Transmission Routes of Potential Bioterrorism Agents

Respiratory
These agents are transmitted through the air. This includes fluids aerosolized from a person or animal (i.e., sneezing or coughing) as well as dust from the soil or environment.

- Anthrax
  * Bacillus anthracis
- Botulism
  * Clostridium botulinum toxin
- Plague
  * Yersinia pestis
- Tularemia
  * Francisella tularensis
- Brucellosis
  * Brucella spp.
- Glanders
  * Burkholderia mallei
- Melioidosis
  * Burkholderia pseudomallei
- Psittacosis
  * Chlamyphila psittaci
- Q Fever
  * Coxiella burnetii
- Toxins
  * Clostridium perfringens
  * Ricinus communis
  * Staph. aureus
- Nipah virus
- Hantavirus
- Hendra virus

Vector
These agents are transmitted by an arthropod vector.

- Fleas
  - Plague - Yersinia pestis
- Lice
  - Typhus - Rickettsia prowazekii
- Ticks
  - Tularemia - Francisella tularensis
  - Q Fever - Coxiella burnetii
- Mosquitoes
  - Tularemia - Francisella tularensis
  - Viral encephalitis - VEE, EEE, WEE
  - West Nile fever virus
  - Rift Valley fever virus

Direct Contact
These agents can be acquired by directly touching a person or animal or by contact with fluids (urine, feces, vomit, saliva) or tissues from an infected person or animal.

- Anthrax
  * Bacillus anthracis
- Plague
  * Yersinia pestis
- Smallpox
  * Variola major
- Tularemia
  * Francisella tularensis
- Brucellosis
  * Brucella spp.
- Glanders
  * Burkholderia mallei
- Melioidosis
  * Burkholderia pseudomallei
- Q Fever
  * Coxiella burnetii
- Nipah virus
- Hendra virus
- Rift Valley fever virus

Food
These agents can potentially be spread through a food source (ingestion). Many agents are killed by heat and therefore proper cooking measures can help to prevent disease through this route.

- Anthrax
  * Bacillus anthracis
- Botulism
  * Clostridium botulinum toxin
- Tularemia
  * Francisella tularensis
- Brucellosis
  * Brucella spp.
- Toxins
  * Clostridium perfringens
  * Ricinus communis
  * Staph. aureus
- Food Safety
  * Salmonella spp.
  * E. coli O157:H7
  * Campylobacter spp.

Water
These agents can potentially be spread through a water source. This includes contact with contaminated water (i.e., open wounds) as well as drinking contaminated water.

- Melioidosis
  * Burkholderia pseudomallei
- Tularemia
  * Francisella tularensis
- Toxins
  * Clostridium perfringens
  * Ricinus communis
  * Staph. aureus
- Brucellosis
  * Brucella spp.
- Water Safety
  * Cryptosporidium parvum
  * Vibrio cholerae