



Ebola Hemorrhagic Fever FAQs

The below document was provided by the IAFF and printed by the UFA Health & Safety Office. The original document can be found at <http://client.prod.iaff.org/#contentid=3947>

What is Ebola?

Ebola is a viral disease that affects multiple organs in the body by damaging the vascular (blood vessel) system. The bleeding or hemorrhaging caused by the virus can cause mild to deadly damage to the organ systems. It is presumed that Ebola is animal borne (zoonotic). Although it is unknown what the natural reservoir of the virus is, some researchers believe that it is most likely bats.

How can you get it?

There are several ways that the virus can be spread from humans to humans. The Ebola virus can be transmitted to humans through direct contact with blood or body fluids that include vomit, saliva, feces, and semen. Infected humans can spread the virus to each other through contact with contaminated objects or blood. There is a risk of getting the Ebola virus through close contact. Close contact is considered to include being in the same room or area as the patient while not wearing any personal protective equipment (see below for more information). Brief interactions such as walking by a patient are not considered a close contact. Ebola virus does not spread through the air or water.

Once someone recovers from Ebola, he/she can no longer spread the virus through general social contact. However, these individuals are asked to abstain from sex or use condoms for 3 months as Ebola virus has been found in semen for up to three months.

While Ebola has typically been restricted to the geographic regions where the virus has been found, because of global travel, cases have been reported outside of the host region including the US. These cases are probably the greatest form of the occupational threat to fire fighters.

For an up-to-date list of where the Ebola Virus can be found, [click here](http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.htm) (<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.htm>).

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

- 1. GOWN**
 - Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
 - Fasten in back of neck and waist
- 2. MASK OR RESPIRATOR**
 - Secure ties or elastic bands at middle of head and neck
 - Fit flexible band to nose bridge
 - Fit snug to face and below chin
 - Fit-check respirator
- 3. GOGGLES OR FACE SHIELD**
 - Place over face and eyes and adjust to fit
- 4. GLOVES**
 - Extend to cover wrist of isolation gown

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

What are the symptoms?

The time to develop symptoms on average is 8 to 10 days, but can range from 2 to 21 days after exposure to the Ebola virus. A person who is infected with Ebola virus is not contagious until symptoms appear. Symptoms include:

- Fever greater than 101.5 F
- Headache
- Muscle pain (myalgia)
- Vomiting
- Diarrhea
- Stomach pain
- Unexplained bleeding

How do you treat it?

Currently, there are no specific treatments that are effective against Ebola. Treatment is supportive care including providing IV fluids and balancing the patient's electrolytes.

How do you prevent it?

No vaccine currently exists to prevent Ebola. First responders should be prepared to use appropriate infection control measures to prevent contact with blood or bodily fluids of a suspected case of Ebola by taking the following steps:

Use Personal Protective Equipment (PPE)

According to the CDC, use of standard, contact and droplet precaution is recommended. This includes fluid resistant and or impermeable long-sleeved gowns, single or double gloves, eye protections, leg coverings, and disposable shoe covers. IAFF recommends P100 respirators for all patients with respiratory symptoms such as cough. In addition, respirators should be used during pre-hospital resuscitation procedures such as suctioning, intubation, and CPR.

Assess the Patient

First responder personnel should make sure the scene is safe before entering. First responders should put on appropriate PPE prior to entering the scene. The patient should be kept separate from other individuals as much as possible. Given that illnesses may cause delirium, approach the patient carefully. The patient should be assessed for symptoms (fever of 101.5 F, severe headache, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained bleeding). If the patient has the above symptoms, then the patient should be asked about risk factors in the past three weeks, including: 1) travel to or residence in an area where Ebola outbreak is occurring ([click here - http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.html](http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.html) - for a list); 2) contact with blood or bodily fluids of a patient with known or suspected Ebola or 3) direct handling of bats or nonhuman primates from disease-endemic areas. First responders should continue to wear appropriate PPE until you are no longer in contact with the patient

Transfer Patient to a Healthcare Facility

First responders should inform the healthcare facility about the suspected Ebola patient prior to arrival to allow the hospital to take necessary precautions. Any US hospital that can isolate a patient in his/her own room with a bathroom and that follow CDC's infection control [recommendations](#)

(<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>) can manage a patient with Ebola safely. During this time, limit the use of needles and unnecessary procedures.

Remove PPE

PPE should be removed after patient contact without contaminating one's clothing, eye, or mucous membrane with infected materials. Wash your hands immediately after removing your PPE. For further information to see how to put on and remove PPE correctly, read CDC's [poster](http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf) (<http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf>).

What if I come into contact with bodily fluids with a suspected Ebola patient?

You should immediately stop working and wash the affected skin surface with soap and water. If a mucous membrane (such as the eye) is affected, the area should be rinsed with a large amount of water. You should notify your employer and/or occupational health supervisor immediately. You will need to receive medical care as well as monitoring for twice-daily fever for 21 days after the last known exposure.

If you have come in direct skin contact with blood or bodily fluids with a suspected Ebola patient without wearing your PPE, had a mucous membrane exposure or percutaneous such as a needle injury, or handled bodily fluids from an infected patient without PPE or taking precautions, the IAFF recommends quarantine of individuals until 21 days after last known exposure at this time.

If you develop any Ebola symptoms, you need to seek medical attention immediately. Before visiting the healthcare provider, you should call the clinic or emergency room in advance about the possible exposure to Ebola. You should limit contact with other people and avoid travel.

How do I clean Transport Vehicles after transporting a patient with Suspected or Confirmed Ebola?

Anyone performing cleaning should wear recommended PPE as described above. Avoid using compressed air or pressurized water for cleaning as this could potentially create airborne droplets that contain the Ebola virus. Disinfect the Ebola virus using an EPA-registered hospital disinfectant with a label claim for one of the non-enveloped viruses (e.g., norovirus, rotavirus, adenovirus, poliovirus). Make sure to clean and disinfect all patient-care surfaces such as stretchers, nearby flooring, medical equipment, and railings. Any reusable equipment should be cleaned and disinfected according to manufacturer's instructions. Avoid contamination of reusable porous surfaces that are not single use. Any linen or non-fluid permeable pillows should be discarded as regulated medical waste.

For further information, visit CDC's recommendations [here](http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html) (<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>).

Other Resources

- [Ebola Web Site](http://infodisease.iaff.org/Diseases/viralHemorrhagicFever.aspx) (<http://infodisease.iaff.org/Diseases/viralHemorrhagicFever.aspx>)
- [Occupational Safety and Health Administration](https://www.osha.gov/SLTC/ebola/control_prevention.html) (https://www.osha.gov/SLTC/ebola/control_prevention.html) (OSHA)

- [Centers for Disease Control](http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html) (<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>) (CDC)
- [Center for Infectious Disease Research and Policy](http://www.cidrap.umn.edu/infectious-disease-topics/vhf) (<http://www.cidrap.umn.edu/infectious-disease-topics/vhf>) (CIDRAP)

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