

# Invasive Diseases

Infectious Agent					
Virus	Bacteria	Parasite	Fungus	Protozoa	Prions
Transmitted from live organism to live organism	Rod shaped, spherical shaped or spiral shaped	Live in or on a host (plant, fish, insect, mammal, person)	Caused the Irish Potato Famine	Several parasites are also these	Abnormal folding of brain proteins
Vaccines used to prevent infection	Live in every extreme environment on earth	Size range: small as a single cell to 2-meter long worms	Transmitted by spores	Cause amebic dysentery	Exact agent not yet known
Antibiotics not effective	Important in nitrogen and carbon cycles and decomposition	May have a single host or many intermediary hosts	Transmitted through the air or direct contact	Cause African Sleeping sickness	Bovine Spongiform Encephalopathy (BSE) Mad Cow Disease
Transmitted by biting/sucking insects	Can be harmful or beneficial and aid immune system	In animals, excreted in feces - oocytes to full-sized organisms	Treat with antifungal agents in mammals	Transmitted by Tse Tse fly and mosquito	Chronic Wasting Disease in Wildlife
Examples: Flu, Measles, HIV, SARS, Rabies	Examples: Bubonic Plague, TB, Cholera, Anthrax, Tetanus	Examples: Giardia, Cryptosporidium, Toxoplasmosis, Malaria	Examples: Athlete's Foot, Yeast Infections, Ringworm, Thrush	Examples: Giardia, Cryptosporidium, Toxoplasmosis, Malaria	Examples: Scrapie, Cruetzfeld -Jacob Disease, Kuru
Transmitted live in body fluids, blood, or plant fluids	Transmission is through all means-found everywhere	Cause water-borne illnesses and food-borne illnesses	Infected plants, treat with fungicides	Chlorination of water does not kill these	Antibiotics not effective
Some can infect many species, others species specific	Antibiotics effective except in resistant strains	Antibiotics not effective	Antibiotics not effective	Contamination with cysts in fecal material	Disease is always fatal
Mutations are frequent and make control challenging	Can live for years in very inhospitable environments	Clean, treated water or boil water as a prevention	Root rots, mildews, and wilts of plants	Antibiotics not effective	No known treatment or cure
Can infect plants, insects, mammals, and people	Spores can live in soil, become airborne in soil dust	Drink pasteurized beverages or boil water	Transmission by contaminated tools in nail salons	Treat with a sequence of drugs	Removal of brain and spinal tissue from food supply
Insect control is very important in controlling spread	Can cause food-borne illnesses as well	Transmitted in cat litter and feces of other pets	Diaper rash of babies	Strict sanitation in food prep and animal work	XXXXXXXXXXXXXX

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