



# كلية الرشيد الجامعة قسم تقنيات المختبرات الطبية الطفيليات الطبية

*Hymenolepis Nana*  
المرحلة الثانية - النظري

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# HYMENOLEPIS NANA (THE DWARF TAPEWORM)

The smallest intestinal cestoda that infects man

- Length : less than 1-3 cm (5–45 mm)
- Definitive host : human
- Intermediate host : No Intermediate host
- Disease : Hymenolepiasis
- Habitat: adult worm lives in human small intestine.

# THE ADULT WORM PARTS

consist of :

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

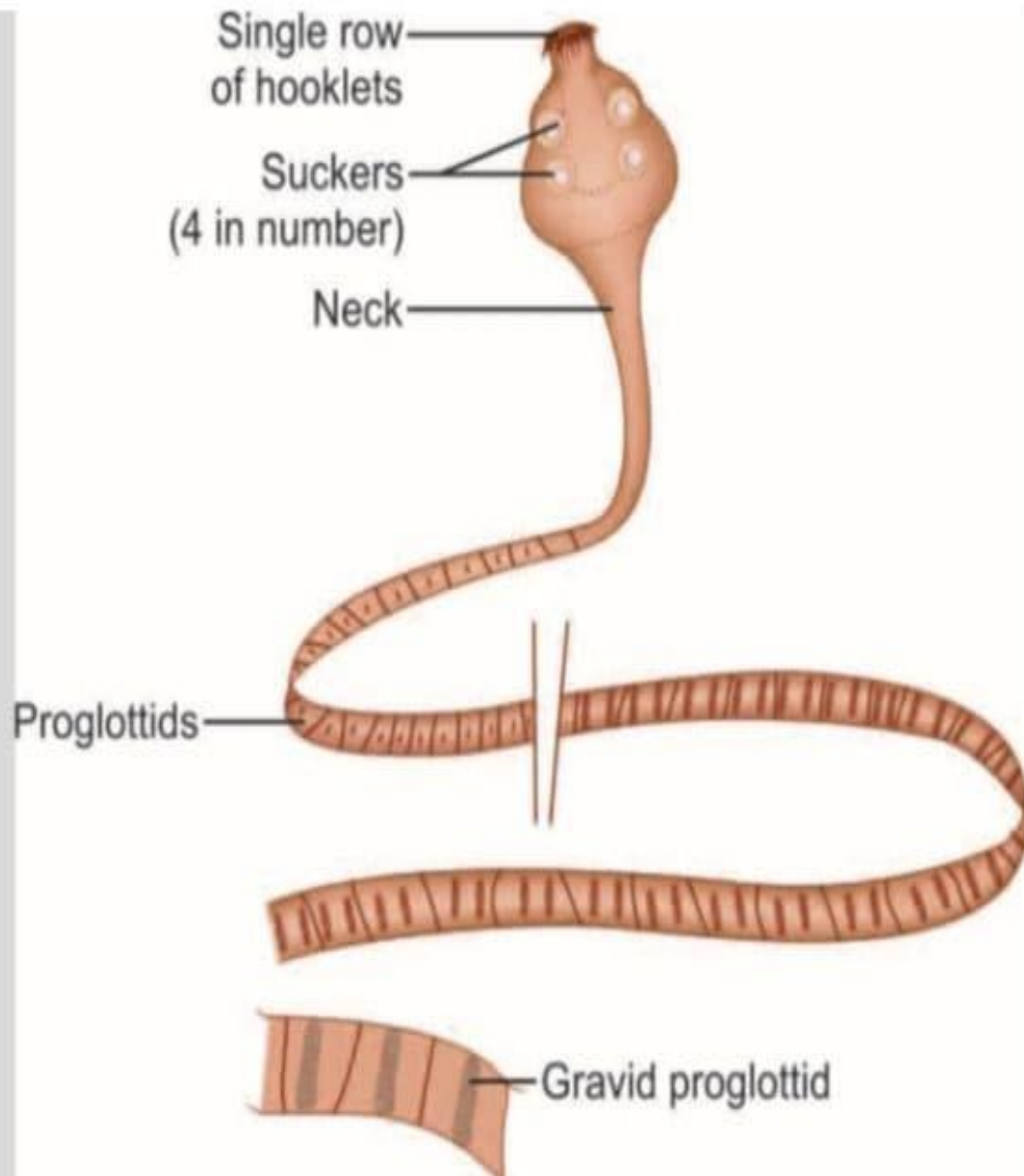
2. Neck .

3. Proglottid : consist of :

a. Immature Proglottid.

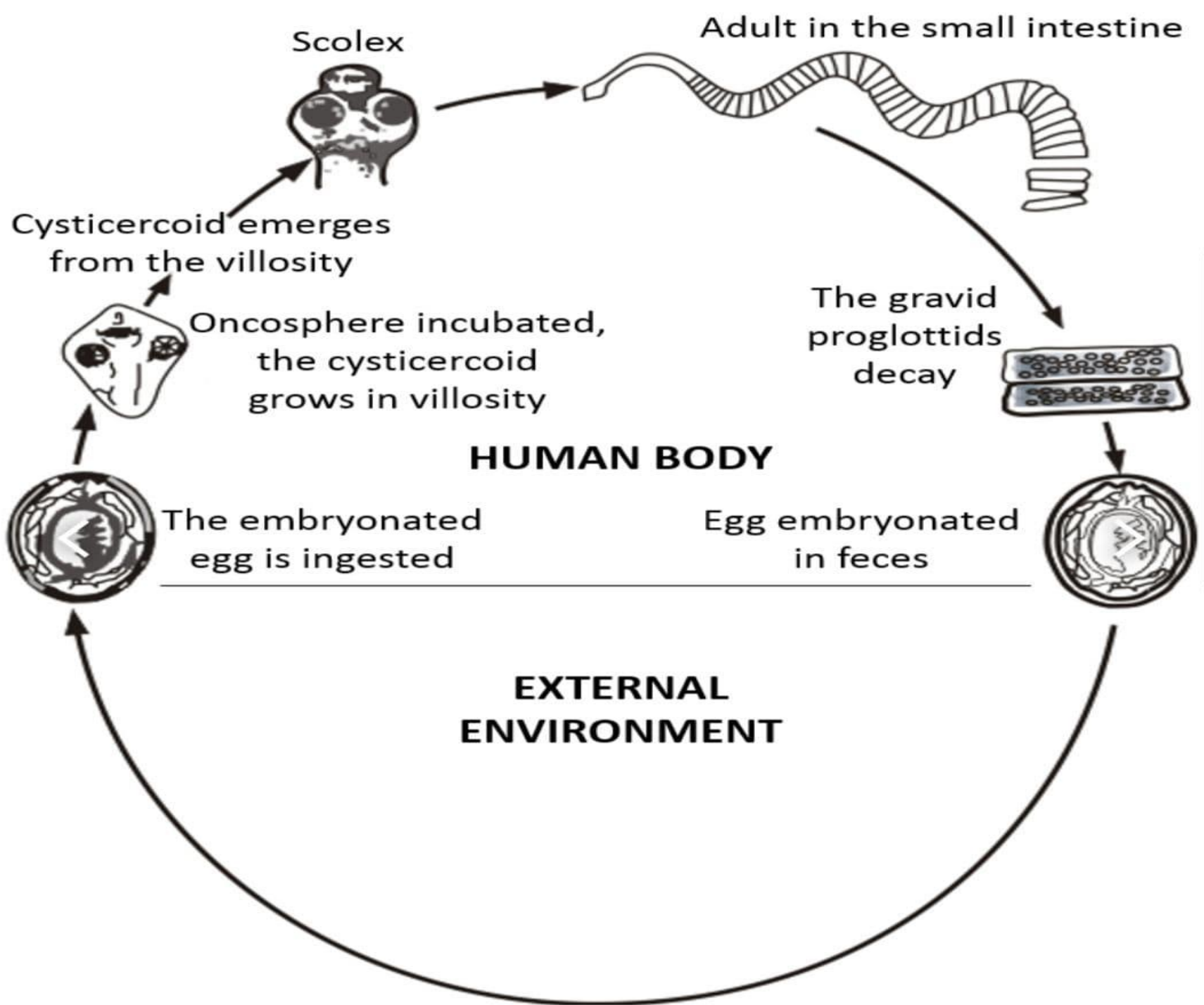
b. Mature Proglottid : contain of testes and ovary.

c. Gravid Proglottid : contain of laterals uterus .



# LIFE CYCLE

The human infection takes place by ingestion of egg with contaminated raw vegetables and auto infection. If the hands of the patient are contaminated by these eggs, she/he infects herself/himself again. Eggs hatch in the duodenum, releasing oncospheres, which penetrate the mucosa and come to lie in lymph channels of the villi. An oncosphere develops into a larva called cysticercoid which has a tail and a well-formed scolex. It is made of longitudinal fibers and is spade-shaped with the rest of the worm still inside the cyst. In five to six days, cysticercoids emerge into the lumen of the small intestine, where they attach and mature. Ripen into an adult worm.



# SYMPTOMS

Light infections produce no symptoms. In fairly heavy infections, children may show lack of appetite, abdominal pain, diarrhea , nausea and anorexia

# DIAGNOSIS

1. The diagnosis is made by demonstration of characteristic eggs in feces by direct microscopy.
2. Concentration methods like salt flotation and formalin ether may be readily
3. ELISA test



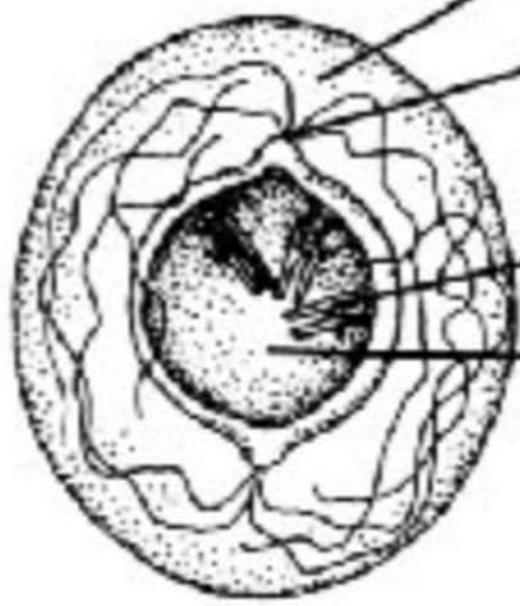
**Egg**

colorless shell

filaments emerge from  
polar thickenings

hooklets (3 pairs)

hexacanth  
embryo



50  $\mu\text{m}$   $\times$  30  $\mu\text{m}$