Personal Protective Equipment and Precautions

CDPH
California Department of Public Health

Infection Prevention Strategies: Basics

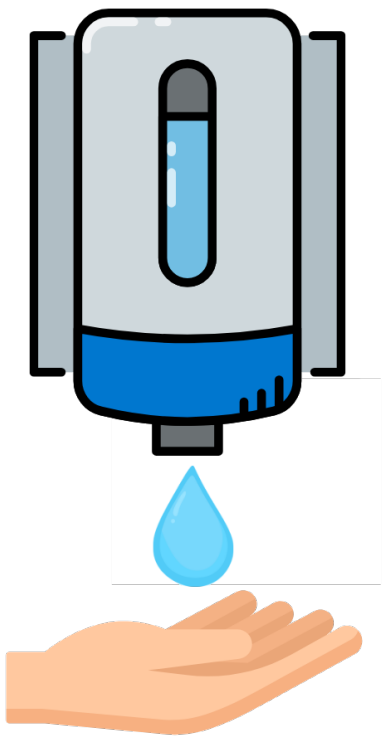
Many healthcare-associated infections (HAI) may be prevented by implementing simple actions that require minimal resources, such as **hand hygiene, environmental and equipment cleaning and disinfection, personal protective equipment (PPE), and isolation precautions.**

The objectives of this presentation are to:

- Describe the PPE donning and doffing process.
- Review best practices for PPE.
- Understand the role of hand hygiene in conjunction with PPE use.

June 2026 • © 2026, California Department of Public Health

Infection Prevention Strategies: Basics



Hand Hygiene

Cleaning and Disinfection

Personal Protective Equipment and Precautions

June 2026 • © 2026, California Department of Public Health

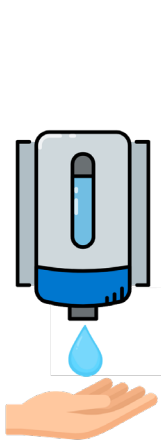
Sequence for Donning PPE

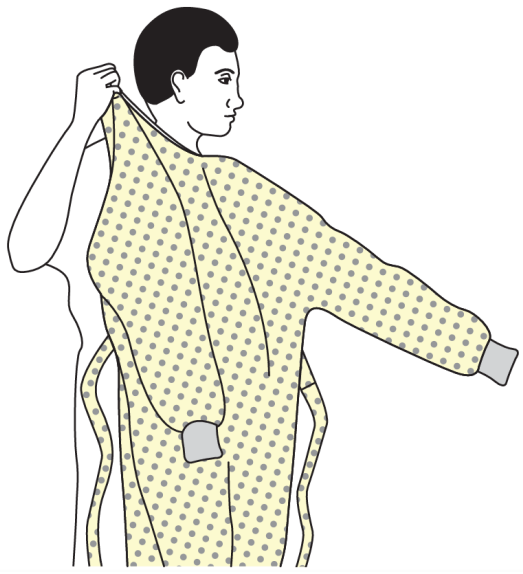
Perform hand hygiene before donning PPE.

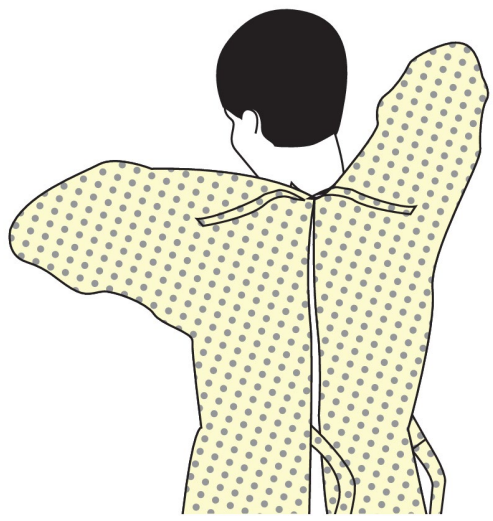
1. The gown should be donned first.
2. The mask or respirator should be put on next and properly adjusted to fit; remember to fit check the respirator.
3. The goggles or face shield should be donned next.
4. The gloves are donned last.

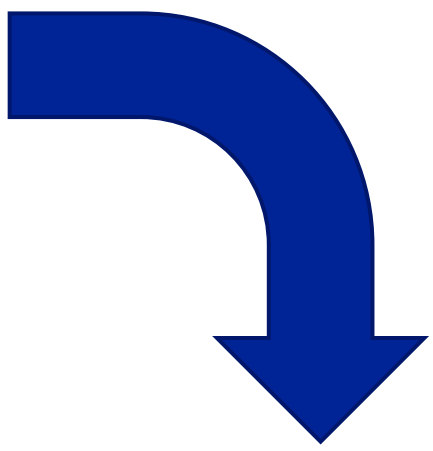
Keep in mind, the combination of PPE used, and therefore the sequence for donning, will be determined by the precautions that need to be taken.

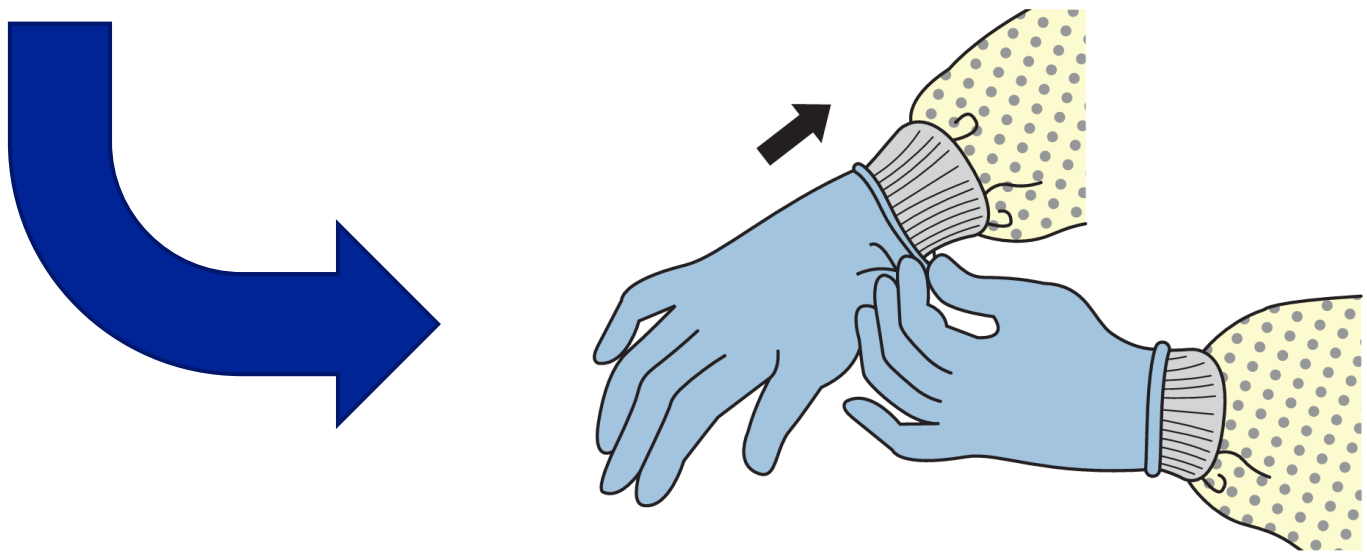
Sequence for Donning PPE











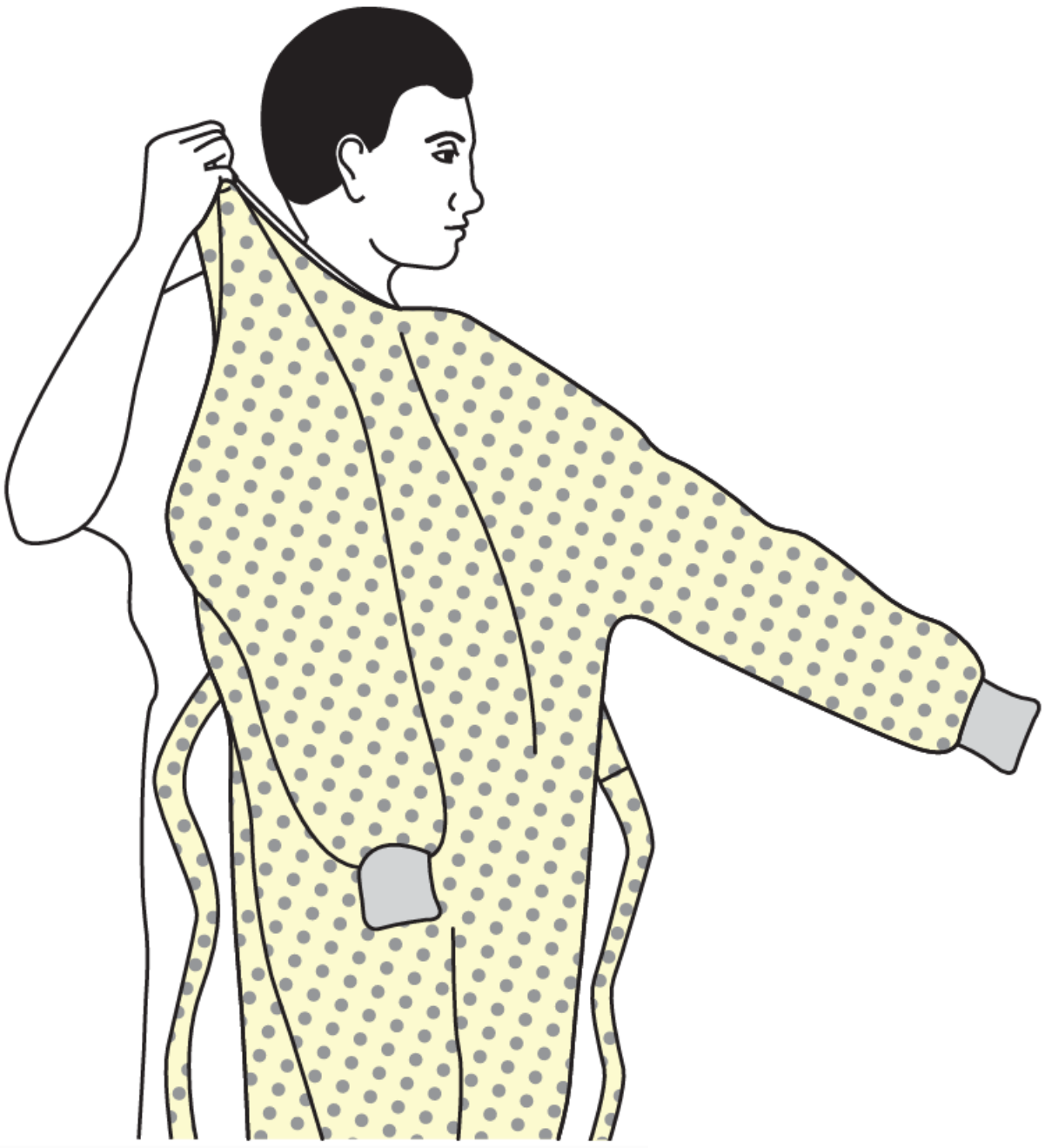
June 2026 • © 2026, California Department of Public Health

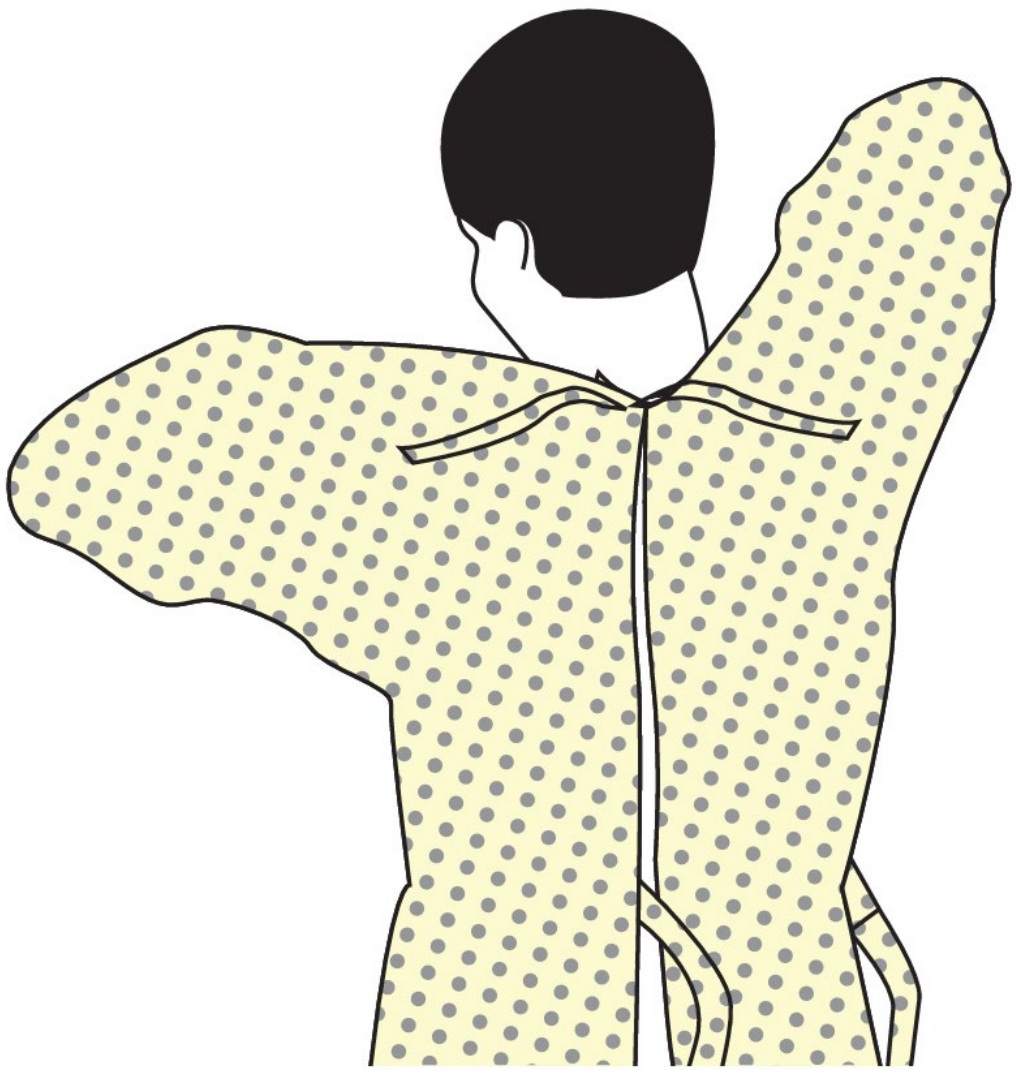
How to Don a Gown

- 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.

June 2026 • © 2026, California Department of Public Health

How to Don a Gown





June 2026 • © 2026, California Department of Public Health

How to Don a Mask

- 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 of ties 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; one band on the upper back of your head, the other below the ears at the base of the neck.
- **If the mask has elastic ear bands,** place and hold the mask over your nose, mouth and chin. Place the elastic bands around your ears and fit the flexible nose piece to the form of your nose bridge.
- **Adjust the mask to fit.** Remember, you should not touch your mask during use so take the few seconds needed to make sure it is secure on your head and fits snuggly around your face so there are no gaps.

June 2026 • © 2026, California Department of Public Health

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.

June 2026 • © 2026, California Department of Public Health

How to Don a Respirator

- 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.
    - Place over nose, mouth and chin.
    - Fit flexible nose piece over nose bridge.
    - Secure on head with elastic.
    - Adjust to fit.
    - Perform a seal check.
- 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.

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 seal check.

June 2026 • © 2026, California Department of Public Health

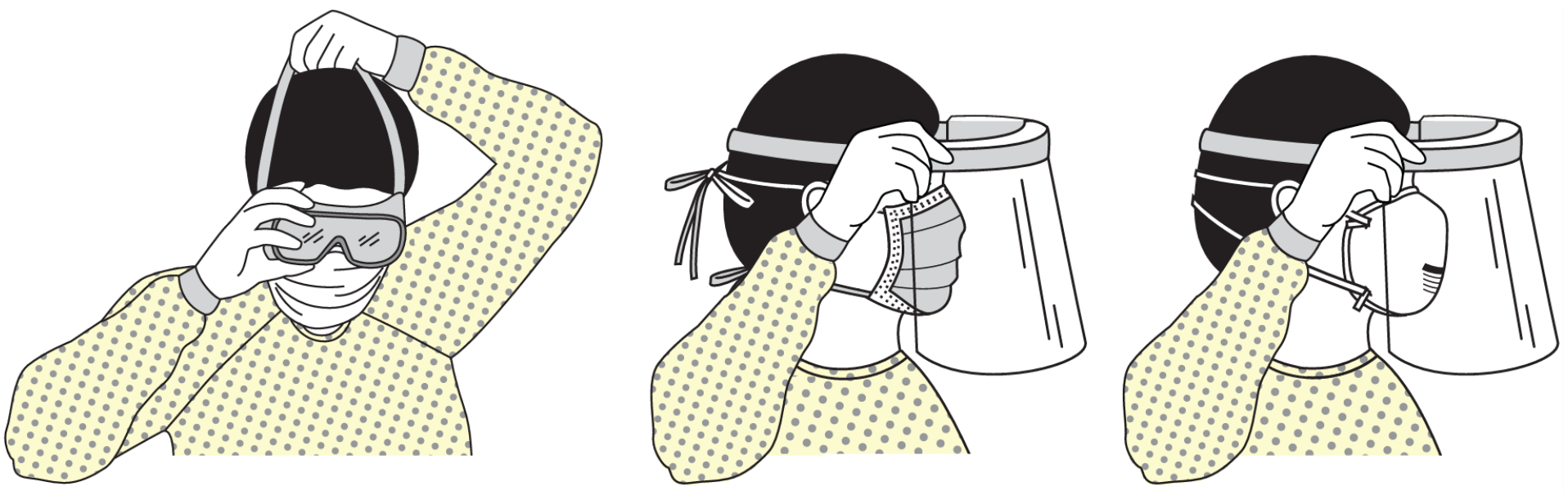
How to Don Eye and Face Protection

- If eye protection is needed, either goggles or a face shield should be worn.
- Position either device over the face 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.

June 2026 • © 2026, California Department of Public Health

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.



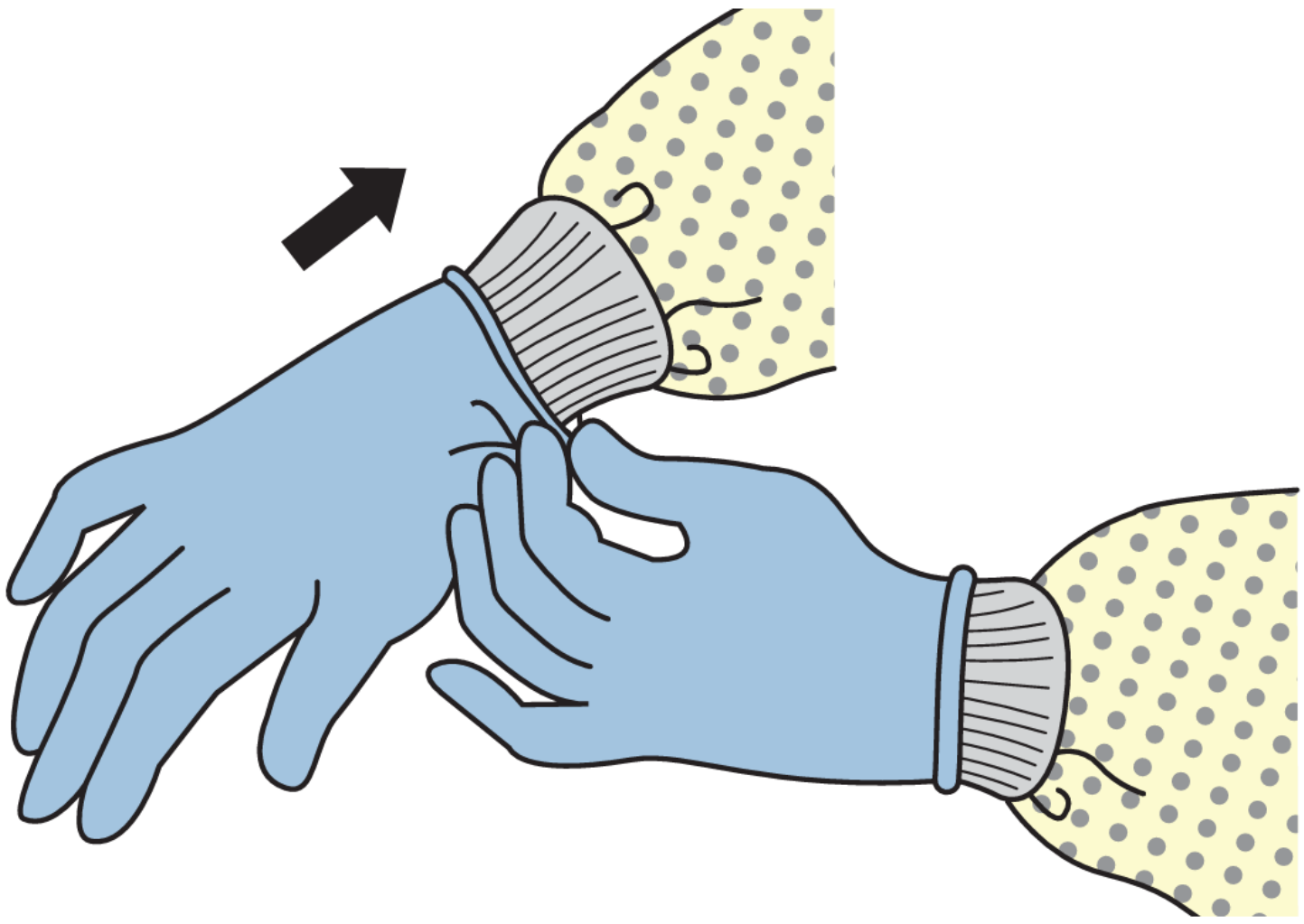
How to Don Gloves

- 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 and 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.

June 2026 • © 2026, California Department of Public Health

How to Don Gloves

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

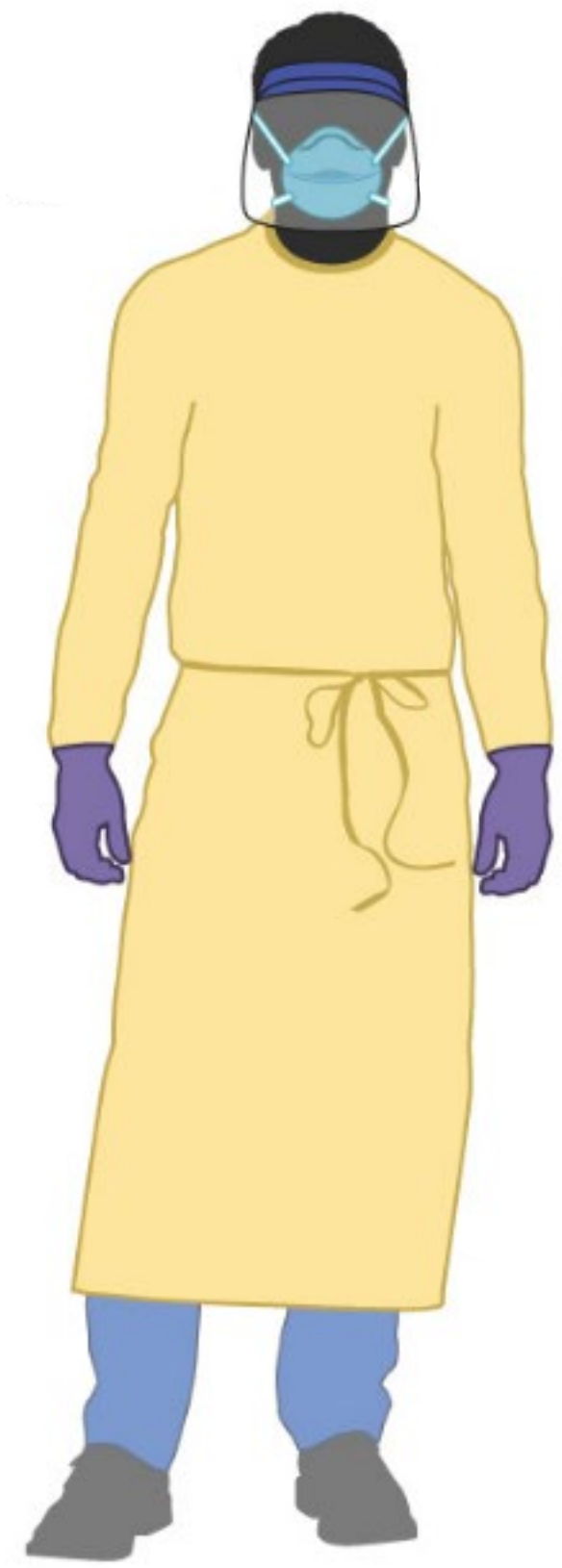


Use Safe PPE Practices

- 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 germs by limiting surfaces and items touched with contaminated gloves.

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.



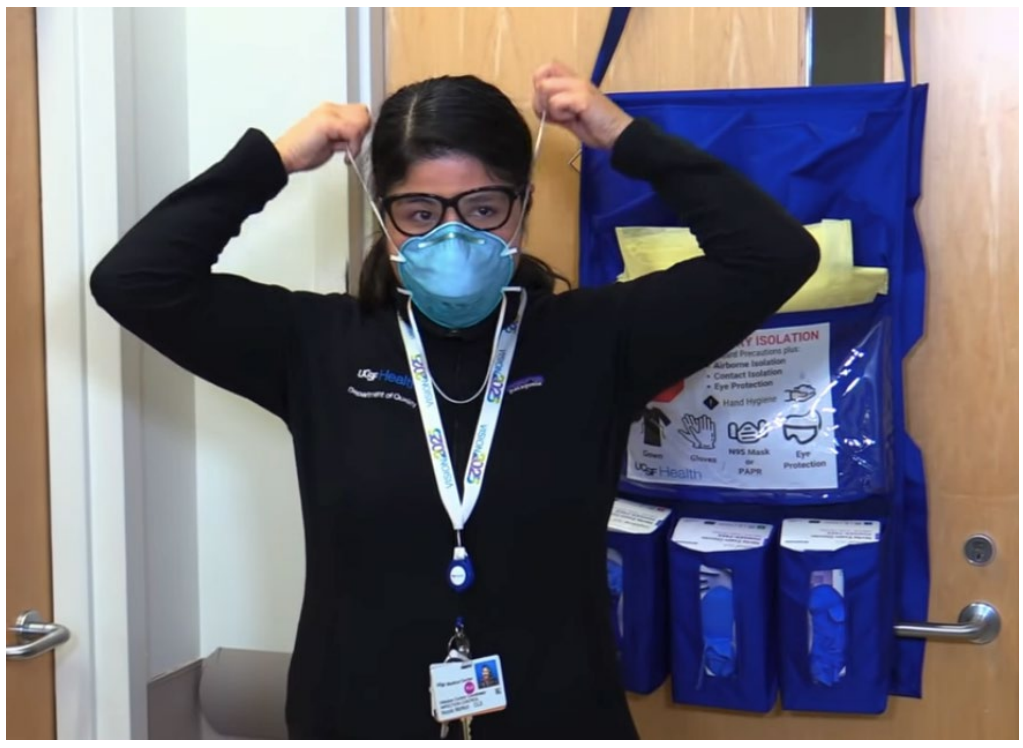
June 2026 • © 2026, California Department of Public Health

Remove PPE in Appropriate Areas

- 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. Ensure hand hygiene supplies are available at the points needed, either a sink and soap, or alcohol-based hand rub.

Remove PPE in Appropriate Areas

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



 • © 2026, California Department of Public Health

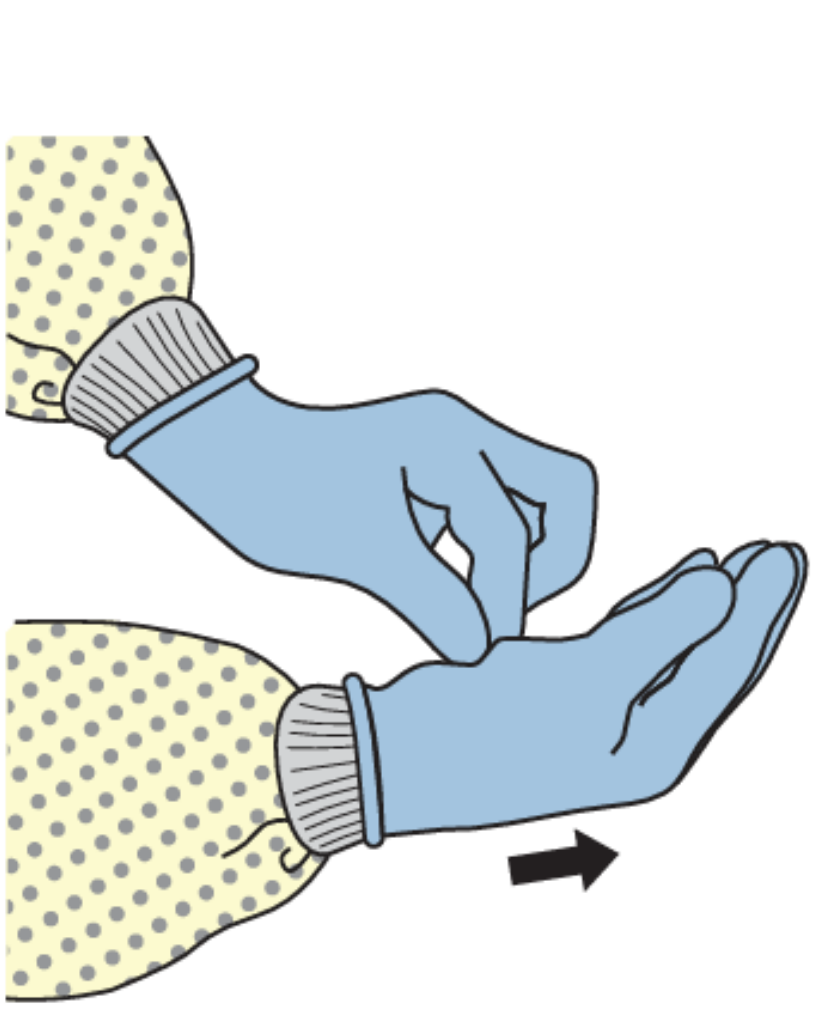
Safely Remove PPE

- 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.

June 2026 • © 2026, California Department of Public Health

Safely Remove PPE

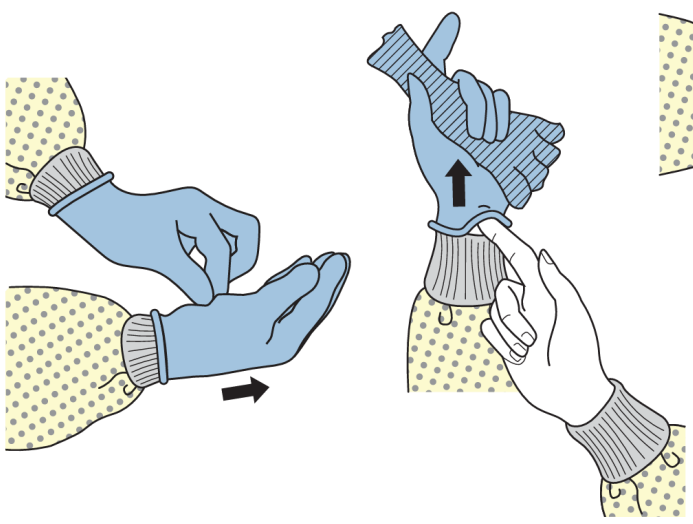
- Recognize the **contaminated** and **clean** areas of PPE.
- **Contaminated:** PPE areas likely to have been in contact with body sites, materials or surfaces with infectious organisms
- **Clean:** PPE areas that are not likely to have been in contact with infectious organisms

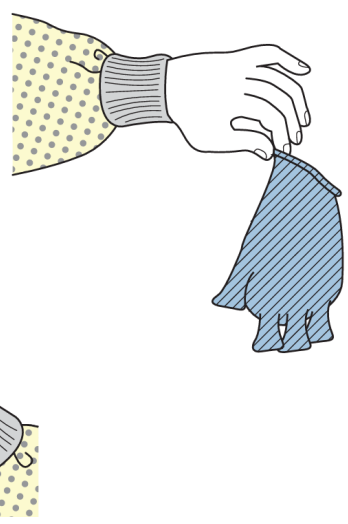


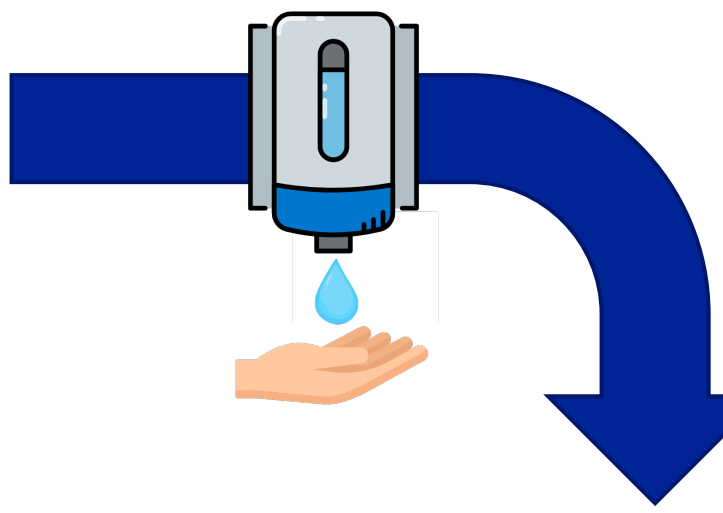
Sequence for Removing PPE

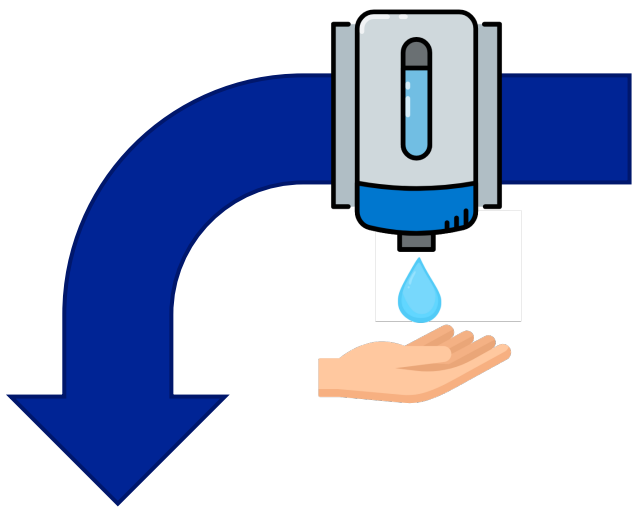
- The sequence for removing PPE is intended to limit opportunities for self-contamination.
- The gloves are considered the most contaminated pieces of PPE and are therefore removed first.
- The gown is next in the sequence. If the gown cannot be safely removed while wearing a face shield or goggles, then remove the face shield or goggles before removing your gown.
- Remove your mask or respirator.
- After each step, perform hand hygiene.
- Note: Facilities might have a different method for removing PPE.

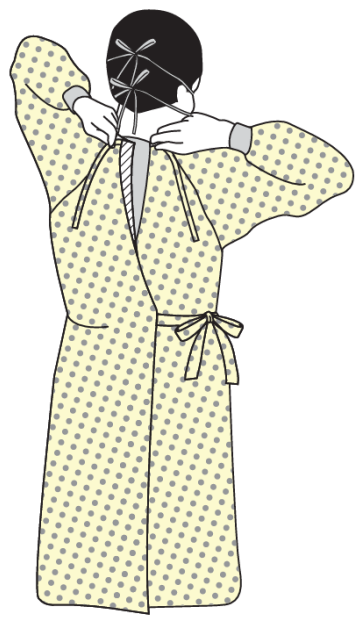
Sequence for Removing PPE

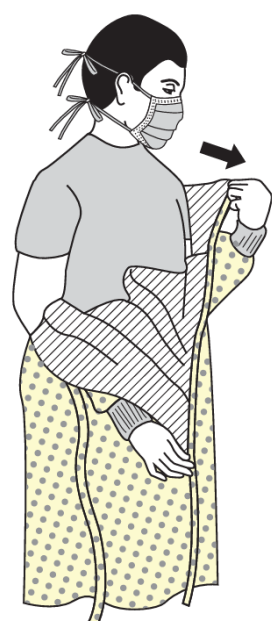


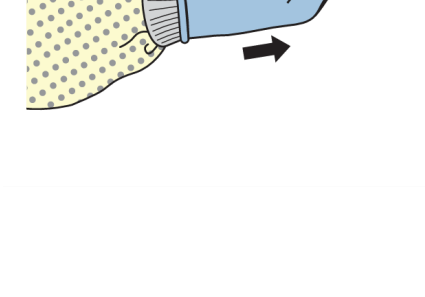


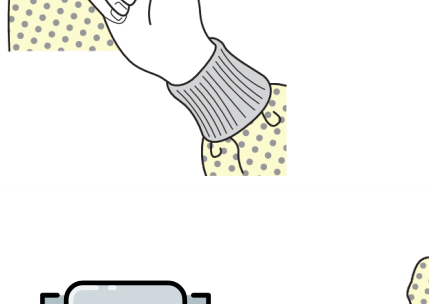


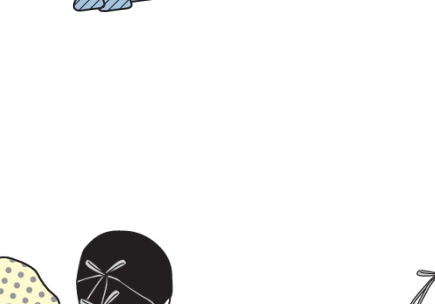


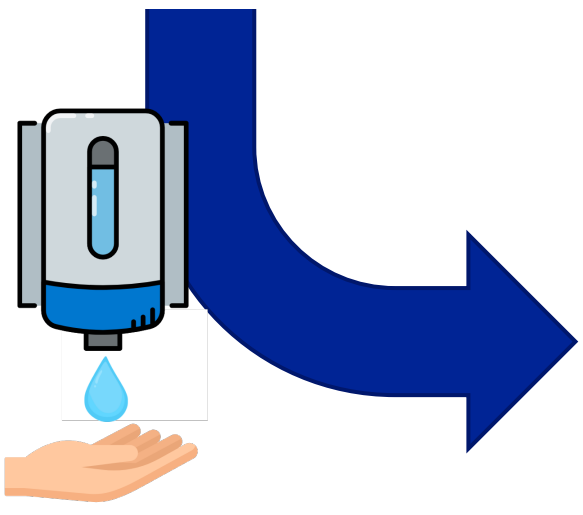


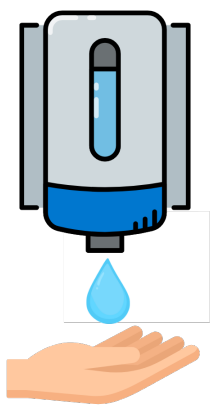












June 2026 • © 2026, California Department of Public Health

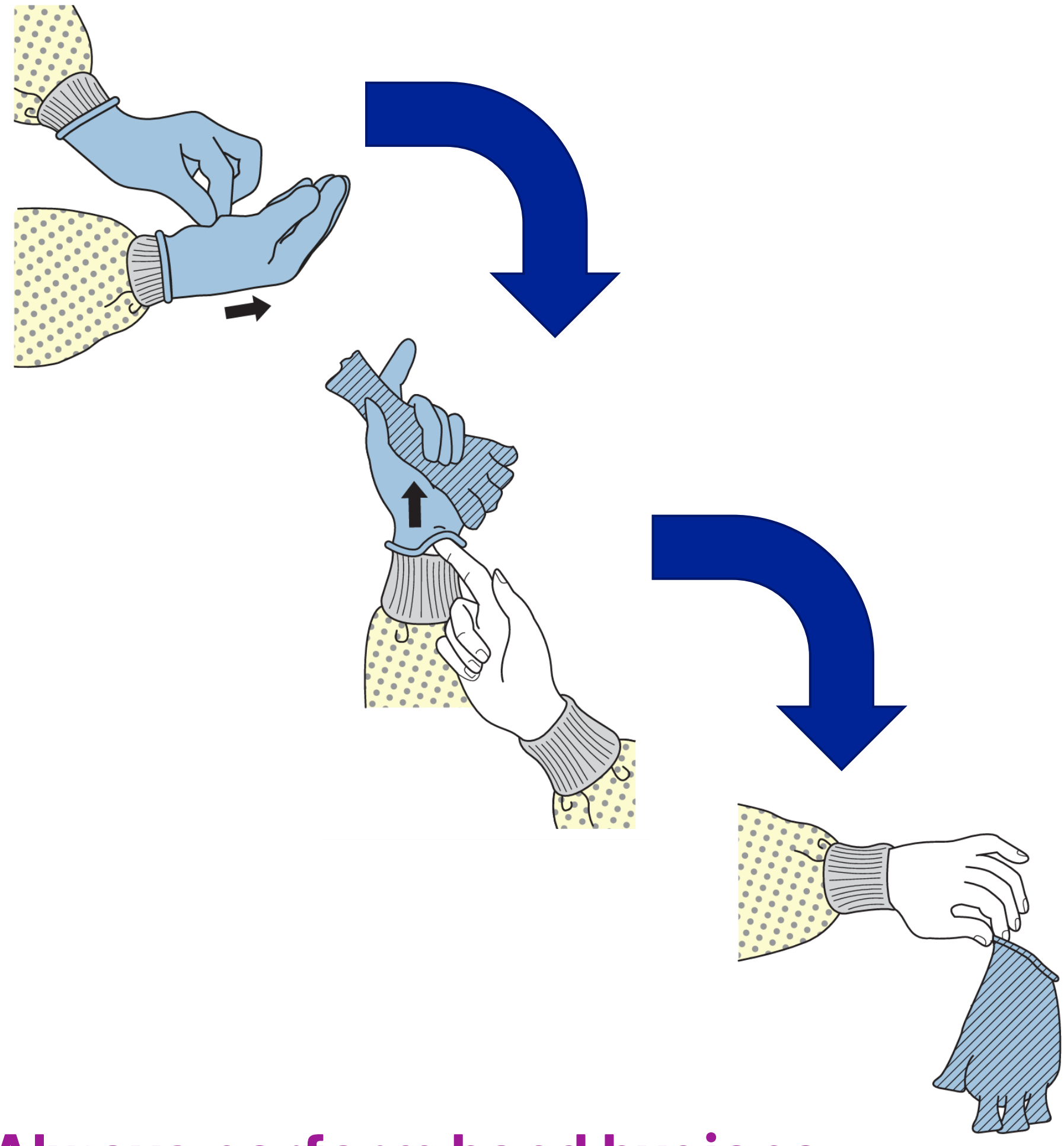
How to Remove Gloves

- **Step 1:** 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.
- **Step 2:** Hold the removed glove in the opposite gloved hand. Slide one or two fingers of the ungloved hand under the wrist of the remaining glove.
- **Step 3:** Peel the glove off from the inside, creating a bag for both gloves. Discard gloves in waste container.

Always perform hand hygiene after glove removal.

June 2026 • © 2026, California Department of Public Health

How to Remove Gloves



Always perform hand hygiene after glove removal.

June 2026 • © 2026, California Department of Public Health

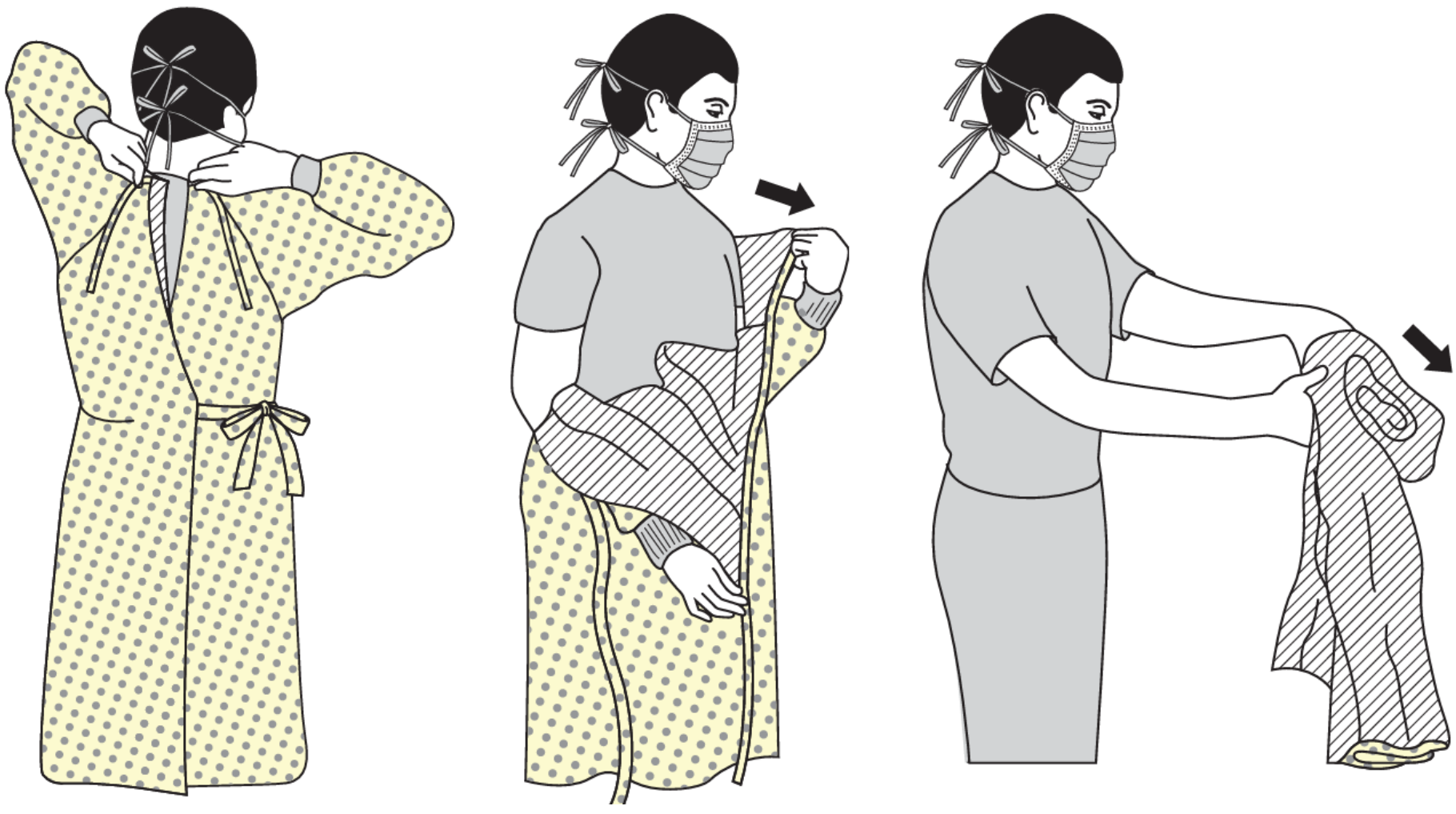
How to Remove Isolation Gown

- Unfasten the gown ties with ungloved hands.
- Slip hands underneath the gown at the neck and shoulder, and 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.

June 2026 • © 2026, California Department of Public Health

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.



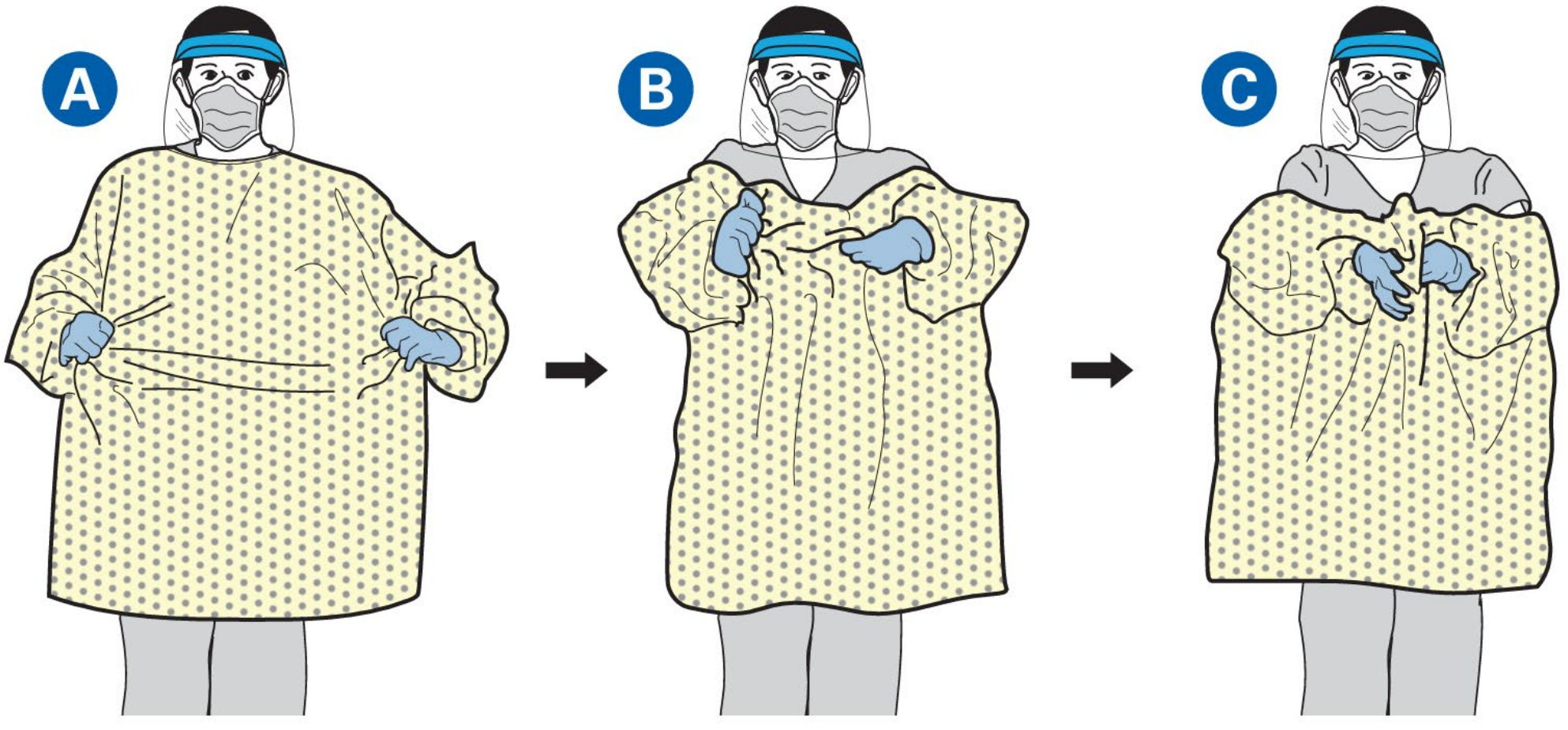
How to Remove Gown and Gloves Together

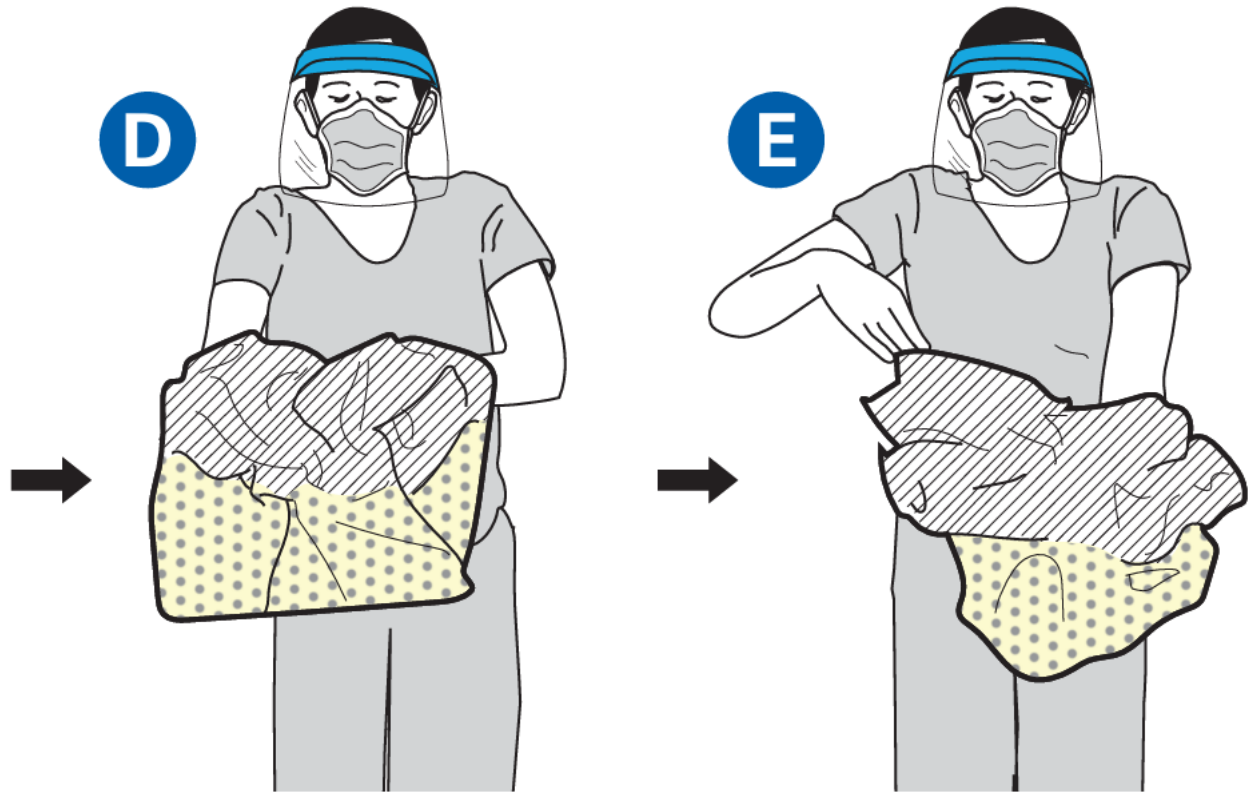
You may need to remove your gown and gloves at the same time.

- Grasp the gown in the front.
- Pull the gown away from your body so that the ties break, touching the outside of your gown only with gloved hands.
- While removing the gown, fold or roll the gown inside out into a bundle.
- As you are removing the gown, peel off your gloves at the same time, only touching the inside of the gloves and gown with your bare hands.
- Place the gown and gloves into a waste container.

June 2026 • © 2026, California Department of Public Health

How to Remove Gown and Gloves Together





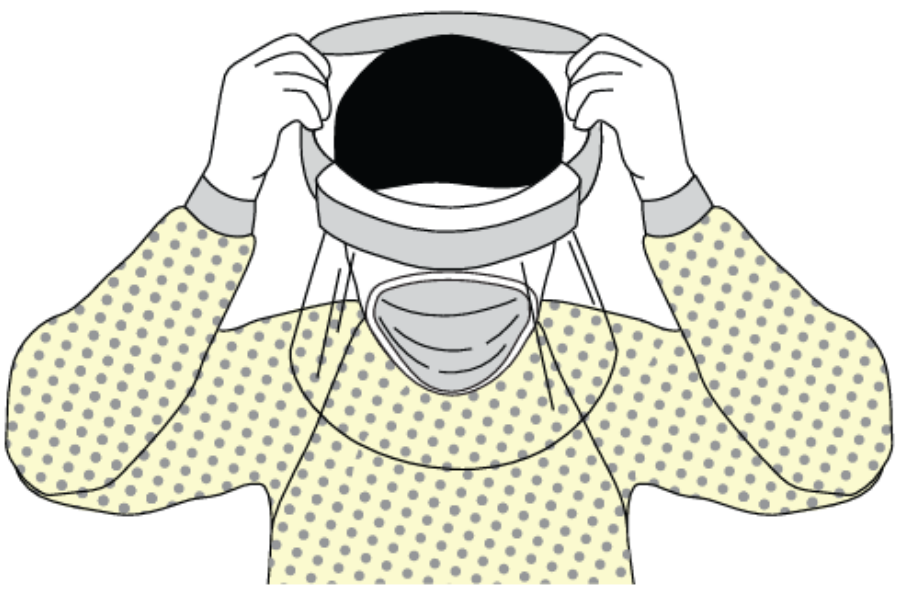
June 2026 • © 2026, California Department of Public Health

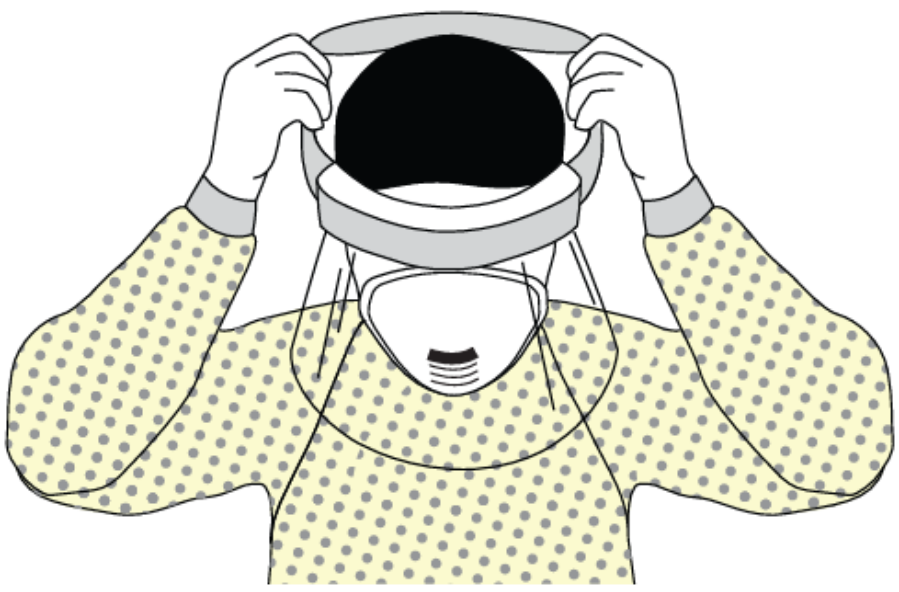
How to Remove Goggles or Face Shield

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

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

- Respirators should be removed outside the patient room or in the anteroom.

- 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 of the face.

How to Remove a Respirator

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

June 2026 • © 2026, California Department of Public Health

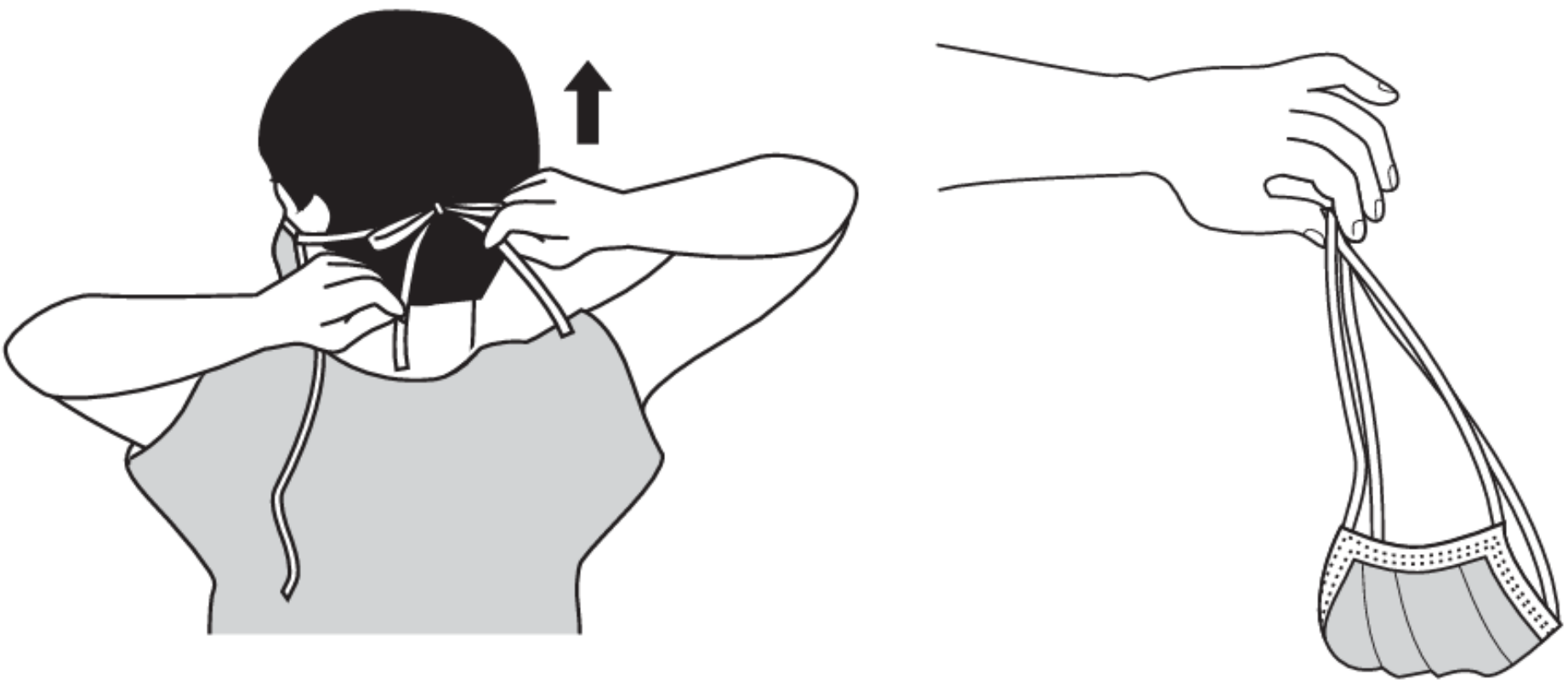
How to Remove a Tied Facemask

- Remove facemasks at least six feet away from the patient, e.g., at the door.
- 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 away from the face.
- Discard the mask into the designated waste receptacle.

June 2026 • © 2026, California Department of Public Health

How to Remove a Tied Facemask

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



June 2026 • © 2026, California Department of Public Health

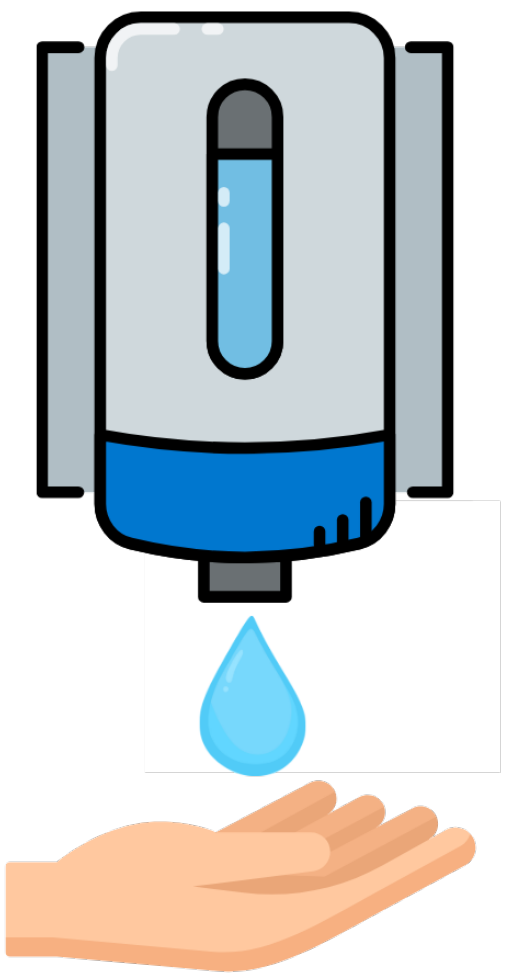
Perform Hand Hygiene After Removing PPE

- Hand hygiene is the cornerstone of preventing infection transmission.
- You should perform hand hygiene immediately after removing PPE, and preferably after each step in the PPE removal process.
- If your hands become visibly contaminated during PPE removal, wash your 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.

June 2026 • © 2026, California Department of Public Health

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.



June 2026 • © 2026, California Department of Public Health

Summary

In summary:

- Select and **use the appropriate 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 PPE and after each step of PPE removal.

To the instructor only:

- End by handing out the post-test activity to class participants. Give 5 minutes for participants to answer; then collect tests.

Summary

- Select and use the appropriate 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 PPE and after each step of PPE removal.

Instructor Notes

- On the front of the flipchart, you will find the subject to be discussed; the back of each picture and subject has a suggested script. The script will help guide the learning experience between you and your staff; it does not need to be followed exactly.

- Try to start a dialogue to involve your staff.

- You may start your session with a pre-test activity. Give 5 minutes for participants to answer; then collect tests.

- To begin, let class participants know that this presentation will teach them the role of PPE and precautions in infection prevention and control.