

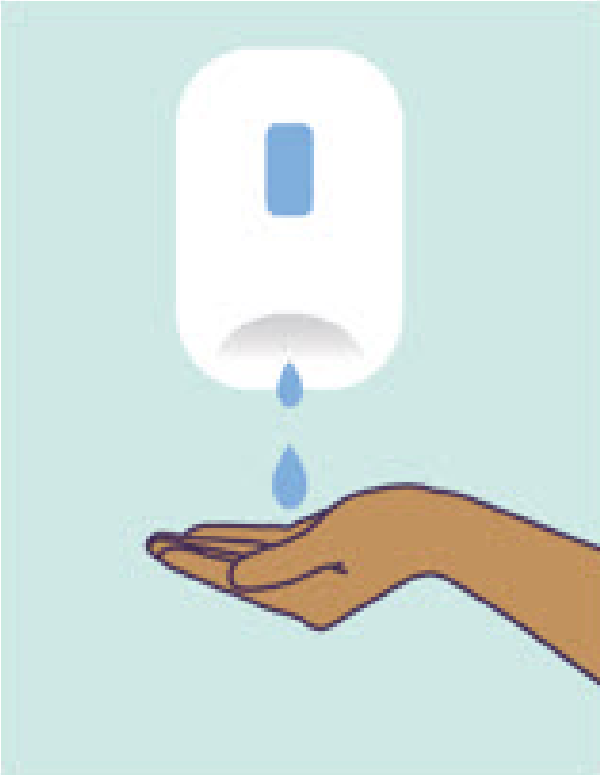
# Personal Protective Equipment and Precautions Staff Training

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Healthcare-Associated Infections Program  
Center for Health Care Quality  
California Department of Public Health

# Infection Prevention Strategies: Back to Basics



**Hand Hygiene**



**Cleaning and Disinfection**

Personal Protective Equipment and Precautions

A green-bordered box containing four red circles, each with a white icon representing a type of PPE: gloves, a gown, a mask, and goggles. Below the icons is the text "Personal Protective Equipment and Precautions" in blue.

# Sequence for Donning PPE

Perform hand hygiene before donning PPE.

1. Gown
2. Mask or respirator
3. Goggles or face shield
4. Gloves

# 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



# 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



# How to Don a Respirator

- **Select a fit tested respirator, preferably**
- 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



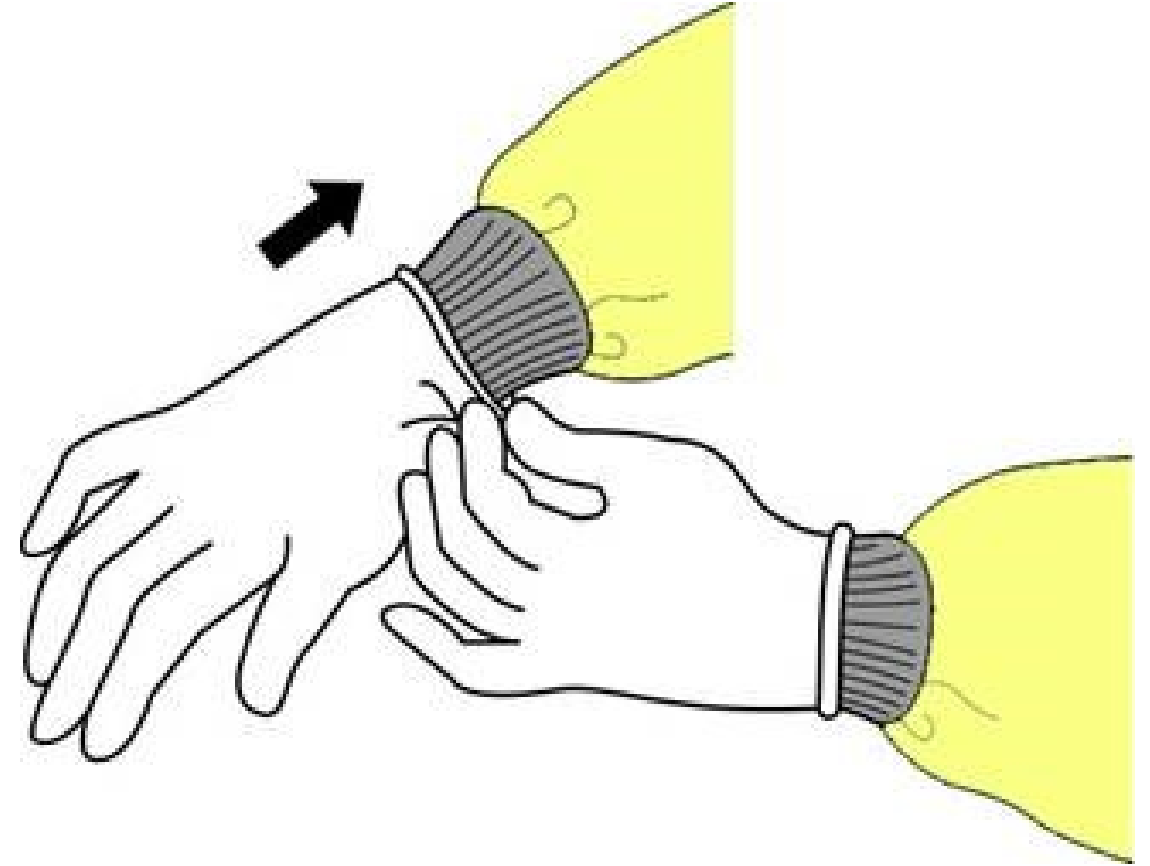
# How to Don Eye and Face Protection

- 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



# How to Don Gloves

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





# Use Safe PPE Practices

- 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



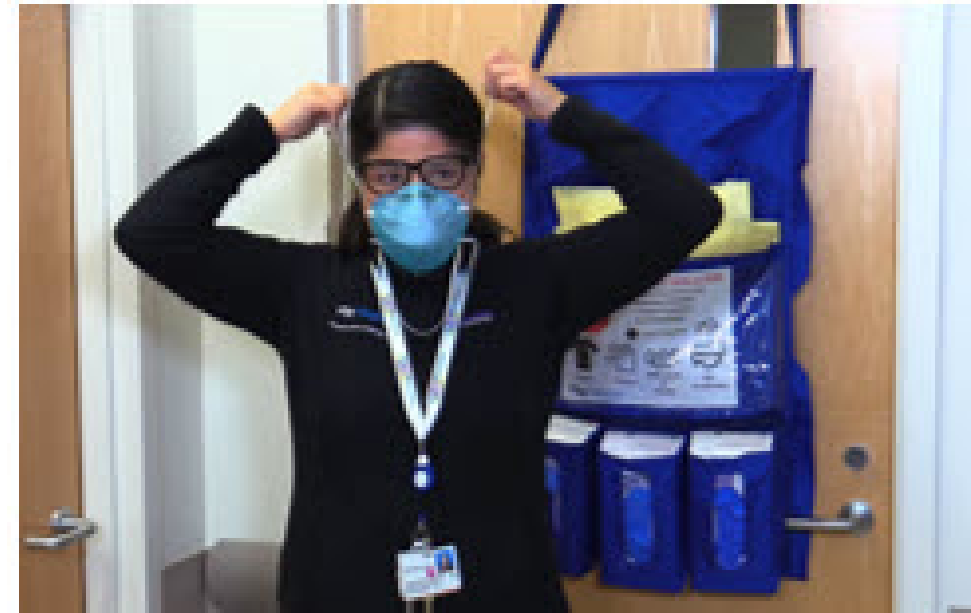
# Remove PPE in Appropriate Areas

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

—\*Ensure hand hygiene supplies are available at the points needed, either a sink or alcohol-based hand rub

- [UCSF Health PPE Donning and Doffing](https://www.youtube.com/watch?v=-sBNxli21n0&feature=emb_title)

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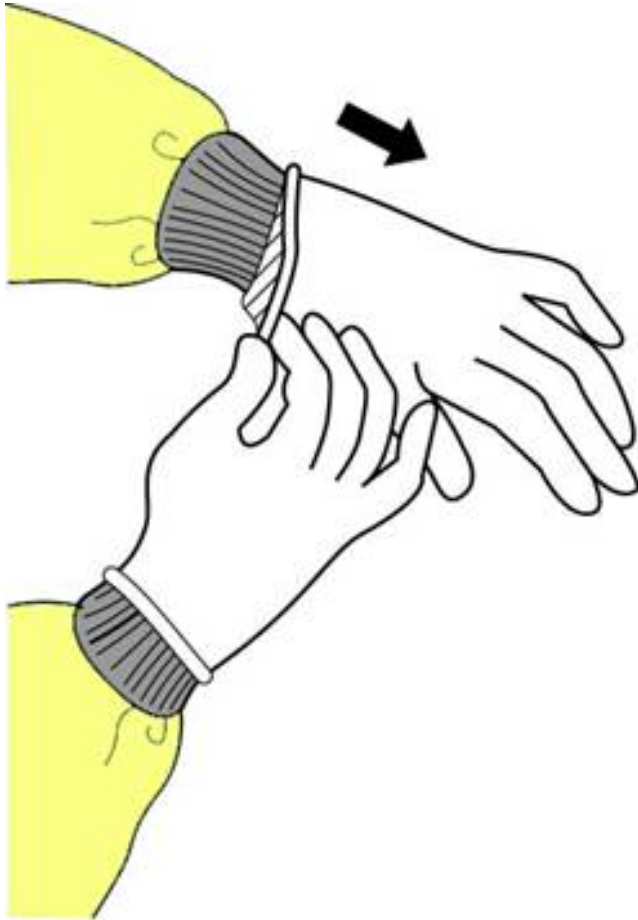
# Safely Remove PPE

- Recognize the “Contaminated” and “Clean” areas of PPE
- Contaminated
  - PPE areas likely to have been in contact with body sites, materials, or surfaces with infectious organisms
  - Includes the outside and front of PPE
- Clean
  - PPE areas that are not likely to have been in contact with the infectious organism
  - Includes the inside and the outside back of PPE

# Sequence for Removing PPE

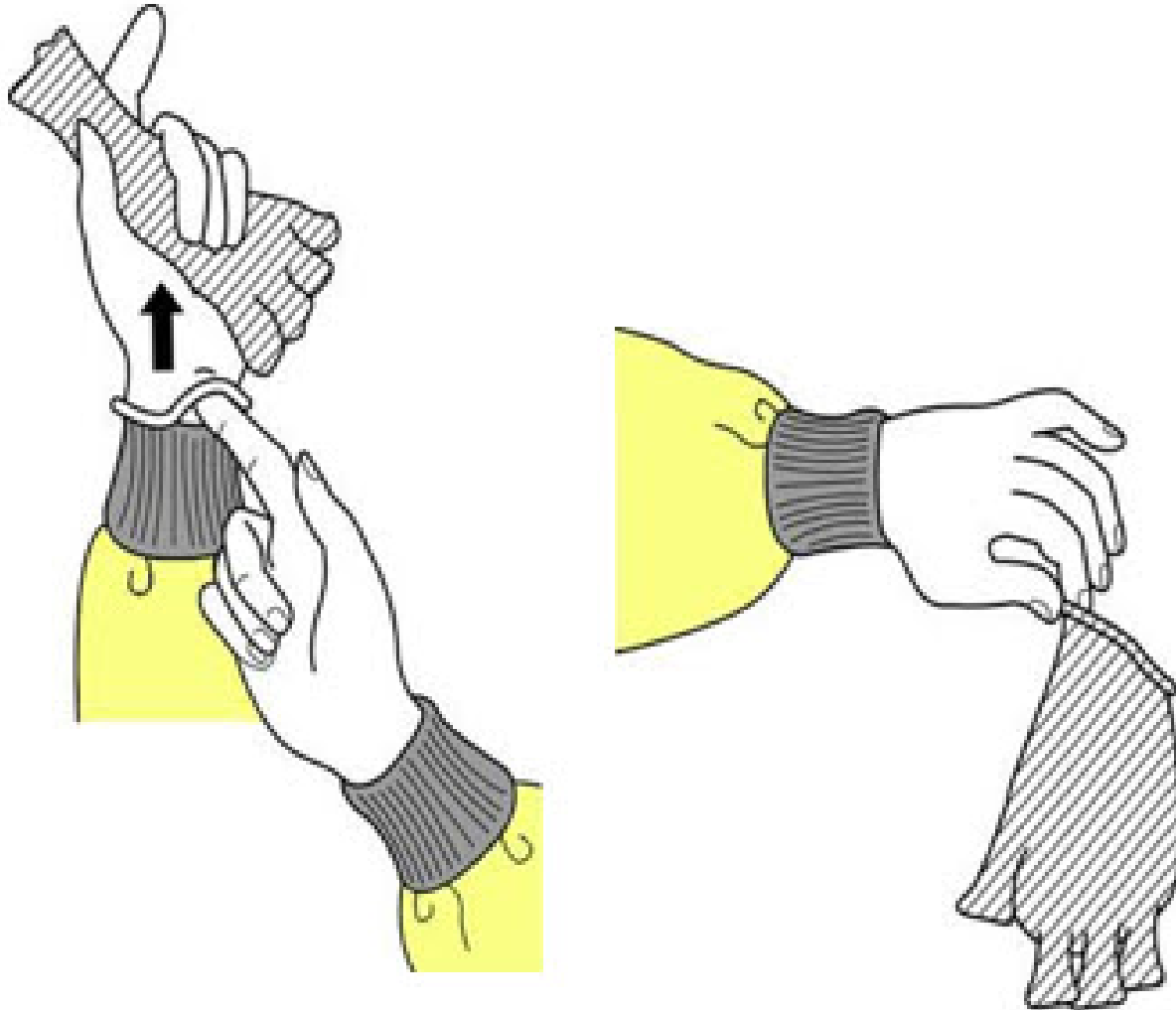
1. Remove gloves\*
    - Perform hand hygiene
  2. Remove gown\*
    - Perform hand hygiene
  3. Remove face shield/ goggles
    - Perform hand hygiene
  4. Remove mask or respirator
    - Perform hand hygiene
- \* Gown and gloves may be removed together.

# How to Remove Gloves (Method 1)



- **Step 1:** Grasp outside edge near wrist
- **Step 2:** Peel away from hand, turning glove inside-out
- **Step 3:** Hold in opposite gloved hand

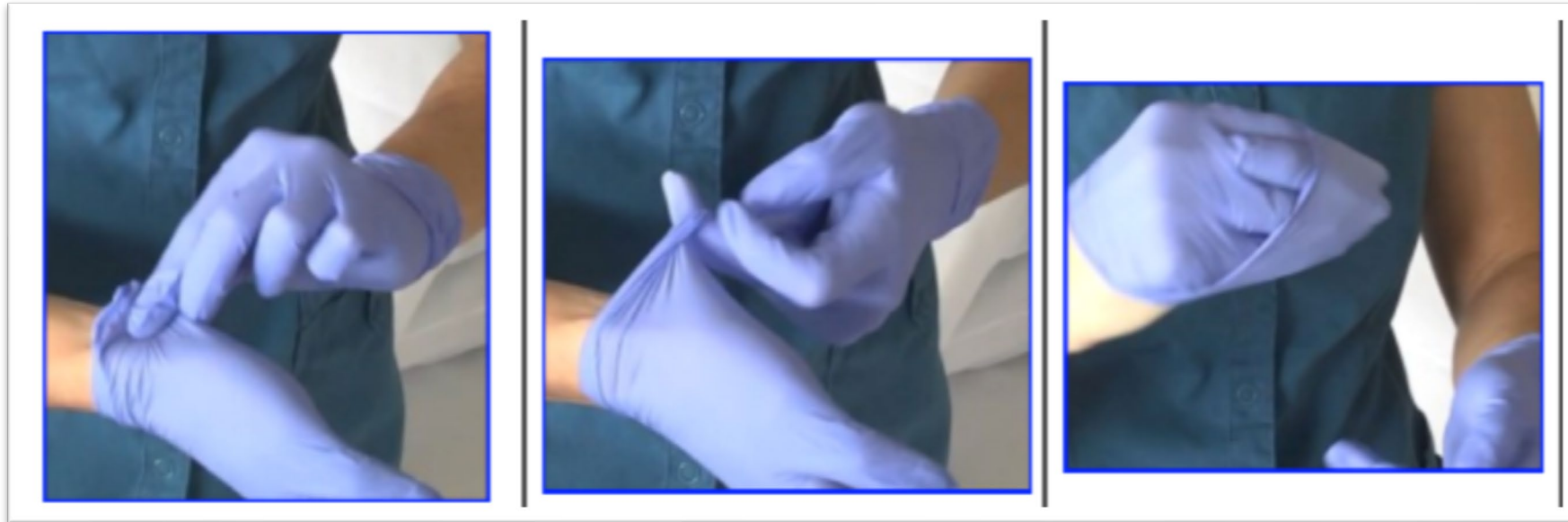
# How to Remove Gloves (Method 1), continued



- **Step 4:** Slide ungloved finger under the wrist of the remaining glove
  - **Step 5:** Peel off from inside, creating a bag for both gloves
  - **Step 6:** Discard
- **Always perform hand hygiene after glove removal.**

# How to Remove Gloves (Method 2 - Beak)

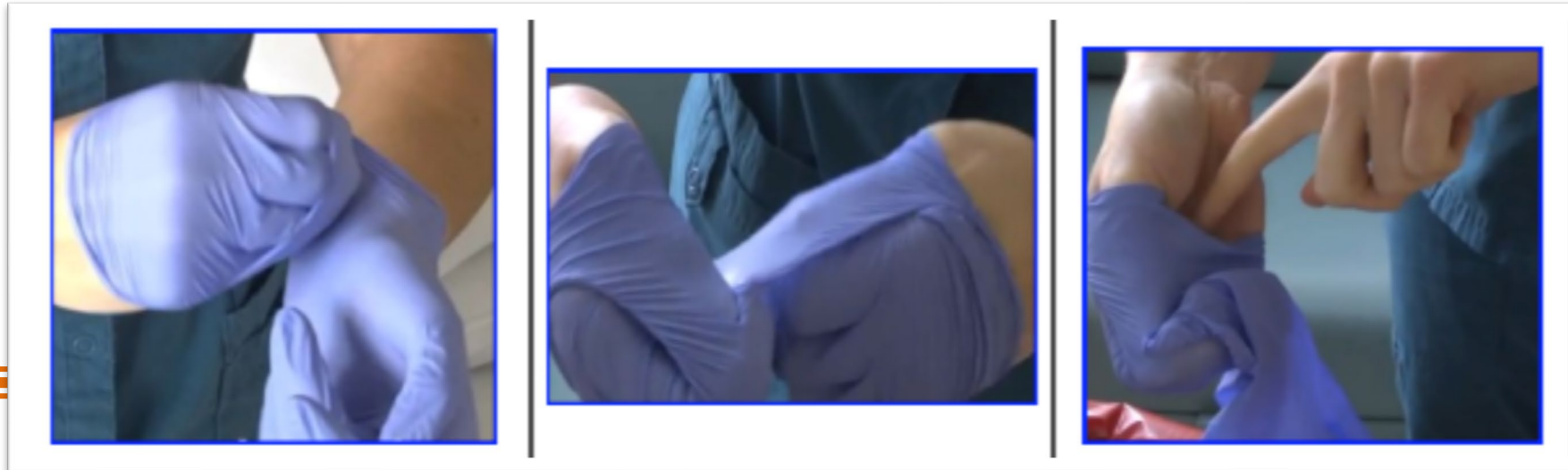
- **Step 1:** Using one gloved hand, pinch and pull the base of the other gloved hand.
- **Step 2:** Use the middle finger to scoop the cuff of the glove.
- **Step 3:** Pull the glove inside out over all the fingers and thumb to form a “beak.”



# How to Remove Gloves (Method 2 - Beak), continued

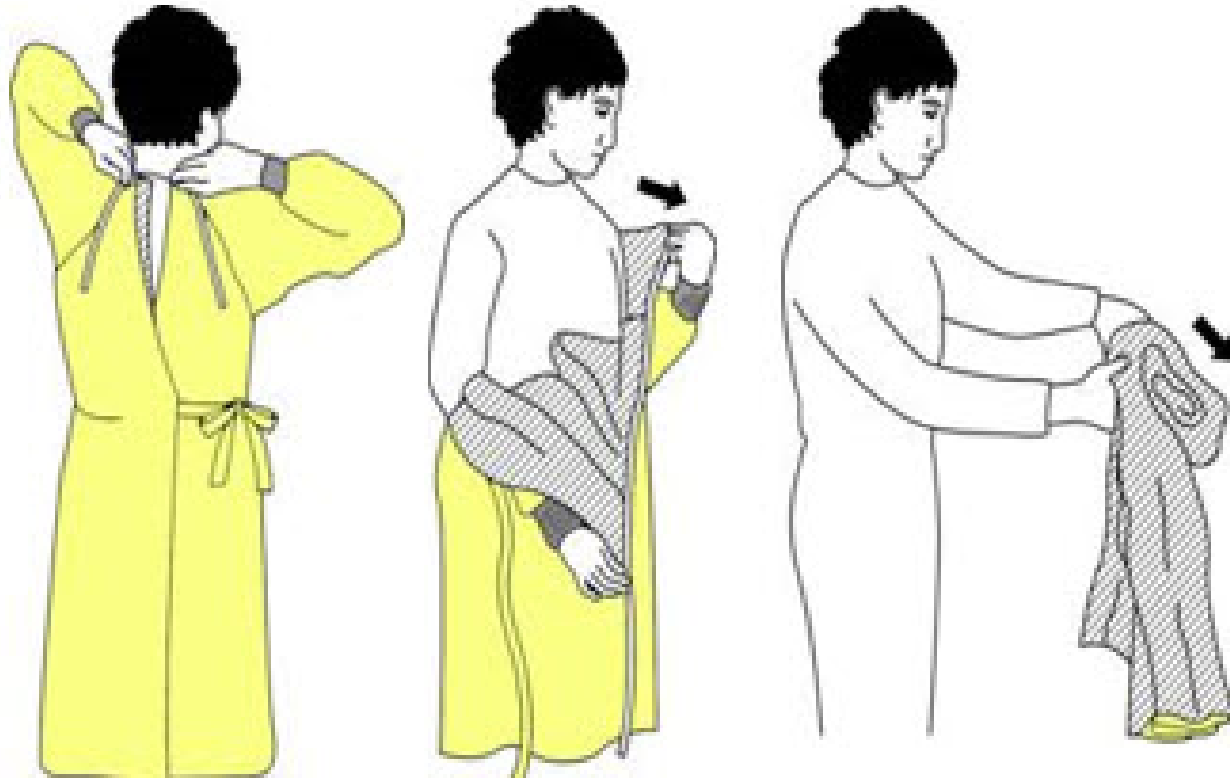
- **Step 4:** With the beaked hand, pinch the opposite glove at the base and pull the cuff.
- **Step 5:** Roll the glove inside out and off the hand.
- **Step 6:** With the ungloved hand, use the index finger to pull the beaked glove off at the base of the beak and dispose into the appropriate waste container.

**Always perform hand hygiene after glove removal.**





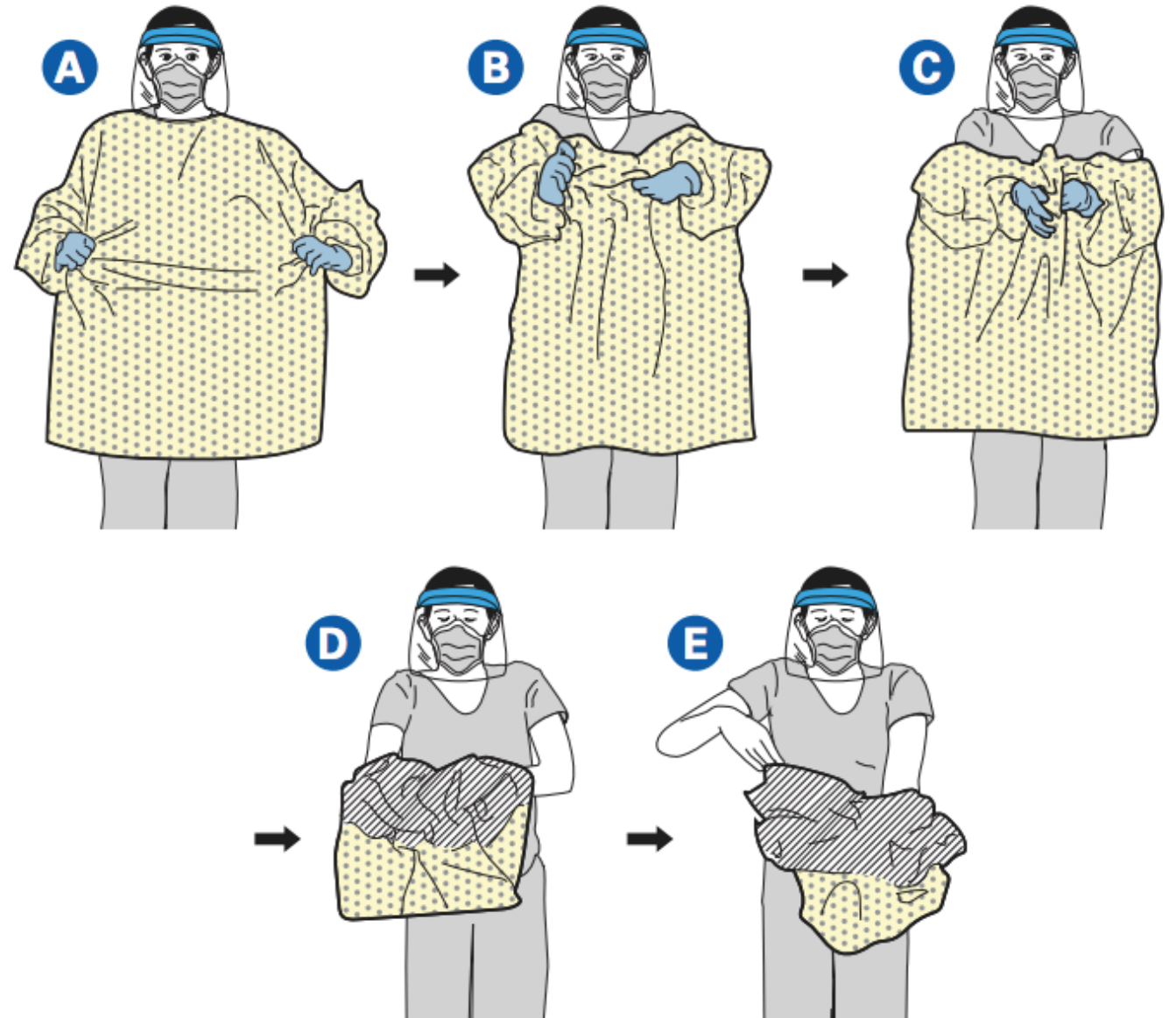
# How to Remove Isolation Gown



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

# How to Remove Gown and Gloves Together

- With gloved hands, grasp gown in front
- Pull gown away from body so ties break
- Fold or roll into a bundle; peel off gloves at same time
- Discard
- Perform hand hygiene



# How to Remove Goggles or Face Shield



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

# How to Remove a Respirator

- Remove outside the room or in the ante-room
- Lift the bottom elastic over your head first
- Then lift off the top elastic
- Discard

[CDC PPE Sequence](#) (PDF)

(<https://www.cdc.gov/hai/pdfs/ppe/PPE-Sequence.pdf>)



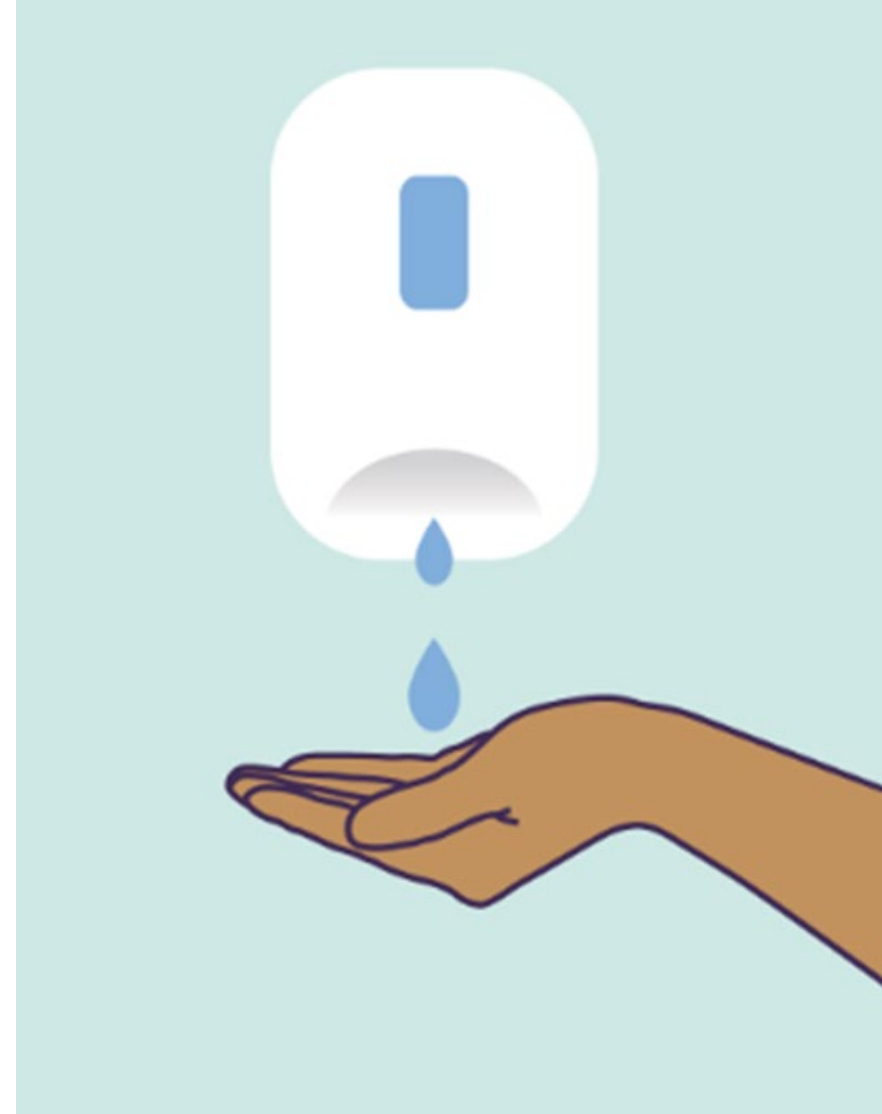
# How to Remove a Tied Facemask



- Remove at least 6 feet away from the patient, e.g. at the door
- Untie the bottom, then top, tie
- Remove from face
- Discard

# Perform Hand Hygiene After Removing PPE

- Perform hand hygiene immediately after removing PPE and preferably after each step
- Use alcohol-based hand rub or wash with soap and water
  - Exception: If hands become visibly contaminated during PPE removal, wash hands with soap and water before continuing PPE removal



# Summary

- Select and **use the appropriate personal protective equipment (PPE)** as required
- **Educate all healthcare workers** on the PPE donning and doffing process.
- PPE should be used in a safe manner to **avoid self and cross contamination.**
- **Perform hand hygiene** before donning and after each step of PPE removal.