

Rocky Mountain spotted fever (RMSF) is an infectious disease that belongs to a group of diseases known as the spotted fever group rickettsioses. It is caused by infection with the bacterium *Rickettsia rickettsii* (*R. rickettsii*), which is usually transmitted by a tick bite. When introduced into the body, the bacterium spreads by the bloodstream or lymphatic vessels and multiplies within and damages certain cells lining the inside of small blood (vascular) vessels (i.e., endothelial cells) as well as vascular smooth muscle cells. Such damage leads to inflammatory changes of affected blood vessels (vasculitis), leakage of fluid from the blood vessels, an abnormal accumulation of fluid in body tissues (edema), and additional abnormalities, resulting in the symptoms and findings associated with the disease.