

P P E

Use of PPE in implementation of IHR and Disease Surveillance at POE

Dr SAI MYO NYUNT

MO, CEU

**Department of Public Health
Ministry of Health and Sports**

General Objectives

To improve personnel safety in the healthcare environment through appropriate use of PPE.

Specific Objectives

- To provide information on the use of PPE
- To practice how to safely don, use and remove PPE

Definition of PPE

“specialized clothing or equipment worn by an employee for protection against infectious materials”

(Occupational Safety and Health Administration OSHA)

Types of PPE

Types of PPE

- Gloves
- Boot and Shoe Cover
- Gowns
- Apron
- Cap
- Masks
- Respirators
- Goggles
- Face shields

Types of PPE

Gloves

- protect hands
- Work from “clean to dirty”
- Limit opportunities for “touch contamination”
 - protect yourself, others, and the environment
 - Don't touch your face or adjust PPE with contaminated gloves
 - Don't touch environmental surfaces except as necessary during patient care

Types of PPE

Gloves

- Change gloves
 - During use if torn and when heavily soiled (even during use on the same patient)
 - After use on each patient
- Discard in appropriate receptacle
 - Never wash or reuse disposable gloves

Types of PPE

Gowns

- Protect skin and/or clothing

Apron

- Waterproof apron prevents fluid penetration

Boot and Shoe Cover

- Prevents fluid penetration and contamination

Types of PPE

Masks

- Protect nose and mouth
- Should fully cover nose and mouth and prevent fluid penetration

Types of PPE

Respirators

- Protect mouth/nose
- Protect respiratory tract from airborne infectious agents
(e.g., *Mycobacterium tuberculosis*)
- PPE types for respiratory protection
 - Particulate respirators
 - Half- or full-face elastomeric respirators
 - Powered air purifying respirators (PAPR)

Types of PPE

Respirators

- The most commonly used respirators are N95, N99, or N100 particulate respirators.
- The device has a sub-micron filter capable of excluding particles that are less than 5 microns in diameter.

Types of PPE

Goggles

- Protect eyes
- Should fit snugly over and around eyes
- Personal glasses not a substitute for goggles
- Antifog feature improves clarity

Types of PPE

Face shields

- Protect face, nose, mouth, and eyes
- Should cover forehead, extend below chin and wrap around side of face

How to Safely

Don, Use and Remove PPE

Key Points

- ❖ Don before contact with the patient, generally before entering the room
- ❖ Use carefully – don't spread contamination
- ❖ Remove and discard carefully, either at the doorway or immediately outside patient room; remove respirator outside room
- ❖ Immediately perform hand hygiene

How to safely don PPE

How to safely don PPE

Preparation

- Ensure to take off hand chain, watch, rings and ear rings
- Tie long hair neatly
- Check the PPEs
- Ensure that hand hygiene facilities are available at the point needed, e.g., sink or alcohol-based hand rub

How to safely don PPE

Hand Hygiene

- Perform hand hygiene before donning PPE.
- Wash hands with soap and water or use an alcohol-based hand rub

How to safely don PPE

Sequence for Donning PPE

- Gown
- Mask (or) Respirator
- Goggles (or) Face Shield
- Gloves

*** Combination of PPE will affect sequence – BE PRACTICAL !**

How to safely don PPE

Gown

- Select appropriate type and size
- Opening is in the back/ front
- Secure at neck and waist
- If gown is too small, use two gowns
 - Gown #1 ties in front
 - Gown #2 ties in back



How to safely don PPE

Mask

- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with ties or elastic
- Adjust to fit



How to safely don PPE

Particulate Respirator

- Select a fit tested respirator
- Place over nose, mouth and chin
- Fit flexible nose piece
over nose bridge
- Secure on head with elastic
- Adjust to fit



How to safely don PPE

Particulate Respirator

- Perform a fit check



How to safely don PPE

Eye and Face Protection

- Position goggles over eyes and secure



- Position face shield over eyes and secure on brow with headband
- Adjust to fit comfortably



How to safely don PPE

Gloves

- Don gloves last

- Select the right type and size

- Inspect gloves for damage

- Examine gloves for proper fit



How to safely don PPE

Apron

- Wear waterproof apron over gown if an impermeable gown is not available



How to safely use PPE

How to safely use PPE

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Remove gloves if they become torn; perform hand hygiene before donning new gloves
- Limit surfaces and items touched

How to safely remove PPE

How to safely remove PPE

“Contaminated” and “Clean” Areas of PPE

➤ **Contaminated** – outside front

- Areas of PPE that have or are likely to have been in contact with body sites, materials, or environmental surfaces where the infectious organism may reside

➤ **Clean** – inside, outside back, ties on head and back

- Areas of PPE that are not likely to have been in contact with the infectious organism

How to safely remove PPE

Key Points

- Remove the most heavily-contaminated items first
- Be careful to avoid any contact between the soiled items and any area of the face or non-intact skin when taking off PPE

How to safely remove PPE

Sequence for Removing PPE

- Gloves
- Gown
- Face shield (or) Goggles
- Mask (or) Respirator

How to safely remove PPE

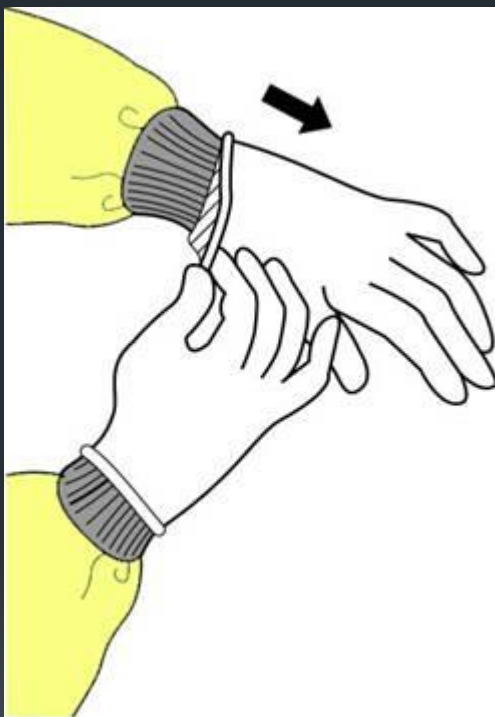
Where to Remove PPE

- At doorway, before leaving patient room or in anteroom
- Remove respirator outside room, after door has been closed

*Ensure that hand hygiene facilities are available at the point needed, e.g., sink or alcohol-based hand rub

How to safely remove PPE

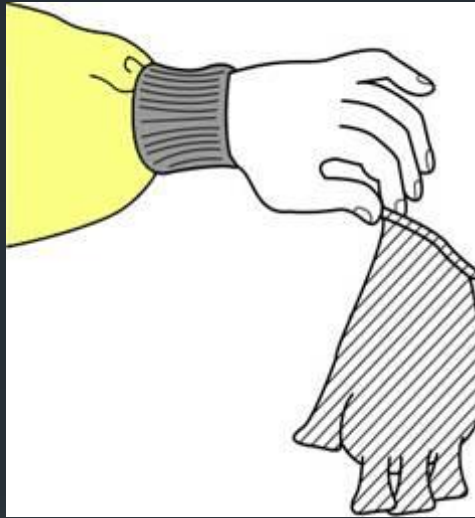
Gloves



- Grasp outside edge near wrist
- Peel away from hand, turning glove inside-out
- Hold in opposite gloved hand

How to safely remove PPE

Gloves



- Slide ungloved finger under the wrist of the remaining glove
- Peel off from inside, creating a bag for both gloves
- Discard

How to safely remove PPE



Gown

- Unfasten ties
- Peel gown away from neck and shoulder
- Turn contaminated outside toward the inside
- Fold or roll into a bundle
- Discard



How to safely remove PPE

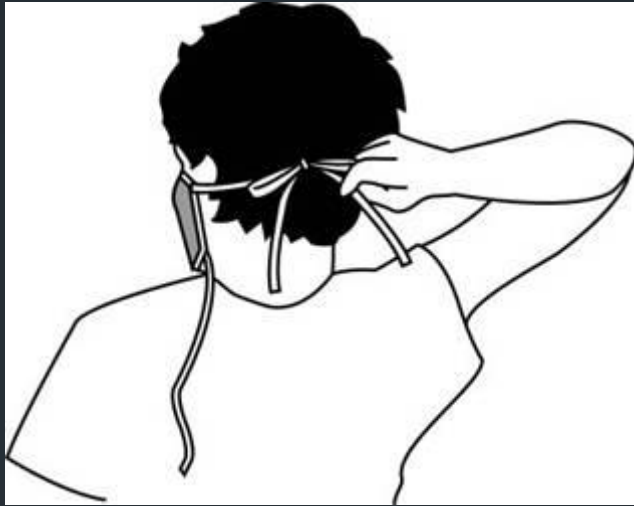
Goggles (or) Face Shield



- Grasp ear or head pieces with ungloved hands
(A new disposable glove can be used)
- Lift away from face
- Place in designated receptacle for reprocessing or disposal

How to safely remove PPE

Mask

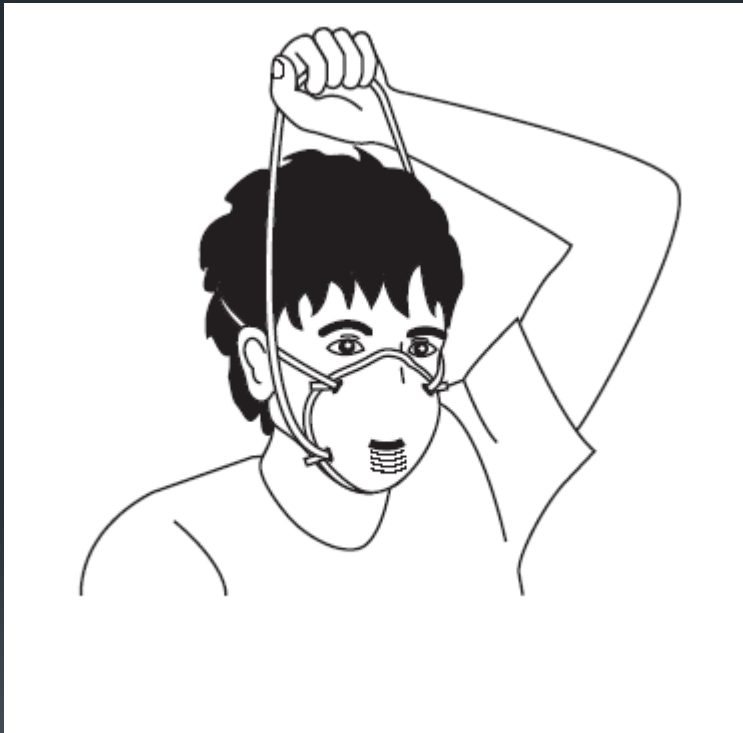


- Untie the bottom, then top, tie
- Remove from face
- Discard



How to safely remove PPE

Particulate Respirator



- Lift the bottom elastic over your head first
- Then lift off the top elastic
- Discard

How to safely remove PPE

Hand Hygiene

- Perform hand hygiene immediately after removing PPE.
- If hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE
- Wash hands with soap and water or use an alcohol-based hand rub



Thank You