List of parasites of humans

From Wikipedia, the free encyclopedia
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Endoparasites

Protozoan organisms

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Source/ Transmission (Reservoir/ Vector)
granulomatous amoebic encephalitis, eye infection	*Acanthamoeba*	eye, brain	culture	worldwide	contact lenses cleaned with tap water
Granulomatous amoebic encephalitis, skin infection	*Balamuthia mandrillaris*	brain, skin	culture	worldwide	via respiratory tract or skin lesion
Babesiosis	*Babesia B. divergens*, *B. bigemina*, *B. equi*, *B. microfti*, *B. duncani*	red blood cells	Giemsa-stained thin blood smear	New York, Martha's Vineyard, Nantucket (different species have worldwide distribution)	tick bites, e.g. Ixodes scapularis
Balantidiasis	*Balantidium coli*	intestinal mucosa, may become invasive in some patients	stool (diarrhea=ciliated trophozoite; solid stool=large cyst with horseshoe shaped nucleus)		ingestion of cyst, zoonotic infection acquired from pigs (feces)
Blastocystosis	*Blastocystis*	intestinal	direct microscopy of stool (PCR, anti body)	2 - 20% of population[1]	eating food contaminated with feces from an infected human or animal
Coccidia, cryptosporidiosis	*Cryptosporidium*	intestines	stool	widespread	ingestion of oocyst (sporulated), some species are zoonotic (e.g. bovine fecal contamination)
Dientamoebiasis	*Dientamoeba fragilis*	intestines	stool	up to 10% in industrialized countries	ingesting water or food contaminated with feces
		Intestines	stool (fresh	areas with poor	

Amoebiasis	*Entamoeba histolytica*	(mainly Large, can go to extraintestinal sites)	diarrheic stools have amoeba, solid stool has cyst)	sanitation, high population density and tropical regions	fecal-oral transmission of cyst, not amoeba
Giardiasis	*Giardia lamblia*	lumen of the small intestine	stool	widespread	ingestion of cysts in fecal contaminated water or food, can be zoonotic (deer, beavers)
Isosporiasis	*Isospora belli*	epithelial cells of small intestines	stool	worldwide - less common than *Toxoplasma* or *Cryptosporidium*	fecal oral route - ingestion of sporulated oocyst
Leishmaniasis	*Leishmania*	cutaneous, mucocutaneous, or visceral	visual identification of lesion or microscopic stain with Leishman's or Giemsa's stain	Visceral leishmaniasis- Worldwide; Cutaneous leishmaniasis - Old World; Mucocutaneous leishmaniasis - New World	Phlebotomus Lutzomyia- bite of several species of phlebotomine sandflies
Primary amoebic meningoencephalitis (PAM)[2][3]	*Naegleria fowleri*	brain	culture	rare but deadly	Nasal insufflation of contaminated warm fresh water, poorly chlorinated swimming pools, hot springs, soil
Malaria	*Plasmodium falciparum* (80% of cases), *Plasmodium vivax*, *Plasmodium ovale*, *Plasmodium malariae*, *Plasmodium knowlesi*	red blood cells, liver	Blood film	tropical - 250 million cases/year	Anopheles mosquito, bites at night
Rhinosporidiosis	*Rhinosporidium seeberi*	nose, nasopharynx	biopsy	India and Sri Lanka	nasal mucosa came into contact with infected material through bathing in common ponds
Sarcocystosis	*Sarcocystis bovihominis*,*Sarcocystis suihominis*	intestine, muscle	muscle biopsy	widespread	ingestion of uncooked/undercooked beef/pork with *Sarcocystis* sarcocysts
Toxoplasmosis - Parasitic pneumonia	*Toxoplasma gondii*	eyes, brain, heart, liver	blood and PCR	widespread - up to one third of all humans	ingestion of uncooked/undercooked pork/lamb/goat with *Toxoplasma* bradyzoites, ingestion of raw milk with Toxoplasma tachyzoites, ingestion of contaminated water food or soil with oocysts in cat feces that is more than one day old
Trichomoniasis	*Trichomonas vaginalis*	female urogenital tract (males	microscopic examination of	7.4 million Americans	sexually transmitted infection - only trophozoite form (no

		asymptomatic)	genital swab		cyst)
Sleeping sickness	*Trypanosoma brucei*	blood lymph and central nervous systems	microscopic examination of chancre fluid, lymph node aspirates, blood, bone marrow	50,000 to 70,000 people	tsetse fly, day biting fly of the genus Glossina
Chagas disease	*Trypanosoma cruzi*	colon, esophagus, heart, nerves, muscle and blood	Giemsa stain - blood	Mexico, Central America, South America - 16-18 million	Triatoma/Reduviidae - "Kissing bug" Insect Vector, feeds at night

Helminths organisms (worms)

Tapeworms

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Transmission/Vector
Tapeworm - Tapeworm infection	*Cestoda*, *Taenia multiceps*	intestine	stool	rare	
Diphyllobothriasis - tapeworm	*Diphyllobothrium latum*	intestines, blood	stool (microscope)	Europe, Japan, Uganda, Peru, Chile	ingestion of raw fresh water fish
Echinococcosis - tapeworm	*Echinococcus granulosus*, *Echinococcus multilocularis*, *E. vogeli*, *E. oligarthrus*	liver, lungs, kidney, spleen	imaging of hydatid cysts in the liver, lungs, kidney and spleen	Mediterranean countries	as intermediate host, ingestion of material contaminated by feces from a carnivore; as definite host, ingestion of uncooked meat (offal) from a herbivore
Hymenolepiasis[4]	*Hymenolepis nana*, *Hymenolepis diminuta*				ingestion of material contaminated by flour beetles, meal worms, cockroaches
Beef tapeworm	*Taenia saginata*	Intestines	stool	worldwide distribution	ingestion of undercooked beef
Pork tapeworm	*Taenia solium*				ingestion of undercooked pork
Bertielliasis	*Bertiella mucronata*, *Bertiella studeri*	Intestines	Stool	Rare	Contact with non human primates
Sparganosis	*Spirometra erinaceieuropaei*				ingestion of material contaminated with infected dog or cat faeces (humans: dead-end host)

Flukes

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Transmission/Vector
Clonorchiasis	*Clonorchis sinensis*; *Clonorchis viverrini*				
Lancet liver fluke	*Dicrocoelium dendriticum*	gall bladder		rare	ingestion of ants
				Fasciola hepatica in Europe, Africa, Australia, the Americas and	

Liver fluke - Fasciolosis[5]	*Fasciola hepatica*, *Fasciola gigantica*	liver, gall bladder	stool	Oceania; *Fasciola gigantica* only in Africa and Asia, 2.4 million people infected by both species	freshwater snails
Fasciolopsiasis - intestinal fluke[6]	*Fasciolopsis buski*	intestines	stool or vomitus (microscope)	East Asia - 10 million people	ingestion of infested water plants or water (intermediate host:amphibic snails)
Gnathostomiasis[7]	*Gnathostoma spinigerum*, *Gnathostoma hispidum*	subcutaneous tissues (under the skin)	physical examination	rare - Southeast Asia	ingestion of raw or undercooked meat (e.g., freshwater fish, chicken, snails, frogs, pigs) or contaminated water
Metagonimiasis - intestinal fluke	*Metagonimus yokogawai*		stool	Siberia, Manchuria, Balkan states, Israel, Spain	ingestion of undercooked or salted fish
Chinese Liver Fluke	*Opisthorchis viverrini*, *Opisthorchis felineus*, *Clonorchis sinensis*	bile duct		1.5 million people in Russia	consuming infected raw, slightly salted or frozen fish
Paragonimiasis, Lung Fluke	*Paragonimus westermani*; *Paragonimus africanus*; *Paragonimus caliensis*; *Paragonimus kellicotti*; *Paragonimus skrjabini*; *Paragonimus uterobilateralis*	lungs	sputum, feces	East Asia	ingestion of raw or undercooked freshwater crabs crayfishes or other crustaceans
Schistosomiasis - bilharzia, bilharziosis or snail fever (all types)	*Schistosoma* sp.			Africa, Caribbean, eastern South America, east Asia, Middle East - 200 million people	skin exposure to water contaminated with infected fresh water snails
intestinal schistosomiasis	*Schistosoma mansoni*	intestine, liver, spleen, lungs, skin	stool	Africa, Caribbean, South America, Asia, Middle East - 83 million people	skin exposure to water contaminated with infected *Biomphalaria* fresh water snails
urinary schistosomiasis	*Schistosoma haematobium*	kidney, bladder, ureters, lungs, skin	urine	Africa, Middle East	skin exposure to water contaminated with infected *Bulinus* sp. snails
Schistosomiasis by *Schistosoma japonicum*	*Schistosoma japonicum*	intestine, liver, spleen, lungs, skin	stool	China, East Asia, Philippines	skin exposure to water contaminated with infected Oncomelania sp. snails
Asian intestinal schistosomiasis	*Schistosoma mekongi* -			South East Asia	skin exposure to water contaminated with infected *Neotricula aperta* - fresh water snails
	Echinostoma echinatum	small intestine		Far East	ingestion of raw fish, mollusks, snails
Swimmer's itch	*Trichobilharzia regenti*, *Schistosomatidae*				skin exposure to contaminated water (snails and vertebrates)

Roundworms

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Transmission/Vector
Ancylostomiasis/Hookworm	*Ancylostoma duodenale*, Necator americanus	lungs, small intestine, blood	stool	common in tropical, warm, moist climates	penetration of skin by L3 larva
Angiostrongyliasis	*Angiostrongylus costaricensis*	intestine	stool		ingestion of infected faeces or infected slugs
Anisakiasis[8]	*Anisakis*	allergic reaction	biopsy	incidental host	ingestion of raw fish, squid, cuttlefish, octopus
Roundworm - Parasitic pneumonia	*Ascaris* sp. *Ascaris lumbricoides*	Intestines, liver, appendix, pancreas, lungs, Löffler's syndrome	stool	common in tropical and subtropical regions	
Roundworm - Baylisascariasis	*Baylisascaris procyonis*	Intestines, liver, lungs, brain		rare: North America	stool from raccoons
Roundworm-lymphatic filariasis	*Brugia malayi*, *Brugia timori*	lymph nodes	blood samples	tropical regions of Asia	Arthropods
Dioctophyme renalis infection	*Dioctophyme renale*	kidneys (typically the right)	Urine	Rare	Ingestion of undercooked or raw freshwater fish
Guinea worm - Dracunculiasis	*Dracunculus medinensis*	subcutaneous tissues, muscle	skin blister/ulcer	South Sudan (eradication ongoing)	
Pinworm - Enterobiasis	*Enterobius vermicularis*, *Enterobius gregorii*	intestines, anus	stool; tape test around anus	widespread; temperate regions	
Halicephalobiasis	*Halicephalobus gingivalis*	brain			soil contaminated wounds
Loa loa filariasis, Calabar swellings	*Loa loa filaria*	Connective tissue, lungs, eye	blood (Giemsa, haematoxylin, eosin stain)	rain forest of West Africa - 12-13 million people	Tabanidae - horse fly, bites in the day
Mansonelliasis, Filariasis	*Mansonella streptocerca*	subcutaneous layer of skin			insect
River blindness	*Onchocerca volvulus*, Onchocerciasis	skin, eye, tissue	bloodless skin snip	Africa, Yemen, Central and South America near cool, fast flowing rivers	Simulium/Black fly, bite during the day
Strongyloidiasis - Parasitic pneumonia	*Strongyloides stercoralis*	Intestines, lungs, skin (Larva currens)	stool, blood		skin penetration
Thelaziasis	*Thelazia californiensis*, *Thelazia callipaeda*	Eyes	ocular examination	Asia, Europe	*Amiota (Phortica) variegata*, *Phortica okadai*
Toxocariasis	*Toxocara canis*, *Toxocara cati*	liver, brain, eyes (Toxocara canis - Visceral larva migrans, Ocular larva migrans)	blood, ocular examination	worldwide distribution	pica, unwashed food contamined with Toxocara eggs, undercooked livers of chicken
				more common	

Trichinosis	*Trichinella spiralis*, *Trichinella britovi*, *Trichinella nelsoni*, *Trichinella nativa*	muscle, periorbital region, small intestine	blood	in developing countries due to improved feeding practices in developed countries.	ingestion of undercooked pork
Whipworm	*Trichuris trichiura*, *Trichuris vulpis*	large intestine, anus	stool (eggs)	common worldwide	accidental ingestion of eggs in dry goods such as beans, rice, and various grains or soil contaminated with human feces
ElephantiasisLymphatic filariasis	*Wuchereria bancrofti*	lymphatic system	thick blood smears stained with hematoxylin.	Tropical and subtropical	mosquito, bites at night

Other organisms

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Transmission/Vector
Acanthocephaliasis	*Archiacanthocephala*, *Moniliformis moniliformis*	Gastrointestinal tract, peritoneum, eye	Faeces, parasite itself	worldwide	ingestion of intermediate hosts
Halzoun Syndrome	*Linguatula serrata*	nasopharynx	physical examination	Mid East	ingestion of raw or undercooked lymph nodes (e.g., meat from infected camels and buffalos)
Myiasis	*Oestroidea*, *Calliphoridae*, *Sarcophagidae*	dead or living tissue			
Chigoe flea	*Tunga penetrans*	Subcutaneous tissue	physical examination	Central and South America	
Human Botfly	*Dermatobia hominis*	Subcutaneous tissue	physical examination	Central and South America	Mosquitoes and biting flies

Ectoparasites

Common name of organism or disease	Latin name (sorted)	Body parts affected	Diagnostic specimen	Prevalence	Transmission/Vector
Bedbug	Cimicidae *Cimex lectularius*	skin	visual	Worldwide	sharing of clothing and bedding
Head louse - Pediculosis	*Pediculus humanus*	hair follicles	visual identification under magnification	Common worldwide	head-to-head contact
Body louse - Pediculosis	*Pediculus humanus corporis*		visual identification under magnification (Vagabond's disease)	Worldwide	skin-to-skin contact such as sexual activity and via sharing clothing or bedding
Crab louse - Pediculosis	*Pthirus pubis*	pubic area, eyelashes	visual identification under	Worldwide	skin-to-skin contact such as sexual activity and via

			magnification		sharing clothing or bedding
Demodex - Demodicosis	*Demodex folliculorum/brevis/canis*	eyebrow, eyelashes	Microscopy of eyelash or eyebrow hair follicle	Pandemic, worldwide	prolonged skin-to-skin contact
Scabies	*Sarcoptes scabiei*	skin	microscopy of surface scrapings	Worldwide	skin-to-skin contact such as sexual activity and via sharing clothing or bedding
Screwworm, Cochliomyia	*Cochliomyia hominivorax*	skin and wounds	visual	North America (eradicated), Central America, North Africa	direct contact with fly
Flea, Siphonaptera	*Pulex irritans*	skin	visual identification under magnification	Worldwide	environment

See also

- List of human parasitic diseases

References

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7. ^ Tolan, Robert W Gnathostomiasis eMedicine, updated Feb 2008
8. ^ Anisakiasis

External links

- A List of Human Intestinal Parasites accessed May 2008