

Infection Prevention Control (IPC) for Ebola or Marburg:

Personal Protective Equipment (PPE) Part 2 – Putting On and Taking Off PPE

Healthcare Settings with Limited to Intermediate Resources

Learning Objectives

After this presentation, participants will be able to

- Explain why carefully putting on and taking off PPE is important in the context of Ebola or Marburg.
- Describe at least three considerations for putting on PPE correctly in the context of Ebola or Marburg.
- Describe at least three considerations for taking off PPE correctly in the context of Ebola or Marburg.

Why PPE?

Ebola or Marburg can spread through direct contact (such as through broken skin or mucous membranes in the eyes, nose, or mouth) with:

- Blood or body fluids
- Objects contaminated with blood or body fluids

PPE works as a barrier to protect your eyes, nose, mouth, skin, and clothing from contact with a patient's body fluid keeping you and those around you safe.

Discuss

Based on what you already know about PPE use, what recommendations would you give this man in the red shirt to help him better protect himself and others?



PPE Key Point

PPE can protect you from infection but...

PPE only works if it is used correctly every time.

PPE Donning & Doffing Videos

Exactly how to don and doff PPE depends on the specific PPE items available.

The link below provides videos on donning and doffing:

<https://www.cdc.gov/vhf/ebola/hcp/ppe-training/index.html>

Definition: Donning & Doffing

Donning = putting on an article of clothing

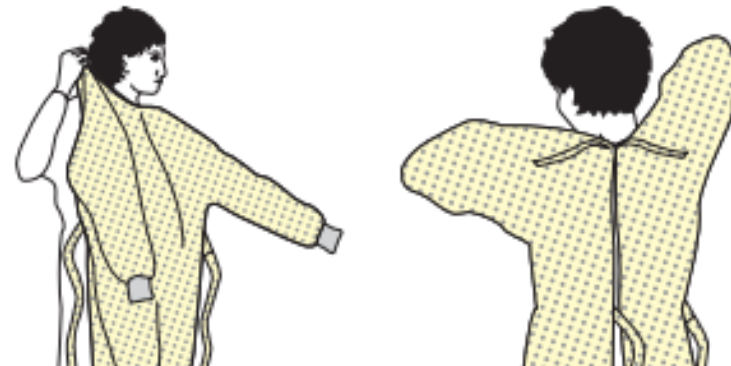
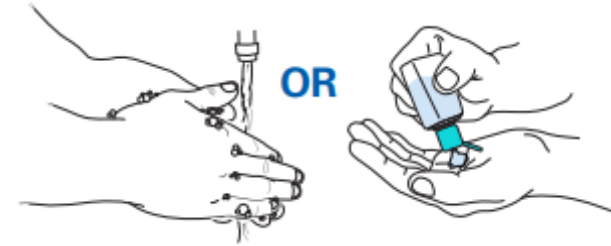
Doffing = taking off an article of clothing



https://phil.cdc.gov//PHIL/Images/18351/18351_lores.jpg

Donning PPE: Notes

- **Before donning PPE**
 - Wear dedicated clothing or garments that can be replaced or laundered (e.g., scrubs)
 - Take off jewelry and accessories
 - Perform hand hygiene
 - Check for tears and other damage in PPE that could reduce effectiveness
- **Donning a gown**
 - Secure at neck and waist with ties



Donning PPE: Notes

- **Face mask**

- Place non-collapsible mask over nose, mouth, and chin
- Fit flexible nose piece over bridge of nose
- **Adjust to fit**



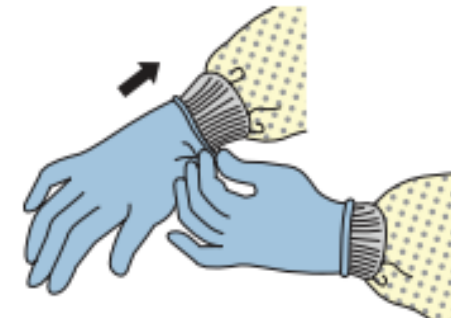
- **Face shield or goggles**

- Place over face and eyes
- **Adjust to fit**



- **Gloves**

- Inner pair of gloves goes **under** cuff of gown
- Outer pair of gloves goes **over** cuff of gown



When to Doff PPE

Change PPE if it becomes...

- Heavily contaminated with blood or body fluids
- Damaged (e.g., glove tears, gown rips)

Take off PPE after...

- Caring for patients
 - Before leaving the isolation area
 - In the designated doffing location
- Completing waste management or environmental cleaning tasks

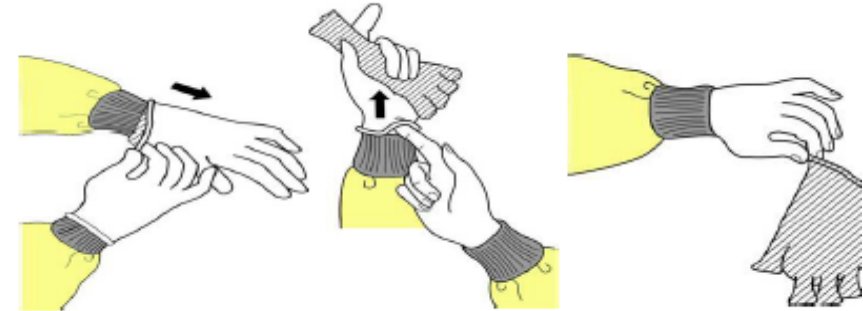
Key Points for Doffing PPE

- **Risk of self-contamination is very high when removing PPE**
 - Potential for contamination from PPE to hands and from hands to mucous membranes, clothing, and skin
 - The outside of PPE should not touch your skin or any other body part
- Remove PPE **slowly and carefully**
- Remove **outermost PPE first**
 - It is likely to be the most contaminated (e.g., outer gloves)

Doffing PPE: Notes

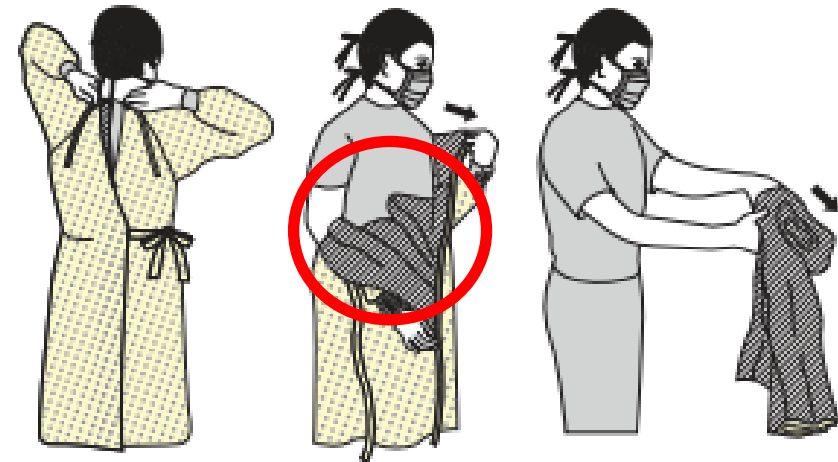
- **Gloves**

- Pinch one glove at wrist and peel away from hand, allowing glove to turn inside out
- Hold removed glove in other hand and slide fingers of ungloved hand inside wrist area; remove by rolling down and folding inside out



- **Gown**

- Break knot around neck and side
- Grasp external front shoulders and pull forward slowly
- Pull away from body and fold inside out as you remove



Avoid touching outside of gown to body

Doffing PPE: Notes

- **Face shield or goggles**

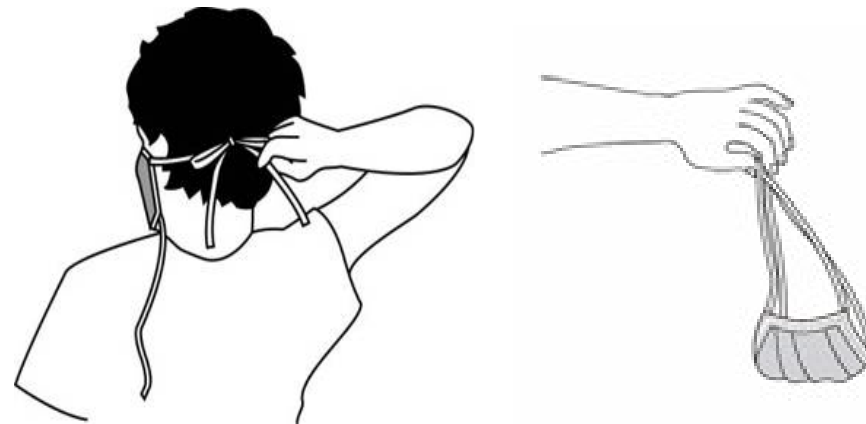
- Remove from back by lifting head band or earpieces
- Keep eyes closed
- Discard (or, if reusable, place in appropriate bin for reprocessing)



Avoid touching front of face shield or goggles, which may be contaminated

- **Mask or respirator**

- Grasp bottom of strap and lift over head (or untie bottom strap)
- Lift off top strap or tie
- Bring forward off face
- Discard



Avoid touching front of mask or respirator, which may be contaminated

Doffing PPE: Waste Disposal

Disposable PPE
(e.g. face masks,
disposable gloves)

→ Biohazard waste bin



Biohazard waste bin
(can be yellow or red)

PPE to be reprocessed
(e.g. goggles, rubber
boots)

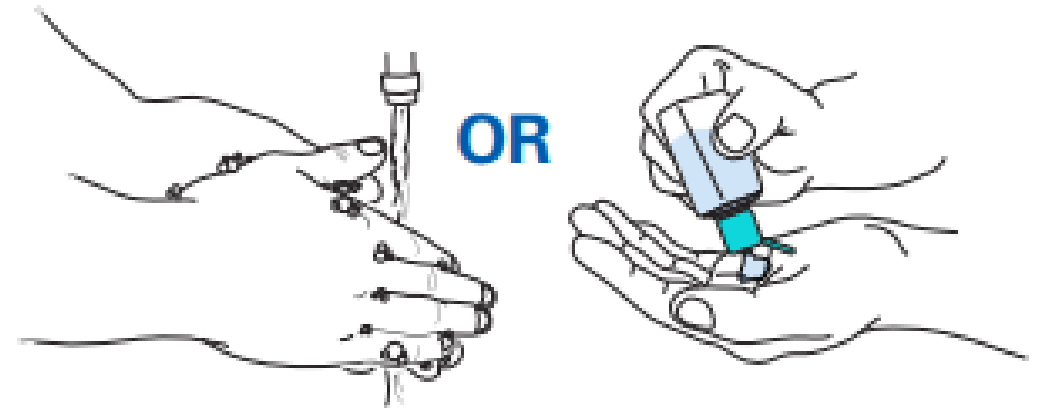
→ Bucket



Bucket for dirty,
reusable PPE to be
reprocessed

Doffing PPE: Hand Hygiene

- **When to Perform Hand Hygiene**
 - After every item of PPE you take off
 - After completely doffing PPE, when your hands are bare



Knowledge Check: PPE

If you saw a co-worker taking off their gloves like this, what suggestion could you make to help them do this more safely?



Feedback: PPE

- Incorrect method to remove gloves (risk of splashing)
- Grasp glove at wrist/palm and carefully roll inside out



Reflection

- What challenges have you experienced with donning and doffing PPE properly in the past?
- Do you expect to have similar challenges with PPE for Ebola or Marburg? How can those challenges be overcome?

Key Takeaways

- PPE helps protect you from infection.
- Protecting yourself helps protect your patients, co-workers, family, and friends.
- **But PPE only works if it is worn and removed correctly.**

Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

