



## MACOMB COUNTY HEALTH DEPARTMENT

# VIRAL HEMORRHAGIC FEVERS

## FREQUENTLY ASKED QUESTIONS (FAQ)

### What are viral hemorrhagic fevers?

- In general, viral hemorrhagic fever (VHF) describes severe problems affecting several organ systems in the body.
- Typically, the entire vascular system is damaged, and the body has problems regulating itself.
- Symptoms often include bleeding, but the bleeding itself is rarely life-threatening.
- VHFs are caused by four families of viruses.
  1. Arenaviruses including Lassa fever and Argentine, Bolivian, Brazilian and Venezuelan hemorrhagic fevers
  2. Filovirus including Ebola and Marburg
  3. Bunyavirus including Hantavirus and Rift Valley Fever
  4. Flavivirus including yellow fever and dengue fever

### Can viral hemorrhagic fevers be used as bioterrorism threats?

- Viral hemorrhagic fever viruses can be very infectious, and outbreaks can result in high death rates.
- Ebola and Marburg viruses are the most likely VHFs to be used as biological weapons.

### How are viral hemorrhagic fevers spread?

Viruses causing hemorrhagic fever typically are passed from mice, rats, fleas, ticks or mosquito to humans.

- People can become infected through contact with urine, fecal matter, saliva, or other body fluids of infected rodents.
- Fleas, ticks and mosquitoes transmit viruses when they bite a person or the person crushes a tick.
- People may become infected when they care for or slaughter infected animals.
- Hosts for some viruses, such as Ebola and Marburg, are not known.



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Prevent. Promote. Protect.

### How are viral hemorrhagic fevers spread (continued)?

- People usually become infected only in areas where the host lives.
- Lassa can be spread from person to person by direct contact with infected blood or body fluids or indirectly through contact with objects such as syringes or needles contaminated with infected body fluids.
- In rare cases, other viral and bacterial infections can cause VHF, such as scrub typhus.

### What are the symptoms?

- Signs and symptoms vary by the type virus family.
- Initial signs and symptoms often include sudden fever, tiredness, dizziness, muscle aches, weakness, headache and sore throat.
- Patients with severe cases of VHF often bleed under the skin, in internal organs, or from the mouth, eyes or ears.
- Very ill patients may also have a nervous system breakdown, delirium and seizures and may go into shock and a coma.
- Some types of VHF are associated with kidney failure.
- The death rate depends on the virus family, but can be as high as 90 percent with Ebola.

### How soon do symptoms appear?

Symptoms begin anywhere from 2 to 21 days after infection, depending on the specific virus.

### How are viral hemorrhagic fevers treated?

- There is no cure or in rare cases, no treatment.
- Supportive care includes maintaining a patient's fluids, watching oxygen levels and blood pressure and treating any infection.
- Ribavirin, an anti-viral drug, has been effective in treating some people with Lassa fever or hemorrhagic fever with renal syndrome.
- Convalescent-phase plasma has been effective in treating some patients with Argentine hemorrhagic fever.

### How can viral hemorrhagic fever be prevented?

- There is only vaccine for yellow fever and Argentine hemorrhagic fever.
- No other vaccines have been developed to prevent VHFs.

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### How can I protect myself?

- Avoid close physical contact with infected people and their body fluids. Infected people may be isolated and caretakers should wearing protective clothing.
- Prevent mice and rats from living at home and work.
- Safely clean up rodent nests and droppings.
- Use insect repellent, proper clothing, bed nets, window screens, and other insect barriers to avoid being bitten.
- Community-wide insect control.

### What if I have been exposed to VHF?

- If you have had casual contact with a VHF patient, take your temperature twice a day for up to three weeks after contact.
- If any symptoms appear, tell your doctor about your exposure to VHF.

### How can I get health advisories or alerts?

- In the event of a public health threat or emergency, the Macomb County Health Department will make frequent public announcements.
- List to local radio and TV for more information. You may also visit <http://macombcountymi.gov/publichealth> or call 586-466-7923 for instructions.

### MORE VHF INFORMATION

VHF: Michigan Prepares (MDCH/OPHP)  
[http://michigan.gov/michiganprepares/0,1607,7-232-42666\\_42882\\_42953-150630--00.html](http://michigan.gov/michiganprepares/0,1607,7-232-42666_42882_42953-150630--00.html)

VHF (CDC)  
<http://www.bt.cdc.gov/agent/vhf/>

VHF (WHO)  
[http://www.who.int/topics/haemorrhagic\\_fever\\_viral/en/](http://www.who.int/topics/haemorrhagic_fever_viral/en/)

Call the CDC at **1-800-CDC-INFO** or **1-888-232-6348 (TTY)**.

### CONTACT INFORMATION

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<http://macombcountymi.gov/publichealth>