



Rocky Mountain Spotted Fever

(spotted fever group rickettsioses)

What is Rocky Mountain spotted fever?

Rocky Mountain spotted fever (RMSF) is a disease caused by a bacteria called *Rickettsia rickettsii* transmitted to humans by the bite of an infected American dog tick (*Dermacentor variabilis*) and by several other tick species.

Who is at risk for Rocky Mountain spotted fever?

The majority of cases in the U.S. occur in the southeast and south central regions. In spite of its name, the disease is not common in the mountain states. Children and young adults frequently are most affected, but people of all ages can get RMSF. Disease incidence is directly related to exposure to tick-infested habitats.

What are the symptoms of Rocky Mountain spotted fever?

Symptoms of RMSF include a sudden onset of moderate to high fever (which can last for two or three weeks), severe headache, fatigue, deep muscle pain, chills and rash. The rash begins on the legs or arms, may include the soles of the feet or palms of the hands, and may rapidly spread to the trunk or rest of the body. Not every case of RMSF will have the rash.

How soon do symptoms appear?

Symptoms usually appear three to 14 days after the bite of an infected tick.

How is Rocky Mountain spotted fever spread?

Rocky Mountain spotted fever is spread by the bite of an infected tick (the American dog tick, the brown dog tick or the wood tick) or by contamination of the skin with the tick's body fluids or feces. Person-to-person and direct animal-to-human transmission of RMSF does not occur.

When and for how long is a person able to spread the disease?

This disease is not spread from person to person.

How is a person diagnosed?

Blood tests can be used to diagnose Rocky Mountain spotted fever. For more information about diagnosis, contact your health-care provider.

What is the treatment?

Certain antibiotics may be effective in treating the disease.

Does past infection make a person immune?

Yes. It is believed that one infection provides lasting immunity.

Should children or others be excluded from child care, school, work or other activities if they have Rocky Mountain spotted fever?

No. This disease is not spread from person to person. However, infants, toddlers and school-aged children should be excluded if the staff determines the child is unwilling or unable to participate in activities. They also should be excluded if the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

All others can attend work and other functions as long as they are well enough to do so.

What can be done to prevent the spread of Rocky Mountain spotted fever?

If you are in areas where ticks may be present, the following precautions can reduce the risk of acquiring RMSF:

- Wear a long-sleeved shirt, long pants and high socks with pant cuffs tucked into the socks. Light colored clothing will make ticks easier to find. Walk in the center of mowed trails to avoid brushing up against vegetation.
- Conduct thorough "tick checks" on yourself and your children after spending time outdoors. Prompt removal of ticks, even after they have attached, can reduce the chance of RMSF disease transmission.
- Insect repellents containing 0.5 percent permethrin or 20 percent to 30 percent DEET have been shown to be effective in repelling ticks. If such products are used, be sure to follow the manufacturer's directions on the label.

To remove an attached tick, grasp with tweezers or forceps as close as possible to attachment (skin) site, and pull upward and out with a firm and steady pressure. If tweezers are not available, use fingers shielded with tissue paper or rubber gloves. Do not handle with bare hands. Be careful not to squeeze, crush or puncture the body of the tick, because it may contain infectious fluids. After removing the tick, thoroughly disinfect the bite site and wash hands. See or call a health-care professional if there is a concern about incomplete tick removal. It is important that a tick be removed as soon as it is discovered.

Additional Information

For more information, call the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource:

1. American Academy of Pediatrics. [Children in Out-Of-Home Care]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 132-151.
2. American Academy of Pediatrics. [Rocky Mountain Spotted Fever]. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2015: 682-684.
3. Control of Communicable Disease Manual, 20th Edition-2015, Heymann, David, MD ed.
4. Centers for Disease Control and Prevention. (2014). Rocky Mountain Spotted Fever (RMSF). www.cdc.gov/rmsf/