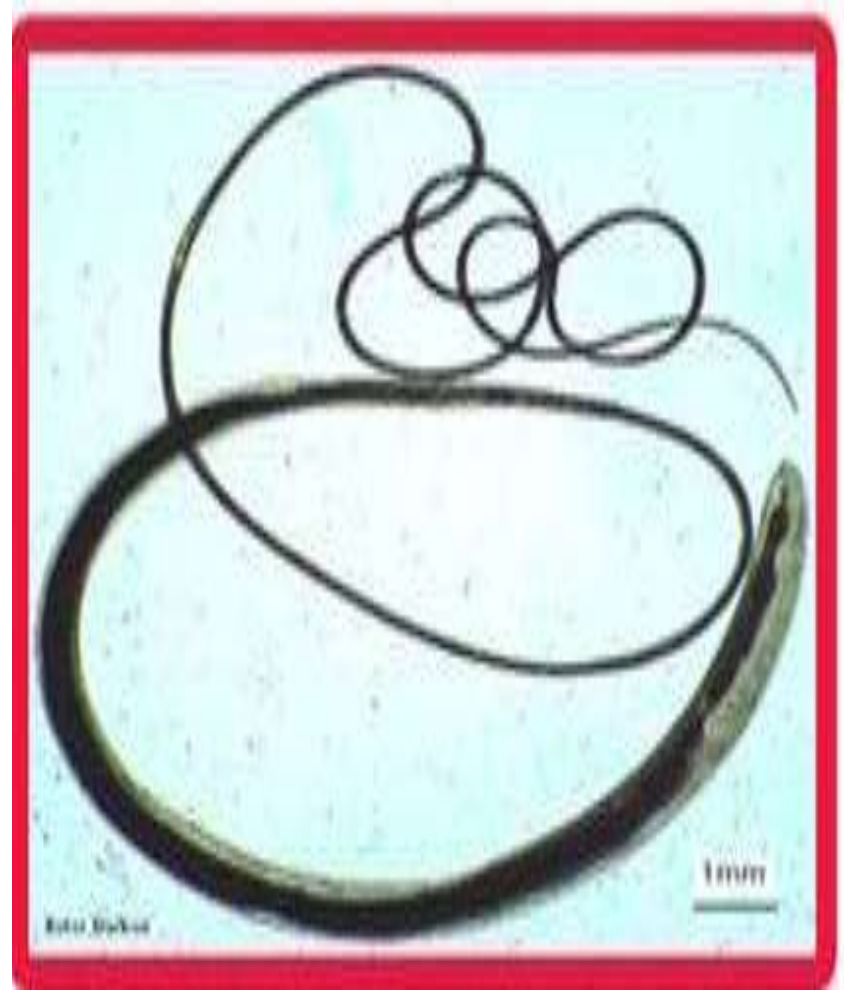
- Size:** 90 × 45 μm.
- **Shape:** Elongated.
- **Shell:** Thinner with ill developed mamillated coat
- **Color:** Golden brown.
- **Content:** Multiple granules.



## ***Tichuris trichiura* adult female**

### **Female:**

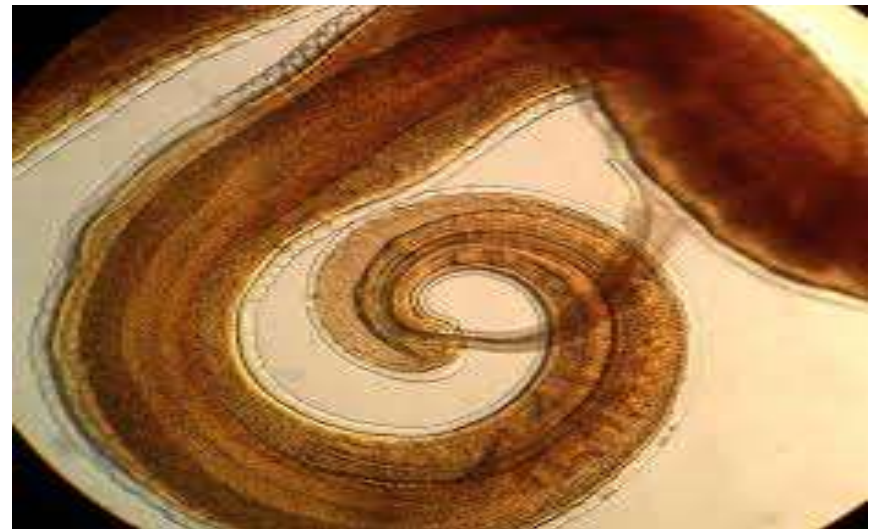
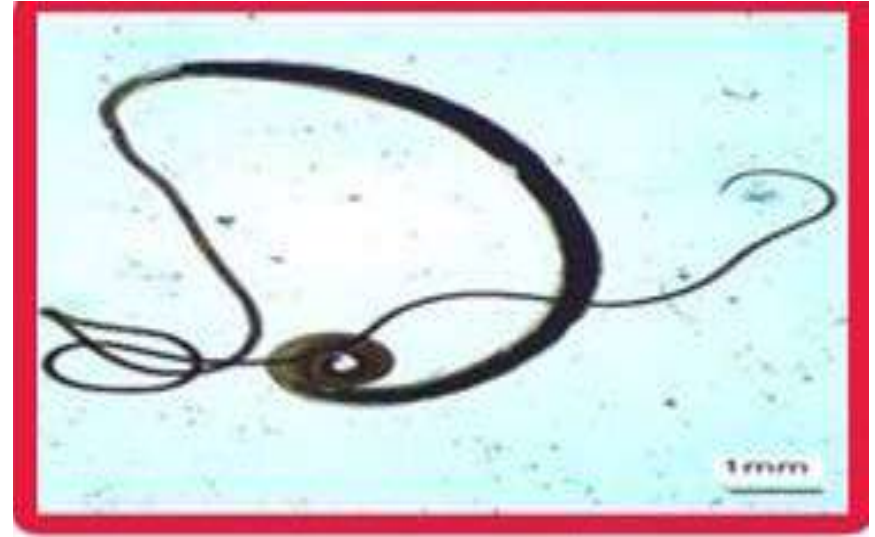
- **Straight posterior end.**
- **One set of genitalia.**
- **Vulva opens at junction of narrow thin and broad parts.**
- **Oviparous (3000-10000 eggs/day).**



## ***Tichuris trichiura* adult male**

### **Male:**

- **Shorter than female**
- **Posterior end curved ventrally.**
- **One spicule inside a retractile sheath.**



**Egg of *Trichuris trichura*  
(D.S)**

**Shape:** Barrel shaped.

**Shell:** Thick with two  
polars.

**Color:** Brownish.

**Content:** Immature  
(one cell stage).





# Hookworm

	<i>Ancylostoma duodenale</i>	<i>Necator americanus</i>
<b>Common name</b>	Old world hookworm	New world hookworm
<b>Size</b>	Larger ♀ 12mm ♂ 10mm	Slightly smaller ♀ 10mm ♂ 8mm
<b>Anterior end</b>	Slightly bent dorsally	Strongly bent dorsally
<b>Daily egg output</b>	20.000 eggs / female	10.000 eggs / female
<b>Pathogenesis</b>	-More pathogenic due to higher blood loss by feeding worm (0.5 cc of blood daily/parasite)	-Less pathogenic, blood loss is lower (single worm can consume 0.03 cc of blood/day)

# Egg of *Ancylostoma duodenale* (D.S)

**Shape:** Oval with blunt rounded poles.

**Shell:** Thin.

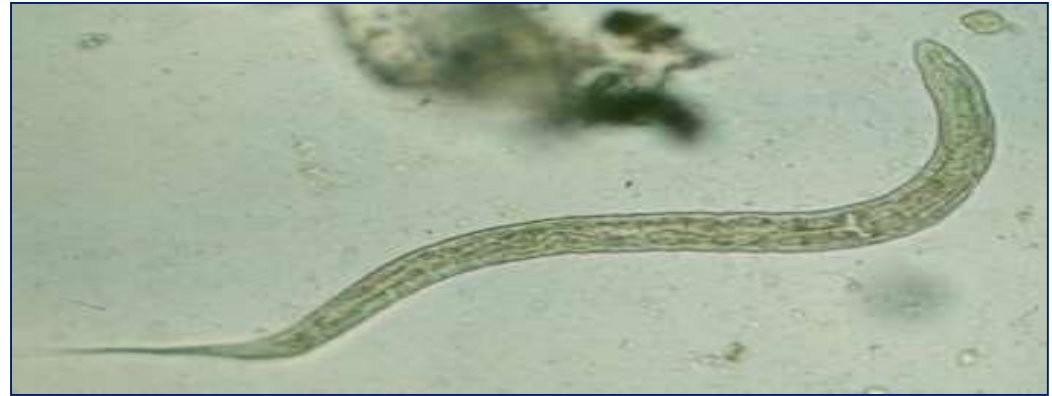
**Color:** Translucent.

**Contents:** Immature (4-cell stage) with empty space between the shell and contents.



## ***Ancylostoma rhabditiform* larva**

- Smaller.**
- Rhabditiform oesophagus.**
- Pointed tail end.**



## ***Ancylostoma filariform* larva (I.S)**

- Longer.**
- Cylindrical oesophagus.**
- Pointed tail end.**
- Sheathed.**



# Strongyloides stercoralis

## Rhabditiform larva (D.S)

**Shorter.**

**Rhabditiform oesophagus.**

**Blunt end.**



## Filariform larva (I.S)

**-Larger.**

**-Cylindrical oesophagus.**

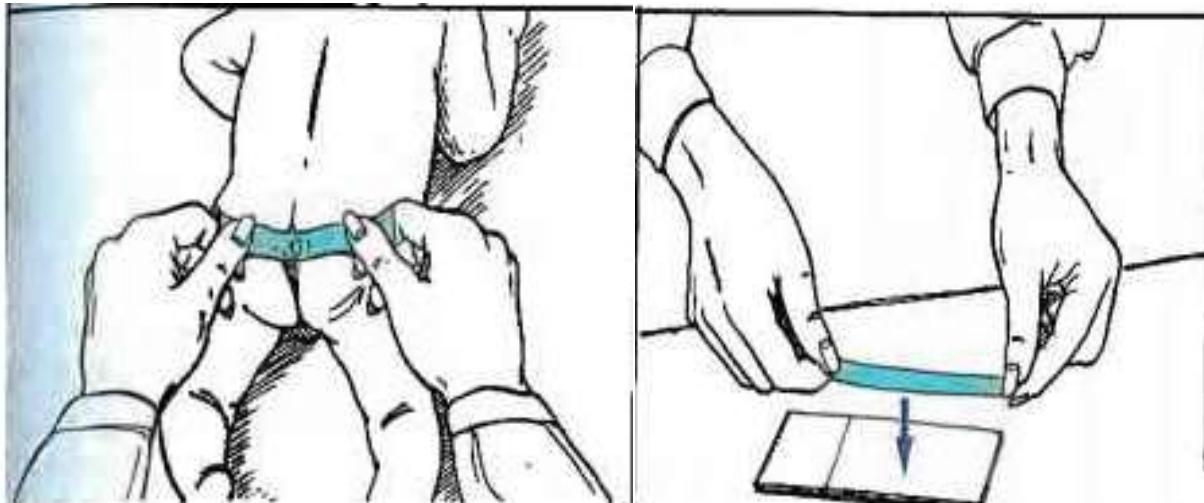
**-Non sheathed.**



# *Enterobius vermicularis* (pin worm)

## Diagnosis

- Recovery and identification of eggs or adults from the perianal region utilizing the cellophane tape preparation.
- Specimens must be collected the first thing in the morning upon waking, especially before bathing or bowel movements.
- Eggs are rarely found in fecal samples because release is usually external to the intestines.





# Laboratory Diagnosis- *Enterobius vermicularis* (Pin Worm)

**Female**  
(10mm)  
Posterior  
end is  
straight  
with long  
pointed tail  
(4X)



**Male**  
(5mm):  
Posterior  
end is  
curved  
with one  
spicule



**Egg:** Planoconvex  
or D-shaped egg.  
embryonated  
(contain a larva).