

Nematodes

- ▶ roundworms
- ▶ Either adults or larvae (or both) can cause disease/pathology
- ▶ Like platyhelminths, usually diagnosed by demonstration of eggs

(Strongyloides: larva in stool is diagnostic)

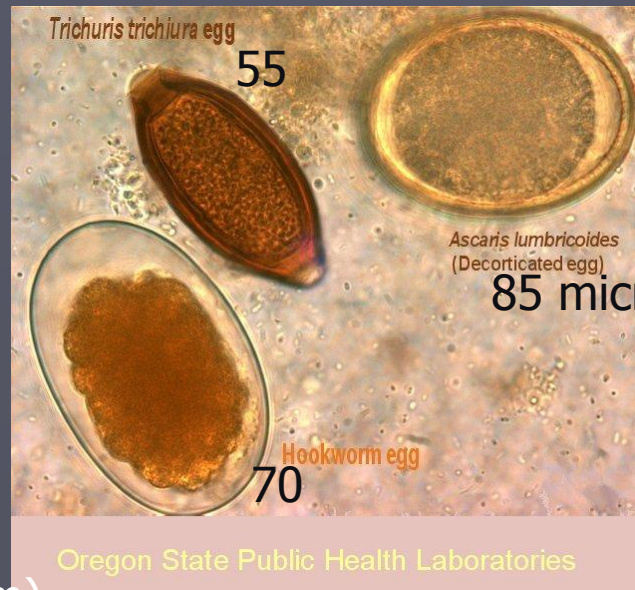
Intestinal nematodes



Ancylostoma (hookworm)

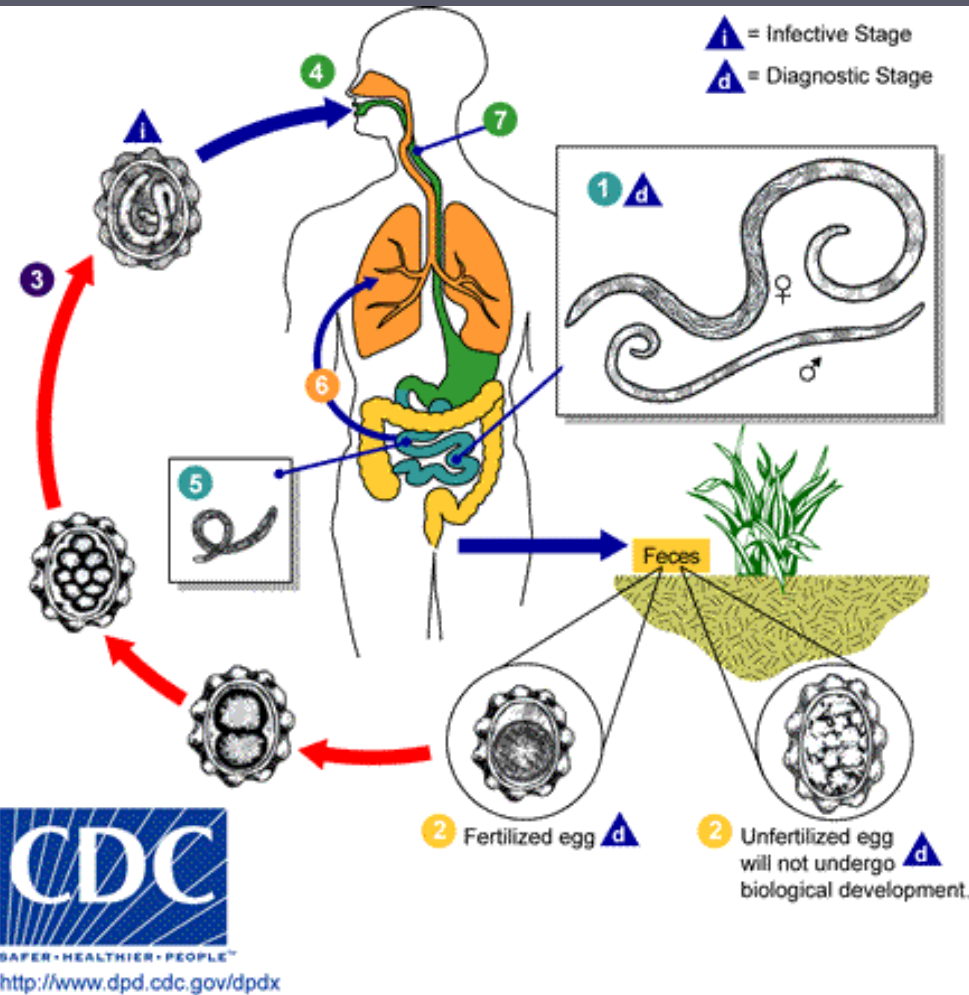


Trichuris (whipworm)



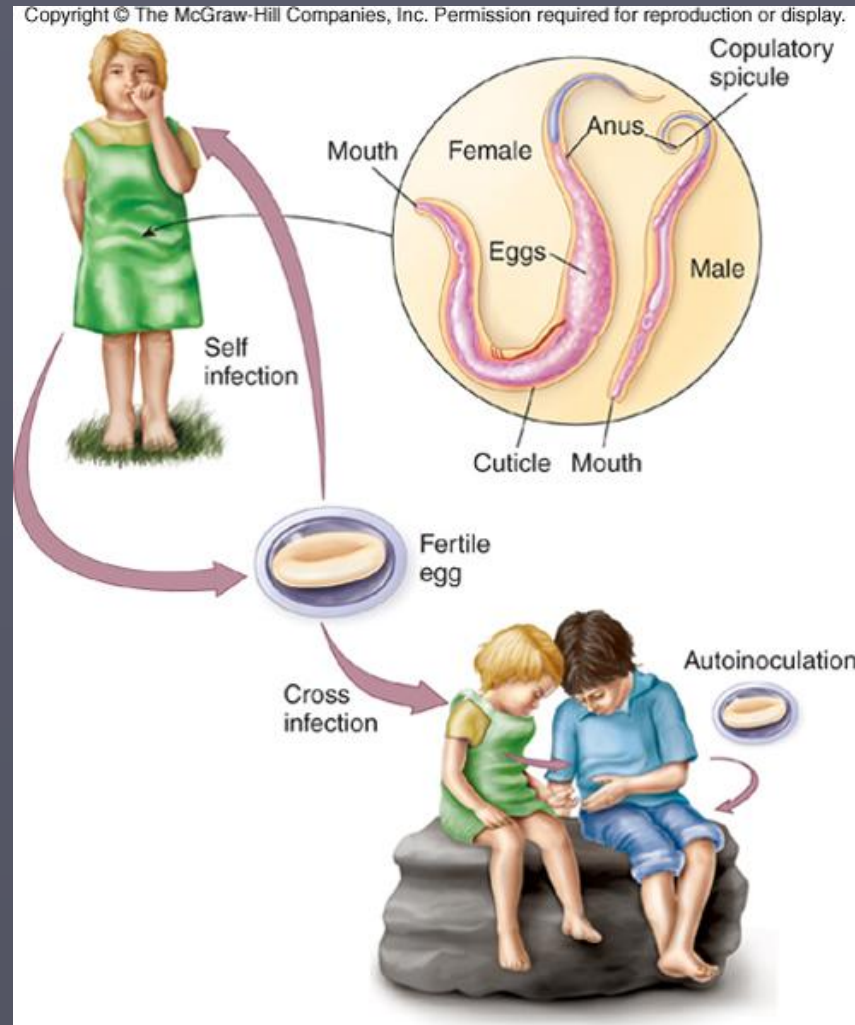
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Fecal/oral transmission



Ascaris lumbricoides life cycle

Mebendazole, albendazole



Pinworm life cycle-*Enterobius vermicularis*

Hookworms
Strongyloides
Dracunculus
Whipworm
Trichinella
Toxocara

Filarial worms:

Brugia, *Onchocerca*, *Loa loa*



Filarial nematodes

- ▶ Larvae live in blood and/or lymphatics
- ▶ Transmitted by **blood-sucking insects** (flies, mosquitoes)

Filarial nematodes



microfilaria



Wuchereria bancrofti - elephantiasis

How would these be diagnosed?

Microfilaria

What is the infective stage?

L3 larva

Wuchereria bancrofti

Mosquito Stages

8 Migrate to head and mosquito's proboscis



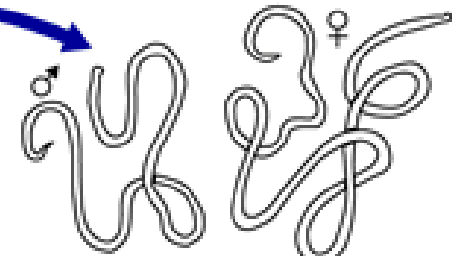
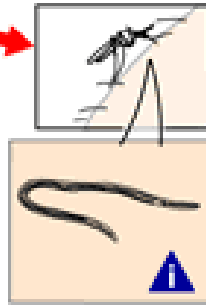
5 Microfilariae shed sheaths, penetrate mosquito's midgut, and migrate to thoracic muscles

i = Infective Stage

d = Diagnostic Stage

Human Stages

1 Mosquito takes a blood meal (L3 larvae enter skin)



3 Adults produce sheathed microfilariae that migrate into lymph and blood channels



4 Mosquito takes a blood meal (ingests microfilariae)

