

INTESTINAL NEMATODES



1. *Enterobius vermicularis* (Pinworms)

LIFE CYCLE

- The adult worms lie attached to the mucosa of the cecum.
- The female migrates down the colon through the anal canal in the dark of the night, and deposits as many as 20,000 sticky eggs on the host's perianal skin, bedclothes.


- Handling of bedclothes or scratching of the perianal area to relieve the associated itching results in adhesion of the eggs to the fingers and subsequent transfer to the oral cavity.
- Then eggs hatch in the upper intestine and the larvae migrate to the cecum, maturing to adults and mating in the process





2. *Ascaris*

LIFE CYCLE

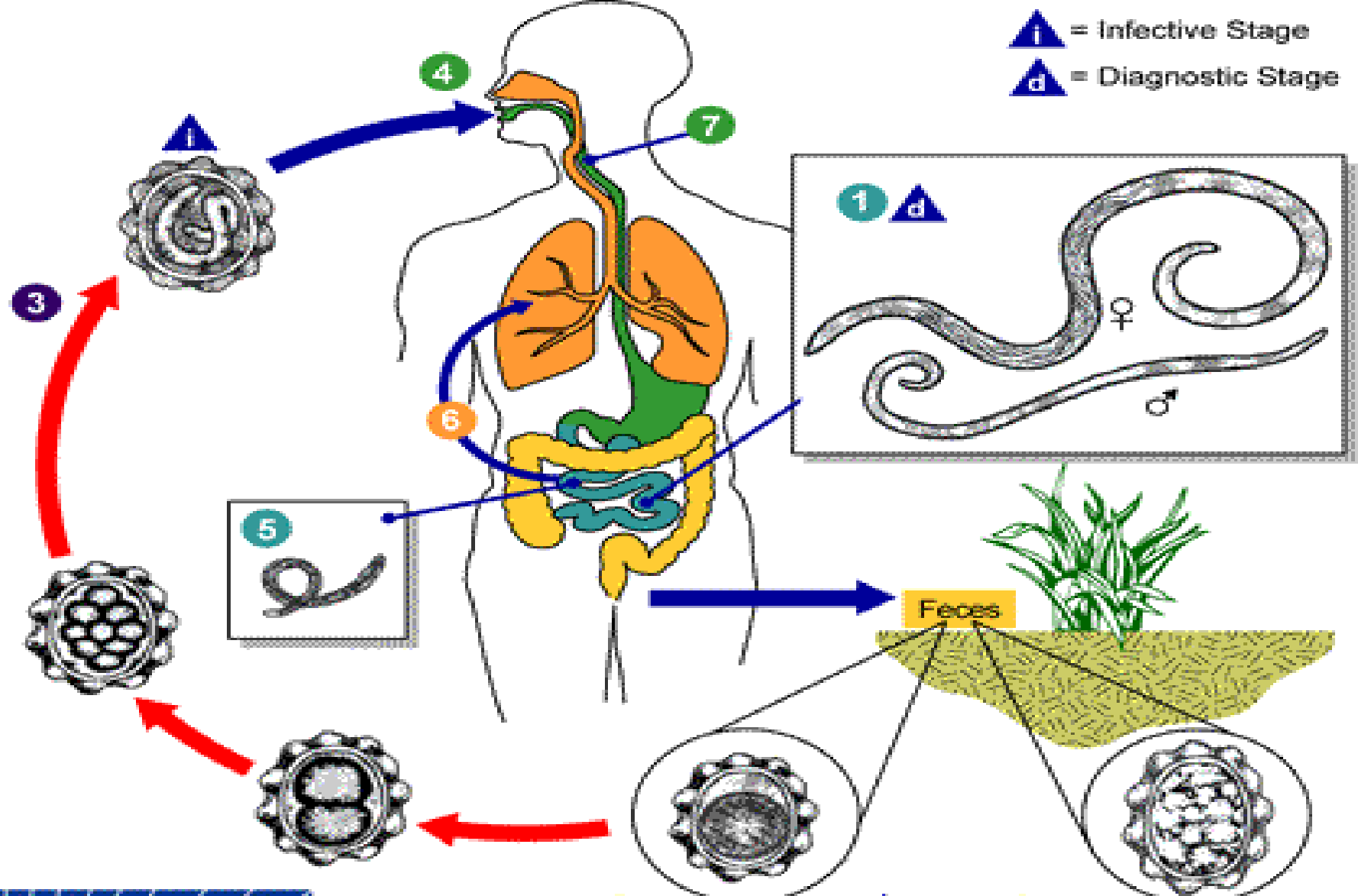
- The adult ascaris live high in the small intestine. The eggs are deposited into the intestinal lumen and passed in the feces.

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- With the ingestion of the eggs by the host. After hatching, the larvae penetrate the intestinal mucosa and invade the portal venules.
 - They are carried to the liver, then exit in the hepatic vein.

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- They are then carried to the right side of the heart and subsequently pumped out to the lung. In the course of this migration, the larvae increase in size.

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- Finding their route blocked, they rupture into the alveolar spaces, are coughed up, and subsequently swallowed.
 - After regaining access to the upper intestine, they complete their maturation and mate.

i = Infective Stage
d = Diagnostic Stage



2 Fertilized egg **d**

2 Unfertilized egg will not undergo biological development. **d**



A S C A R I A S I S

- Fever, cough, wheezing, and shortness of breath are common.
- Heavier worm loads may produce abdominal pain and malabsorption of fat, protein, carbohydrate, and vitamins.
- In marginally nourished children, growth may be retarded.