

November 14, 2014: This guidance was updated to simplify the information on Ebola transmission.

## **Personal Protective Equipment (PPE) for Airport and Airplane Cleaning Crews in Countries with Widespread Ebola Transmission**

Ebola spreads through direct contact with blood or body fluids (such as saliva or urine) of an infected person or by objects contaminated with the blood or body fluids of an infected person. Avoid directly touching sick people or items contaminated with blood or body fluids, and use appropriate personal protective equipment (PPE) for protection of yourself and others. PPE equipment should be worn properly throughout your period of potential exposure. During routine cleaning and other activities, follow usual procedures.

While you are cleaning areas that might have been contaminated with body fluids that came from someone who might have been infected with Ebola (for example, from a person who was sent to secondary screening), you should wear two pairs of waterproof disposable **gloves**, long-sleeved waterproof **gown**, **face mask**, and **eye protection** such as face shield (preferred) or goggles. You should also wear close-toed shoes; wear shoe coverings when cleaning body fluids from the floor to prevent your shoes from getting contaminated. These protective items are important to protect your skin, eyes, nose, and mouth from contact with body fluids and to keep your clothes from becoming contaminated. You should remove and properly dispose of your PPE (see below) immediately after cleaning body fluids. You should then put on new PPE (if needed) to resume work.

**Once the PPE is put on, the outside of each item is considered potentially contaminated.**

**You must put on and take off PPE in the correct order and in the way described below to prevent contaminating yourself or others.**

**Put on your PPE in the following order:**

**1. Shoe coverings (if necessary)**

- Pull shoe coverings on over your shoes

**2. First pair of gloves (“inner glove”)**

- Insert hands into gloves
- Extend to cover wrists

**3. Gown**

- Put arms through the armholes; the opening goes in the back
- Fasten at the back at the neck and waist
- Gown should extend all the way around the body, overlapping in back; if gown does not reach around your body, use two gowns, the first tied in the front and the second tied in the back

**4. Face mask**

- Place over nose, mouth, and chin
- Secure ties or elastic bands at middle of head and neck
- Pinch the flexible band to tighten over nose bridge
- Mask should fit snugly to face and below chin

**5. Face shield (preferred) or goggles**

- If wearing face shield, position over face and secure on brow with headband
- If wearing goggles, position over eyes and secure to the head using the ear pieces or headband
- Adjust to fit comfortably

**6. Second pair of gloves (“outer glove”)**

- Insert hands into gloves

**Take off PPE in the following order:**

**1. Shoe coverings (if worn)**

- Remove shoe coverings; discard\*

**2. Outer gloves**

- Grasp outside of one glove with other gloved hand and peel off
- Hold removed glove in the hand that is still double gloved
- Slide a finger and thumb of the hand with single glove between the two gloves on the double-gloved hand at wrist (avoid touching the outside of outer glove with inner glove)
- Pinch and peel glove off from inside, turning glove inside out (over other glove), such that the two gloves are inside out and wrapped up inside each other in a single ball and creating a “bag” for both gloves; discard both gloves\*

**3. Gown**

- Unfasten ties at neck and waist
- Pull gown away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle; discard\*

**4. Face shield or Goggles**

- Grasp on sides by head band or ear pieces; discard\*

**5. Face mask**

- Untie the bottom and then the top tie; if mask has

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| <ul style="list-style-type: none"> <li>Extend to cover wrist of gown</li> </ul>  | <p>elastic bands, remove mask by pulling up bottom band first</p> <ul style="list-style-type: none"> <li>Remove from face without touching skin or clothes; discard*</li> </ul> <p><b>6. Inner gloves</b></p> <ul style="list-style-type: none"> <li>Grasp outside of glove with other gloved hand and peel off</li> <li>Hold removed glove in the hand that is still gloved</li> <li>Slide ungloved clean finger and thumb under remaining glove at wrist</li> <li>Pinch and peel the second glove off from inside, creating a “bag” for both gloves; discard*</li> </ul> <p><b>7. Wash hands</b> with soap and water immediately after removing PPE, or alcohol-based hand rub if soap and water are unavailable</p> |
| <p>*After removing PPE, place contaminated items in previously identified plastic bags for disposal. If not already labelled, attach a BIOHAZARD warning label to or otherwise mark the outside of the bag. If contaminated items are not dry, they should be placed in a leak-proof bag and double-bagged. If you don't know where bags containing contaminated items should be thrown away, consult your supervisor.</p> |  |

**Additional Do's and Don'ts of wearing PPE**

- Do** be very careful about wearing PPE for a long period of time, since wearing PPE can make you very hot.
- Do** wash your hands thoroughly with soap and water or an alcohol based hand rub after removing PPE. If hands appear dirty, use soap and water.
- Do** change gloves if yours become torn or very dirty; wash hands before putting on new gloves.
- Do** limit the number of surfaces, items, and people you touch while wearing PPE to prevent spreading germs.
- Do** change any item of your PPE, or your own clothes, if it becomes contaminated with blood or body fluids and follow disposal instructions outlined above.
- Don't** touch your face or adjust your PPE with gloved hands to avoid spreading germs.
- Don't** handle personal items such as mobile phones with gloves to avoid spreading germs.
- Don't** reuse disposable gloves
- If you are concerned that you may have been exposed to body fluids or other materials from an Ebola patient, stop working and immediately wash the affected skin surfaces with soap and water. If exposed in eyes, nose or mouth, rinse with large amounts of water (without bleach or chlorine solution) or eyewash solution. For any possible exposure, contact your supervisor for additional follow-up and next steps.