

Facts About Tick-Borne Relapsing Fever In California

What is tick-borne relapsing fever (TBRF)?

TBRF is an illness caused by bacteria called *Borrelia hermsii* that are carried by soft ticks. About 1-8 cases of TBRF are reported in California each year.

How do people get TBRF?

People get TBRF when they are bitten by an infected soft tick. Most people are infected while visiting rural mountain areas during the summer months. TBRF is not transmitted from person to person.

Soft ticks prefer to feed on rodents, such as squirrels, chipmunks, and mice. If those rodents are scarce, soft ticks may seek out other mammals upon which to feed, including humans.

The bite of a soft tick is painless and they attach to feed for only a few minutes. Soft ticks often feed at night; so many people are bitten while asleep and never realize it.

How would I know if I have TBRF?

Persons with TBRF develop a sudden high fever (104-105 °F), chills, headache, and muscle ache about a week after being bitten by an infected tick. They may also have nausea, vomiting, abdominal pain, and a rash. These symptoms last 3-5 days and then quickly disappear.

A few days later, the fever and other symptoms occur again (“relapse”). This cycle may continue for several weeks if not treated. If you develop these symptoms you should see your doctor right away.

How is TBRF diagnosed and treated?

TBRF can be diagnosed through a simple blood test during the time when you have the high fever. Most people with TBRF feel back to normal within 1-3 days of starting antibiotics. People rarely develop long term problems or die from TBRF.

Where are soft ticks found in California?

Soft ticks are found mainly in forested foothill and mountain elevations between 3000 and 9000 feet. The ticks live in dark, cool places such as rodent nests, shaded wood piles outside buildings, and between walls or beneath floorboards inside buildings. You are unlikely to encounter soft ticks outdoors in natural vegetation.

How do I protect myself from TBRF?

- Keep rodents out of dwellings in areas where TBRF may occur.
- Remove rodent nesting materials such as newspapers, wood piles, and other accumulated debris from in and around home. Store all food in well-sealed containers.

- If you are going to stay in a mountain cabin, condominium, or other dwelling:
 - Inspect the inside and outside of the building for evidence of rodents (holes or gnaw marks in the wall, droppings, nests).
 - Avoid sleeping on the floor or on a bed that touches the wall.
 - Change and wash all bedding before use.