

Rocky Mountain Spotted Fever Fact Sheet

1. **What is Rocky Mountain Spotted fever (RMSF)?** - RMSF is a severe disease resulting from infection by *Rickettsia rickettsii*, a bacterium that is transmitted vertically from the female tick to her offspring.
2. **Where does RMSF infection occur in Pennsylvania?** - Rocky Mountain spotted fever is found throughout the continental United States with most cases being seen in the Atlantic states from Delaware to Florida.
3. **How is RMSF spread in Pennsylvania?** - The major tick vector in the Commonwealth is *Dermacentor variabilis* (American dog tick) which is found primarily in the eastern and mid-western United States and southern Canada. Transmission usually occurs via the tick's infected saliva during feeding. The feeding process stimulates *R. rickettsii* replication; therefore several hours of attachment are usually needed before infection occurs. The bacteria can also be spread by exposure to a crushed tick's tissues, fluids or feces, which enter the body through breaks in the skin. It is stable in blood or tick tissues and can remain viable and infectious for up to a year.
4. **What signs and symptoms should prompt someone to see their health care provider?** - The incubation period in humans is 2 to 14 days, with an average of seven days. In the early stages, RMSF fever can be difficult to diagnose. A classic triad of fever, pin-point rash and tick exposure is suggestive; however, the rash appears several days after the other symptoms, and the tick may not have been noticed. The early signs are nonspecific and may include high fever, chills, malaise, severe headache, a slight cough, deep muscle pain and hypotension. Swelling is also common. It may be either generalized or limited to the face or extremities. Hemorrhages are common, due to damage to the blood vessels; with visible hemorrhages being seen in up to 50% of patients. Although recovery is usually rapid with early treatment, untreated patients may die in 8 to 15 days and severe cases often require long hospitalization.
5. **What precautions should hikers, homeowners, hunters, park visitors, etc. take?**
 - a. Avoid possible tick habitats during the peak time of year, late March – mid-October.
 - b. Wear tick repellent that contains Permethrin, or DEET.
 - c. Wear long-sleeved shirts, long pants, and closed-toed shoes and tuck pant legs into top of socks or boots.
 - d. Wear light-colored clothes to make it easier to spot ticks.
 - e. Check for ticks frequently and remove them promptly.

- f. Bare hands should not be used to remove ticks, due to the risk of exposure to the tick's fluids or feces. If gloves are not available, the fingers should be shielded with a tissue or paper towel. The tick should not be squeezed, crushed or punctured. The Centers for Disease Control and Prevention (CDC) warns that tick removal techniques such as the use of hot matches or petroleum jelly may stimulate the tick to release additional saliva and could increase the risk of infection. Tick bites should be thoroughly disinfected after removal of the tick, and the hands should be washed with soap and water. The CDC further recommends freezing the tick in a plastic bag, for identification in case of illness.

For more information about RMSF: <http://www.cdc.gov/rmsf/>

This fact sheet provides general information. Please contact your physician and/or veterinarian for specific clinical information related to you or your animal.