

# Personal Protective Equipment During the Pandemic

## A Guide to Protecting Yourself and Your Patients

The COVID-19 pandemic is rapidly evolving and has placed a tremendous strain on the health care system. With pharmacy personnel being one of the most accessible health care professionals on the front line, it is important that they stay safe and be protected. Pharmacists must be well informed about safety and have enough access to personal protective equipment (PPE) to keep themselves, their staff, and their families safe. Because no cure is currently available for COVID-19 (SARS-CoV-2), prevention is the best measure of containing the infection.



### PPE Training

- [PPE Definitions](#)
- [CDC PPE FAQ](#)
- [CDC Guidance on Using PPE](#)
- [APhA PPE FAQ](#)
- [CDC Proper Use Videos](#)



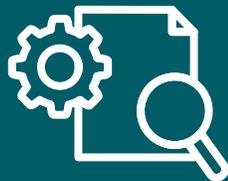
### Practice Setting Guidance

- [COVID-19 Testing Sites](#)
- [Clinic](#)
- [Community Pharmacy](#)
- [Hospital](#)



### Conserving Resources

- [Optimizing PPE](#)
- [Burnrate Calculator](#)



### Additional Resources

- [CDC Guidance for Pharmacies](#)
- [CDC Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 \(COVID-19\) Pandemic](#)
- [OSHA PPE Guidance](#)
- [OSHA COVID-19 Guidance for Retail Pharmacies](#)

# Personal Protective Equipment During the Pandemic (continued)



## A Guide to Protecting Yourself and Your Patients

### Definitions

- **Face covering:** A general term to refer to facemasks, N-95 respirators and cloth masks.
- **N-95 Respirator:** A NIOSH-certified mask, used as personal protective equipment, that is used to protect the wearer from 95% of airborne particles 0.3 microns or larger and from liquid contamination.
- **Facemasks:** Includes sterile surgical masks and nonsterile masks made from nonwoven materials and consisting of multiple layers. The multiple layers reduce/block exhaled liquid and aerosolized droplets.
- **Cloth masks:** Not considered PPE in the health care setting. However, in certain situations, such as PPE shortages, cloth masks can be used as a means of reducing droplets exhaled by the user.
- **Goggles/Face Shield:** Used for eye protection in areas where the risk of contracting COVID-19 is high to moderate risk. Face shields should be worn with facemasks or respirators. They should not be used alone.
- **Gloves:** Include waterproof, latex, nitrile, polyvinyl chloride or polyurethane, sterile and nonsterile.
- **Gowns/Coveralls:** Include isolation gowns and one-piece coveralls.

### COVID-19 PPE FAQs

#### ***What is Personal Protective Equipment (PPE)?***

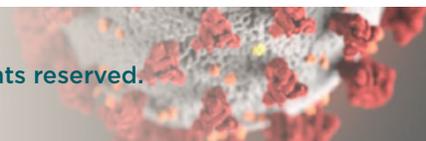
PPE is [defined](#) by the Occupational Safety and Health Administration (OSHA) as “specialized clothing or equipment worn by an employee for protection against infectious material.” PPE is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards.

#### ***How is PPE put on or taken off properly?***

Properly putting on and taking off PPE, also known as donning and doffing, is critical to the safety and effectiveness of the equipment. Errors in the use of PPE can result in touch contamination. Refer to the [CDC video](#) on how to don and doff PPE for coronavirus. Refer to this [infographic](#) on the sequence for putting on and safely removing PPE, or follow your facility-specific guidelines. The CDC has a [library of training videos](#) for donning and doffing. While these videos were originally intended for protecting against Ebola virus, the principles are the same.

#### ***Who should wear a face covering at work?***

Pharmacists and pharmacy technicians should be wearing a medical or surgical facemask while they are in the pharmacy for protection and source control. Source control is meant to protect others in case the person wearing the face covering is sick. If there are shortages of facemasks, facemasks should be prioritized for pharmacy personnel who need them for protection.



# Personal Protective Equipment During the Pandemic (continued)



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### ***Do members of the public need to use face coverings?***

The CDC currently recommends all persons 2 years and older wear a face covering in public and when around people who don't live in the same household, especially when other social distancing measures are difficult to maintain. The [CDC Guidance for Pharmacies](#) advises that everyone entering the pharmacy should wear a face covering regardless of symptoms, except for: children younger than age 2 years; anyone who has trouble breathing; or anyone who is unconscious, incapacitated, or unable to remove the mask without assistance. A minimum of a cloth mask would be appropriate for patients entering the pharmacy for source control.

### ***Is there a difference between an N95 respirator and a surgical mask?***

The N95 mask filters out 95% of airborne particles, including large and small particles. In contrast, a surgical facemask does not protect the wearer against smaller airborne particles. Facemasks help stop large droplets from being spread by the person wearing them. They also help keep splashes and sprays from reaching the person wearing the facemask. See this [infographic](#) to learn the difference between an N95 mask and a surgical facemask.

### ***What is respirator fit testing, and why is it needed?***

Respirator fit testing is needed for people who wear N95 masks to ensure that the mask is properly fitted to the contours of an individual's face to filter out respiratory droplets. The CDC has an [infographic](#) to help your staff understand who needs to get fitted and how to get fit-tested.

### ***Can facemasks be reused in the healthcare setting?***

Generally, the reuse of facemasks is not recommended. However, under certain circumstances and conditions, the limited reuse of facemasks may be an option. Refer to the CDC's [Strategies for Optimizing the Supply of Facemasks](#) to learn about the reuse of facemasks. The potential contribution of contact transmission for COVID-19 is unknown. Care should be taken to ensure that users do not touch the outer surfaces of their own mask during care, and that mask removal and replacement be done carefully and deliberately. Even so, the face covering should be discarded if it is soiled, damaged, or hard to breathe.

### ***Can the facemask be used beyond the manufacturer-designated shelf life for patient care activities?***

Facemasks are being used beyond the manufacturer-designated shelf life due to the limited supply of PPE. If no date is available on the facemask label or packaging, facilities should contact the manufacturer. The user should visually inspect the product before use and, if there are concerns, such as degraded materials or visible tears, discard the product.



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### ***If no facemasks are available, can cloth masks be used?***

In health care settings where facemasks are not available, cloth masks for care of patients with COVID-19 have been used as a last resort. However, cloth masks are not considered PPE because their capability to protect individuals from transmission of the virus is limited. Caution should be exercised when considering this option. If used, cloth masks should be combined with a face shield that covers the entire front (that extends to the chin or below) and sides of the face. As facemasks remain in limited supply, the CDC has guidance and a tutorial on the [Use of Masks to Help Slow the Spread of COVID-19](#).

### ***How can we increase the effectiveness of face coverings in protection against COVID-19?***

Face coverings are effective only when used in combination with frequent hand cleaning with alcohol-based hand rub or soap and water. Users must also know how to properly use a face covering and dispose of it properly to prevent contamination of surfaces and transmission of the virus to themselves or to others.

### ***What are the CDC's recommended strategies for optimizing supply for specific types of PPE?***

Because of the rapidly changing situation with the COVID-19 epidemic and the short supply of PPE, the [CDC recommendations](#) for conserving PPE are being updated regularly. Access the CDC's [Strategies for Optimizing the Supply of N95 Respirators](#) for the latest information on eye protection, facemasks, and N95 respirators.

### ***Can expired medical gloves be used?***

The FDA issued a guidance document entitled [Enforcement Policy for Gowns, Other Apparel, and Gloves During the Coronavirus Disease \(COVID-19\) Public Health Emergency](#) to provide a policy to help expand the availability of these items for health care professionals. The FDA states that medical gloves “serve as protective barriers and may offer some protection even when used past the manufacturer’s designated shelf life or expiration date.” If the gloves do not have “discoloration, visible holes, or tears” they can be used, considering the PPE shortage. It is preferred that expired gloves are used where barrier protection is not needed. View FDA’s [Medical Gloves During COVID-19](#) webpage for more information.

### ***Should medical gloves be re-used in shortage?***

Once medical gloves are removed, they should not be re-used as the risk of tearing and contamination increases. Therefore, disposable glove “re-use” should not be performed. After removing gloves for any reason, hand hygiene should be performed with alcohol-based hand sanitizer or soap and water. The CDC does not recommend disinfection of disposable medical gloves as standard practice, but in times of extreme disposable medical glove shortages, [Strategies for Optimizing the Supply of Disposable Medical Gloves](#) may need to be considered.



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### Are there concerns about counterfeit PPE from other countries?

The FDA and the CDC are actively monitoring supply from other countries and monitoring counterfeit products. Work directly with your supervisor to obtain PPE. Do not respond to individual messages on social media from other countries for purchasing PPE. There have been reports of fake or substandard N95 masks in the market. To learn more, review APhA's resource on [COVID-19 Fraudulent Medical Products and Scams](#).

### Minimum COVID-19 PPE Recommendations

It is important to note that this table outlines the minimum PPE requirements in each practice setting to protect against COVID-19 infection. PPE requirements may differ depending on employer policies, the level of community transmission and the service being provided.

Pharmacy Setting	Respirator	Facemask	Cloth Mask	Eye Protection (Goggles/Face Shields)	Gloves	Gowns/Coveralls
<b>Community</b>		✓	If no facemask is available	In areas with moderate to substantial community transmission		
<b>Clinic: Suspicion of COVID-19</b>	✓	If no N95 is available		✓	✓	✓
<b>Clinic: No Suspicion of COVID-19</b>		✓	If no facemask is available			
<b>Hospital: Suspected or confirmed COVID-19 Patient</b>	✓	If no N95 is available		✓	✓	✓
<b>Hospital: Not Suspected of COVID-19</b>		✓	If no facemask is available			
<b>All settings: Patients</b>			✓			

Pharmacy Service	Respirator	Facemask	Cloth Mask	Eye Protection (Goggles/Face Shields)	Gloves	Gowns/Coveralls
<b>Immunizations</b>		✓		In areas with moderate to substantial community transmission		
<b>Testing Site</b>	✓	If no N95 is available		✓	✓	✓

*Disclaimer: Information related to the COVID-19 pandemic is changing rapidly. The material and information contained in this publication is believed to be current as of the date included on this document. The American Pharmacists Association assumes no responsibility for the accuracy, timeliness, errors or omission contained herein. Links to any sources do not constitute any endorsement of, validity, or warranty of the information contained on any site. The user of these materials should not under any circumstances solely rely on, or act based on this publication. Pharmacy professionals retain the responsibility for using their own professional judgment and practicing in accordance with all rules, regulations, and laws governing the pharmacy practice within their jurisdiction.*

