

Chronic carrier
Hepatitis B Virus, Salmonella Typhi

Botulism. Clostridium botulinum
Soil reservoir, but food contains spore

Human reservoir => smallpox, 1977
measles, mumps, streptococcal infection,
many respiratory pathogens +
sexually transmitted diseases

Zoonosis
Brucellosis (cow + pigs)
Anthrax (sheep)
plague (rodent)
Trichinellosis (swine, pigs)
Rabies (bat, raccoon, dogs)

Animal reservoir (HIV/AIDS) (Ebola infection) (SARS)

Environmental reservoir
(Histoplasmosis, soil) fungal agent
(Legionnaires (Legionella pneumophila), water in cooling towers)

Portal of exit

Influenza + Mycobacterium tuberculosis (respiratory tract)
Schistosomes (urine)
Cholera vibrio (feces)
Sarcoptes scabiei (scabies skin lesions)
Rubella, syphilis, toxoplasmosis (bloodborne, placenta from mother to fetus)
Hepatitis B (cut or needles)
Malaria (blood sucking insect)

Direct
Hepatitis B + Influenza (droplet spread, sneezing, coughing or talking)

Indirect
Airborne (measles)

Vehicleborne
Food (Clostridium Botulinum, E. coli)
Water (Hepatitis A, E coli)
Biologic products (blood)
Fomites

Vectorborne mechanical and biological
Mosquitoes, fleas, lice, ticks (malaria)

From mother to child
Vertical: Just before or after birth
Via placenta, breast milk

Diseases can transmit from mother to baby
HIV/Hepatitis C

Influenza same portal entry + exit

Portal entry
Skin (hookworm)
Mucous membrane (syphilis)
Blood (Hepatitis B/HIV)

Host:
malaria (sickle cell trait protect from it) so malaria can't infect it

measles, hepatitis A, influenza and several other diseases become infectious a few days before the onset of symptoms.

**unapparent infection frequent
tubercle bacillus**

**clinical disease frequent; few deaths
measles virus**

**infections usually fatal
rabies virus**

Disease with its information

Hepatitis B Virus (HBV):

- **Transmission:** Bloodborne, (cuts, needles)--portal of exit
- **Chronic carrier state possible.**
- **Portal of Entry:** Blood.

Salmonella Typhi:

- **Chronic carrier state possible.**
- **Associated with foodborne illnesses.**

Hepatitis C

- **transmit from mother to baby**

Syphilis

- **Bloodborne, placenta from mother to fetus**
- **Portal of entry:**Mucous Membranes

Histoplasmosis

- **Reservoir:** Soil.
- **Agent:** Fungal infection.

Botulism

- **Bacteria:** Clostridium botulinum.
- **Reservoir:** Soil; spores contaminate food.
- **Transmission:** Vehicleborne (via contaminated food).

Malaria

- **Portal of exit:**blood sucking insect
- **Mode of transmission:**Vectorborne mechanical and biological
Mosquitoes, fleas, lice, ticks
- **sickle cell trait protect body from it**

Smallpox

- **Eradicated in 1977.**
- **Reservoir:** Humans.

Hepatitis A

- **Reservoir:** Food or water.
- **Transmission:** Vehicleborne.
- **Becomes infectious days before symptom onset.**

Influenza

- **Reservoir:** Humans.
- **Portal of Exit:** Respiratory tract (sneezing, coughing).
- **Transmission:** Direct (droplets).
- **Becomes infectious days before symptom onset.**

HIV/AIDS

- **Reservoir:** unknown animal, Humans (blood, breast milk,).
- **transmit from mother to baby**

Rabies

- **Reservoir:** Bats, raccoons, dogs.
- **infections usually fatal.**

Measles

- **Reservoir:** Humans.
- **Transmission:** Airborne.
- **Becomes infectious days before symptom onset.**
- **clinical disease frequent; few death.**