

Viral Hemorrhagic Fever

Agent(s): Multiple, including *Arenaviruses* (Argentinian, Bolivian, Venezuelan, and Brazilian hemorrhagic fevers, and Lassa fever), *Filoviruses* (Ebola and Marburg hemorrhagic fevers), *Bunyaviruses* (Crimean-Congo hemorrhagic fever [CCHF] and Rift Valley fever [RVF]), and *Flaviviruses* (Omsk hemorrhagic fever [OHF] and dengue hemorrhagic fever [DHF]).

Mode of Transmission: Varies by agent. *Arenaviruses* are carried by rodents and are contracted by breathing dust contaminated with saliva, feces or urine of infected rodents, but may also be transmitted person-to-person by infected patients. *Filovirus* hemorrhagic fevers are contracted through direct contact with blood or fluids from infected animals or persons. *Bunyaviruses* are typically transmitted by the bites of arthropods but may also be contracted through contact with the blood and body fluids of infected livestock or people. Hemorrhagic fevers caused by *Flaviviruses* are typically transmitted by the bites of arthropods. Among the viral hemorrhagic fevers, only DHF has been found to occur naturally in North America.

Signs/Symptoms: Vary by type, including but not limited to, malaise, headache, fever, bleeding from nose and gums, rash, appearance of blood in the eyes, or vomiting. Case-fatality rates can range from 1% (Dengue) to 90% (Ebola).

Prevention: Depending on agent, exposure to hemorrhagic diseases can be reduced by rodent control around the home in endemic areas, by isolation of infected persons during their febrile period, by preventing contact with blood or body fluids of sick or dead animals, and by avoiding the bites of mosquito or tick vectors.

Other Important Information: Viral hemorrhagic fevers are classified as potential bioweapons because they can cause high mortality, public panic, or social disruption.

Since it became a reportable condition in 2003, no cases of viral hemorrhagic fever have been reported in Virginia.