



# **Guidance for the Selection and Use of Personal Protective Equipment (PPE) in Healthcare Settings**

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# **PPE Use in Healthcare Settings: Program Goal**

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

PPE Use in Healthcare Settings

The goal of this program is to improve personnel safety in the healthcare environment through appropriate use of PPE.



## PPE Use in Healthcare Settings: Program Objectives

- Provide information on the selection and use of PPE in healthcare settings
- Practice how to safely don and remove PPE

PPE Use in Healthcare Settings

The objectives of this program are to provide information on the selection and use of PPE in healthcare settings and to allow time for participants to practice the correct way to don and remove PPE.



## **Personal Protective Equipment Definition**

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

PPE Use in Healthcare Settings

Personal protective equipment, or PPE, as defined by the Occupational Safety and Health Administration, or OSHA, is “specialized clothing or equipment, worn by an employee for protection against infectious materials.”



# Regulations and Recommendations for PPE



- OSHA issues workplace health and safety regulations. Regarding PPE, employers must:
  - Provide appropriate PPE for employees
  - Ensure that PPE is disposed or reusable PPE is cleaned, laundered, repaired and stored after use
- OSHA also specifies circumstances for which PPE is indicated
- CDC recommends when, what and how to use PPE

PPE Use in Healthcare Settings

OSHA issues regulations for workplace health and safety. These regulations require use of PPE in healthcare settings to protect healthcare personnel from exposure to bloodborne pathogens and *Mycobacterium tuberculosis*. However, under OSHA's General Duty Clause PPE is required for any potential infectious disease exposure. Employers must provide their employees with appropriate PPE and ensure that PPE is disposed or, if reusable, that it is properly cleaned or laundered, repaired and stored after use.

The Centers for Disease Control and Prevention (CDC) issues recommendations for when and what PPE should be used to prevent exposure to infectious diseases. This presentation will cover those recommendations, beginning with the hierarchy of safety and health controls.



# Hierarchy of Safety and Health Controls

- Training and administrative controls
- Engineering controls
- Work practice controls
- Personal protective equipment

PPE Use in Healthcare Settings

The protection of healthcare personnel from infectious disease exposures in the workplace requires a combination of controls, one of which is the use of PPE. It is important to recognize that your protection as a healthcare worker also involves other prevention strategies. There are four major components to healthcare worker safety programs. First are training, such as you're receiving today, and administrative controls, like isolation policies and procedures, and procedures for recognizing patients with a communicable disease before they expose workers. Second are engineering controls like negative pressure rooms for patients with airborne diseases such as TB; third are work practice controls such as not recapping needles, and finally personal protective equipment. While PPE is last in the hierarchy of prevention, it is very important for protecting healthcare workers from disease transmission.



## Types of PPE Used in Healthcare Settings



- Gloves – protect hands
- Gowns/aprons – protect skin and/or clothing
- Masks and respirators– protect mouth/nose
  - Respirators – protect respiratory tract from airborne infectious agents
- Goggles – protect eyes
- Face shields – protect face, mouth, nose, and eyes

PPE Use in Healthcare Settings

All of the PPE listed here prevent contact with the infectious agent, or body fluid that may contain the infectious agent, by creating a barrier between the worker and the infectious material. Gloves, protect the hands, gowns or aprons protect the skin and/or clothing, masks and respirators protect the mouth and nose, goggles protect the eyes, and face shields protect the entire face.

The respirator, has been designed to also protect the respiratory tract from airborne transmission of infectious agents. We'll discuss this in more detail later.



## Factors Influencing PPE Selection

- Type of exposure anticipated
  - Splash/spray versus touch
  - Category of isolation precautions
- Durability and appropriateness for the task
- Fit

PPE Use in Healthcare Settings

When you are selecting PPE, consider three key things.

**First is the type of anticipated exposure.** This is determined by the type of anticipated exposure, such as touch, splashes or sprays, or large volumes of blood or body fluids that might penetrate the clothing. PPE selection, in particular the combination of PPE, also is determined by the category of isolation precautions a patient is on.

**Second**, and very much linked to the first, is the **durability and appropriateness of the PPE for the task.** This will affect, for example, whether a gown or apron is selected for PPE, or, if a gown is selected, whether it needs to be fluid resistant, fluid proof, or neither.

**Third is fit.** (optional question) How many of you have seen someone trying to work in PPE that is too small or large? PPE must fit the individual user, and it is up to the employer to ensure that all PPE are available in sizes appropriate for the workforce that must be protected.

(Segue to next slide) With this as background, let's now discuss how to select and use specific PPE. After that we'll talk about which PPE is recommended for Standard Precautions and the various Isolation Precaution categories.





## Gloves

- Purpose – patient care, environmental services, other
- Glove material – vinyl, latex, nitrile, other
- Sterile or nonsterile
- One or two pair
- Single use or reusable

PPE Use in Healthcare Settings

Gloves are the most common type of PPE used in healthcare settings. As you can see here, there are several things to consider when selecting the right glove for a specified purpose.



## Gloves

- Purpose – **patient care**, environmental services, other
- Glove material – **vinyl, latex, nitrile**, other
- Sterile or **non-sterile**
- **One** or two pair
- **Single use** or reusable

PPE Use in Healthcare Settings

Most patient care activities require the use of a single pair of nonsterile gloves made of either latex, nitrile, or vinyl. However, because of allergy concerns, some facilities have eliminated or limited latex products, including gloves, and now use gloves made of nitrile or other material. Vinyl gloves are also frequently available and work well if there is limited patient contact. However, some gloves do not provide a snug fit on the hand, especially around the wrist, and therefore should not be used if extensive contact is likely.

Gloves should fit the user's hands comfortably – they should not be too loose or too tight. They also should not tear or damage easily. Gloves are sometimes worn for several hours and need to stand up to the task.

Who uses the other glove options? Sterile surgical gloves are worn by surgeons and other healthcare personnel who perform invasive patient procedures. During some surgical procedures, two pair of gloves may be worn. Environmental services personnel often wear reusable heavy duty gloves made of latex or nitrile to work with caustic disinfectants when cleaning environmental surfaces. However, they sometimes use patient care gloves too.



## Do's and Don'ts of Glove Use

- 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

PPE Use in Healthcare Settings

Gloves protect you against contact with infectious materials. However, once contaminated, gloves can become a means for spreading infectious materials to yourself, other patients or environmental surfaces. Therefore, the way YOU use gloves can influence the risk of disease transmission in your healthcare setting. These are the most important do's and don'ts of glove use.

**Work from clean to dirty.** This is a basic principle of infection control. In this instance it refers to touching clean body sites or surfaces before you touch dirty or heavily contaminated areas.

**Limit opportunities for “touch contamination” - protect yourself, others and environmental surfaces.** How many times have you seen someone adjust their glasses, rub their nose or touch their face with gloves that have been in contact with a patient? This is one example of “touch contamination” that can potentially expose oneself to infectious agents. Think about environmental surfaces too and avoid unnecessarily touching them with contaminated gloves. Surfaces such as light switches, door and cabinet knobs can become contaminated if touched by soiled gloves.



## Do's and Don'ts of Glove Use (cont'd)

- 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

PPE Use in Healthcare Settings

**Change gloves as needed.** If gloves become torn or heavily soiled and additional patient care tasks must be performed, then change the gloves before starting the next task. **Always** change gloves after use on each patient, and discard them in the nearest appropriate receptacle. Patient care gloves should never be washed and used again. Washing gloves does not necessarily make them safe for reuse; it may not be possible to eliminate all microorganisms and washing can make the gloves more prone to tearing or leaking.



## Gowns or Aprons

- Purpose of use
- Material –
  - Natural or man-made
  - Reusable or disposable
  - Resistance to fluid penetration
- Clean or sterile

PPE Use in Healthcare Settings

There are three factors that influence the selection of a gown or apron as PPE. First is the purpose of use. Isolation gowns are generally the preferred PPE for clothing but aprons occasionally are used where limited contamination is anticipated. If contamination of the arms can be anticipated, a gown should be selected. Gowns should fully cover the torso, fit comfortably over the body, and have long sleeves that fit snugly at the wrist.

Second are the material properties of the gown. Isolation gowns are made either of cotton or a spun synthetic material that dictate whether they can be laundered and reused or must be disposed. Cotton and spun synthetic isolation gowns vary in their degree of fluid resistance, another factor that must be considered in the selection of this garb. If fluid penetration is likely, a fluid resistant gown should be used.

The last factor concerns patient risks and whether a clean, rather than sterile gown, can be used. Clean gowns are generally used for isolation. Sterile gowns are only necessary for performing invasive procedures, such as inserting a central line. In this case, a sterile gown would serve purposes of patient and healthcare worker protection.



## Face Protection

- Masks – protect nose and mouth
  - Should fully cover nose and mouth and prevent fluid penetration
- Goggles – protect eyes
  - Should fit snugly over and around eyes
  - Personal glasses not a substitute for goggles
  - Antifog feature improves clarity

PPE Use in Healthcare Settings

A combination of PPE types is available to protect all or parts of the face from contact with potentially infectious material. The selection of facial PPE is determined by the isolation precautions required for the patient and/or the nature of the patient contact. This will be discussed later.

Masks should fully cover the nose and mouth and prevent fluid penetration. Masks should fit snugly over the nose and mouth. For this reason, masks that have a flexible nose piece and can be secured to the head with string ties or elastic are preferable.

Goggles provide barrier protection for the eyes; personal prescription lenses do not provide optimal eye protection and should not be used as a substitute for goggles. Goggles should fit snugly over and around the eyes or personal prescription lenses. Goggles with antifog features will help maintain clarity of vision.



## Face Protection

- Face shields – protect face, nose, mouth, and eyes
  - Should cover forehead, extend below chin and wrap around side of face

PPE Use in Healthcare Settings

When skin protection, in addition to mouth, nose, and eye protection, is needed or desired, for example, when irrigating a wound or suctioning copious secretions, a face shield can be used as a substitute to wearing a mask or goggles. The face shield should cover the forehead, extend below the chin, and wrap around the side of the face.



## Respiratory Protection

- Purpose – protect from inhalation of infectious aerosols (e.g., *Mycobacterium tuberculosis*)
- PPE types for respiratory protection
  - Particulate respirators
  - Half- or full-face elastomeric respirators
  - Powered air purifying respirators (PAPR)

PPE Use in Healthcare Settings

PPE also is used to protect healthcare workers' from hazardous or infectious aerosols, such as *Mycobacterium tuberculosis*. Respirators that filter the air before it is inhaled should be used for respiratory protection.

The most commonly used respirators in healthcare settings are the 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.

Respirators are approved by the CDC's National Institute for Occupational Safety and Health.

Like other PPE, the selection of a respirator type must consider the nature of the exposure and risk involved. For example, N95 particulate respirators might be worn by personnel entering the room of a patient with infectious tuberculosis. However, if a bronchoscopy is performed on the patient, the healthcare provider might wear a higher level of respiratory protection, such as a powered air-purifying respirator or PAPR.





## Elements of a Respiratory Protection Program

- Medical evaluation
- Fit testing
- Training
- Fit checking before use

PPE Use in Healthcare Settings

Prior to your using a respirator, your employer is required to have you medically evaluated to determine that it is safe for you to wear a respirator, to fit test you for the appropriate respirator size and type, and to train you on how and when to use a respirator. YOU are responsible for fit checking your respirator before use to make sure it has a proper seal.



## For additional information on respirators....

- <http://www.cdc.gov/niosh/npptl/respirators/respsars.html>
- <http://www.cdc.gov/niosh/99-143.html>
- <http://www.cdc.gov/niosh/topics/respirators>

PPE Use in Healthcare Settings

These websites can provide you with the most up-to-date information on respirators.



This next segment will address how to safely don, use, and remove PPE.

**NOTE TO TRAINER:** Consider having a participant demonstrate donning and removing PPE as you go through this section.



## Key Points About PPE

- 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

PPE Use in Healthcare Settings

There are four key points to remember about PPE use. First, don it before you have any contact with the patient, generally before entering the room. Once you have PPE on, use it carefully to prevent spreading contamination. When you have completed your tasks, remove the PPE carefully and discard it in the receptacles provided. Then immediately perform hand hygiene before going on to the next patient.



## Sequence\* for Donning PPE

- Gown first
- Mask or respirator
- Goggles or face shield
- Gloves

**\*Combination of PPE will affect sequence – be practical**

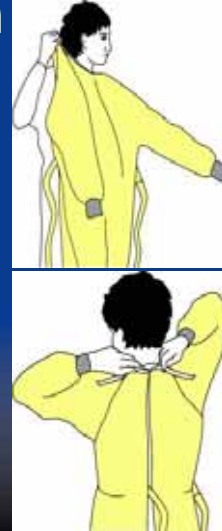
PPE Use in Healthcare Settings

The gown should be donned first. The mask or respirator should be put on next and properly adjusted to fit; remember to fit check the respirator. The goggles or face shield should be donned next and the gloves are donned last. Keep in mind, the combination of PPE used, and therefore the sequence for donning, will be determined by the precautions that need to be taken.



## How to Don a Gown

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



PPE Use in Healthcare Settings

To don a gown, first select the appropriate type for the task and the right size for you. The opening of the gown should be in the back; secure the gown at the neck and waist. If the gown is too small to fully cover your torso, use two gowns. Put on the first gown with the opening in front and the second gown over the first with the opening in the back.



## How to Don a Mask

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



PPE Use in Healthcare Settings

Some masks are fastened with ties, others with elastic. If the mask has ties, place the mask over your mouth, nose and chin. Fit the flexible nose piece to the form of your nose bridge; tie the upper set at the back of your head and the lower set at the base of your neck.

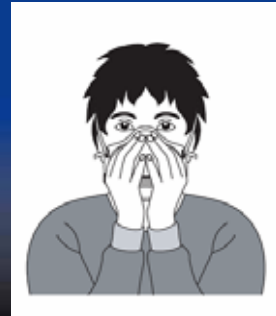
If a mask has elastic head bands, separate the two bands, hold the mask in one hand and the bands in the other. Place and hold the mask over your nose, mouth, and chin, then stretch the bands over your head and secure them comfortably as shown; one band on the upper back of your head, the other below the ears at the base of the neck.

Adjust the mask to fit. Remember, you don't want to be touching it during use so take the few seconds needed to make sure it is secure on your head and fits snugly around your face so there are no gaps.



## How to Don a 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
- Perform a fit check –
  - Inhale – respirator should collapse
  - Exhale – check for leakage around face



PPE Use in Healthcare Settings

The technique for donning a particulate respirator, such as an N95, N99 or N100, is similar to putting on a pre-formed mask with elastic head bands. Key differences, however, are 1) the need to first select a respirator for which you have been fit tested and 2) fit checking the device, as you have been instructed, before entering an area where there may be airborne infectious disease. Be sure to follow the manufacturer's instructions for donning the device. In some instances, the manufacturer's instructions may differ slightly from this presentation.

You may also be asked to wear an elastomeric or powered air purifying respirator, or PAPR. Guidance on how to use these devices is not included in this presentation. You will need instruction locally to properly use these devices.





## How to Don Eye and Face Protection

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



PPE Use in Healthcare Settings

If eye protection is needed, either goggles or a face shield should be worn. Position either device over the face and/or eyes and secure to head using the attached ear pieces or head band. Adjust to fit comfortably. Goggles should feel snug but not tight.



## How to Don Gloves

- Don gloves last
- Select correct type and size
- Insert hands into gloves
- Extend gloves over isolation gown cuffs



PPE Use in Healthcare Settings

The last item of PPE to be donned is a pair of gloves. Be sure to select the type of glove needed for the task in the size that best fits you. Insert each hand into the appropriate glove and adjust as needed for comfort and dexterity. If you are wearing an isolation gown, tuck the gown cuffs securely under each glove. This provides a continuous barrier protection for your skin.



## 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

PPE Use in Healthcare Settings

In addition to wearing PPE, you should also use safe work practices. Avoid contaminating yourself by keeping your hands away from your face and not touching or adjusting PPE. Also, remove your gloves if they become torn and perform hand hygiene before putting on a new pair of gloves. You should also avoid spreading contamination by limiting surfaces and items touched with contaminated gloves.



We've talked about donning and using PPE. Now we'll discuss how to safely remove PPE to protect you, your colleagues, and patients from exposure to contaminated materials.



## “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

PPE Use in Healthcare Settings

To remove PPE safely, you must first be able to identify what sites are considered “clean” and what are “contaminated.” In general, the outside front and sleeves of the isolation gown and outside front of the goggles, mask, respirator and face shield are considered “contaminated,” regardless of whether there is visible soil. Also, the outside of the gloves are contaminated.

The areas that are considered “clean” are the parts that will be touched when removing PPE. These include inside the gloves; inside and back of the gown, including the ties; and the ties, elastic, or ear pieces of the mask, goggles and face shield.



## Sequence for Removing PPE

- Gloves
- Face shield or goggles
- Gown
- Mask or respirator

PPE Use in Healthcare Settings

The sequence for removing PPE is intended to limit opportunities for self-contamination. The gloves are considered the most contaminated pieces of PPE and are therefore removed first. The face shield or goggles are next because they are more cumbersome and would interfere with removal of other PPE. The gown is third in the sequence, followed by the mask or respirator.



## 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

PPE Use in Healthcare Settings

The location for removing PPE will depend on the amount and type of PPE worn and the category of isolation a patient is on, if applicable. If only gloves are worn as PPE, it is safe to remove and discard them in the patient room. When a gown or full PPE is worn, PPE should be removed at the doorway or in an anteroom. Respirators should always be removed outside the patient room, after the door is closed. Hand hygiene should be performed after all PPE is removed.



## How to Remove Gloves (1)



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

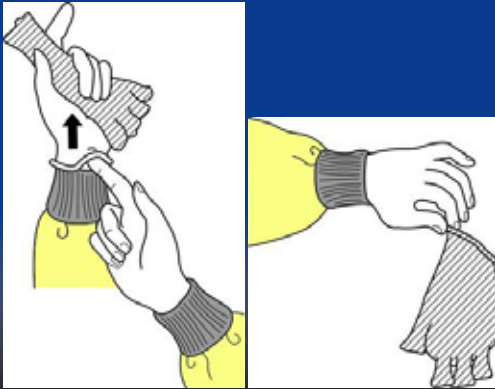
PPE Use in Healthcare Settings

Using one gloved hand, grasp the outside of the opposite glove near the wrist. Pull and peel the glove away from the hand. The glove should now be turned inside-out, with the contaminated side now on the inside. Hold the removed glove in the opposite gloved hand.





## How to Remove Gloves (2)



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

PPE Use in Healthcare Settings

Slide one or two fingers of the ungloved hand under the wrist of the remaining glove. Peel glove off from the inside, creating a bag for both gloves. Discard in waste container.



## Remove Goggles or Face Shield



- Grasp ear or head pieces with ungloned hands
- Lift away from face
- Place in designated receptacle for reprocessing or disposal

PPE Use in Healthcare Settings

Using ungloned hands, grasp the “clean” ear or head pieces and lift away from face. If goggle or face shield are reusable, place them in a designated receptacle for subsequent reprocessing. Otherwise, discard them in the waste receptacle.



## Removing Isolation Gown



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

PPE Use in Healthcare Settings

Unfasten the gown ties with the ungloved hands. Slip hands underneath the gown at the neck and shoulder, peel away from the shoulders. Slip the fingers of one hand under the cuff of the opposite arm. Pull the hand into the sleeve, grasping the gown from inside. Reach across and push the sleeve off the opposite arm. Fold the gown towards the inside and fold or roll into a bundle. (Only the “clean” part of the gown should be visible.) Discard into waste or linen container, as appropriate.



## Removing a Mask



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



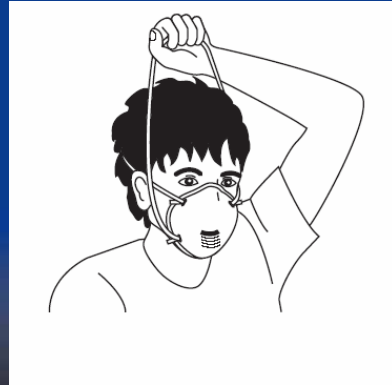
PPE Use in Healthcare Settings

The front of the mask is considered contaminated and should not be touched. Remove by handling only the ties or elastic bands starting with the bottom then top tie or band. Lift the mask or respirator away from the face and discard it into the designated waste receptacle.



## Removing a Particulate Respirator

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



PPE Use in Healthcare Settings

The bottom elastic should be lifted over the head first. Then remove the top elastic. This should be done slowly to prevent the respirator from “snapping” off the face.



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

PPE Use in Healthcare Settings

Hand hygiene is the cornerstone of preventing infection transmission. You should perform hand hygiene immediately after removing PPE. If your hands become visibly contaminated during PPE removal, wash hands before continuing to remove PPE. Wash your hands thoroughly with soap and warm water or, if hands are not visibly contaminated, use an alcohol-based hand rub.



Thus far we have discussed the various types of PPE, considered various factors that go into selecting appropriate PPE, and described how to don, use, and remove PPE safely. This last segment of this presentation will discuss **WHEN** to use which PPE.



Decisions regarding when and which type of PPE should be worn are determined by CDC recommendations for Standard Precautions and Expanded Isolation Precautions.





## Standard Precautions

- Previously called Universal Precautions
- Assumes blood and body fluid of ANY patient could be infectious
- Recommends PPE and other infection control practices to prevent transmission in any healthcare setting
- Decisions about PPE use determined by type of clinical interaction with patient

PPE Use in Healthcare Settings

Standard Precautions is an outgrowth of Universal Precautions. Universal Precautions was first recommended in 1987 to prevent the transmission of bloodborne pathogens to healthcare personnel. In 1996, the application of the concept was expanded and renamed “Standard Precautions.” Standard Precautions is intended to prevent the transmission of common infectious agents to healthcare personnel, patients and visitors in any healthcare setting. During care for any patient, one should assume that an infectious agent could be present in the patient’s blood or body fluids, including all secretions and excretions except tears and sweat. Therefore appropriate precautions, including use of PPE, must be taken. Whether PPE is needed, and if so, which type, is determined by the type of clinical interaction with the patient and the degree of blood and body fluid contact that can be reasonably anticipated and by whether the patient has been placed on isolation precautions such as Contact or Droplet Precautions or Airborne Infection Isolation.



## PPE for Standard Precautions (1)

- **Gloves** – Use when touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and nonintact skin
- **Gowns** – Use during procedures and patient care activities when contact of clothing/ exposed skin with blood/body fluids, secretions, or excretions is anticipated

PPE Use in Healthcare Settings

Under Standard Precautions, **gloves** should be used when touching blood, body fluids, secretions, excretions, or contaminated items and for touching mucous membranes and nonintact skin. A **gown** should be used during procedures and patient care activities when contact of clothing and/or exposed skin with blood, body fluids, secretions, or excretions is anticipated. Aprons are sometimes used as PPE over scrubs, such as in hemodialysis centers when inserting a needle into a fistula.



## PPE for Standard Precautions (2)

- **Mask and goggles or a face shield** – Use during patient care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions

PPE Use in Healthcare Settings

**Mask and goggles or a face shield** should be used during patient care activities that are likely to generate splashes and sprays of blood, body fluids, secretions, or excretions.



## What Type of PPE Would You Wear?

- Giving a bed bath?
- Suctioning oral secretions?
- Transporting a patient in a wheel chair?
- Responding to an emergency where blood is spurting?
- Drawing blood from a vein?
- Cleaning an incontinent patient with diarrhea?
- Irrigating a wound?
- Taking vital signs?

PPE Use in Healthcare Settings

Listed here are several patient care activities that could indicate a need to wear PPE. What PPE would you wear for the following?

Giving a bed bath? (generally none)

Suctioning oral secretions? (gloves and mask/goggles or a face shield) (Respondents may correctly note that this may depend on whether open or closed suction is being used)

Transporting a patient in a wheelchair? (generally none)

Responding to an emergency where blood is spurting? (gloves, fluid-resistant gown, mask/goggles or a face shield)

Drawing blood from a vein? (gloves)

Cleaning an incontinent patient with diarrhea? (gloves and generally a gown)

Irrigating a wound? (gloves, gown, and mask/goggles or a face shield)

Taking vital signs? (generally none)

**NOTE TO TRAINER:** Encourage discussion of how healthcare personnel decide for themselves which PPE will be worn. Do they over- or under-protect themselves? If a question is raised about use of gloves for giving an injection, indicate that this is largely a matter of local or state policy. OSHA does not require use of gloves for giving an injection.



## What Type of PPE Would *You* Wear?

- Giving a bed bath?
  - Generally none
- Suctioning oral secretions?
  - Gloves and mask/goggles or a face shield – sometimes gown
- Transporting a patient in a wheel chair?
  - Generally none required
- Responding to an emergency where blood is spurting?
  - Gloves, fluid-resistant gown, mask/goggles or a face shield
- Drawing blood from a vein?
  - Gloves
- Cleaning an incontinent patient with diarrhea?
  - Gloves w/wo gown
- Irrigating a wound?
  - Gloves, gown, mask/goggles or a face shield
- Taking vital signs?
  - Generally none

PPE Use in Healthcare Settings

Listed here are several patient care activities that could indicate a need to wear PPE. What PPE would you wear for the following?

Giving a bed bath? (generally none)

Suctioning oral secretions? (gloves and mask/goggles or a face shield) (Respondents may correctly note that this may depend on whether open or closed suction is being used)

Transporting a patient in a wheelchair? (generally none)

Responding to an emergency where blood is spurting? (gloves, fluid-resistant gown, and mask/goggles or a face shield)

Drawing blood from a vein? (gloves)

Cleaning an incontinent patient with diarrhea? (gloves and generally a gown)

Irrigating a wound? (gloves, gown, and mask/goggles or a face shield)

Taking vital signs? (generally none)

**NOTE TO TRAINER:** Encourage discussion of how healthcare personnel decide for themselves which PPE will be worn. Do they over- or under-protect themselves?



## PPE for Expanded Precautions

- Expanded Precautions include
  - Contact Precautions
  - Droplet Precautions
  - Airborne Infection Isolation

PPE Use in Healthcare Settings

In some instances, healthcare personnel are required to wear PPE in addition to that recommended for Standard Precautions. The three Expanded Precaution categories (formerly called Transmission-Based Precautions) where this applies are Contact and Droplet Precautions and Airborne Infection Isolation.



## Use of PPE for Expanded Precautions

- Contact Precautions – Gown and gloves for contact with patient or environment of care (e.g., medical equipment, environmental surfaces)
  - In some instances these are required for entering patient's environment
- Droplet Precautions – Surgical masks within 3 feet of patient
- Airborne Infection Isolation – Particulate respirator\*

**\*Negative pressure isolation room also required**

PPE Use in Healthcare Settings

Contact Precautions requires gloves and gown for contact with the patient and/or the environment of care; in some instances, use of this PPE is recommended for even entering the patient's environment. Droplet Precautions requires the use of a surgical mask, and Airborne Infection Isolation requires that only a respirator be worn.



## Hand Hygiene

- Required for Standard and Expanded Precautions
- Perform...
  - Immediately after removing PPE
  - Between patient contacts
- Wash hands thoroughly with soap and water or use alcohol-based hand rub

PPE Use in Healthcare Settings

Hand hygiene has been mentioned several times during this presentation. Hand hygiene is an essential infection control practice to protect patients, healthcare personnel and visitors and is required for both Standard and Expanded Precautions. Hand hygiene should be performed immediately after removing PPE, even during PPE changes and removal if necessary, and between patient contacts. Wash your hands thoroughly with soap and warm water or, if hands are not visibly soiled, use an alcohol-based hand rub.





## PPE Use in Healthcare Settings: Final Thoughts

- PPE is available to protect you from exposure to infectious agents in the healthcare workplace
- Know what type of PPE is necessary for the duties you perform and use it correctly

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These are a few final thoughts before ending today's presentation. Remember, PPE is available to protect you from exposure to infectious agents during healthcare. It is important that you know what type of PPE is necessary for the procedures you perform AND that you use it correctly.

Thank you for your attention and participation. Are there any questions?