

# Summary of different parasites

Trematoda							
	Habitat	Definitive Host	Intermediate Host	Diagnostic Stage	Infective Stage	Mode of Infection	Name of Disease
<b>Schistosoma spp.</b> (egg, Adult, cercaria)	<b>S. haematobium:-</b> Pelvic and Vesical plexus <b>S. mansoni:-</b> Radicals of the inferior mesenteric plexus	- <b>Man</b>	<b>S. Haematobium :</b> Bulinus truncates snail <b>Schistosoma Mansoni:</b> Biomphalaria Alexandrina	<b>Egg, containing Full formed Miracidium</b>  (oval in shape with terminal spine in sch.haematobium, lateral spine in sch.mansoni)	Fercocercus <b>Cercaria</b>	Penetration of skin of people in infected water by Fercocercus Cercaria	Schistosomiasis, Swimmers itch
<b>Fasciola Spp.</b> (adult, egg, Cercaria)	<b>Bile Duct</b>	- <b>Man</b> & - Herbivorous animals	<b>Fasciola Gigantica</b> Lymnaea cailliaudi snail <b>Fasciola Hepatica</b> Lymnaea Truncatula snail	<b>Eggs</b>  (Oval operculated with thin shell containing immature ovum)	Encysted <b>Metacercaria</b>	Ingestion of encysted Metacercaria in improperly washed vegetables or drink	Fascioliasis
Cestoda							
<b>Diphyllobothrium Latum</b> (mature segment)	<b>Small Intestine</b>	<b>Man</b>	1 <sup>st</sup> : Cyclops 2 <sup>nd</sup> : Fresh water fish (salmon,cyprinoid fish)	<b>Unembryonated egg</b> pass in feces	plerocercoid larva	<b>Ingestion of</b> plerocercoid larva in improperly cooked fish	Diphyllobothriasis
<b>Taenia Saginata</b> (egg, gravid segment)			- Cattle - pig	<b>Egg</b> (spherical operculated with thick radially shell containing hexacanth embryo)	cysticercus bovis (larval stage)	<b>Ingestion of</b> undercooked beef containing viable cysticercus bovis	Intestinal taeniasis
<b>Hymenolepis Nana</b> (Adult, egg)			- Man or - larva of rat flea	<b>Egg</b> (spherical double walled translucent containing mature hexacanth embryo)	<b>Egg</b>	1- <b>Ingestion</b> of Eggs with Contaminated food 2- Autoinfection 3- faeco-oral route	Hymenolepiasis nana
<b>Echinococcus Granulosus</b> (adult, Hydatid cyst in tissue)			- Dogs & - Other canines	- Cattle - sheep - occasionally Man	<b>Hydatid cyst</b> in liver, lungs, etc	<b>Embryonated egg</b> in feces	<b>Ingestion of</b> Eggs with contaminated food or drink
Nematoda							
<b>Trichenella spiralis</b> (teased larva)	<b>Small Intestine</b> (embedded in mucosa)	Pigs or rats or <b>Man</b>	The same as DH	- Trichenella spiralis larva - or encysted	Encapsulated (teased) larva in striated muscle	Eating under cooked pork meat containing encysted larva within Trichenella capsule	Trichenelliasis
<b>Toxocara spp.</b> (Toxocara canis, Toxocara cati) (egg)	<b>Small intestine of dogs &amp; cats</b>	<b>Dogs &amp; Cats</b> <b>Man</b> is an accidental host where life cycle not completed .	<b>No</b>	<b>Egg</b>	<b>Embryonated eggs</b> containing immature larva	ingestion of embryonated eggs with food or drink	Visceral larva migrans
<b>Heterophyes Heterophyes</b> (Adult, egg)	<b>Small Intestine</b> ( deeply embedded between The villi of Jejunum & upper ileum)	<b>Man</b>	1- Pirenella conica snail 2- Mugil (bours) & Tilapia (bolti) Fish	<b>Mature eggs</b> (oval with thick operculum and knob at the end, golden yellow, with mature Miracidium)	<b>Encysted Metacercaria</b> in Fish	Eating insufficiently cooked or salted infected fish containing encysted Metacercaria	Heterophyiasis
<b>Ascaris Lumbricoides</b> (Adult, egg)	<b>Small Intestine</b> ( free in the lumen with mucosal folds pressed against it )		<b>Egg</b> (oval brown, coarse mammilated shell containing one cell embryo)	<b>Embryonated egg</b> containing 2 <sup>nd</sup> stage rhabditiform larva	Ingestion of embryonated eggs with food or drink	Ascariasis	
<b>Ancylostoma duodenale</b> (filariform larva)	<b>Small Intestine</b> Mainly: - Jejunum - illum		<b>Eggs in stool</b> ( contain immature ovum in 4-cell stage )	<b>3<sup>rd</sup> Stage Filariform larva</b>	Penetration of human skin by 3 <sup>rd</sup> stage filariform larva	Ancylostomiasis (Hookworm Disease)	
<b>Trichuris Trichura</b> (adult, egg)	<b>Large Intestine</b> Mainly: - Caecum		<b>Eggs in stool</b> ( Barrel-Shaped with thick shell containing ovum in one cell stage)	<b>Embryonated egg</b> containing 1 <sup>st</sup> stage Rhabditiform larva	Ingestion of embryonated eggs contain 1 <sup>st</sup> rhabditiform larva in food or drink	Trichuriasis (Trichocephaliasis)	
<b>Enterobius Vermicularis</b> (adult, egg)	<b>Large Intestine</b> Mainly: - Caecum, - Appendix - illum		<b>Eggs in perianal region</b> (D-shaped double walled containing mature larva)	<b>Eggs</b> containing Mature Larva	1) Ingestion of Eggs in contaminated food or drink or inhalation through ai 2) Autoinfection . 3) Retro infection: - migration of larvae back to large intestine after hatching	Enterobiasis	
<b>wuchereria Bancrofti</b> (Microfilaria)	<b>Lymphatics &amp; lymph nodes</b> of - lower limb & - external genitalia		<b>Microfilaria in blood</b> between 10pm and 2am	<b>3<sup>rd</sup> stage filariform larva</b>	escape of 3 <sup>rd</sup> stage filariform larva from mosquito (female culex) to skin through blood meal (bite)	Bancroftian filariasis (elephantiasis)	
Amoeba							
<b>Toxoplasma gondii</b> (cyst)	<b>Obligate intracellular parasite</b> (invade any nucleated cell)	Cats	<b>Man &amp; other Domestic animals and rats (accidental hosts)</b>	- Tachyzoites or - cysts	<b>all forms of parasite are infective</b> (Trophozoites, Pseudocysts, cysts, mature oocysts)	<b>Congenital</b> ( Placenta ) <b>Acquired</b> A) Ingestion of sporulated oocysts in food or tissue cysts in under cooked meat. B) Organ transplantation, Bt. Transfusio	Toxoplasmosis
<b>Plasmodium spp.</b> (falciparum, vivax)	<b>Red Blood Cells</b> (intra-erythrocytic)	<b>Vector</b> Female Anopheles mosquito	<b>Man</b>	<b>In p.vivax</b> ( Ring, Trophozoites, schizonts, gametocyte) stages in blood <b>In p. falciparum</b> (only ring, Trophozoites) stages in blood	Sporozoites	1) Bite of Infected female Anopheles Mosquito 2) Blood Transfusion or organ transplantation from infected donor	Malaria
<b>Trichomonas Vaginalis</b> (trophozoite)	<b>Genitourinary system</b> urethra, vagina, prostate, urinary bladder	<b>Man</b>	<b>No</b>	Trophozoite	Trophozoite	Sexual intercourse or contact with contaminated toilet seats or congenital through birth canal	Trichomoniasis
<b>Giardia lambia</b> (Cyst)	<b>Small Intestine</b> especially Duodenum and upper jejunum			- Trophozoites or - cysts	<b>Cysts</b> (Quadrinucleated cyst)	<b>Ingestion of cysts</b> with contaminated food or Drink	Giardiasis (Travelers Diarrhea)
<b>Entamoeba Histolytica</b> (cyst, Trophozoites)	<b>Large Intestine</b>			- Cyst in formed stool or - Trophozoites in diarrheic stool	<b>Cysts</b> ( Mature Quadrinucleated cyst)	<b>Ingestion of mature cysts</b> in food or drink	Amoebiasis
<b>Balantidium Coli</b> (cyst, Trophozoites)				- Cyst in formed stool or - Trophozoites in diarrheic stool	<b>cyst</b>	<b>Ingestion of Cyst</b> in food or Water contaminated with pig faeces	Balantidiasis (Balantidial Dysentery)
<b>Leishmania Spp.</b> ( donovani (promastigote) )	<b>L.Donovani complex</b> Reticuloendothelial system in all viscera (spleen, liver, etc) <b>L.tropica, L. Mexicana, L.Braziliensis</b> Reticuloendothelial system in skin and mucus membrane					Amastigotes	Promastigotes