What is tick-borne Relapsing Fever (TBRF)?

Tick-borne relapsing fever (TBRF) is a rare infection transmitted by certain types of ticks. The main symptoms of TBRF are fever, chills, headache, muscle or joint aches, and nausea.

Ornithodoros hermsi tick, before and after feeding. Image: CDC

How do you get TBRF?

The bacteria that cause TBRF are transmitted by certain types of ticks, called “soft” ticks. These types of ticks live in the nests of squirrels, chipmunks, and other small animals. People become exposed when they sleep in places where rodents have built nests. These nests are usually located inside the walls, attics or crawl spaces, or in woodpiles outside of the home. Soft ticks emerge at night and feed briefly, like bed bugs. Because bites are quick and painless, most people are unaware they have been bitten. Most people are infected in the summer and fall months while sleeping in rustic housing, such as cabins. However, cases do occur year-round, and sometimes people are infected in their primary homes, not just rustic cabins.

TBRF cannot be spread from person-to-person, or from animals to people.
What are the symptoms of TBRF?

Most people who are infected get sick about 7 days (range, 2 to 18 days) after they are bitten by the tick. Symptoms may include a sudden fever, chills, headaches, muscle or joint aches, and nausea. A rash may also occur. People who get TBRF usually have a few days of fever, followed by several days without fever, then again a few more days of fever.

This cycle may continue for several weeks if the person is not treated. Anyone who develops these symptoms should see their healthcare provider. Untreated TBRF can cause serious complications, especially if infection occurs during pregnancy.

What should I do if I think I may have TBRF?

Call or visit your health care provider. Explain your symptoms and your concerns. Be sure to tell your health care provider if you have traveled recently.

How is TBRF diagnosed and treated?

TBRF is usually diagnosed by a blood test. TBRF is easily treated with one to two weeks of antibiotics, and most people start to feel better a few days after starting treatment.

What can I do to prevent TBRF?

- Check sleeping areas for signs of rodents: holes in the floor or walls, shredded material from mattresses, and rodent droppings on counters or in cupboards.
- Use an EPA-registered insect repellent to prevent tick bites.
- Rodent-proof cabins, homes, and other buildings in areas where the disease is known to occur.
- If you are renting a cabin and notice a rodent infestation, contact the owner to alert them.
- If you own a cabin, consult a licensed pest control professional who can safely:
  - Identify and remove any rodent nests from walls, attics, crawl spaces, and floors. (Other diseases can be transmitted by rodent droppings—leave this job to a professional!)
  - Treat cracks and crevices in the walls with pesticide.
  - Establish a pest control plan to keep rodents out.

For persons with disabilities, this document is available in other formats. Please call 800-525-0127 (TTY 711) or email civil.rights@doh.wa.gov

TBRF in Washington State

A small number of cases of TBRF (1-12) are reported to the Washington State Department of Health each year. Most cases of TBRF occur in eastern Washington during the summer, but cases can occur year-round in areas where ticks are present.

Human Relapsing Fever Cases by county of exposure, 2008-2017

Contact

Washington State Department of Health
(206) 418-5500
www.doh.wa.gov/YouandYourFamily/IllnessandDisease/TickborneRelapsingFever
DOH Pub 420-265