



كلية الرشيد الجامعة

قسم تقنيات المختبرات الطبية

الطفيليات الطبية

*Taenia*

المرحلة الثانية – النظري

م.م. سارة بشير احمد

**Phylum: platyhelminthes**

**Class: cestoda**

## ***Taenia solium***

### **(The pork tapeworm)**

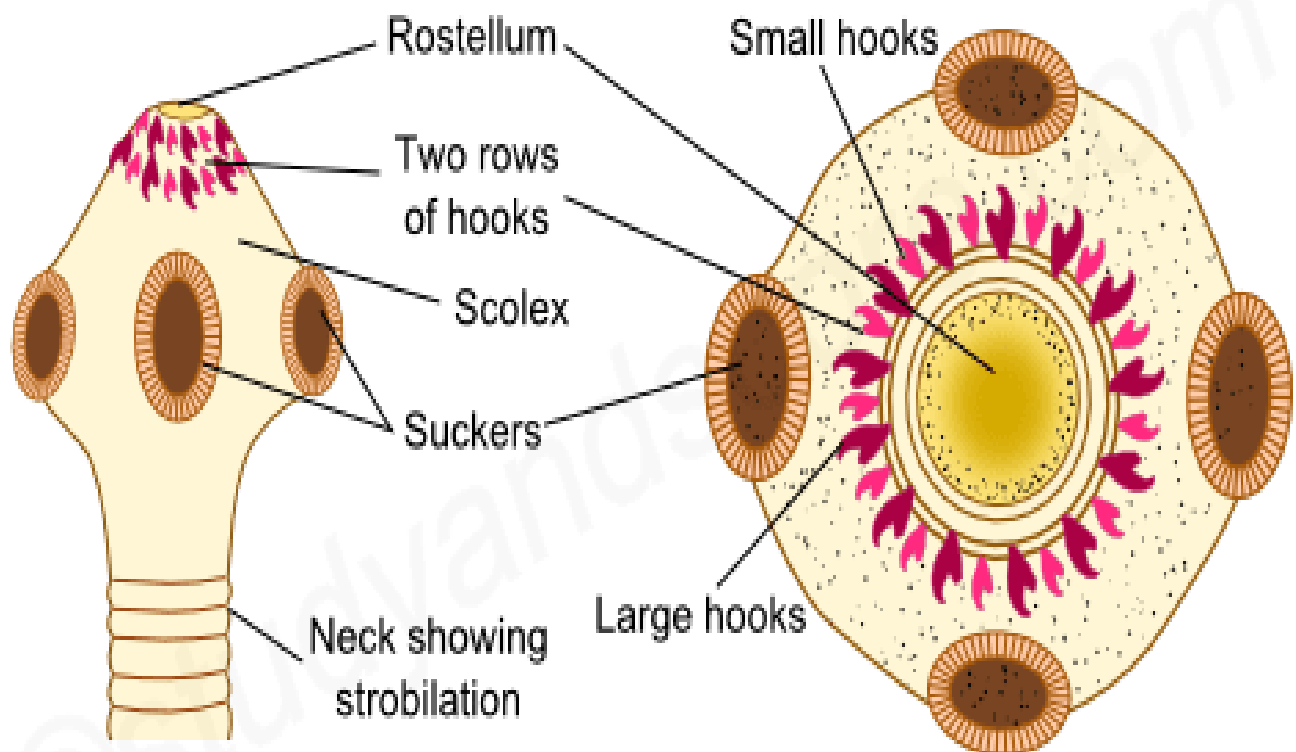
- Length 3-5 meters
- Definitive host : human
- Intermediate host : pig
- Disease : taeniasis solium
- Habitat : adult worm lives in human intestine

### **The adult worm parts**

1. Scolex : contain 4 cup shaped suckers and rostellum armed with double row of hooks.
2. Neck .

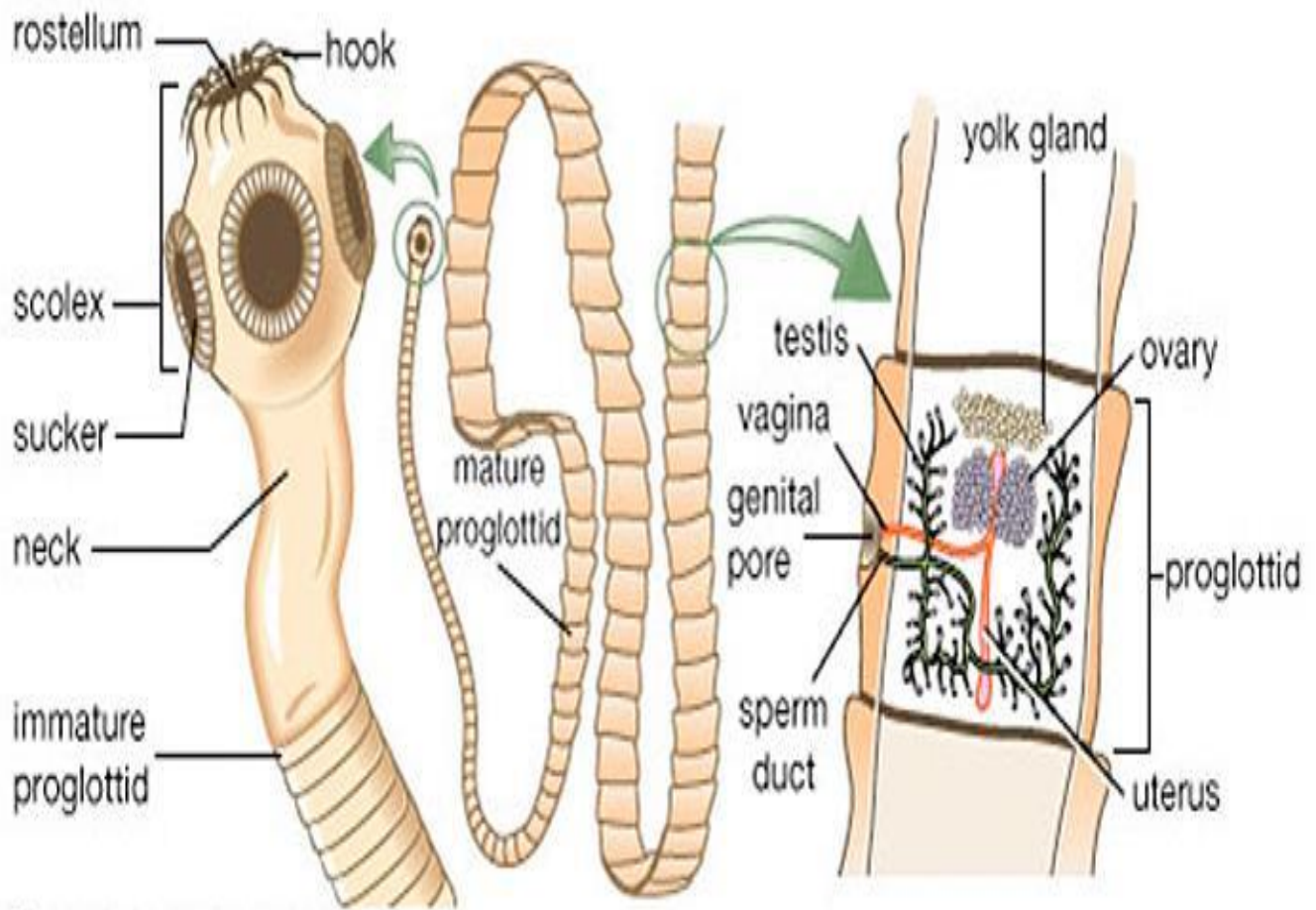
3. Proglottid : consist of :

- a. Immature Proglottid.
- b. Mature Proglottid : contain of testes and ovary.
- c. Gravid Proglottid : contain of laterals uterus branches (7-15) on each side.



TAENIA SOLIUM - FRONT AND TOP VIEW

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## **Life cycle**

Embryonated eggs passed with stool are ingested by pig and the embryo is released. It penetrates the intestinal wall and is carried by vascular channels to all parts of the body.

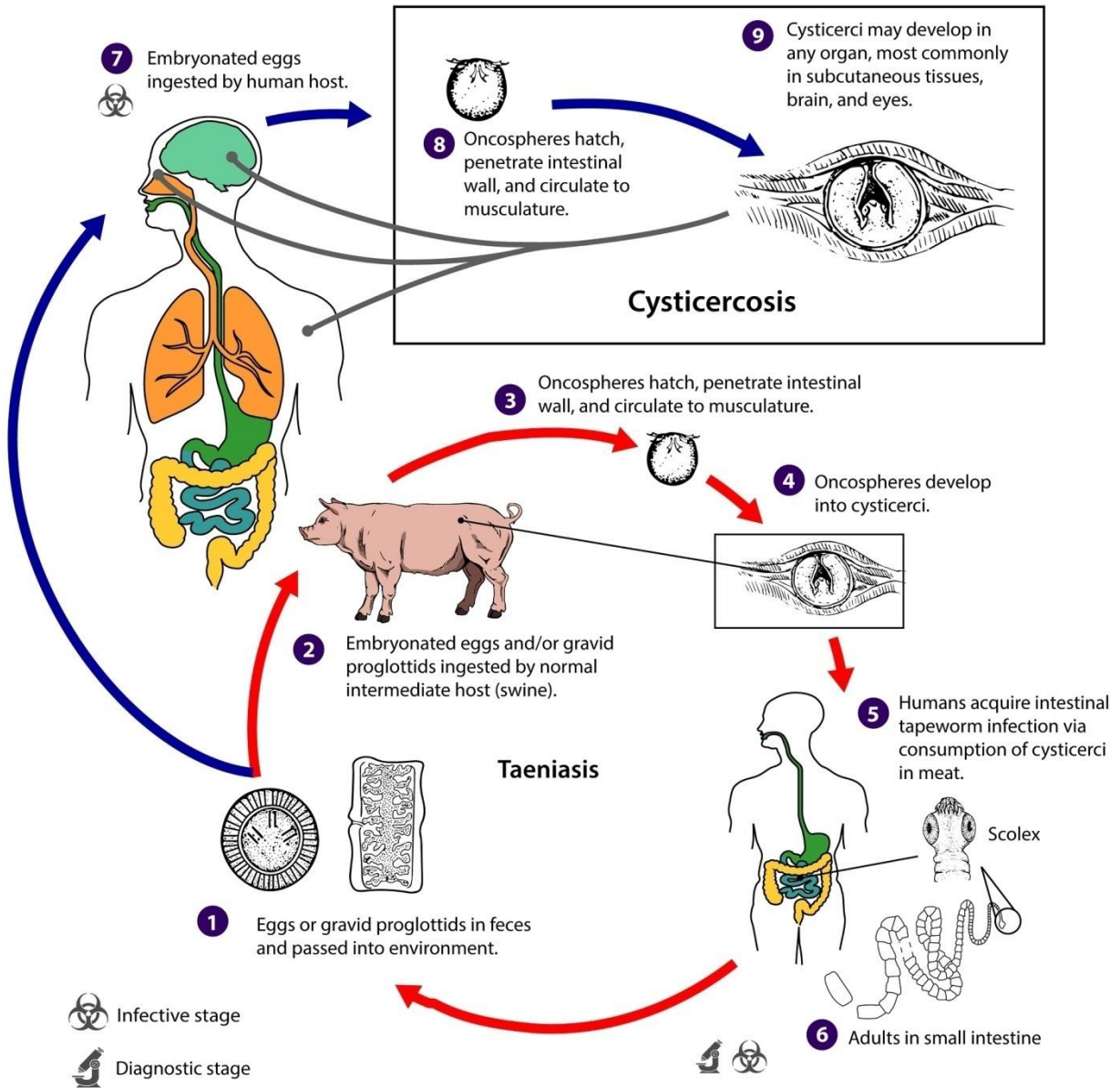
After a period of 2-3 months of development the encysted larval stage called cysticercus cellulosae or bladder worm occurs in the striated muscles of the tongue, neck, trunk brain, eye, and the nervous system.

The cysticercus cellulosae survives for 5 years.

Humans become infected by eating pork containing larvae, cysticercus cellulosae. When improperly cooked cysticercus cellulosae infected meat is eaten by man, the scolex remains undigested and attaches itself to the intestinal wall and chain of proglottids begin to grow to adult worm.

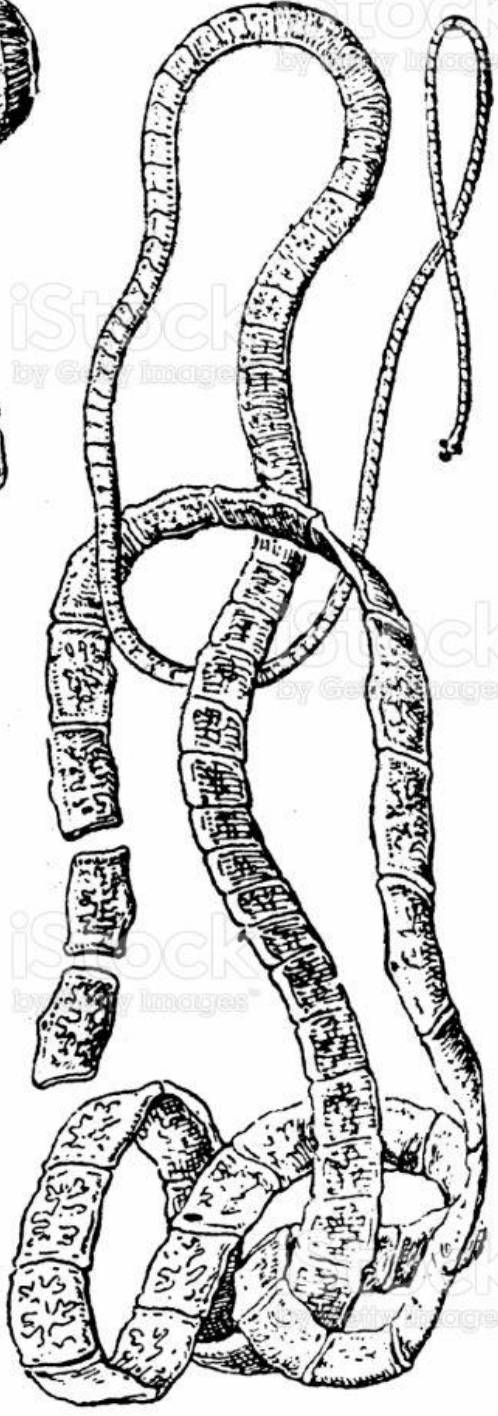
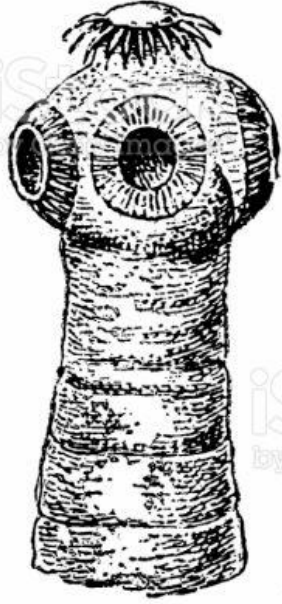
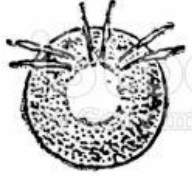


# Taenia solium

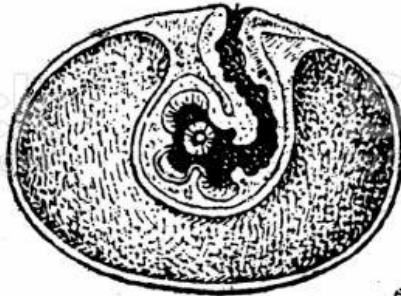




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## Symptoms

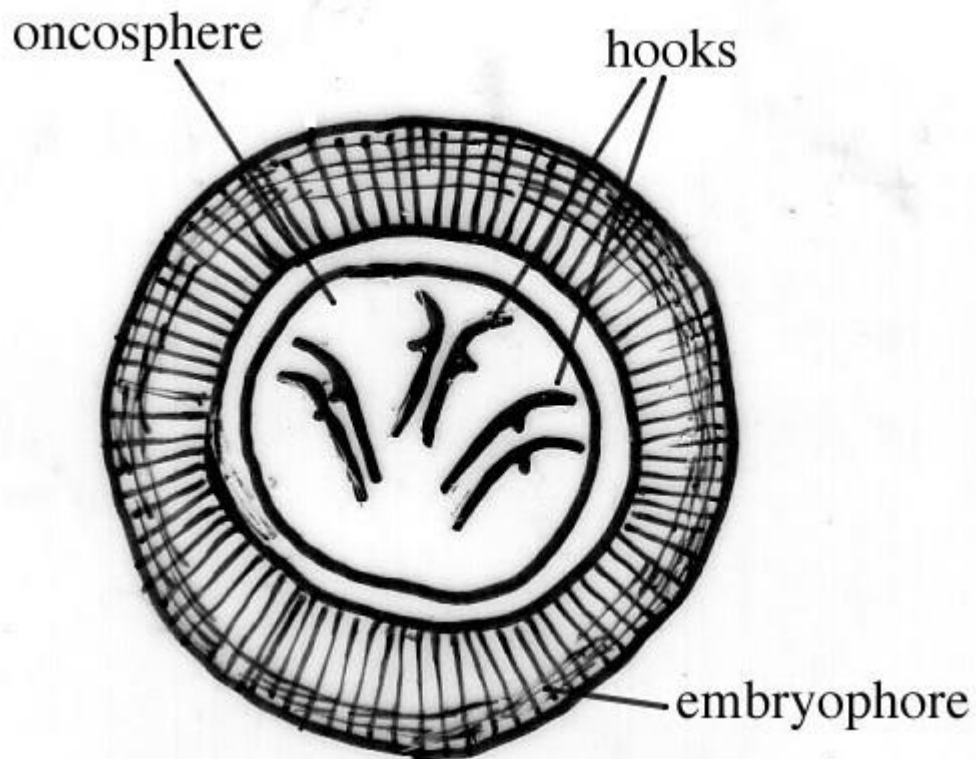
Taeniasis is infection in the intestines by the adult *Taenia solium*. It generally has mild or non-specific symptoms. This may include abdominal pain, nausea, diarrhea and constipation. Such symptoms will arise when the tapeworm has fully developed in the intestine, this would be around eight weeks after the contraction (ingestion of meat containing cysticercus cellulosae)

These symptoms could continue until the tapeworm dies from the course of treatment but otherwise could continue for many years, as long as the worm lives. If untreated it is common that the infections with *Taenia solium* last for approximately 2–3 years. It is possible that infected people may show no symptoms for years



## Diagnosis

detection of egg or segment gravid the segment can be put between two slides and examined by a lens to see the laterals uterus branches (7-15) on each side.

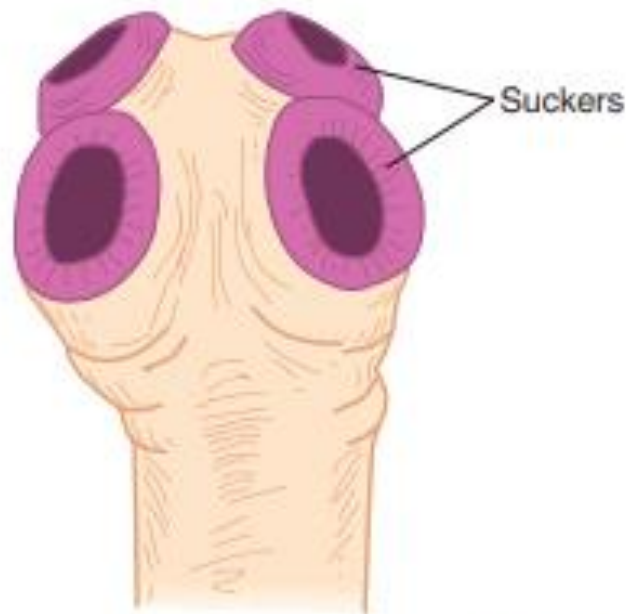


***Taenia saginata***  
**(The beef tapeworm)**

- Length 5-10 meters.
- Definitive host : human .
- Intermediate host : cows .
- Disease : taeniasis saginata.
- Habitat : adult worm lives in human small intestine .

**The adult worm parts**

1. Scolex : contain 4 rounded suckers , has not hooks or rostellun.
2. Neck .
3. Proglottid : consist of :
  - a. Immature Proglottid.
  - b. Mature Proglottid : contain of testes and ovary.
  - c. Gravid Proglottid : contain of laterals uterus branches (15-30) on each side.



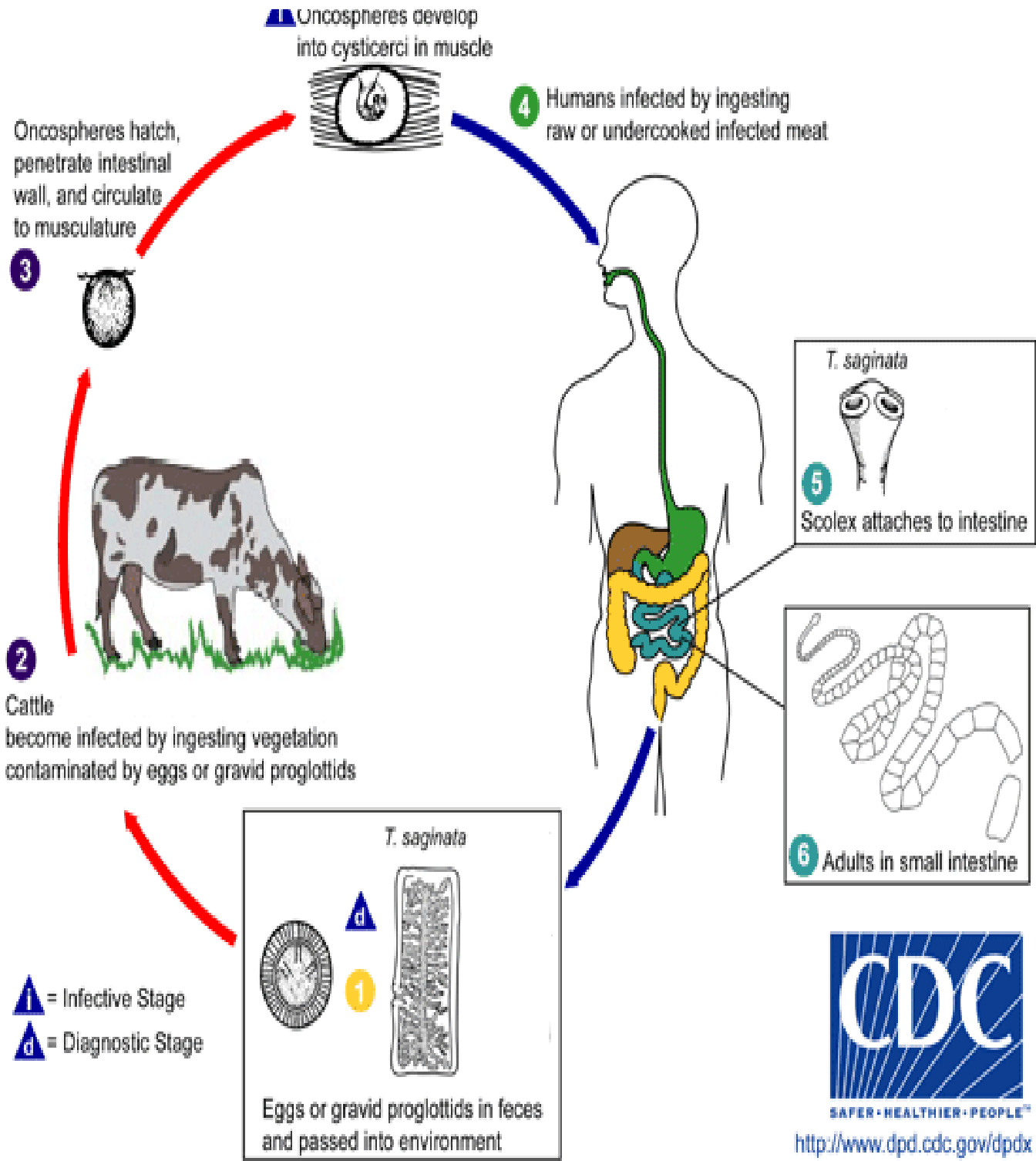
*Taenia saginata* scolex.

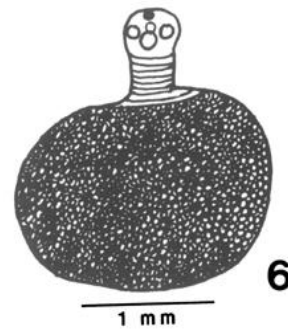
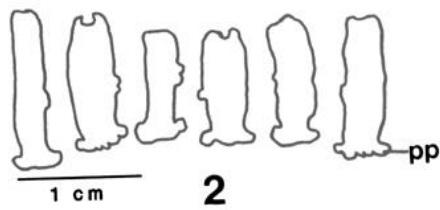
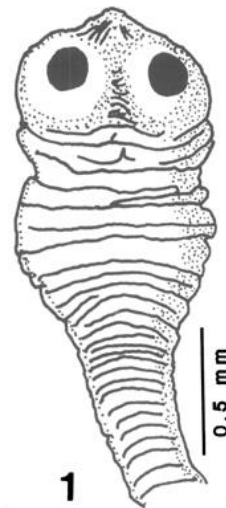
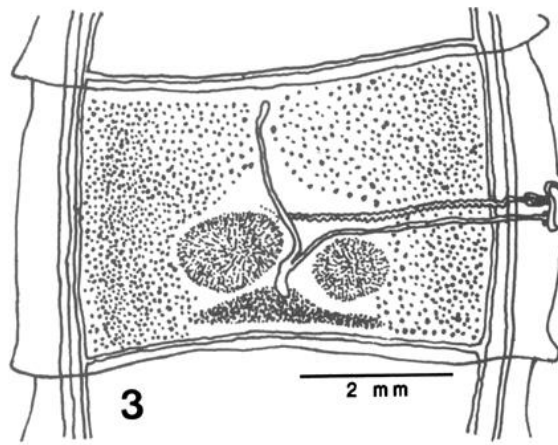
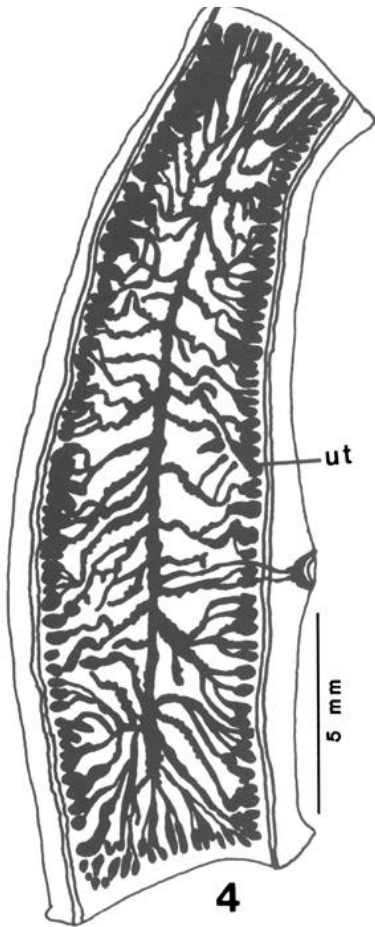
## Life cycle

The adult worm lives in the small intestine of man. Gravid segments pass out in the stool and become disintegrated and eggs come out to the soil. The gravid proglottid uterus contains about 100,000 eggs. The egg of *Taenia saginata* is round, about 40 microns in diameter. The 6-hooked embryo is enclosed in a radially striated embryophore. Eggs are ingested by an intermediate host, cattle.

The 6- hooked embryo escapes from its shell, penetrates through the intestinal wall into the blood vessels and is carried to the muscles where it develops into a larval stage, cysticercus bovis (made up of an invaginated /inverted head and spherical body).

Infection to man takes place by the ingestion of raw or Insufficiently cooked beef. In the small intestine of man, the head of the cysticercus bovis gets invaginated and the body becomes segmented.





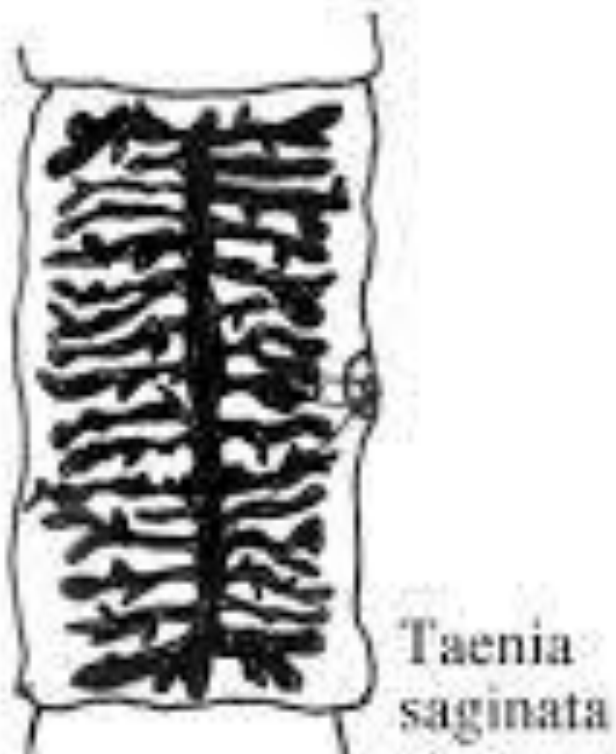
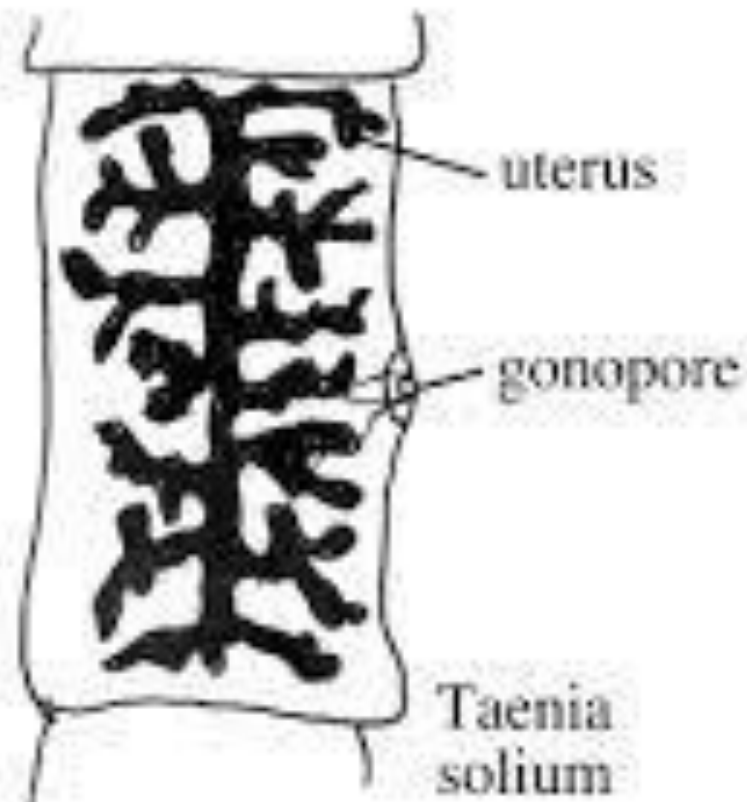


## **Symptoms**

Infected persons may complain of epigastric pain , abdominal discomfort, diarrhea, weight loss, hunger sensation, vomiting, etc

## **Diagnosis**

Detection of egg or segment gravid the segment can be put between two slides and examined by a lens to see the laterals uterus branches (15-30) on each side.





2020 - 2021