

Rocky Mountain Spotted Fever

Rocky Mountain Spotted Fever (RMSF) is a tick-borne disease that is caused by a bacterium, *Rickettsia rickettsii*. RMSF is the most common of several rickettsial infections, and has been found in every state except Vermont and Hawaii. Although RMSF has been found in 48 states as well as Central and South America it is still not a common disease. The concern about RMSF stems from the statistics showing that if left untreated the mortality rate from RMSF can be as high as 25%.

RMSF has been called “a wolf in sheep’s clothing” and “the great imitator” because the diversity of its symptoms allows it to be confused with other diseases. The distinguishing symptom is a rash that appears on the palms and soles of the feet; unfortunately, the rash appears several days after the onset of other symptoms and may not appear at all in up to 20% of the victims. Diagnosis is best achieved when three factors can be documented, a very high fever, the rash, and finally, the bite of a tick. If a person has a sudden headache, high fever, and has recently been bitten by a tick, they should consider seeking assistance from a physician, they also need to mention the tick bite to the doctor. Knowing about the tick will speed up diagnosis, and initiation of treatment. RMSF is effectively treated with antibiotics such as doxycycline and tetracycline. With treatment, the mortality rate drops to less than 5%. Waiting for 5-6 days for the rash to appear before beginning treatment is not recommended, neither is beginning a course of treatment simply because an individual has been bitten by a tick.

The Pacific Coast Tick, *Dermacentor occidentalis* and the American Dog Tick, *Dermacentor variabilis* are the two most common ticks in Orange County and both species are active all year. Both species are very competent vectors of RMSF. The seriousness of the disease combined with the abundance of suitable vectors are reasons that the public should be concerned.

The Orange County Vector Control District does not recommend eliminating any outdoor activities, The District’s advice is to wear a repellent, preferably a Permethrin based product. Long sleeves and long pants in a light color will make spotting ticks easier. Checking for ticks every couple of hours while outdoors followed by a thorough check when the activity is completed is strongly recommended. This species of tick usually spends a quite some time looking for a suitable site to attach. The tick must feed for several hours before the infectious organism is released from the salivary glands and causes an infection. Reasonable vigilance will be effective in reducing the likelihood of RMSF transmission. Like checking for, and eliminating mosquito breeding sites to avoid West Nile virus, the recommended steps to avoid RMSF are a good habits even in the absence of any disease.