**Viral Hemorrhagic Fevers (VHF)**

**What are viral hemorrhagic fevers?**
Viral hemorrhagic fevers are infectious diseases that interfere with the blood's ability to clot. They are caused by five different families of viruses. The viruses that cause viral hemorrhagic fevers live naturally in a variety of animal and insect hosts — most commonly mosquitoes, ticks, rodents or bats.

Each of these hosts typically lives in a specific geographic area, so each particular disease usually occurs only where that virus's host normally lives. Some viral hemorrhagic fevers also can be transmitted from person to person.

**How are viral hemorrhagic fevers spread?**
The way these infections are spread varies by specific virus. Some viral hemorrhagic fevers are spread by mosquito or tick bites. Others are transmitted by contact with infected blood or semen. A few varieties can be inhaled from infected rat feces or urine.

**What are the signs and symptoms of viral hemorrhagic fevers?**
Signs and symptoms of viral hemorrhagic fevers vary by disease. In general, initial symptoms may include:

- High fever
- Fatigue
- Dizziness
- Muscle, bone or joint aches
- Weakness.

Severe cases of some types of viral hemorrhagic fevers may cause bleeding, but people rarely die of blood loss. Bleeding may occur:

- Under the skin
- In internal organs
- From the mouth, eyes or ears.

Other signs and symptoms of severe infections can include:

- Shock
- Nervous system malfunctions
- Coma
- Delirium
- Kidney failure
- Liver failure.

**How long after infection do symptoms appear?**
It can take up to 21 days for symptoms to develop.

**Who is most at risk?**
Living in or traveling to an area (tropical areas) where a particular viral hemorrhagic fever is common will increase your risk of becoming infected with that particular virus.

Several other factors can increase your risk even more, including:

- Working with the sick
- Slaughtering infected animals
- Sharing needles to use intravenous drugs
- Having unprotected sex
- Working outdoors or in rat-infested buildings.
What types of health problems are caused by viral hemorrhagic fevers?

Viral hemorrhagic fevers can damage your:

- Brain
- Eyes
- Heart
- Kidneys
- Liver
- Lungs
- Spleen

In some cases, the damage is severe enough to cause death.

How are viral hemorrhagic fevers diagnosed?

Diagnosing specific viral hemorrhagic fevers in the first few days of illness can be difficult because the initial signs and symptoms — high fever, muscle aches, headaches and extreme fatigue — are common to many other diseases.

To help with diagnosis, your doctor is likely to ask about your medical and travel history and any exposure to rodents or mosquitoes. Be sure to describe international trips in detail, including the countries you visited and the dates, as well as any contact you may have had with possible sources of infection.

Blood tests are needed to confirm a diagnosis.

How are viral hemorrhagic fevers treated?

No current treatment can cure viral hemorrhagic fevers, and immunizations exist for only a few types.

How can viral hemorrhagic fevers be prevented?

- Get vaccinated against Yellow Fever if traveling to countries where it is present.
- Avoid mosquitoes and ticks by wearing insect repellent and protective clothing.
- Guard against rodents.

Where can I get more information?

- Your personal healthcare provider
- Utah Department of Health, 801-538-6191
- Centers for Disease Control & Prevention
- Mayo Clinic

Resources:
- Centers for Disease Control & Prevention
- Mayo Clinic