



Bacteria – microorganisms capable of reproducing outside of living cells.

Anthrax (Bacillus anthracis)

- Route of entry: Inhalation, cuts in skin
- Incubation period: 1-7 days *
- Contagious: No
- Mortality: 80%-90% (respiratory)
- Symptoms: nausea, fever, chills, swelling of lymph, nodes. Followed by sudden onset of respiratory distress w/dyspnea, stridor, and cyanosis. Shock and death commonly follow within 24 to 36 hours.

Tularemia (Francisella tularensis)

- Route of entry: inhalation (inhaling 10 to 50 organisms will cause disease), handling contaminated animal fluids, bitten by deer flies, mosquitoes, or ticks.
- Incubation period: 2 to 10 days *
- Contagious: No
- Mortality: 5%
- Symptoms: fever, chills, headache, myalgias, non-productive cough, sometimes pneumonia

Plague (Yersinia Pestis)

- Route of entry: flea bites, inhalation.
- Contagious: **Yes**
- Respiratory tract is at risk if agent is aerosolized.
- Incubation period: 2-3 days *
- Mortality: Almost 100% of Pneumonic victims
- Symptoms: headache, shortness of breath, high fever, chills, spitting up blood.
- Normally found in infected rodents.
- Spreads to humans from infected fleabites or by inhalation of the organism.

Viruses – infectious submicroscopic organisms that can only reproduce inside living cells.

Smallpox

- Route of entry: Inhalation
- Incubation period: 10-12 days *
- Contagious: **Yes**
- Mortality: 30%
- Symptoms: fever, vomiting, headache, backache, lesions (after 2-3 days)

Ebola (Ebola Hemorrhagic Fever)

- Route of entry: person to person contact blood/body fluids.
- Incubation period: 2-21 days *
- Contagious: **Yes**
- Mortality: 50-90%
- Symptoms: weakness, muscle pain, fever, headache, sore throat, rash, vomiting, internal/external bleeding.

Venezuelan Equine Encephalitis (VEE)

- Highly infectious-100% of exposed develop symptoms
- Person to person spread does not occur
- Mortality rate: 1%
- Incubation period: 1 to 5 days *
- Symptoms: spiking fevers, severe headache, light intolerance, nausea, vomiting, diarrhea
- Meningitis and encephalitis seen

Toxins - non-living poisonous substances produced through metabolic activities of living organisms

- Naturally produced poisons
- More toxic per weight than manmade chemical agents
- Non-volatile
- Minimal skin absorption
- Not prone to person to person transmission

Botulinum

- Route of entry: Digestive, respiratory
- Incubation period: 24-72 hours *
- Contagious: No
- Mortality: 80%
- Symptoms: weakness, dizziness, dry mouth and throat, blurred vision, dilated pupils, double vision, drooping eye lids, light intolerance, difficulty swallowing, difficulty speaking, respiratory failure.

Staphylococcal Enterotoxin B

- Incubation period: 4-6 hours *
- Contagious: No
- Mortality: Low
- Symptoms: Ingestion – vomiting, abdominal cramps, explosive watery diarrhea
Respiratory – high fever, cough, chills, prostration

Ricin

- Route of entry: Digestive, respiratory, injection
- Incubation period: 24-72 hours *
- Contagious: No
- Mortality: High
- Symptoms: nausea, vomiting, abdominal cramps, bloody diarrhea, difficulty breathing

General Properties and Information

- Nonvolatile (will not evaporate).
- May be effective when dispersed as an aerosol or powder.
- Respiratory tract is the primary route of exposure.
- Other potential routes of exposure include abraded skin or unprotected eyes with certain agents.
- Weather plays a major role in effective dissemination outside.

***Incubation periods may vary based on circumstances surrounding exposure and other factors**

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