

Nebraska Medicine COVID-19 PPE Guidance
Extended Use and Reuse of Facemasks, KN95s, Respirators (PAPR, N95) and Protective Eyewear
For Healthcare Personnel
(Updated 1.14.22)

Overview:

The recommendations in this guidance are temporary while there are national and international shortages of personal protective equipment. Facemasks include disposable procedure masks, surgical masks and KN95s. Respirators include powered air purifying respirators (PAPRs) and disposable N95 respirators. Protective eyewear includes face shields and goggles.

These guidelines apply to all health care personnel (HCPs) who need to wear respiratory and eye protection during patient care or as a requirement of their work responsibilities.

Purpose:

- To prevent a shortage of our supply of facemasks, respirators and eye protection.
- To ensure that Nebraska Medicine staff have access to the necessary supplies to perform work responsibilities safely.

Definitions:

- **Extended use** refers to the practice of wearing the same respiratory protection (respirator, PAPR, facemask) and/or eye protection (face shield, goggles) for encounters with more than one patient without removing the protective equipment between the encounters. Extended use may be implemented when caring for multiple patients and when patients are placed together in dedicated hospital units or clinics.
- **Reuse** refers to the practice of using the same facemask and/or eye protection for multiple encounters with patients but removing it ('doffing') between at least some of the encounters. The facemask and eye protection are stored between encounters and reused.

General Guidance:

- Reuse of facemasks and extended use of facemasks and respirators will be permitted.
 - **Exception to extended use and re-use:** Facemasks used for patient encounters in Droplet/Contact Precautions should be doffed following patient cares and replaced with a clean facemask.
 - Facemasks, KN95s and eye protection can be re-used in a careful and limited way during periods of short supply.
- Re-use of full-face shields will be permitted.
 - Full face shields are dedicated to individual healthcare personnel if there are surfaces that cannot be adequately disinfected between users.
 - Disinfection of the face shield will be required between uses.
 - Label the full-face shield across the top with user's name prior to first use if soft surfaces are present (foam, Velcro, tourniquet, elastic).
- **Extended use is preferred over re-use** on the assumption that it is safer for the HCP to leave their respiratory protection and eye protection in place, to reduce the risk of self-contamination through frequent donning and doffing.
 - **Exception to extended use and re-use:** Facemasks used for patient encounters in Droplet/Contact Precautions should be doffed following patient cares and replaced with a clean facemask.
- N95 respirator guidelines apply only to those who are fit-tested.

- KN95s are treated as facemasks for use, reuse and extended wear. They do not require a fit-test.
- Guidance is for reuse by a single person (no sharing). This principle applies to respiratory protection and single-use eye protection.
- All respiratory protection supplies will be stored in secured, designated areas (ex. GSS, Unit Manager/Supervisor/Lead Office, or Lab Manager) where oversight of its use can be well managed.
- Limit patient room traffic where possible by ensuring that only those essential for patient care enter the room; strategies include bundling of care, limiting or avoiding bedside clinical teaching, limiting operating room traffic, and use of telemedicine where possible.

Guidance on Procedure/Surgical Mask/KN95 Use and Re-Use

Per universal masking guidelines, all HCP will be asked to wear a facemask while on campus. The facemask will be used throughout the shift. In the event that the mask becomes visibly soiled, saturated or damaged, a new mask must be obtained.

Patient care setting: Facemasks worn while delivering patient care or worn during patient encounters may be reused during a single shift or day but should be discarded at the end of the shift.

Non-patient care setting: A disposable facemask can be worn for several hours or up to a few days when stored safely and when not wet or distorted.

- **Doff a facemask with intent to reuse:**
 - Perform hand hygiene
 - Remove mask
 - Remove facemask by holding the ear loops. The front is contaminated, so remove slowly and carefully.
 - OR-
 - Remove surgical mask by untying lower ties FIRST. Untie upper ties last. The front is contaminated, so remove slowly and carefully. Ensure ties do not fall into clean interior side of mask.
 - After removing facemask, visually inspect for contamination, distortion in shape/form. If soiled, torn, or saturated the mask should be discarded.
 - If the facemask is NOT visibly soiled, torn, or saturated, carefully **store on a paper towel**, exterior side down. See [Universal PPE Guidelines & FAQ](#) for visual details.
- **To re-don a previously used facemask**
 - Perform hand hygiene
 - Grasp mask
 - Pinch procedure mask at the ear loops or
 - Grasp upper ties on surgical mask
 - Place over face, avoid touching the front of the mask.
 - For procedure mask, KN95: Secure ear loops behind the ears. Secure mask.
 - For surgical mask: Secure upper ties first, behind head. End by securing lower ties behind head.
 - Perform hand hygiene

Guidance for Extended Use of Disposable N95 Respirators and Eye Protection

You can continue to wear the N95 respirator and eye protection for an extended period of time between patient encounters.

- **Don N95 & PPE**

- Perform hand hygiene
- Don isolation gown
- Don N95
 - Perform a negative/positive seal check by doing the following:
 - No air should be felt around the perimeter while blowing out. Pay attention to air movement over your face. If you feel air coming out it is not a tight seal.
 - When taking a small breath in, the mask should pucker in slightly. If it does not, it is not re-usable.
 - If a tight seal cannot be achieved, the respirator cannot be re-used.
- Don face shield or goggles
- Don gloves
- Perform a safety check

N95 respirator and eye protection when a *face shield barrier* is used



- **Doffing**

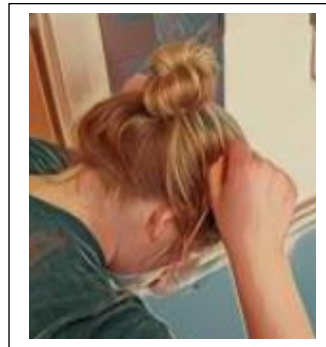
- Inside patient room
 - Perform hand hygiene
 - Doff gown
 - Doff gloves
 - Exit patient room, close door tightly

Inside Patient Room



- Outside of patient room
 - Perform hand hygiene
 - Don clean gloves, clean/disinfect surface for doffing eye protection
 - Doff face shield or goggles
 - Clean/disinfect eye protection and lay on clean surface
 - Perform hand hygiene
 - Doff N95
 - Doff gloves
 - Perform hand hygiene

Outside Patient Room



Instructions for the Reuse of Full Face Shields

Reuse of full face shields

- Single use full face shields are dedicated to individual healthcare personnel as surfaces of the shield, such as the foam piece and elastic/Velcro head band, cannot be adequately disinfected between personnel.
- Don gloves and clean a table or counter surface.
- Using a germicidal disinfectant, adequately clean/disinfect the inside then the outside surfaces, avoid using germicidal wipe on foam and band.

- Rest the cleaned/disinfected face shield on the clean surface.
- Doff gloves, perform hand hygiene.
- Store your disinfected, reused full face shield in a clean location.

Storage of cleaned/disinfected single-use face shields



Instructions for the REUSE of PAPR Hoods

Healthcare professionals may wear a PAPR per extended use protocols.

After the health care professional (HCP) is done wearing a PAPR, the HCP should clean the PAPR per protocol and place the PAPR in their unit's dirty storage room.

The PAPR should be terminally cleaned by the Decontamination Unit after use by a single HCP **before** another HCP dons the PAPR.

Reuse of PAPRs including hood/helmet

- Donning:
 - Test the battery to ensure it is fully charged.
 - Perform a flow meter check of the PAPR unit to ensure the air flow is adequate.
 - After performing a safety check, assemble the PAPR by connecting the hood, hose, belt and motor.
 - Keep the plastic sleeve on the tubing to enable adequate disinfection.
 - Perform hand hygiene.
 - Don the PAPR by donning the belt, turning on the PAPR motor and then donning the hood/helmet.
 - Don gown, tying ties to ensure the PAPR tubing, belt and motor are exposed.
 - Use easy to undo bows to secure the ties
 - Tuck gown under the PAPR motor to avoid the gown occluding air inlet to the PAPR motor.
 - Perform hand hygiene.
 - Don gloves.
- Doffing
 - While in the patient's room, remove gown then gloves prior to leaving the room.
 - Perform hand hygiene.
 - After exiting the patient's room, turn off PAPR motor.
 - A doffing partner cleans all surfaces of the PAPR using a germicidal wipe.
 - The doffing partner holds the belt and motor unit.
 - The HCP unclasps the belt buckle while the doffing partner slowly pulls the motor and belt off of the HCP, holding it securely.
 - The HCP removes the PAPR hood.
 - The doffing partner hands the PAPR unit to the HCP for cleaning and disinfection in a dedicated space.

- Perform hand hygiene.

HCP disinfection of the used PAPR components including the hood/helmet

- Don gloves and a procedure mask, and carry the PAPR to the PAPR processing area without allowing it to touch clothing or skin.
- Visually inspect the PAPR hood for contamination.
 - Do not remove the PAPR filters from the motor.
- Disinfect the PAPR motor, belt, hose and hood using EPA approved germicidal wipes, while observing the contact time using the following order:
 - PAPR motor and filters (avoid introducing liquid into the filter holes).
 - Disconnect PAPR belt to disinfect separately and reattach to PAPR motor when dry.
 - Disconnect and disinfect the PAPR tubing sleeve
 - Clean and disinfect the hood, wipe the hood inside then the outside
- Once completely dry, place the PAPR in a clean tote and place in the soiled utility room.
- The Decontamination Unit personnel will collect the PAPR for terminal cleaning and disinfection.

Storage of terminally disinfected PAPR in clean storage

- Following terminal cleaning and disinfection, the PAPR unit will be returned to the clean storage room.
- The PAPR motor is plugged in to recharge battery.
- The PAPR motor with filters, belt, tubing and hood/helmet are available for next use.

References:

Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH)

<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>

<https://www.cdc.gov/niosh/topics/hcwcontrols/pandemic-planning.html>