



Medical human Parasitology

Type of Parasites

- The parasites are categorized on the following basis-
 - 1) On the basis of Generation
 - 2) On the basis of Pathogenicity
 - 3) On the basis of Localization
 - 4) On the basis of Dependency

□ On the basis of Pathogenicity

1) **Pathogenic Parasite**- Those parasite which are caused disease and act as a pathogen called pathogenic parasite.

e.g.-*Taenia solium* (caused taeniasis in Man)

2) **Nonpathogenic Parasite**- They are not cause any disease in the host.

e.g.-*Taenia hominis* (habiting in the intestine of Man without causing harm or disease)

3) **Intermittent Parasite**- They are not constantly associated with the host. They obtain nourishment from host at time to time.

e.g.-*Bed bugs* (Suck the blood meal from Man)

□ On the basis of Localization

1) **Ecto Parasite**- Those parasite which are live on the host or Out side of the host are called ectoparasite.

e.g.- *Bed bugs, Mites, Teaks etc.*

(Mostaly Arthropods Parasites)

2) **Endo Parasite**- Those parasite which are live in the host or Inside of the host are called endoparasite.

e.g.- *Plasmodium vivex, Wuchereria bancrofti etc.*

(Generally Protozoans, Helminthis & Neamtods Parasites)

On the basis of Dependency

- 1) **Facultative Parasite**- These parasite which can live in hosts if it is available, but capable of living independently if its host is not available, are known as facultative parasite.

e.g.- *Mycobacterium tuberculosis* (cause tuberculosis in man is a facultative parasite)

- 2) **Obligate Parasite**- Those parasite which depend upon the specific host throughout life are called obligate parasite.

e.g.- *Taenia solium*, *Ancylostoma duodenale*

□ On the basis of Generation

- 1) **Monogenetic Parasite-** These require hosts of only one species to complete their life spon.

e.g.-*Ancylostoma duodenale*,

Diplozoon paradoxum

- 2) **Digenetic Parasite-** These require hosts of two different species to complete their life spon.

e.g.-*Leishmania donovani*

Fasciola hepatica

WANDERING PARASITE

- Also known as **Aberrant parasite**.
- Sometime the parasite happen to reach a place which is not its usual site of localization. Such parasite which fails to reach its normal destination is termed as aberrant or wandering parasite.

What is the host ?

- The organism **on** or **in** which a parasite lives are known as **host**.
- An organism which harbouring a parasite is called **host**.
- Host usually larger than their parasite.

Host selection

1 - Monoxenous

2 - Oligoxenous

3 - Polyxenous

Type of host

1) **Definitive host**

2) **Intermediate host**

3) **Paratenic host**

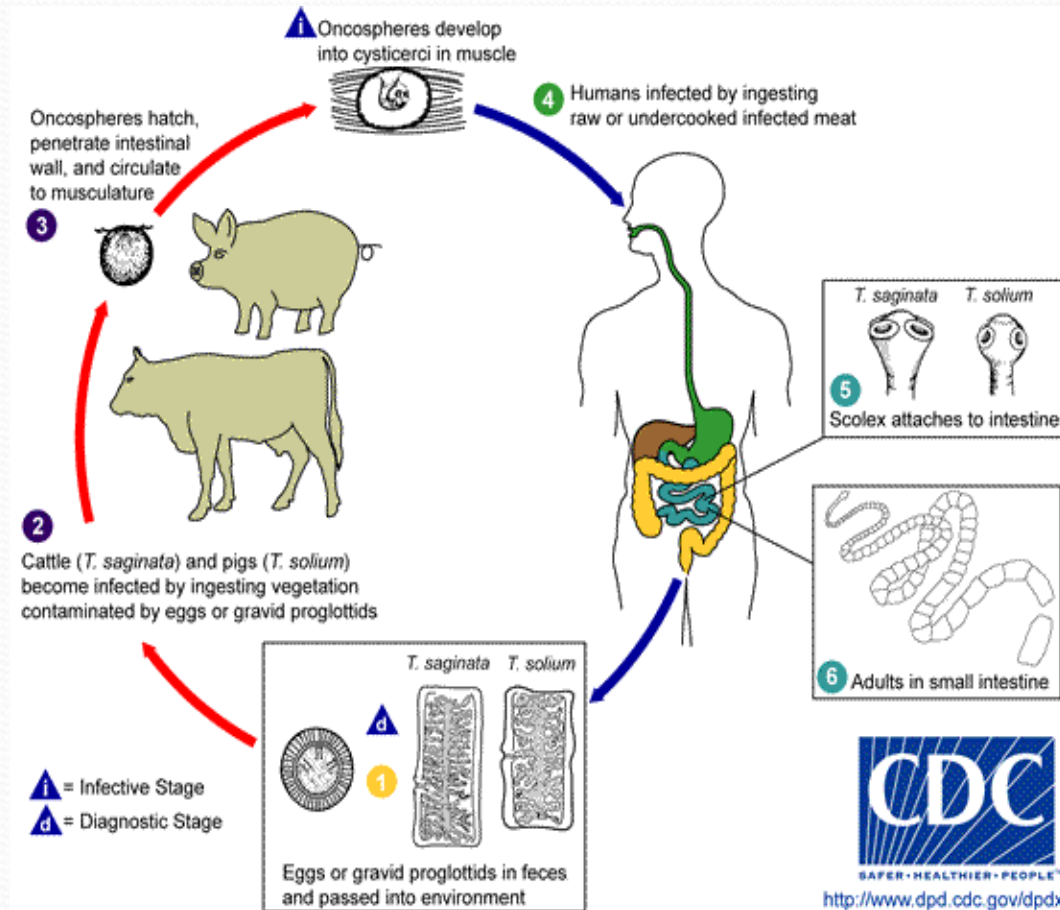
4) **Reservoir host**

5) **Vector host**

Life cycle of parasite

1- simple life cycle

2- complex life cycle



Transmission of parasite

-1-Source of infection

Humans : called anthroponoses.

Animal : called zoonoses

2- Mode of transmission :

A- *Oral route*

B- skin penetrantion.

C- by arthropode

D- sexual contact

Classification of medical Parasitology

- **Medical Protozoology** - Deals with the study of medically important protozoa.
- **Medical Helminthology** - Deals with the study of helminthes (worms) that affect man.
- **Medical Entomology** - Deals with the study of arthropods which cause or transmit disease to man