

Al-Mustaqbal University college
Department of pharmacy



2st Class, 2st Semester

PARASITOLOGY

Lab : 5

Asst. Lec. Noor Muhsen

Platyhelminthes
(Flat worms) +

2

Class

Trematoda
(Flukes)

1

Class

Ceastoda
(Tape worms)

Genus : Echinococcus

Species :

1/ Echinococcus. granulosus المثانيه

2/ Echinococcus. multilocularis المصيبة للسان وسقف الفم

3/ Taenia solium

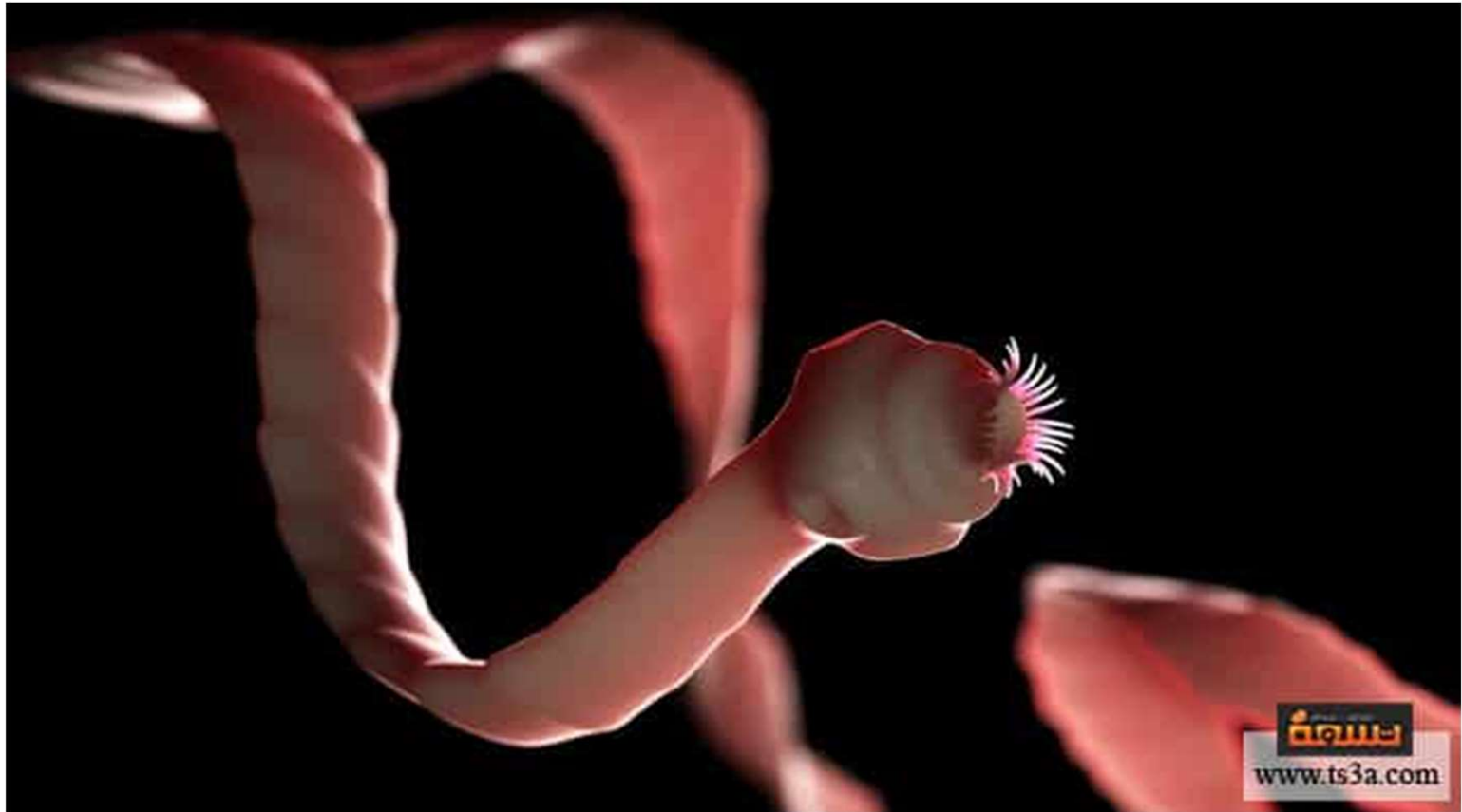
4/ Taenia saginata

General Characters

- **Tape** shaped.
- Adult worm composed of:-
 - a. Rounded scolex with appendages for attachment (e.g. Suckers ماصات or hooked كلاب rostellum).
 - b. Neck (region of growth).
 - c. Strobillum (composed of 3- 4000 segments [proglottide]).
- Length varies between 3mm-10m.

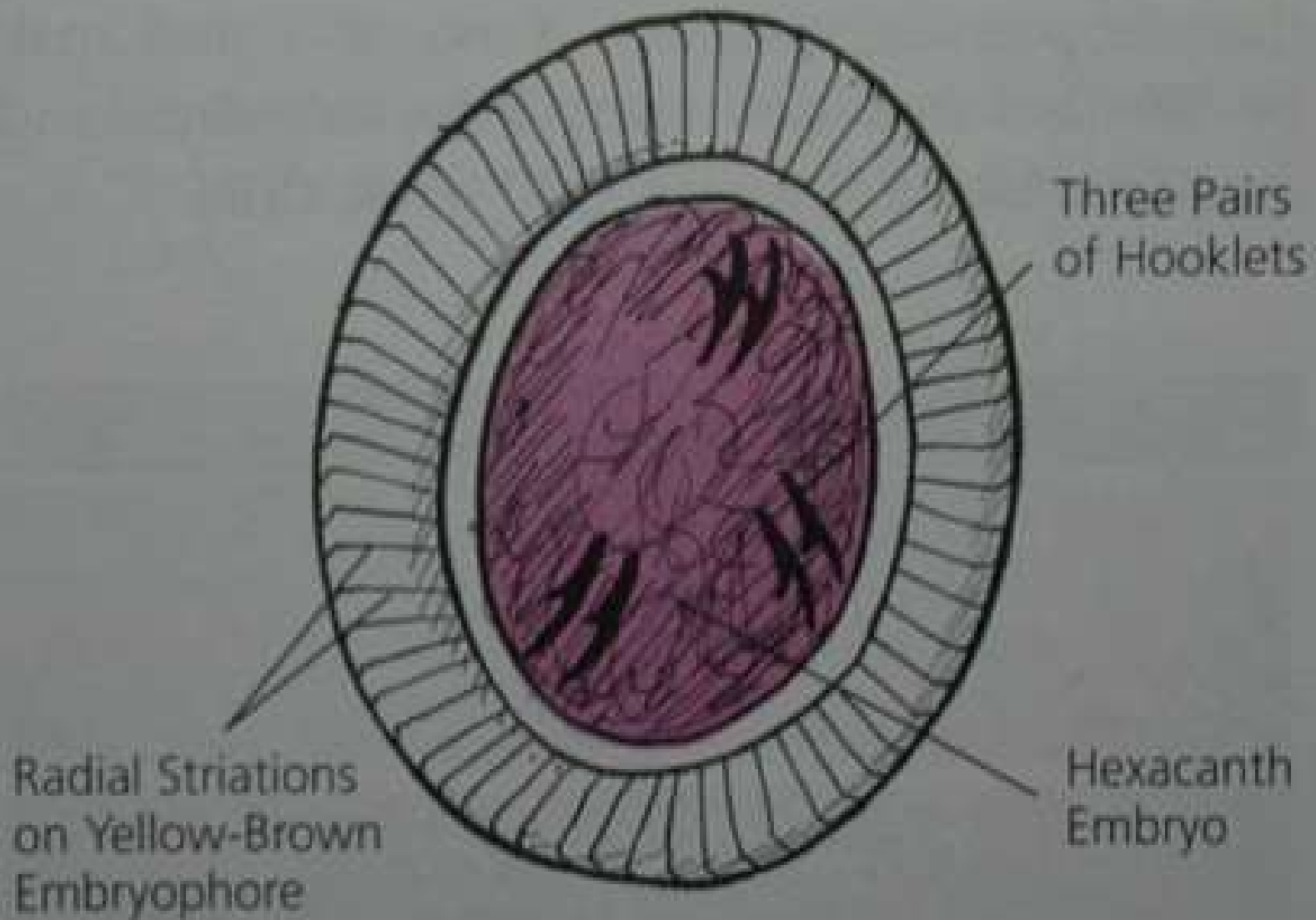






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- **All cestodes are hermaphrodite**
(Each segment contains male & female reproductive system).
- **No body cavity.**
- **No digestive tract.**
- **No vascular system.**
- **1- Habitat:**
 - a. **Adult worms live in small intestine of their definitive hosts.**
 - b. **Larval stage found in intermediate hosts tissues.**
- **Eggs are diagnostic stage**
(Spherical, with shell embryonic membranes for embryo protection the embryo [onchosphere] carries 6 elongated hooks [hexacanth])

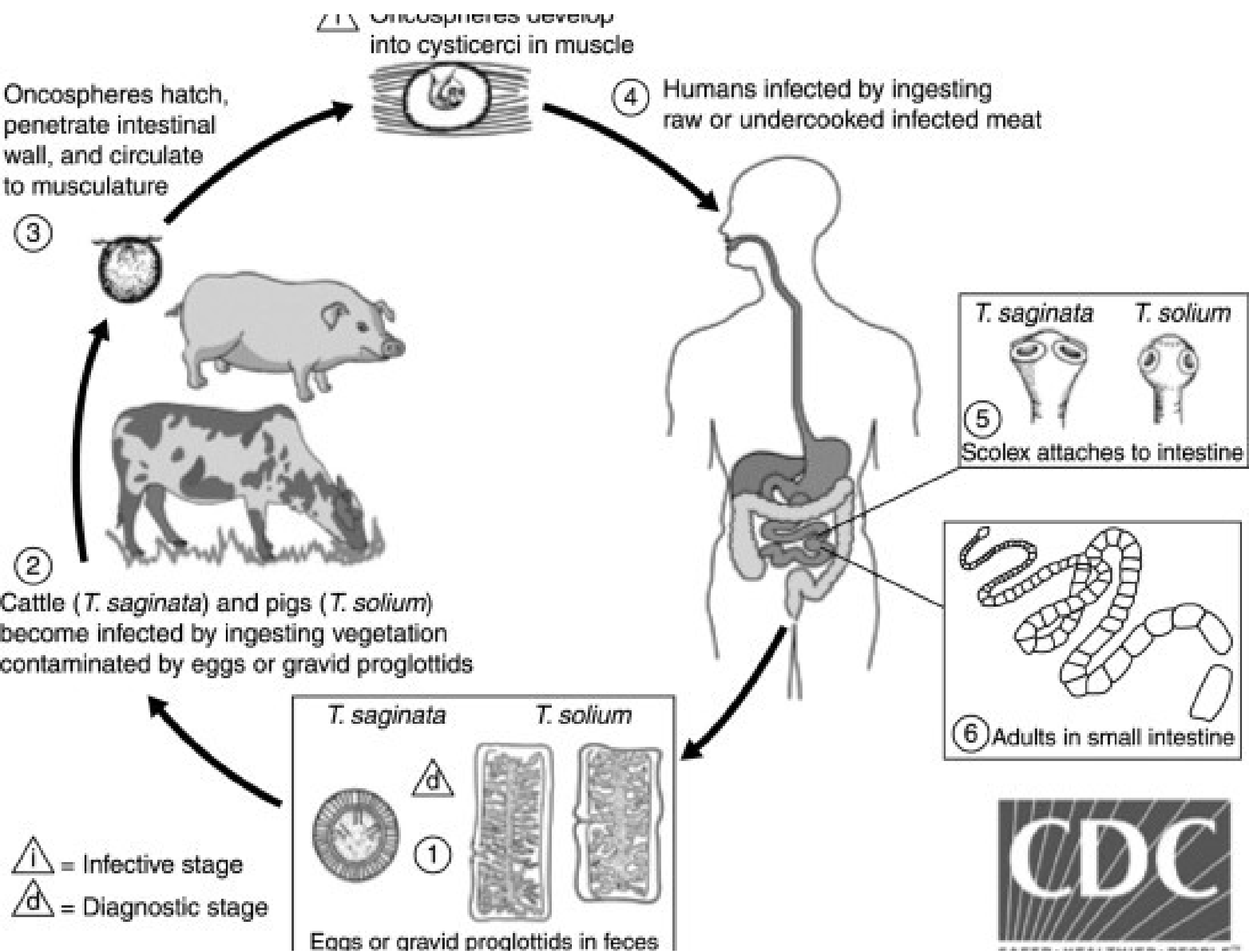


Size Range: 28 – 40 μm by 18 – 30 μm
Average Length: 33 μm by 23 μm

Egg

- The eggs of *Taenia saginata* and *T. solium* are indistinguishable morphologically.
- The eggs are spherical, diameter 31 to 43 μm , with a thick radially striated brown embryophore.
- Inside each is an oncosphere with 6 hooklets.

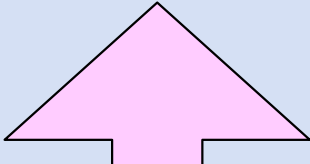
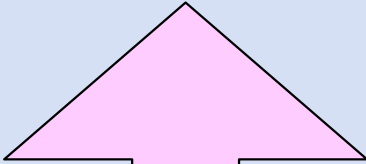




Taenia solium & Taenia saginata

	Taenia solium	Taenia saginata
Disease:	<ul style="list-style-type: none">• Taeniasis• Cysticercosis	<ul style="list-style-type: none">• Taeniasis
Habitat:	<ul style="list-style-type: none">• Adult: Small intestine of man• Larva: As cysticercus in pigs muscles or in human tissues.	<ul style="list-style-type: none">• Adult: Small intestine of man• Larva: As cysticercus in beef muscles.

	Taenia solium	Taenia saginata
Definitive host:	Human	
Intermediate host:	Pigs	Cattle, sheep & various herbivores

	Taenia solium	Taenia saginata
Diagnostic stage:	<ul style="list-style-type: none"> ■ In case of Taeniasis: * Eggs and active gravid segments in stool. 	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <div style="border: 1px solid black; background-color: #FFD1E8; padding: 10px; width: 300px;"> <p>Eggs</p> <ul style="list-style-type: none"> • Spherical • Hexacanth embryo • Radially striated embryophore </div> </div> <div style="text-align: center;">  <div style="border: 1px solid black; background-color: #FFD1E8; padding: 10px; width: 300px;"> <p>Gravid Segments</p> <ul style="list-style-type: none"> *Appears <ul style="list-style-type: none"> • in stool • perianal regions • underclothing *Disintegrate to realase egg </div> </div> </div>		