What is Rocky Mountain spotted fever (RMSF) and what causes it?

Rocky Mountain spotted fever is a serious bacterial infection spread by ticks. Disease can occur in humans and dogs. As its name suggests, the disease was first discovered in the Rocky Mountain area of the U.S., however, today the majority of cases (about 700 per year) occur on the Atlantic and Pacific coasts and the south-central United States.

What animals get RMSF?

RMSF only affects dogs. The bacteria have been found in a number of small mammals, including mice, rats, rabbits, opossums, chipmunks, and squirrels.

How can my animal get RMSF?

The bacterial agent that causes RMSF is spread by the bite of an infected tick (vector). Small mammals, especially small rodents, can carry the bacteria in nature with no signs of illness. Ticks get the bacteria when they feed (bloodmeal) on infected wildlife. The ticks then spread the bacteria to dogs or humans when feeding again.

How does RMSF affect my animal?

Cases of RMSF have only been reported for dogs. Typically only mild signs of disease occur, these may include fever, swollen glands, coughing, diarrhea, vomiting, joint or muscle pain. Signs of severe disease may involve reddened eyes, vision problems (due to damage to the eye), bleeding from the nose or blood in the urine or stool. The nervous system (brain) may be involved and result in behavior changes, head tremors, difficulty standing or walking. In severe cases, damage to the heart, shock and death can occur.

Can I get RMSF?

Yes. People get RMSF from the bite of an infected tick (vector) or contact with tick feces or fluids during removal. Several hours of attachment of the tick is required for transfer of the bacteria. Direct transmission of RMSF from dogs has not been reported, but dogs can carry infected ticks in close contact with humans.

Early stages of disease are non-specific (fever, nausea, body aches, vomiting, headache). Later signs may include a skin 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.

Who should I contact, if I suspect RMSF?

In Animals – Contact your veterinarian.

In Humans – Contact your physician.

How can I protect my animal from RMSF?

Use tick prevention medications on your dog. Keep your pets out of wooded areas and away from wildlife. Check them often for ticks and remove any ticks found promptly. Wear gloves when removing ticks to protect yourself.

How can I protect myself from RMSF?

Avoid tick prone areas (leaf litter, wooded areas, high brush). If entering these areas, wear long sleeves, long pants, closed toed shoes. Wearing light colored clothing will make finding any ticks on you easier. Check yourself and others frequently for ticks, especially when leaving wooded areas. Remove ticks promptly; wear gloves when removing ticks. Always wash your hands afterwards.

For More Information

CFSPH Technical Fact Sheets. Rocky Mountain Spotted Fever at http://www.cfsph.iastate.edu/DiseaseInfo/

CDC website. Rocky Mountain Spotted Fever at http://www.cdc.gov/rmsf/