



EBOLA: Overview

Executive Summary

Ebola is an acute and serious infection that can be fatal if left untreated ([World Health Organization](#)). The virus is spread through direct person to person contact with an infected person or their body fluids (saliva, semen, blood). The virus was first identified in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. The Ebola virus is in the Filoviridae family and there are five identified Ebola virus species. Four of these species cause disease in humans and one causes disease in nonhuman primates, but not in humans. Outbreaks of this disease have appeared sporadically in Africa. From March 2014 to December 2015, West Africa experienced the largest outbreak of Ebola in history and multiple countries were affected.

The [World Health Organization](#) (WHO), [European Centre for Disease Prevention and Control](#) (ECDC) and [US Centers for Disease Control and Prevention](#) (CDC) provide frequent updates regarding Ebola virus infections. These sites are your best source of current information for travel guidance and recommendations.

Description

Ebola virus is transmitted through direct contact with infected blood or body fluids (urine, saliva, sweat, feces, vomit, breast milk or semen). The natural reservoir host of the virus has not yet been identified although fruit bats or primates are suspected. The virus is not spread through the air, by water, mosquitos or in general, by food. However, those handling bushmeat may be at risk of exposure. Healthcare providers caring for Ebola patients and family or friends who are in close contact with Ebola patients are at the highest risk of getting sick because they may come in contact with infected body fluids. Ebola virus has been found in the semen of some men who have recovered from Ebola. It is not known how long the virus remains in the semen of male Ebola survivors and is thought to be different for each man.

Your Risks

Healthcare providers caring for Ebola patients and family or friends in close contact with Ebola patients are at the highest risk of getting sick. Ebola is spread through direct contact with infected blood or body fluids and through direct contact with objects that have been contaminated with infected body fluids such as clothing, bedding, needles or medical equipment. Ebola virus has been found in semen from men who survived Ebola infection. Additionally, contact with infected wildlife, bats, or bushmeat may cause Ebola infection.



Precautions You Can Take

Avoid the risk of human-to-human transmission:

- Avoid contact with blood or fluids of persons diagnosed with or suspected of having Ebola;
- Practice careful hygiene
- Do not handle items that may have come in contact with an infected person's blood or body fluids (urine, feces, saliva, sweat, urine, vomit, breast milk, semen, and vaginal fluids).
- Avoid funeral or burial rituals that require handling the body of someone who has died from Ebola;
- Avoid facilities where Ebola patients are being treated;

Avoid the risk of wildlife-to-human transmission:

- Avoid contact with bats and nonhuman primates or blood, fluids, and raw meat prepared from these animals;

Avoid the possible sexual transmission:

- Avoid contact with semen from men who have had Ebola until you know Ebola is gone from his semen by two negative testings.

After returning from an Ebola area, monitor your health for 21 days and seek medical care immediately if you develop symptoms of Ebola.

If working with patients proven or suspected of having Ebola, personal protective equipment (hazmat suit style) should be imperative. This includes face shields, goggles, long sleeve gloves and water proof aprons or suits.

Vaccines and Preventative Drugs

There is no vaccine for Ebola at this time. There are ongoing vaccine trials that have proved highly protective in a major trial in Guinea but more conclusive evidence is needed at this time.

Symptoms and Diagnosis

Symptoms of Ebola may appear 2 to 21 days after exposure but the average is 8-10 days. They include:

- Fever
- Fatigue
- Severe headache
- Muscle pain



- Sore throat

The symptoms are followed by:

- Diarrhea
- Vomiting
- Rash
- Symptoms of impaired kidney and liver functions;
- In some cases, unexplained internal and external bleeding or bruising

Ebola virus is detected in blood only after onset of symptoms. It may take up to three days after symptoms start for the virus to reach detectable levels in the blood. There are blood tests that help in the diagnosis of this disease. The fatality rate is very high, approximately 50% according to the WHO.

Patients are infectious only after they have developed symptoms and individuals who have completely recovered from Ebola can no longer spread the virus. However, in the case of men, the virus may remain active in the semen after recovery for up to 3 months. Therefore people who have recovered from Ebola should abstain from sex for at least 3 months. According to the CDC, "If abstinence is not possible, condoms may help prevent the spread of the disease." Additionally, according to WHO, relapse due to Ebola is considered very rare but has been reported. This is felt to be due to the virus residing in body sites that are harder for the immune system to reach such as the inside of the eye, the brain and spinal cord, and testicles. The virus may also persist in the fetus, amniotic fluid, or placenta of women who became infected with Ebola while pregnant and the virus can persist in breast milk. There is no evidence that women who become pregnant after they have recovered from Ebola run the risk of persistent infection in the developing pregnancy.

Treatments and Complications

Ebola treatment is supportive. The patient would be given fluids, anti-fever medications, anti-diarrhea medications and general medical care. According to the WHO, "potential treatments including blood products, immune therapies and drug therapies are currently being evaluated" (May 2017).

When to Seek Medical Assistance

Travelers should seek medical attention immediately if they have been exposed to Ebola. Travelers who develop signs and symptoms after returning home are advised to consider consulting a doctor who focuses on international medicine or infectious diseases. A specialist may be able to recognize



and treat your illness more quickly than a doctor who is not trained in these areas. Patients should immediately tell their medical provider that they have been in an area where Ebola is active.