

# **SYLVATIC TYPHUS FACT SHEET**

## **Overview**

Sylvatic typhus (ST) is an infectious disease caused by the bacterium *Rickettsia prowazekii*. In the eastern United States, the disease is associated with close contact with flying squirrels or their nests. In areas of the world experiencing war, famine or other disasters, the same bacterium causes louseborne epidemic typhus, a condition that is more severe than ST.

## **Signs and Symptoms**

Symptoms of ST include:

- Fever;
- Chills;
- Headache;
- Muscle aches;
- Rash;
- Confusion; and
- Sensitivity of the eyes to light.

The disease usually occurs within one or two weeks of exposure. Mild infections may occur. No ST deaths have been reported in the United States since it was originally recognized in 1976, although the illness can be severe when treatment is delayed.

## **Causes and Transmission**

ST is caused by the bacteria *Rickettsia prowazekii*. In the United States, ST is associated with contact with flying squirrels, but the exact way it spreads from the flying squirrel is not known. It is thought that fleas or lice on the flying squirrel either directly bite humans or that contaminated droppings from these insects transmit the disease. ST is not known to spread from person-to-person.

## **Risk Factors**

In the eastern United States, ST can affect anyone who has contact with flying squirrels or who has flying squirrels in their environment. The risk for infection appears to be highest among persons with prolonged exposure to settings with flying squirrels.

## **Tests and Diagnosis**

ST is diagnosed by a blood test. By the second week of illness, the body's immune response to infection can usually be detected through antibody tests. Blood must be drawn early in the course of illness and again later in order to compare changing antibody levels.

## **Treatments**

Since it can take weeks for confirmatory lab results, treatment should be started as soon as ST is suspected. ST can be treated with antibiotics, preferably doxycycline, along with other medications to control the symptoms. Most cases respond quickly to appropriate antibiotics, but cases may resolve with no treatment. 2

## **Prevention**

Flying squirrels should be treated with respect and observed only from afar. No one should feed or encourage human and flying squirrel interactions. Cabins and residential areas should be secured against flying squirrels and other wildlife. Entryways can be screened with metal flashing or hardware cloth. Cabins and homes with flying squirrel nests or flea infestation should be properly treated for fleas and lice by pest control professionals and exterminators using appropriate personal protection.

## **Disease Patterns**

ST disease in the United States is very rare. The Centers for Disease Control and Prevention (CDC) documented only 41 cases from 1976 to 2002. Between late 2004 and early 2006, four counselors at a wilderness camp in Pennsylvania had ST; all four reported exposure to flying squirrels (see links to publication and podcast below).

## **Additional Information**

Centers for Disease Control and Prevention:

<http://wwwnc.cdc.gov/travel/yellowbook/2016/infectious-diseases-related-to-travel/rickettsial-spotted-typhus-fevers-related-infections-anaplasmosis-ehrlichiosis>

Cluster of Sylvatic Epidemic Typhus Cases Associated with Flying Squirrels, 2004-2006: [http://wwwnc.cdc.gov/eid/article/15/7/08-1305\\_article](http://wwwnc.cdc.gov/eid/article/15/7/08-1305_article)

Investigation of Sylvatic Typhus at a Wilderness Camp (podcast):

<http://www2c.cdc.gov/podcasts/player.asp?f=13123>

*This fact sheet provides general information. Please contact your physician for specific clinical information.*

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