

# MONOGRAM

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JUNE 2022



## Tick-Borne Relapsing Fever

### What is Tick-Borne Relapsing Fever?

Tick-Borne Relapsing Fever (TBRF) is a rare infection linked to sleeping in rustic cabins, particularly cabins in mountainous areas of the western United States.

### What are the signs and symptoms of TBRF?

TBRF symptoms occur about a week after being bitten by an infected tick. The main symptoms of TBRF are high fever (e.g., 103° F), headache, muscle and joint aches. Symptoms can reoccur, producing a telltale pattern of fever lasting roughly 3 days, followed by 7 days without fever, followed by another 3 days of fever. Without antibiotic treatment, this process can repeat several times.

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### How is TBRF Spread?

TBRF is spread by multiple tick species, each of which has a preferred habitat and set of hosts. *Ornithodoros hermsi*, the tick responsible for most cases in the United States, prefers coniferous forests at altitudes of 1500 to 8000 feet where it feeds on tree squirrels and chipmunks. The two other U.S. tick species that transmit TBRF, *O. parkeri* and *O. turicata*, are generally found at lower altitudes in the Southwest, where they inhabit caves and the burrows of ground squirrels, prairie dogs, and burrowing owls.

Cabins in forested areas are attractive nesting sites for potentially infected rodents, particularly when food is made available by cabin users. Humans are incidental hosts when bitten by an infected tick. Most TBRF cases occur in the summer months when more people are vacationing and sleeping in rodent-infested cabins. Nevertheless, TBRF can also occur in the winter months. Fires started to warm a cabin are sufficient to activate ticks resting in the walls and woodwork. The bite of the soft tick is painless, and the tick is only attached to the skin for a few minutes. Most people are bitten while they sleep and never realize it.

### How Can I Prevent TBRF?

- Avoid sleeping in rodent-infested buildings, whenever possible. Although rodent nests may not be visible, other evidence of rodent activity (e.g., droppings) are a sign that a building may be infested.
- Prevent tick bites. Use insect repellent containing DEET (on skin or clothing) or permethrin (applied to clothing or equipment).
- If you are renting a cabin and notice a rodent infestation, contact the owner to alert them. Ask to be relocated.
- 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.

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Where can I find more  
information about TBRF?

**The Centers for Disease Control and Prevention:** [cdc.gov/relapsing-fever/](https://cdc.gov/relapsing-fever/)

**The California Department of Public Health:**  
[cdph.ca.gov/Programs/CID/DCDC/Pages/TBRF.aspx](https://cdph.ca.gov/Programs/CID/DCDC/Pages/TBRF.aspx)

**Mono County Environmental Health:** (760) 924-1830.

