

Epidemic Typhus Fever (louse-borne)

What is epidemic typhus fever?

Epidemic typhus fever is a disease caused by bacteria called *Rickettsia prowazekii*.

Who gets epidemic typhus fever?

Epidemic typhus fever occurs most commonly among people living in overcrowded unhygienic conditions, such as refugee camps or prisons. The disease also occurs in people living in the cool mountainous regions of Asia, Africa, and Central and South America. In the eastern U.S., occasional cases of epidemic typhus fever have been reported among people exposed to flying squirrels and/or their nests.

How is epidemic typhus fever spread?

Disease is spread by human body lice infected with the bacteria that cause epidemic typhus fever. The disease is most common during the winter, when conditions favor person-to-person spread of body lice. Human body lice become infected when they feed on the blood of a person with epidemic typhus fever. Infected lice then pass infectious feces when they feed. People become infected when infected lice feces or crushed infected body lice are rubbed into small cuts on the skin, such as those caused by scratching the bite site. It is the feces, not the bite of the louse that spreads illness to humans. The disease may also be spread when a person breathes in infected dried lice feces in dust. The way that the disease is spread from flying squirrels to humans is not well understood.

What are the symptoms of epidemic typhus fever?

Common symptoms include high fever, headache, chills, tiredness and muscle aches. About half of people who are infected develop a flat red rash that begins on the back, chest and stomach and then spreads to the rest of the body except for the face, palms and soles. Other symptoms may include vomiting, eye sensitivity to light, and confusion. In severe cases, complications of illness may include kidney failure and brain inflammation (encephalitis).

How soon after exposure do symptoms appear?

Symptoms may appear anywhere from 7 to 14 days after exposure, but usually appear around 12 days after exposure.

How is epidemic typhus fever diagnosed?

The diagnosis of epidemic typhus fever is based on signs and symptoms of illness, as well as laboratory tests of skin or blood.

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What is the treatment for epidemic typhus fever?

Epidemic typhus fever is treated with antibiotics. Healthcare providers choose the antibiotic based on the patient's symptoms and the results of laboratory tests. Insecticides may also be used to kill the lice.

How can epidemic typhus fever be prevented?

Prevention involves good hygiene, clean living conditions, and avoiding contact with lice-infested clothing. There is currently no commercially available vaccine for epidemic typhus fever.

Could epidemic typhus fever be used for bioterrorism?

Yes. The bacteria that cause epidemic typhus fever are considered possible bioterrorism agents because the organism can remain alive in lice feces for weeks and can be made into aerosols that, if breathed in, could cause disease.

How can I get more information about epidemic typhus fever?

- 1) If you have concerns about disease, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/LHD/index.htm>.
- 3) Visit the Centers for Disease Control and Prevention website at <http://wwwnc.cdc.gov/travel/yellowbook/2012/chapter-3-infectious-diseases-related-to-travel/rickettsial-spotted-and-typhus-fevers-and-related-infections-anaplasmosis-and-ehrlichiosis.htm>