

Ebola Outbreak Preparedness and Response

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Overview

- *Review of Ebola virus disease*
- *Applicable OSHA standards and authorities*
- *Summary of OSHA activities and resources on Ebola*
- *CDC and NIOSH resources*



Ebola Virus Disease

- *Individuals with EVD generally have symptoms typical of viral illnesses.*
- *May present as fever, fatigue, muscle pain, headache, and sore throat.*
- *The illness progression includes nausea, vomiting, diarrhea, and impaired organ function. In some cases, rash, internal and/or external bleeding.*
- *Death can occur without intensive fluid support.*

<https://www.osha.gov/SLTC/ebola/hazards.html>



Timeline of Ebola Virus Disease



Exposure	Symptom Onset	Illness	Recovery or Death
<ul style="list-style-type: none"> - Exposure to Ebola virus through contact with infectious body fluids, contaminated environmental surfaces, another sick individual, or infected animal. - Exposed individuals are not contagious. <p>Day 0</p>	<ul style="list-style-type: none"> - Initial symptoms may include fever, fatigue, muscle pain, headache, and sore throat. - Symptoms appear similar to other viral illnesses. <p>14-21 days</p>	<ul style="list-style-type: none"> - Illness progresses to include nausea, vomiting, diarrhea, impaired organ function, and blood counts change. - Some cases experience a rash and internal and/or external bleeding (e.g., vomit, stool, or urine). 	<ul style="list-style-type: none"> - The bodies of individuals who die of Ebola remain infectious after death, and should be handled accordingly during death care. - Recovered individuals are no longer contagious. <p>Up to 49 days</p>

https://www.osha.gov/SLTC/ebola/medical_info.html



Common Routes of Transmission

- *Contact of the eyes or other mucous membranes with blood or body fluids of a person or animal with Ebola*
- *Contact with contaminated equipment or other objects and*
- *Ingestion of infectious blood or body fluids*



https://www.osha.gov/SLTC/ebola/medical_info.html

Workers at Risk of Exposure to Ebola

– Healthcare workers

- *Direct patient care (doctors, nurses, technicians)*
- *Laboratory workers (research, diagnostics / analysis)*
- *Environmental services (housekeeping, laundry)*
- *Facility management / Building engineering*
- *Waste handlers / Decontamination personnel*
- *Emergency responders (e.g., EMS)*

– Non-Healthcare workers

- *Mortuary personnel (persons handling the deceased)*
- *Airline workers (airline cabin service workers, including cleaning crew, for flights originating from the countries named by CDC as having EVD outbreaks)*
- *Customs officers / Border patrol employees*



Applicable Standards and Authorities

- *Bloodborne Pathogens (29 CFR 1910.1030)*
- *Personal Protective Equipment (29 CFR 1910.132, .133, .138)*
- *Respiratory Protection (29 CFR 1910.134)*
- *Hazard Communication (29 CFR 1910.1200)*
- *Access to Employee Medical Records (29 CFR 1020)*
- *Recording and Reporting occupational Injuries and illnesses (29 CFR Part 1904)*
- *General Duty Clause (section 5 (a)1 of OSH Act)*



Bloodborne Pathogens included under the BBP Standard

- *Hepatitis B & C and HIV*
- *Syphilis*
- *Malaria*
- *Babesiosis*
- *Brucellosis*
- *Viral hemorrhagic fevers including Ebola, Laesa, Marburg and Crimean-congo fevers*



The BBP Standard covers:

- *Reasonably anticipated contact with blood or other potentially infectious materials (OPIM)*
- *OPIM includes*
 - *other body fluids such as semen, vaginal secretions, pleural fluids,*
 - *body fluids visibly contaminated with blood and*
 - *body fluids where it is difficult or impossible to differentiate between body fluids.*



OSHA Activities On Ebola

- *Coordination with our Federal Partners*
- *Outreach with Stakeholders*
- *Development of technical support resources*
- *Technical Assistance in the field*



Interagency Coordination

White House Office of Science and Technology Policy (OSTP) Meetings	Ebola PPE Research
Center for Disease Control (CDC) Incident Management Team Meeting	CDC and their liaisons daily activity updates
HHS/NIEHS/NIOSH/ ASPR/CDC and OSHA Training Workgroup	Development and Delivery of Training for Health Care Workers (HCW) and workers in other sectors,
OSHA led HHS/CDC/NIOSH/EPA/DOT Ebola Waste Management Workgroup Meetings, including with Unions, Industry and Trade groups	Develop interagency guidance document related to worker health and safety in medical waste handling, collection, transport, treatment and disposal.
CDC, NIOSH, FDA, ASPR, OSHA PPE Availability Supply Coordination	Interagency group to discuss the status of the PPE supply chain for the Ebola response

Interagency Coordination

OSHA/CDC/NIOSH and Union Stakeholders Meetings	Union engagement and preparedness activities.
Clinician Outreach and Communication Activity (COCA) Calls	Clinician outreach and communication related to Ebola activities. (OOM)
Institute of Medicine (IOM) Meeting/Conference and Presentation	OSHA to attend, participate and present.
Responding to inquiries (internal and external) related to Ebola issues	Responding to calls, emails, letters, and E-Correspondence from internal OSHA personnel, workers, employers, stakeholders, and the public.



OSHA's Ebola Webpage

SAFETY AND HEALTH TOPICS

Ebola


Introduction

Introduction

Ebola hemorrhagic fever (EHF), sometimes called Ebola virus Disease (EVD), is the disease caused by infection with an Ebola virus. It is a type of viral hemorrhagic fever (VHF) brought on by any of several strains of viruses in the Ebolavirus genus. Ebola viruses are capable of causing severe, often-fatal disease. Many people who get EHF die from it. Workers performing tasks involving close contact with symptomatic individuals with EHF or in environments contaminated or reasonably anticipated to be contaminated with infectious body fluids are at risk of exposure. These workers may include workers in the health care industry and death care, airline, and other travel service industries.


EHF is usually marked by fever, muscle pain, headache, and sore throat. The illness progression includes nausea, vomiting, diarrhea, and impaired organ functions. In some cases, skin, internal and/or external bleeding, and death may occur.

In areas of Africa where Ebola viruses are common, suspected reservoirs include primates and bat populations. While there are no known animal reservoirs of the disease in the U.S., there is concern related to possible spread of EHF among human populations due to the availability and reach of global travel. Under certain




<http://www.osha.gov/SLTC/ebola/index.html>

OSHA Publications



Cleaning and Decontamination of Ebola on Surfaces

Guidance for Workers and Employers in Non-Healthcare/Non-Laboratory Settings



Safe Handling, Treatment, and Disposal of Ebola-Contaminated Waste

PPE Matrix

	Low-risk work activities	Low-risk tasks (number of workers working in a room)	Physician or other health care workers
Examples of workers who may be exposed to EHF	Examples of U.S. workers who may be exposed to EHF in other settings or in the workplace	Examples of U.S. workers who may be exposed to EHF in other settings or in the workplace	Examples of U.S. workers who may be exposed to EHF in other settings or in the workplace
Types of work activities	Types of work activities	Types of work activities	Types of work activities
Level of protection	Level of protection	Level of protection	Level of protection
Level of decontamination	Level of decontamination	Level of decontamination	Level of decontamination
Level of disposal	Level of disposal	Level of disposal	Level of disposal

CDC Publications

- PPE Donning/Doffing Procedures
- Web-based PPE Training – video
- Epidemiologic Risk Factors and Monitoring/ Movement of Persons with Potential Ebola Virus Exposure
- Ambulatory Care Evaluation of Patients with Possible Ebola Virus Disease (Ebola)
- Questions and Answers about CDC's Ebola Monitoring & Movement Guidance
- Considerations for Discharging Persons Under Investigation (PUI) for Ebola Virus Disease (Ebola)
- Infographic - How Ebola is Spread
- List of all Ebola Q&As
- Infographic: Is it Flu or Ebola?
- Case Definition of Ebola Disease
- Updated Guidance for EMS and 911 PSAP in the U.S.
- Epidemiologic Risk Factors to Consider when Evaluating a Person for Exposure to Ebola Virus
- Ebola-Associated Hospital Medical Waste Management
- Environmental Infection Control in Hospitals for Ebola Virus-
- Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries



NIOSH Publications (coming soon)

- Heat Stress Guidance, Poster and Training
- Workers Handling Untreated Wastewater from Suspected or Confirmed Individuals with Ebola Virus Disease
- Advice for Businesses to Prevent Exposures of Workers (in Non-Healthcare Settings) to Ebola Virus
- NIOSH/OSHA Worker Fatigue Guidance
- <http://www.cdc.gov/ebola>

