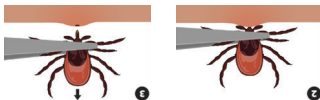


Infected nymphs (circled) infect most humans



Images provided by CDC—scale of tick images vary



- Use fine-tipped tweezers; grasp tick as close to the skin's surface as possible.
- Pull upward with steady, even pressure. - don't squeeze, twist or jerk the tick.
- Clean the bite area and your hands with rubbing alcohol or soap and water.
- Dispose of a live tick by putting it in alcohol, a sealed bag/container, or wrap tightly in tape.

How to remove an attached tick:



State of Illinois  
Illinois Department of Public Health

## Spotted Fever Group Rickettsioses

### Rocky Mountain Spotted Fever (RMSF) and *Rickettsia Parkeri*

#### Symptoms:

- **Rocky Mountain Spotted Fever**

*Early (1-4 days)* - high fever, severe headache, rash initially appearing as pinpoint dots, swelling around eyes and hands, muscle aches, upset stomach with nausea and vomiting.

*Late (5 days or longer)* - brain swelling, altered thought processes, difficulty breathing, coma, risk of death if not treated prior to 5th day.

- ***Rickettsia Parkeri*** — fever, headache, rash, and dark scab called an eschar at the site of tick attachment.



**Transmission:** RMSF is spread through the bite of infected American dog ticks, and *R. parkeri* is spread through the bite of infected Gulf Coast ticks. Immature ticks called nymphs (the size of a poppy seed), infect most humans because they frequently go undetected.

**Diagnosis:** clinical suspicion and a blood test or testing of tissue from a biopsy.

**Treatment:** RMSF can be severe/fatal if not treated within 5 days. Treatment for RMSF and *R. Parkeri* infections is antibiotics such as Doxycycline. About 10% of RMSF cases don't develop a rash so treatment should not be withheld in absence of rash.

**Prevention:** Avoid contact with ticks – walk in the center of trails and wear clothing and gear treated with 0.5% permethrin. Inspect yourself and pets for ticks after being in brushy or wooded areas or spent time gardening or hunting. Use insect repellent registered by EPA containing DEET, picaridin, IR3535, Oil of Lemon Eucalyptus (OLE), para-menthane-diol (PMD), or 2-undecanone.

## Rocky Mountain Spotted Fever Symptoms Timeline

Doxycycline is most effective at preventing severe illness and death if administered within the first five days of symptoms.

**Doxycycline is most effective at preventing severe illness and death if administered within the first five days of symptoms.**

**Days 1-2:**

high fever, headache, muscle aches.



**Days 2-4:**

faint rash on hands and feet.



**Days 5-7:**

rash worsens and spreads.



**Days 7-9:**

rash turns purple. If untreated, risk of death increases.



<https://www.cdc.gov/ticks/tickbornediseases/rmsf.html>

[https://www.cdc.gov/rmsf/pdf/clinical\\_timeline\\_rocky\\_mountain\\_spotted\\_fever\\_08\\_english\\_7-2-2018-3-p.pdf](https://www.cdc.gov/rmsf/pdf/clinical_timeline_rocky_mountain_spotted_fever_08_english_7-2-2018-3-p.pdf)

<https://www.cdc.gov/ticks/tickbornediseases/rickettsiosis.html>