

What is Rift Valley Fever?

Rift Valley fever (RVF) is an acute, fever-causing viral disease that affects domestic animals (such as cattle, buffalo, sheep, goats and camels) and humans. RVF is most commonly associated with mosquito-borne epidemics during years of unusually heavy rainfall in the eastern and southern regions of Africa.

The disease is caused by the RVF virus, a member of the genus *Phlebovirus* in the family *Bunyaviridae*. The disease was first reported among livestock by veterinary officers in Kenya in the early 1900s.

Who is at risk for Rift Valley Fever?

Anyone who is exposed to infected mosquitoes can get RVF. However, more commonly, people are infected after exposure to blood, body fluids and tissues of infected animals.

What are the symptoms of Rift Valley Fever?

RVF virus can cause several different disease syndromes. However, those infected with RVF typically have either no symptoms or a mild illness associated with fever and liver abnormalities. Patients who become ill usually experience fever, generalized weakness, back pain, dizziness, and extreme weight loss at the onset of the illness. Typically, patients recover within two days to one week after onset of illness.

However, a small percent (8-10%) of people can develop more serious forms of the illness including the following:

- Hemorrhagic fever occurs in less than 1 percent of people and may lead to shock, jaundice, and bleeding from the gums, skin and nose. The fatality rate for those who develop hemorrhagic fever approaches 50%.
- Encephalitis occurs in less than 1 percent of people and results in inflammation of the brain, which can lead to headaches, coma or seizures.
- Ocular disease affects the eye. Lesions on the eyes may occur one to three weeks after onset of initial symptoms along with blurred and decreased vision. Typically, the lesions disappear after 10 to 12 weeks. 50% of the patients who experience ocular disease from RVF will have permanent vision loss.

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How soon do symptoms appear?

Symptoms usually occur two to six days after infection.

How is Rift Valley Fever spread?

Humans can get RVF as a result of bites from mosquitoes and possibly other bloodsucking insects that serve as vectors. Humans can also get the disease if they are exposed to either the blood or other body fluids of infected animals. This exposure can result from the slaughtering or handling of infected animals or by touching

contaminated meat during the preparation of food. Infection through aerosol transmission of RVF virus has occurred in the laboratory environment.

When and for how long is a person able to spread the disease?

This disease is not spread directly from person to person.

How is a person diagnosed?

There are a variety of lab tests that can identify the illness. It is typically done on a blood sample. Consult a health care professional if you feel that you have been exposed.

What is the treatment?

Because most human cases are mild and go away by themselves, a specific treatment for RVF has not been established. The rare, but serious, cases generally receive supportive care.

Does past infection make a person immune?

Yes, infections can provide immunity.

Should children or others be excluded from child care, school, work or other activities if they have Rift Valley Fever?

No, because this disease is not directly passed from person to person, it is not necessary for children or others to be excluded unless they are too ill to participate.

What can be done to prevent the spread of Rift Valley Fever disease?

When in an endemic country, precaution measures include:

- Avoid mosquito bites and the bites of other blood sucking insects.
- Use mosquito repellents and bed nets
- For persons working with animals, wear protective equipment to avoid exposure to blood, body fluids or tissues of potentially infected animals.

Additional Information:

Additional information is available by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resources:

1. Centers for Disease Control and Prevention, 2013: www.cdc.gov/vhf/rvf/index.html
2. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20th Edition*. Rift Valley Fever. American Public Health Association. 2015: 521-523.
3. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.