

## What is the Ebola Virus

Ebola, previously known as Ebola hemorrhagic fever, is a rare and deadly disease caused by infection with one of the Ebola virus strains. Ebola can cause disease in humans and nonhuman primates (monkeys, gorillas, and chimpanzees).

Ebola is caused by infection with a virus of the family *Filoviridae*, genus *Ebolavirus*. There are five identified Ebola virus species, four of which are known to cause disease in humans: Ebola virus (*Zaire ebolavirus*); Sudan virus (*Sudan ebolavirus*); Taï Forest virus (*Taï Forest ebolavirus*, formerly *Côte d'Ivoire ebolavirus*); and Bundibugyo virus (*Bundibugyo ebolavirus*). The fifth, Reston virus (*Reston ebolavirus*), has caused disease in nonhuman primates, but not in humans.

Ebola viruses are found in several African countries. Ebola was first discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa.

The natural reservoir host of Ebola virus remains unknown. However, on the basis of evidence and the nature of similar viruses, researchers believe that the virus is animal-borne and that bats are the most likely reservoir. Four of the five virus strains occur in an animal host native to Africa.

## How is Ebola Spread?

Ebola is spread through direct contact (through broken skin or mucous membranes in, for example, the eyes, nose, or mouth) with -

- blood or body fluids (including but not limited to urine, saliva, sweat, feces, vomit, breast milk, and semen) of a person who is sick with Ebola
- objects (like needles and syringes) that have been contaminated with the virus
- infected animals
- Ebola is not spread through the air or by water, or in general, by food. However, in Africa, Ebola may be spread as a result of handling bushmeat (wild animals hunted for food) and contact with infected bats. There is no evidence that mosquitoes or other

insects can transmit Ebola virus. Only mammals (for example, humans, bats, monkeys, and apes) have shown the ability to become infected with and spread Ebola virus.

## What is the Risk of Contracting Ebola

- Healthcare providers caring for Ebola patients and the family and friends in close contact with Ebola patients are at the highest risk of getting sick because they may come in contact with infected blood or body fluids of sick patients.
- You are also at high risk if you have visited countries where there is currently an outbreak or have been in contact with someone who has traveled to an outbreak region including Guinea, Nigeria, Liberia and Sierra Leone within the past 21 days.

## Signs and Symptoms of Ebola

- Fever (greater than 101.5°F)
- Severe headache
- Muscle pain
- Weakness
- Diarrhea
- Vomiting
- Abdominal (stomach) pain
- Unexplained hemorrhage (bleeding or bruising)

Symptoms may appear anywhere from 2 to 21 days after exposure to Ebola, but the average is 8 to 10 days.

Recovery from Ebola depends on good supportive clinical care and the patient's immune response. People who recover from Ebola infection develop antibodies that last for at least 10 years.

## Prevention

At this time, your biggest chance of coming in contact with Ebola is through travel to an area affected by an Ebola outbreak or through contact with a symptomatic individual who has recently been to an outbreak region (within the past 21 days). Precautionary measures that should be followed:

- Practice careful hygiene. For example, wash your hands with soap and water or an alcohol-based hand sanitizer and avoid contact with blood and body fluids.
- Do not handle items that may have come in contact with an infected person's blood or body fluids (such as clothes, bedding, needles, and medical equipment).
- Avoid funeral or burial rituals that require handling the body of someone who has died from Ebola.
- Avoid contact with bats and nonhuman primates or blood, fluids, and raw meat prepared from these animals.
- Avoid hospitals in West Africa where Ebola patients are being treated. The U.S. embassy or consulate is often able to provide advice on facilities.
- After you return, monitor your health for 21 days and seek medical care immediately if you develop symptoms of Ebola.

There is no FDA-approved vaccine available for Ebola.

## How is Heywood Healthcare Preparing?

**Our Ebola preparedness at Heywood Healthcare - including Athol and Heywood Hospitals includes the following measures.**

- In addition to monitoring the CDC and Massachusetts Dept of Public Health (MDPH) Alerts, representatives from across Heywood Healthcare, including both Athol Hospital and Heywood Hospitals, participate in a state-wide preparedness training.
- We have preparedness plans and protocols in place in the event an Ebola infected
- The training includes detailed CDC check lists for hospitals and EMS.

- We are working in conjunction with EMS to ensure comprehensive preparedness.
- We have reviewed the recommendations of the CDC and the MDPH and are poised and ready to implement these procedures.
- In addition, we have policies and protocols specific to the Ebola Virus, which give detailed information on how to care for patients using the appropriate precautions.
- Drills and competency training on putting on and removing personal protective equipment and hand washing.
- Posting signs at the entrances into the hospital with masks, waterless soap and information that if you have a fever and have traveled to a high risk area in Africa or have been in the company of someone who has to please notify a staff member immediately.
- We are on heightened alert for patients with flu-like symptoms who have recently (within the last 21 days) been to effected nations in West Africa, including Guinea, Liberia, Nigeria, Senegal and Sierra Leone.
  - If such a patient has symptoms and presents at our hospitals, we will:
  - Greet the patient and transfer to a private room using appropriate precautions and personal protective equipment.
  - Notify the Massachusetts DPH and CDC if a case is suspected
- If you would like more information on CDC guidelines for clinicians, etc., you may visit, <http://www.cdc.gov/vhf/ebola/index.html>

**References:** Centers for Disease Control and Prevention