

What is Rocky Mountain spotted fever?

Rocky Mountain spotted fever (RMSF) is the most severe and the most frequently reported tick-borne illness in the United States. This disease, affecting humans and dogs, is caused by the bacterial organism *Rickettsia rickettsii*.

In the last 50 years, approximately 250-1,200 cases of Rocky Mountain spotted fever have been reported annually in the USA. It is likely that many more cases go unreported. States with the highest incidences of RMSF cases (35%) were North Carolina and Oklahoma. Since the year 2000, Ohio has seen between 2 and 26 cases per year.

How do people get Rocky Mountain spotted fever?

The bacterium that causes RMSF is transmitted by the bite of an infected tick. The most common tick in Ohio, the American dog tick, is the primary carrier for this disease. Rocky Mountain wood ticks and the Brown dog tick have also been known to carry RMSF.

RMSF can not be contracted directly from dogs or other people.

Who is most at risk for getting Rocky Mountain spotted fever?

People who spend time in the outdoors in tick-infested environments especially woodlands and brushy areas, are at an increased risk of exposure. Dogs or other pets that frequent these types of areas may also bring infected ticks home.

How long after a tick bite before symptoms appear?

Symptoms usually appear within 5 to 10 days.

What are the symptoms of Rocky Mountain spotted fever?

Early stages of disease are nonspecific (fever, nausea, body aches, loss of appetite, vomiting, and severe headache). Later signs may include a rash, abdominal pain, joint pain and diarrhea. The rash usually starts on the arms and ankles and moves to the palms of the hands or soles of the feet. Three things that may suggest RMSF infection are fever, rash and history of a tick bite. RMSF can be a very severe illness and require hospitalization. The bacteria attack the cells lining blood vessels throughout the body and can involve the lungs, brain or kidneys.

How is Rocky Mountain spotted fever diagnosed?

A diagnosis of Rocky Mountain spotted fever is based on a combination of clinical signs and symptoms and specialized confirmatory laboratory tests. Other common laboratory findings suggestive of Rocky Mountain spotted fever include thrombocytopenia (decreased platelets), hyponatremia (low blood sodium), and elevated liver enzyme levels.

How is Rocky Mountain spotted fever treated?

RMSF is often treated with tetracycline class antibiotics, usually doxycycline.

Can a person get Rocky Mountain spotted fever more than once?

Previous infection is thought to provide long lasting immunity against re-infection. However, this should not deter persons from practicing good tick-preventive measures or visiting a physician if signs and symptoms consistent with RMSF occur, especially following a tick bite, as other diseases may also be transmitted by ticks.

What can be done to prevent Rocky Mountain spotted fever?

Avoid areas where ticks might be present: tall grass, high brush, weedy or wooded areas. When entering these areas take the following precautions to reduce the risk of acquiring tick-borne diseases:

- Wear light-colored, long pants, tuck pant cuffs into sock tops and spray pant legs and socks with insect repellent. Repellents containing 0.5% permethrin or 20-30% DEET are effective in repelling ticks. Follow application directions carefully.
- When possible, avoid walking in tall grass and weeds.
- Conduct visual "tick checks" on yourself and children every hour or two.
- Check pets for ticks before allowing them into the home.
- Carefully remove attached ticks as soon as possible.
- Keep yard and play areas well mowed to discourage ticks.

How should a tick be removed?

Since disease transmission occurs within hours of attachment, it is important to remove ticks as soon as possible after discovery.

To remove an attached tick, grasp it with tweezers as close as possible to the skin and pull with firm, steady pressure straight out. Do not twist or jerk the tick, as the mouthparts may break off. If tweezers are not available, protect fingers with rubber gloves or tissue paper.

- Do not handle ticks with bare hands.
- Do not squeeze, crush or puncture the body of the tick as it may contain infected fluids.
- After removing the tick, thoroughly disinfect the bite site and wash your hands. Place the tick in a small jar or vial with a moist piece of paper towel and sent to the Vector-borne Disease Program for identification.
- See or call your doctor if there is a concern about incomplete tick removal.

For more information, contact your local health department or the Zoonotic Disease Program at ODH by calling 614-752-1029.

For more information please visit these Web sites.

CDC RMSF http://www.cdc.gov/ticks/diseases/rocky_mountain_spotted_fever/

ODH tick borne diseases brochure

<http://www.odh.ohio.gov/ASSETS/OCC08CA0EE5147ADA8CCAE8E75B100BA/tickborneflier.PDF>