

# Disease Cards

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AIDS	
<b>Infectious Agent:</b>	virus (human immunodeficiency virus)
<b>Evidence of the Disease:</b>	pneumonia, certain types of cancer, and other illnesses typical of people with failing immune systems
<b>Treatment:</b>	no cure exists, but a combination of antiviral drugs can prolong a reasonable quality of life for years
<b>Transmission:</b>	intimate contact: vaginal, anal, and oral sexual contact; blood-to-blood contact through shared needles, needle-stick accidents, transfusions and transplants; and mother-to-newborn infection
<b>Preventive Measures:</b>	implement educational programs to promote "safer" sex and prevent drug abuse; screen blood sources for HIV; follow appropriate hospital procedures to prevent accidental spread of HIV
<b>History:</b>	first recognized in 1979; currently a global epidemic

Cholera	
<b>Infectious Agent:</b>	bacteria ( <i>Vibrio cholerae</i> )
<b>Evidence of the Disease:</b>	diarrhea, dehydration
<b>Treatment:</b>	fluids and antibiotics
<b>Transmission:</b>	ingestion of bacteria in contaminated food and water
<b>Preventive Measures:</b>	purify water; treat sewage; cook and promptly refrigerate food
<b>History:</b>	present from antiquity; increasing number of worldwide cases in recent years

<b>Creutzfeldt-Jakob Disease (CJD)</b>	
<b>Infectious Agent:</b>	prion (scrapie PrP)
<b>Evidence of the Disease:</b>	deteriorating mental capacity, loss of coordination
<b>Treatment:</b>	none available at this time
<b>Transmission:</b>	infectious cases: intimate contact with infected tissues (most cases are due to unknown cause; a few are inherited)
<b>Preventive Measures:</b>	none known at this time
<b>History:</b>	first described in 1982

<b>Ebola Hemorrhagic Fever</b>	
<b>Infectious Agent:</b>	Ebola virus
<b>Evidence of the Disease:</b>	headache; fever; vomiting; diarrhea; bleeding from the nose, mouth, eyes, and other orifices
<b>Treatment:</b>	no cure exists; treatment is to relieve symptoms
<b>Transmission:</b>	intimate contact with infectious agent in blood
<b>Preventive Measures:</b>	follow appropriate disease control procedures in hospitals; avoid burial customs that allow contact with tissues of deceased victims; initial victim in an outbreak likely was infected with the virus from an animal that carries the virus with no ill effects; that animal "reservoir" is unknown at this time
<b>History:</b>	first recognized in 1976; 18 outbreaks since then

<b>Guinea Worm Disease (Dracunculiasis)</b>	
<b>Infectious Agent:</b>	helminth (the roundworm <i>Dracunculus medinensis</i> )
<b>Evidence of the Disease:</b>	inflammation, severe joint pain, severe itching under the skin, skin ulcers
<b>Treatment:</b>	anthelmintic drugs may hasten expulsion of worm
<b>Transmission:</b>	ingestion of water contaminated by the copepod (the intermediate host) that carries the larvae
<b>Preventive Measures:</b>	purify water
<b>History:</b>	present from antiquity; has decreased dramatically in the last half of the 20th century

<b>Influenza</b>	
<b>Infectious Agent:</b>	influenza virus
<b>Evidence of the Disease:</b>	headache, fever, chills, muscle aches; possibly sore throat, cough, chest pain
<b>Treatment:</b>	relieve symptoms
<b>Transmission:</b>	casual contact with the infectious agent in secretions or on droplets from those who are infected
<b>Preventive Measures:</b>	vaccine against current strains; wash hands frequently
<b>History:</b>	present from antiquity; epidemics occur at regular intervals

<b>Legionnaire Disease</b>	
<b>Infectious Agent:</b>	bacteria ( <i>Legionella pneumophila</i> )
<b>Evidence of the Disease:</b>	fever, cough, chest and abdominal pain, diarrhea
<b>Treatment:</b>	antibiotics
<b>Transmission:</b>	inhalation of bacteria on airborne particles, especially from water tanks
<b>Preventive Measures:</b>	disinfect cooling tower waters
<b>History:</b>	first recognized in 1976; occasional outbreaks since then

<b>Lyme Disease</b>	
<b>Infectious Agent:</b>	bacteria ( <i>Borrelia burgdorferi</i> )
<b>Evidence of the Disease:</b>	initially an expanding, ringlike rash, fever, fatigue, and headache; followed weeks or months later by chronic arthritis
<b>Treatment:</b>	antibiotics
<b>Transmission:</b>	bites from infected ticks
<b>Preventive Measures:</b>	wear socks, long pants, and long-sleeved shirts in tick-infested areas and check carefully for ticks after leaving the area; a vaccine for individuals at high risk of contracting the disease
<b>History:</b>	first recognized as an infectious disease in 1975; infectious agent identified in 1982

<b>Malaria</b>	
<b>Infectious Agent:</b>	protozoa (various <i>Plasmodium</i> species)
<b>Evidence of the Disease:</b>	cyclic fever and chills, anemia
<b>Treatment:</b>	antiprotozoan drugs
<b>Transmission:</b>	bites from infected mosquitos
<b>Preventive Measures:</b>	follow procedures to reduce mosquitos such as eliminating standing water and spraying with insecticides; follow procedures to limit contact between humans and mosquitos such as installing screens and bed nets and using insect repellent
<b>History:</b>	present from antiquity; has increased in recent years

<b>Streptococcal Pharyngitis (“Strep Throat”)</b>	
<b>Infectious Agent:</b>	bacteria ( <i>Streptococcus pyogenes</i> )
<b>Evidence of the Disease:</b>	painful, red and inflamed throat; tonsils may swell and become coated with white patches
<b>Treatment:</b>	antibiotics
<b>Transmission:</b>	casual contact with infectious agent in secretions or on droplets
<b>Preventive Measures:</b>	wash hands frequently; disinfect contaminated materials
<b>History:</b>	present from antiquity

<b>Plague</b>	
<b>Infectious Agent:</b>	bacteria ( <i>Yersinia pestis</i> )
<b>Evidence of the Disease:</b>	bubonic form: swollen lymph nodes, fever, blocked circulation pneumonic form: pneumonia, blood infection
<b>Treatment:</b>	antibiotics
<b>Transmission:</b>	usually bites from infected fleas carried by wild rodents; also inhalation of airborne bacteria from individual with pneumonic plague
<b>Preventive Measures:</b>	eliminate rodents near human habitation; use insect repellants to avoid flea bites; use insecticides to treat domestic animals likely to come in contact with infected rodents
<b>History:</b>	present from antiquity; responsible for several global epidemics including the Black Death in 14th-century Europe

<b>Pneumonia</b>	
<b>Infectious Agent:</b>	several types of bacteria, viruses, and fungi
<b>Evidence of the Disease:</b>	fever, cough, chest pain
<b>Treatment:</b>	antimicrobials for bacterial and fungal pneumonias; treatment to relieve symptoms for viral pneumonias
<b>Transmission:</b>	casual contact with infectious agent in secretions or on droplets from infected individuals
<b>Preventive Measures:</b>	use vaccines available to prevent some forms of pneumonia; improve social conditions such as crowded living quarters
<b>History:</b>	present from antiquity; remains the leading cause of death from infectious disease among the elderly

Polio	
<b>Infectious Agent:</b>	polio virus
<b>Evidence of the Disease:</b>	fever, fatigue, headache, nausea, muscle pain; in severe cases, paralysis
<b>Treatment:</b>	generally none; respiratory assistance in acute paralytic cases
<b>Transmission:</b>	ingestion of virus in contaminated food and water
<b>Preventive Measures:</b>	vaccinate against current strains
<b>History:</b>	present from antiquity; continues to be a problem in some developing countries although it has been eliminated in most countries

Schistosomiasis	
<b>Infectious Agent:</b>	helminth (several species of the flatworm <i>Schistosoma</i> )
<b>Evidence of the Disease:</b>	may include a variety of symptoms such as fever, diarrhea, anemia, and liver failure
<b>Treatment:</b>	anthelmintic drugs may be effective if used early enough; cure not usually possible once the parasites are established
<b>Transmission:</b>	<i>Schistosoma</i> larvae enter human skin from snail-infested water (snails are intermediate hosts)
<b>Preventive Measures:</b>	reduce snail habitats (still pools of water); wear rubber boots in infested waters; treat sewage (to prevent eggs from reaching water sources)
<b>History:</b>	present from antiquity; increasing incidence in recent years

### Tuberculosis

<b>Infectious Agent:</b>	bacteria ( <i>Mycobacterium tuberculosis</i> )
<b>Evidence of the Disease:</b>	persistent cough, fever, fatigue, weight loss
<b>Treatment:</b>	antibiotics
<b>Transmission:</b>	inhalation of bacteria on airborne particles
<b>Preventive Measures:</b>	improve social conditions such as crowded living quarters; vaccine available, although its effectiveness varies among different populations
<b>History:</b>	possibly present from antiquity, peaked in early 19th century and has declined until a significant increase in late 1980s/early 1990s