

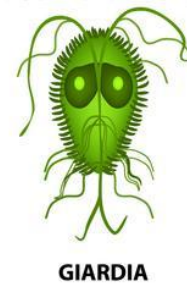
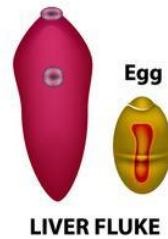
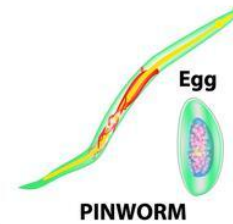
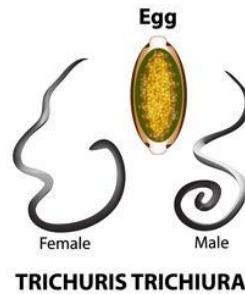


# Parasitology Paper-B

# Chapter No I


## General Features of Helminths

### SET OF HELMINTHS



# Helminths

- ‘Helminth’ is a general term meaning worm.
- All helminths are invertebrates with long, flat or round bodies.
- Helminths infect a range of hosts, including humans.
- Their effects inside their host also vary, causing a wide spectrum of diseases, from mild to potentially deadly.

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- Infection can cause physical, nutritional and cognitive impairment in young, developing children.
  - There are many different kinds of helminth ranging in length from less than one millimetre to over one metre.

# Helminthes

	Cestodes	Trematodes	Nematodes
Shape	Segmented plane	Unsegmented plane	Cylindrical
Body cavity	No	No	Present
Digestive tube	No	Ends in cecum	Ends in anus
Sex	Hermaphroditic - <i>Taenia</i> (tapeworm)	Hermaphroditic, except <i>Schistosoma</i> which are dioecious	Dioecious- <i>Ascaris</i> (roundworm)
hook organ component	Oral sucker, botridias, and double Rostellar hooks	Oral sucker and ventral sucker	Lips, teeth, filariform extremities, and dentary plates

# Chapter no 2

## General Features of Nematodes



Sting



Spiral



Sheath



Lance




Root-knot

# Phylum - Nematoda

Nematodes/roundworms make up the phylum Nematoda.

This phylum is composed of organisms with the following characteristics:

- Thin and elongated (hair-like)
- Tubular in appearance
- Majority are microscopic while a few can be viewed with the naked eye. However, *Placentonema gigantissima*, a nematode that infects sperm whales has been shown to grow up to 9 meters (30 ft) in length

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- Head and tail are not visually distinct
  - They have a cuticle
  - They have a nervous system that controls the muscle cells



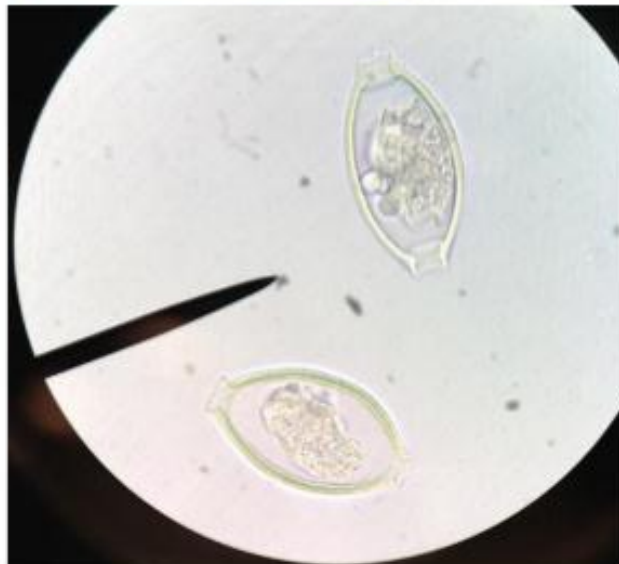
# Examples

Some of the worms belonging to the phylum Nematoda include:

- Ascarids
- Filarias
- Whipworms
- Adenophorea
- Enoplea

# Chapter No 3

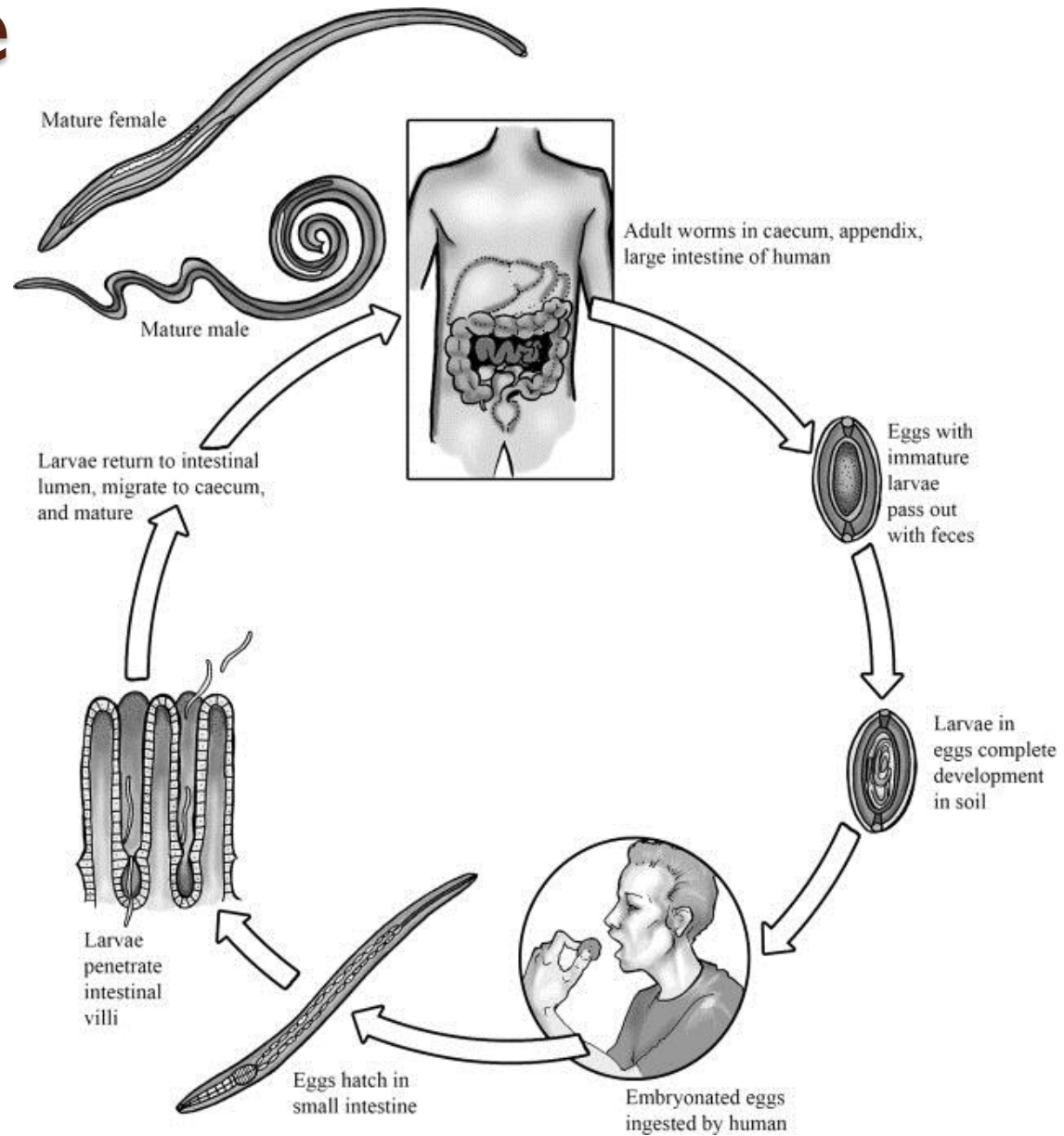
## TRICHURIASIS



# Trichuriasis

A whipworm infection, also known as trichuriasis, is an infection of the large intestine caused by a parasite called *Trichuris trichiura*. This parasite is commonly known as a “whipworm” because it resembles a whip

# Life Cycle



# Symptoms

A whipworm infection can cause a variety of symptoms, ranging from mild to severe. They may include the following:

- bloody diarrhea
- painful or frequent defecation
- abdominal pain
- nausea
- vomiting
- headaches
- sudden and unexpected weight loss
- fecal incontinence, or the inability to control defecation

# Diagnosis

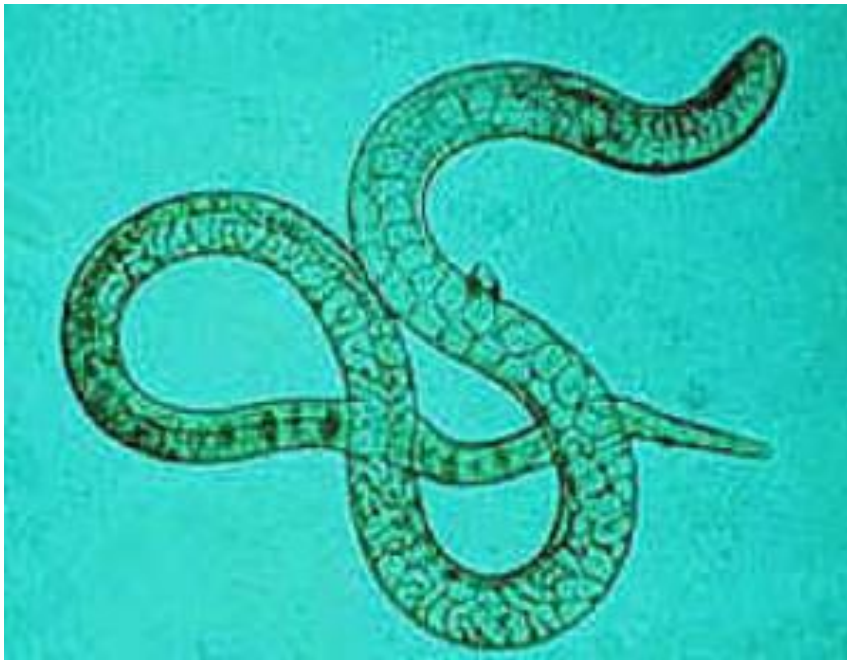
To diagnose a whipworm infection, your doctor will order a stool test

# Treatment

The most common and effective treatment for a whipworm infection is an antiparasitic medication, such as albendazole and mebendazole

# Chapter No 4

## Trichinellosis

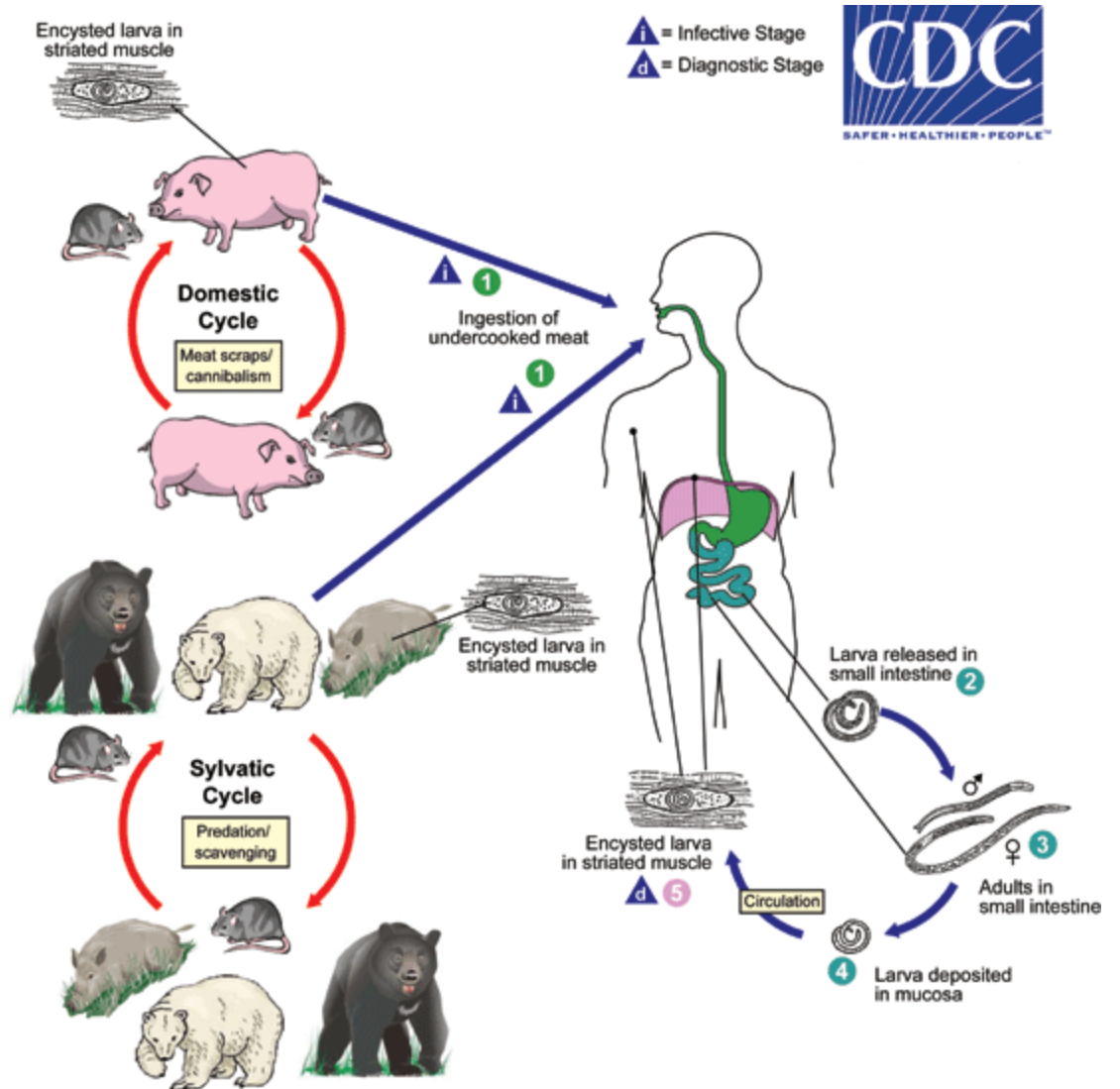




# Trichinellosis

Trichinellosis (trichinosis) is caused by nematodes (roundworms) of the genus *Trichinella*. In addition to the classical agent

# Life cycle



# Symptoms

Symptoms include diarrhea, abdominal cramps, muscle pain, and fever. People acquire the infection by eating raw or undercooked contaminated meat.

# Treatment

- Anti-parasitic (anthelmintic) medication is the first line of treatment against trichinosis.

# Chapter No 5

## Stroglyloidiasis

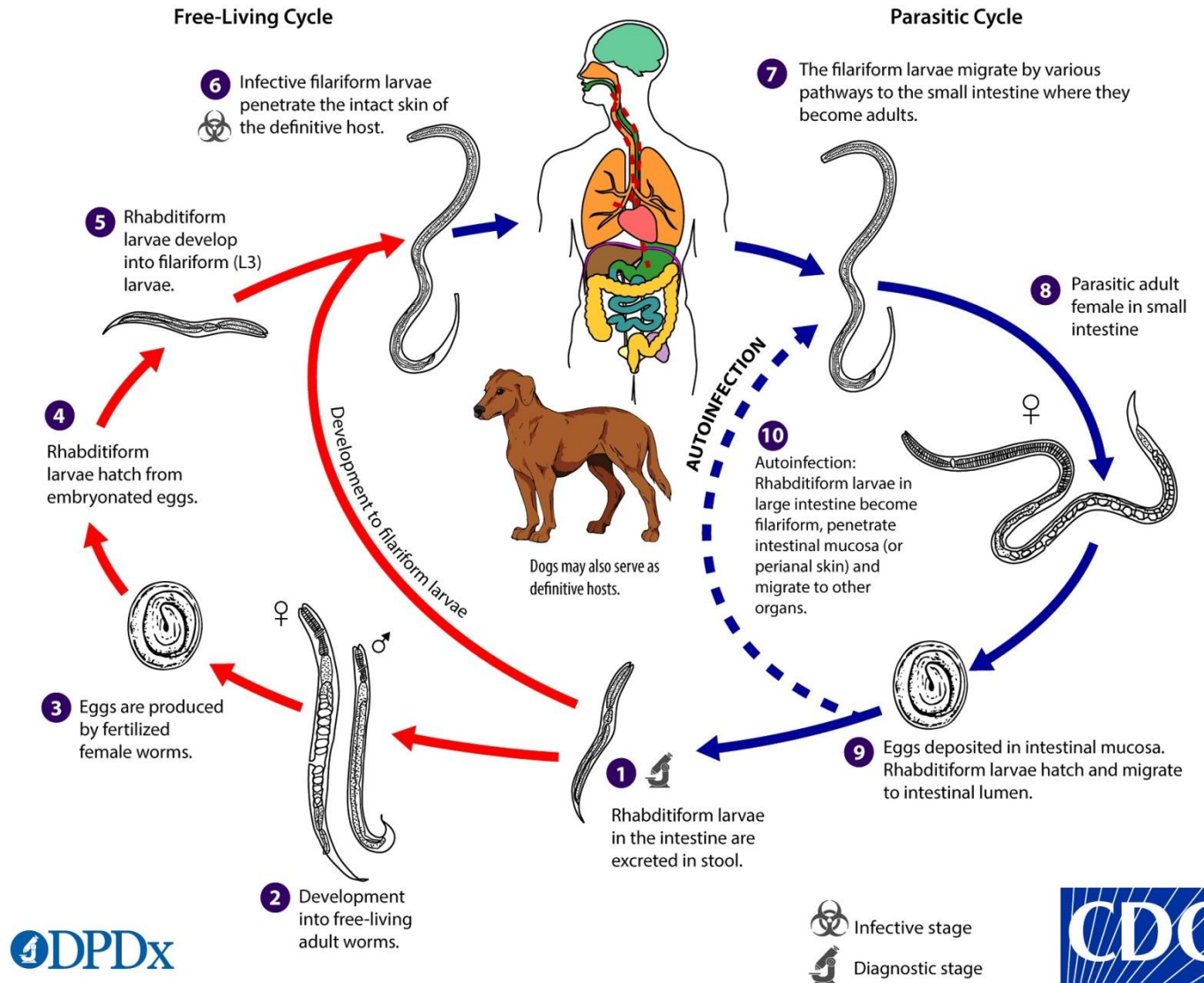


# Strongyloidiasis

- Strongyloidiasis is infection by a roundworm, or nematode, called *Strongyloides stercoralis*. The *S. stercoralis* roundworm is a type of parasite.

# Life Cycle

## *Strongyloides stercoralis*



# Symptoms

In around 50 percent Trusted Source of cases, strongyloidiasis causes no symptoms. If symptoms are present, they may include:

- upper abdominal burning or pain
- diarrhea, or alternating diarrhea and constipation
- a cough
- a rash
- red hives near the anus
- vomiting
- weight loss



# Diagnosis

The following tests may be performed to diagnose an infection with *S. stercoralis*:

- Duodenal aspiration.
- Sputum culture.
- Stool sample for ova and parasites
- Complete blood count (CBC) with differential
- Blood antigen test.

# Treatment

All patients should be treated with  
Albendazole