

## Endemic Typhus Fever (flea-borne)

### What is endemic typhus fever?

Endemic typhus fever is a disease caused by bacteria called *Rickettsia typhi* or *Rickettsia felis*. The disease is also known as murine typhus.

### Who gets endemic typhus fever?

Endemic typhus fever occurs worldwide, most commonly in areas where rats and people live in close contact. Disease also occurs among people who live near or have contact with other small mammals (such as opossums). The few cases reported in the U.S. are usually among people living in Texas, southern California, and Hawaii.

### How is endemic typhus fever spread?

Endemic typhus fever is not spread from person-to-person. Disease is spread by rat fleas infected with the bacteria that cause endemic typhus fever. Rat fleas become infected when they feed on the blood of a rat with endemic typhus fever. While biting a person, infected rat fleas pass infected feces, which can infect the site of the bite or other small cuts on the skin of the person being bitten. Disease may also be spread in the same way by cat fleas infected with endemic typhus fever caused by *Rickettsia felis*. Cat fleas probably become infected when they feed on the blood of opossums with endemic typhus fever. It is possible that endemic typhus fever may spread by breathing in dried infected rat flea or cat flea feces.

### What are the symptoms of endemic typhus fever?

Symptoms are similar to those of epidemic typhus fever, but are less severe. Common symptoms of endemic typhus fever include fever, headache, tiredness, joint pain and muscle aches. About half of people who are infected develop a flat red rash that lasts a short period of time. Nausea and vomiting may also occur.

### How soon after exposure do symptoms appear?

Symptoms may appear anywhere from 6 to 14 days after exposure, but usually appear around 12 days after exposure.

### How is endemic typhus fever diagnosed?

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

## Endemic Typhus Fever

January 2013 – page 2

### What is the treatment for endemic typhus fever?

Endemic typhus fever is treated with antibiotics. Healthcare providers choose the antibiotic based on the patient's symptoms and the results of laboratory tests.

### How can endemic typhus fever be prevented?

The disease can be prevented by eliminating exposure to rats through good hygiene and clean living conditions. There is currently no commercially available vaccine for endemic typhus fever.

### Could endemic typhus fever be used for bioterrorism?

No. *Rickettsia prowazekii*, the bacteria that cause a different form of typhus (epidemic typhus fever), is considered an agent that could be used for bioterrorism.

### How can I get more information about endemic 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>