

Salmonella typhi

Typhoid fever

S. typhi is a risk group 2 bacterium. It is considered a **reproductive pathogen** as it is transmitted via the placenta and carries a high risk of fetal loss, up to 80% if untreated. It increases the risk of miscarriage, stillbirth, premature labor, neonatal sepsis, and uterine infections.

How can I be exposed to *S. typhi*?

- Exposure is primarily via the fecal-oral route.
- Human infection usually occurs when consuming contaminated foods and water, contact with infected feces, animals, animal feed, or humans.
- Fetal transmission occurs via the placenta.
- Laboratory workers may be exposed primarily by parenteral inoculation and ingestion. Although less common, aerosol transmission may occur in certain circumstances.

How can I protect myself from exposure?

- Avoid direct skin contact by wearing protective clothing and gloves.
- Avoid mucous membrane exposure by using eye/face protection for procedures that may produce splashes.
- Avoid respiratory exposure by using a biosafety cabinet or other primary containment device and wearing a respirator for procedures that may produce aerosols, particularly centrifugation, resuspension of pellets, and washing.
- The use of needles, syringes, and other sharp objects should be strictly limited, and additional precautions should be taken when working with animals.

What should I do if I think I've been exposed?

Wash the affected area immediately for 15 minutes with soap and water and seek medical attention.

What symptoms should I look for after a potential exposure?

Typhoid fever is characterized by fever, headache, bradycardia (slow heart rate), faint rose-colored rash on the abdomen and chest, anorexia,

abdominal pain, myalgia (muscle pain), malaise, and diarrhea (children) or constipation (adults).

How long does it take for symptoms to develop?

Symptoms can develop between 3-60 days, but typically 7-14 days after exposure.

Is there a treatment or vaccine?

Three vaccines are licensed for use in the US and offer moderate protection against typhoid fever. Vaccination is not recommended for pregnant or HIV positive patients. Antibiotics specific to the type of infection can be effective treatments.

Can I transmit it to other people?

Yes, humans can spread the disease for as long as they shed the bacterium in their feces.

Can I transmit it to my pets?

S. typhi is highly adapted to humans. Human to animal transmission can only occur if human waste contaminates environmental sources or animal feed.

Can it survive on surfaces?

S. typhi can survive in soil for 231 days and in water for up to 152 days.

See Pathogen Safety Data Sheet for More Information

