

7/22/87, rvsd 15 August 1993, 16 Aug 1996, 23 July '97, 19 July 98, 16 July01, 10 Aug 05, 9 Aug 06, 14Nov12
 TFC, 7th Ed, p350-354, Boyd, 2nd, pp844-851, Campbell, 2nd, p. 589- Alcamo 3rd, p521, Merck Manual, Black, 6th: 300-308
 Bauman 2nd: 649-675

Page numbers are in Bauman, 3rd Edition, *Microbiology With Diseases by Taxonomy*.

PHYLUM	traits:	example	significant aspects of example:
SARCODINA (flesh-whip) [Rhizopoda]	Amoeboid, some with flagellated stage	<i>Entamoeba histolytica</i> p 651	“ Amoebic dysentery ,” infects 10% world pop, spread: indirectly: fecal contamination of food or water (cysts) direct: poor hygiene, sex partner, oral-anal sex. Feeds on RBCs, commonly asymptomatic
MASTIGOPHORA: (whip-bearing) [Archaezoa]	Undulating membrane	<i>Trichomonas vaginalis</i> p 660	30% of pop colonized. An STD. Found in GU of ♂ & ♀. Vaginitis: copious green/yellow frothy discharge (raises pH fr 3-4.5 by ingesting Lactobacilli). Fomites: towels, toilet facilities, very sens. to drying
		<i>Giardia lamblia</i> p 659	Gastroenteritis (sm intestine) 4% infected, commonly asymptomatic, (nausea, flatulence, eructation, diarrhea). Prevents absorption of nutrients, passes in feces as cysts, human and wild animals, traveler’s diarrhea, <i>not</i> killed by Cl ₂ . Enterotest: gel capsule on string, swallowed, pull up.
		<i>Trichonympha sphaerica</i> p 346, 348, 402	endosymbiont in termite gut. Huge number of flagella. Digests cellulose, due to bacteria <i>inside</i> the protozoan
		<i>Trypanosoma gambiense:</i> p 656	“ Sleeping sickness ,” spread by tsetse fly, chancre at bite, fever, facial edema, lymphadenopathy, CNS symptoms, fatal coma (<i>not</i> “sleep”!).
SPOROZOA: [Apicomplexa]	Parasitic and immobile, usually complex life cycle	<i>Toxoplasma gondii</i> p 663	Toxoplasmosis , world wide, 50% of US pop. infected. Mostly asymptomatic, transplacental infections cause miscarriage. Rarely causes visual impair, congenital mental retardation, <i>etc.</i> (Teratogen mnemonic: TORCH) Cats definitive host, shed oocysts in feces (fecal-oral).
		<i>Plasmodium vivax,</i> <i>P. falciparum</i> <i>P. malariae</i> p 661-663	Malaria , <i>Plasmodium vivax</i> , infecting 250 mil in world (1 mil under 5 yrs old die/year in Africa): COMPLEX REPRODUCTION: <i>Anopheles</i> mosquito (primary host) bites infected human, pick up gametocytes , infect mosquito’s salivary glands. sporozoites (several 100) injected with bite, infect liver. merozoites (asexual spores) formed by schizogony (multiple fission) when sporozoites infect liver. In 2-4 wks, many thousand merozoites are released. These infect RBC, form ring stage, schizogony generates more merozoites (and a few gametocytes), released by RBC lysis (causing bouts of fever). If a female <i>Anopheles</i> mosquito draws blood infected with gametocytes , sexual reproduction occurs in salivary glands. The resulting zygote undergoes meiosis, forming haploid sporozoites , start cycle over again. Signs: fever with each coordinated RBC rupture cycle. Last 8 hrs, then 48 hr remission, repeat fever, RBC destroyed, anemia, splenomegaly, "blackwater fever", RBC fragments block arteries to organs.