



Ebola Facts

October 21, 2014



American Hospital
Association

Revised Guidance on PPE for Health Care Workers

Updated guidance on PPE to be used and processes for donning and doffing PPE for health care workers entering a patient room hospitalized with Ebola. Emphasizes the importance of **training, practice, competence, and observation** of health care workers in correct donning and doffing of PPE selected by the facility.

Key principles:

- Prior to patient contact, all workers must have repeated training and demonstrated competency in Ebola-related infection control, and specifically donning/ doffing proper PPE.
- While working in PPE no skin should be exposed.
- Overall safe care must be overseen by onsite manager at all times, and each step of every PPE donning/doffing procedure supervised by a trained observer
- Ebola is spread through direct contact with blood or body fluids or with contaminated objects. For all workers, full body coverage PPE is recommended to reduce the risk of self-contamination
- To protect workers, facilities must provide onsite management and oversight on safe use of PPE and implement administrative and environmental controls

Source: Centers for Disease Control and Prevention. This guidance is current as of October 20, 2014 from <http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>. Please see website for complete details.

Recommended Administrative and Environmental Controls for Healthcare Facilities

Protecting workers and preventing spread of Ebola requires proper administrative procedures and safe work practices including :

- Implement triage protocols to identify potential patients and institute precautions
- Designate site managers overseeing implementation of safety precautions:
 - Site managers monitor supply and evaluate care in isolation area
 - At least one site manager always on-site where Ebola patient is being treated
- Identify ahead of time critical care functions and essential workers:
 - For Ebola patient care
 - For collection of laboratory specimens
 - For environmental management and waste
- Ensure workers are trained in all recommended protocols and PPE
- Workers should practice donning/doffing procedures and demonstrate competency during training before caring for patients
- Use trained observers to monitor correct PPE use and protocol adherence and guide workers using a checklist for every donning /doffing procedure
- Document observer and worker training in donning/doffing and performing necessary care-related duties while wearing PPE
- Designate spaces so that PPE can be donned and doffed in separate areas

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Recommended Administrative and Environmental Controls for Healthcare Facilities

Key safe work practices include:

- Isolate patient in room with closed door and private bathroom as soon as possible.
- Limit contact with patient and restrict non-essential personnel and visitors.
- Monitor patient care area and log entry and exit of all workers
- Ensure trained observer watches each donning and doffing procedure and provides supervisory assurance
- Ensure workers have sufficient time to don and doff PPE correctly
- Ensure practical precautions taken during patient care:
 - keeping hands away from the face
 - limiting touch of surfaces and body fluids
 - preventing needlestick and sharps injuries
 - performing frequent disinfection of gloved hands using an alcohol-based hand rub
- Disinfect visibly contaminated PPE, surfaces, or equipment
- Perform regular cleaning and disinfection of patient care area surfaces
 - Performed by nurses or physicians as part of patient care activities to limit workers in room.
 - Implement worker observation in the patient room, if possible
- Establish exposure management plan that addresses decontamination and follow-up of an affected worker. Training on plan and follow-up should be part of the worker training.

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Recommended PPE

- Key to all PPE is **consistent implementation** through **repeated training and practice**.
- Facility should **select and standardize PPE** for all essential workers directly interacting with Ebola patients
- Provide **written protocol outlining procedures for donning and doffing of PPE**, and review and monitor by trained observer
- CDC recommends facilities use a powered air-purifying respirator (PAPR) or an N95 or higher respirator in the event of an unexpected aerosol-generating procedure.
- For healthcare workers who spend extended periods in PPE, safety and comfort are critical. **Standardizing attire under PPE** (e.g., surgical scrubs or disposable garments and dedicated washable footwear) facilitates donning and doffing process and eliminates concerns of contamination of personal clothing.
- If facilities elect to use different PPE from what is outlined by CDC (e.g., coveralls with either an integrated hood or a surgical hood with integrated full face shield), they must train workers and ensure that donning and doffing procedures are adjusted and practiced accordingly.

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Recommended PPE

- **PAPR or N95 Respirator**
 - **PAPR:** A PAPR with a full face shield, helmet, or headpiece. Any reusable helmet or headpiece must be covered with a single-use (disposable) hood that extends to shoulders and fully covers neck and is compatible with selected PAPR.
 - A PAPR with a self-contained filter and blower unit integrated inside the helmet is preferred.
 - A PAPR with external belt-mounted blower unit requires adjustment of the sequence for donning and doffing.
 - **N95 Respirator:** Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield. If N95 respirators are used instead of PAPRs, careful observation is required to ensure workers are not inadvertently touching faces under face shield during care.
- Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf or coverall without integrated hood. Coveralls with or without integrated socks are acceptable. Consideration should be given to gowns or coveralls with thumb hooks to secure sleeves over inner glove.
- Single-use (disposable) nitrile examination gloves with extended cuffs. Two pairs of gloves should be worn. At a minimum, outer gloves should have extended cuffs.
- Single-use (disposable), fluid-resistant or impermeable boot covers that extend to at least mid-calf or single-use (disposable) shoe covers. Boot and shoe covers should allow for ease of movement and not present a slip hazard to the worker.
 - Single-use (disposable) fluid-resistant or impermeable shoe covers are acceptable only if they will be used in combination with a coverall with integrated socks.
- Single-use (disposable), fluid-resistant or impermeable apron that covers torso to level of mid-calf should be used if Ebola patients have vomiting or diarrhea. If a PAPR will be worn, consider selecting an apron that ties behind the neck to facilitate easier removal during the doffing procedure.

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External (Non-CDC) Resources on PPE

- [Emory Healthcare: Ebola Preparedness Protocols](#)
- [University of Nebraska Medical Center: PPE for Ebola](#)
- [Médecins Sans Frontières \(Doctors without Borders\): Filovirus Haemorrhagic Fever Guideline, 2008\[PDF - 134pages\]](#)
- [World Health Organization \(WHO\): Infection prevention and control guidance for care of patients in health-care settings, with focus on Ebola](#)

Source: Centers for Disease Control and Prevention. Accessed October 20, 2014 from <http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>