



Ebola Virus Disease

Ebola Virus Disease (EVD) is a severe, often fatal illness that affects humans and other primates such as gorillas, chimpanzees, and monkeys. EVD is transmitted by wild animal-to-human and human-to-human infection. While the origin is unknown, fruit bats are believed to be the most likely host. EVD has a 25% to 90% fatality rate, averaging 50%, and recovery is dependent upon good clinical care with rehydration and an individual's immune response. Historically sporadic, the most recent outbreak in 2014 is the largest and most complex Ebola outbreak since discovery of the virus in 1976. On August 8, 2014 the World Health Organization (WHO) Director-General declared this outbreak a Public Health Emergency of International Concern.

The direct threat to Marine Corps personnel and their families is stated to be low, but awareness is key to prevention. This information is provided to share knowledge about EVD based on understanding of the virus as of October 2014. The situation is evolving as discoveries and new information emerge. Remain informed by monitoring information posted on the Navy & Marine Corps Public Health Center website.

Ebola At A Glance

- Ebola Virus Disease (EVD) is a severe, often fatal illness that affects humans and other primates.
- EVD has a 25% to 90% fatality rate (averaging 50%) with recovery dependent on good clinical care with rehydration and an individual's immune response.
- In the 2014 outbreak, human-to-human contact has been the primary method of EVD transmission in the following ways:
 - » Contact with a sick person's blood or body fluids (urine, saliva, feces, vomit, and sweat)
 - » Contact with objects (such as needles, linens) that have been contaminated with infectious body fluids
 - » Eating raw/uncooked wild animal meat, especially monkey meat
- EVD is NOT spread through the air.
- Contagion begins when symptoms are present.
- Currently there is no vaccine or proven treatment available for EVD. Awareness is the key to prevention.
- The direct threat to Marine Corps personnel and their families is low.
- For personnel supporting United States Africa Command efforts, training, strict medical protocols, personal protective measures, and carefully planned reintegration measures are being implemented.
- MARADMIN 465/14 and MARADMIN 569/14: Ebola Virus Disease Force Health Protection provide guidance for Marine Corps personnel deploying to, currently operating in, or redeploying from the U.S. Africa Command (AFRICOM) area of responsibility and directs USMC Commanders to take specific actions and implement force health protection measures to mitigate the Ebola threat to personnel.

Transmission

In the 2014 outbreak, human-to-human contact has been the primary method of transmission. The following are ways in which the virus can spread:

- Direct contact through broken skin or mucous membranes with the blood, or other bodily fluids or secretions (stool, urine, saliva, semen) of infected people
- Indirect contact through broken skin or mucous membranes of a healthy person with environments that have become contaminated with an Ebola patient's infectious fluids such as soiled clothing, bed linen, or used needles
- The handling and eating of "bush-meat" (raw wild animal meat), especially monkey meat

Unlike the influenza virus, EVD is NOT spread through the air.

Set your own course through any hazard: stay informed, make a plan, build a kit. Live Ready Marine Corps.



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Signs and Symptoms

- Sudden onset of fever (greater than 38.6°C or 101.5°F)
 - Intense weakness
 - Muscle pain
 - Headache
 - Stomach pain
- Followed by:
- Vomiting
 - Diarrhea
 - Rash
 - Impaired kidney and liver function
 - In some cases, both internal and external

Onset

- Symptoms can occur 2 to 21 days after exposure.
- The average is 8-10 days.
- A person with EVD becomes contagious once symptoms are present. They are not believed to be contagious during the period of time between exposure and onset of symptoms. Ebola Virus Disease infections can only be confirmed through laboratory testing.

Who Is at Risk

The direct risk to Marine Corps personnel and families is low. People who are at risk are:

- Healthcare providers caring for Ebola patients
- Family and friends in close contact with Ebola patients
- Mourners and mortuary personnel who have direct contact with the bodies of the deceased as part of burial ceremonies
- Individuals coming in contact with infected wildlife

If you suspect that you or someone you know has signs or symptoms characteristic of EVD; has visited a region or has been in contact with someone who has visited a location where known outbreak has occurred; or has had contact with the blood or body fluids of a person sick with Ebola, contact with objects that have been contaminated with the blood or body fluids of a person sick with Ebola, or contact with infected animals, isolate yourself or the affected person and notify public health professionals immediately for care and to control spread.

Marine Corps personnel are to report immediately by phone any individuals suspected of being infected with Ebola. Report to:

Navy & Marine Corps Public Health Center (NMCPHC)
NMCPHCPTS-ThreatAssessment@med.navy.mil
(757) 953-0700, DSN 377-0700

Prevention

Methods of prevention are largely reasonable precautions on the part of individuals. There are currently no licensed Ebola vaccines but 2 potential candidates are undergoing evaluation.

- Avoid unnecessary travel to areas known to have been affected by EVD outbreak.
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of responsibility and directs USMC Commanders to take specific actions and implement force health protection measures to mitigate the Ebola threat to personnel.

- Wash hands frequently with soap or use an alcohol-based hand sanitizer.
- Avoid contact with blood and bodily fluids of an individual who has traveled to an area of outbreak, especially if sick.
- Do not touch items that have had contact with someone infected or their bodily fluids.

- Do not touch or handle the body of someone who has died from Ebola.
- Do not touch bats, gorillas, monkeys, or chimpanzees, nor their left over food or bodily fluids and excrement.
- Avoid hospitals or treatment areas where patients are currently being treated for EVD.



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- If you had to travel to affected areas, pay close attention to your health for 21 days after you return home. Limit exposure to others and see medical care immediately if you develop a fever (greater than 101.5° F) and any of the symptoms common to EVD. Be sure to tell your healthcare provider of any potential exposure to EVD.
- Personnel supporting efforts through United States Africa Command should attend pre-deployment training, adhere to strict medical protocols while deployed, take the above personal protective measures, and carry out carefully planned reintegration measures based on risks and exposure. Speak to your command for details of current protocols and measures.

Treatment

To date, there is no proven treatment effective in counteracting EVD, but the Center for Disease Control and Prevention (CDC) states that a range of blood, immunological, and drug therapies are under development and testing.

Symptoms of EVD can be treated. Examples of such treatments include providing intravenous fluids, helping with breathing, and controlling blood pressure.

Where to Find Additional Information

- CDC: Traveler's Health and Warnings—
<http://wwwnc.cdc.gov/travel/diseases/ebola>
- CDC: About Ebola—<http://www.cdc.gov/vhf/ebola/index.html>
- World Health Organization: Global Alert and Response—
<http://www.who.int/csr/disease/ebola/en/>
- Navy and Marine Corps Public Health Center—
<http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/Pages/Ebola-Virus-Disease.aspx>
- Marine Corps Leaders Guide on Ebola—
http://www.marines.mil/Portals/59/Docs/LEADERS%20GUIDE%20ON%20EBOLA_final.pdf
- U.S. Department of State: Travel Alerts—
<http://travel.state.gov/content/passports/english/alertswarnings.html>
- United States Africa Command: Preventing and understanding Ebola—
<http://www.africom.mil/operation-united-assistance/preventing-and-understanding-ebola>

