

Conservation and Safe Use of N95 Respirators

General Principles:

- PPE is a vital resource to protect our healthcare personnel.
- Conservation and appropriate use are essential to managing large-scale outbreaks such as COVID_19.
- Hoarding and theft, by the general public and healthcare providers, is a risk and should be anticipated. Securing sites where PPE is stored is important.
- Implement practices allowing extended use and/or limited reuse of N95 respirators, when shortages are imminent and adherence to reuse protocols can be ensured.
- Prioritize the use of N95 respirators for those personnel performing aerosol-generating procedures (e.g. intubation, extubation, bronchoscopy, nebulizer treatment, autopsy, vaginal delivery, and [see here for more information](#)) or caring for patients in airborne isolation rooms (e.g. patients with TB).
- Other healthcare personnel who are not performing aerosol-generating procedures as above should use ear loop surgical masks.
- Minimize the number of individuals who need to use N95 protection and ensure all have been appropriately fit tested.
- Once N95 respirator is put on, it should remain on for the duration of your shift. If you do need to remove it during the shift, conserve the respirator for re-use per instructions below (see sections on mask removal and storage).
 - Masks do not need to be changed between patients or patient rooms regardless of patient type, chief complaint, or diagnosis.
 - The outside of the masks should be treated as potentially infectious. Avoid touching the outer surface of the mask. Every time the mask is touched, hand hygiene must be performed.
 - If you do need to remove your N95 respirator (for example to eat), ensure that you remain at least 6 feet from staff and patients, that you remove and store your respirator per the instructions below, and that you perform hand hygiene before and after removing and replacing your respirator.
- N95 respirators need to be replaced when torn, soiled or bent.
- After your shift, N95 should be removed and stored appropriately for re-use later (see details below).
- Re-use guidelines apply only to those who are fit-tested for a disposable N95 respirator.

Definitions:

- **Extended use** refers to the practice of wearing the same N95 respirator without removing the respirator between encounters.
 - Eye protection may be left in place with the N95 respirator for extended use.
- **Reuse** refers to the practice of storing the N95 respirator after you have finished wearing it for an encounter or shift and then using it again (see below for details on safe reuse practices).
 - Re-use of full-face shields is permitted. Face shields should be dedicated for use by individual healthcare personnel. Disinfection of the face shield should be performed between uses.

Safe N95 Respirator Use

(in concert with recent CDC guidance on Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Setting)

Removal of the N95 respirator:

- When removing the N95 respirator:
 - Perform hand hygiene
 - Touching only the inside of the mask, remove N95 respirator
 - Store N95 respirator per storage instructions (below)
 - Repeat hand hygiene
 - Store eye protection for reuse (see below)
 - Perform hand hygiene

Storage of previously worn disposable N95 respirators:

- After removing the N95 respirator following directions above, visually inspect for contamination, distortion in shape/form. If contaminated/wet, creased or bent, the N95 respirator should be discarded
- If the N95 respirator is NOT visibly contaminated or distorted, carefully store to avoid destroying the shape and consistency of the mask.

- The N95 respirator should be stored in a well-ventilated container (i.e., paper bag with handles) with user name and date.
- A disposable N95 respirator can be worn for multiple shifts if not wet or distorted, not touched while delivering patient care, and not used during an aerosol-generating procedure.

Process to re-use your disposable N95 respirator:

- Remove N95 respirator from paper storage bag and visually inspect for distortion. If creased or bent, do not re-use.
- Perform hand hygiene.
- Put on the N95 respirator.
- Perform a negative/positive seal check by doing the following:
 - No air should be felt around the perimeter while blowing out. If air is felt coming out, it is not a tight seal. If tight seal not achieved, the respirator cannot be re-used.
 - When taking a small breath in, the respirator should pucker in slightly. If it does not, it is not re-usable.
- Ensure the respirator is breathable. If unable to breath in the mask, the respirator cannot be re-used.
- Perform hand hygiene following seal check as the mask has been previously used.
- Don eye protection.

Reuse of full-face shields:

- Full face shields are dedicated to individual healthcare personnel as foam piece and elastic head band cannot be adequately disinfected between personnel.
- Put on gloves and adequately disinfect inside and outside surfaces, avoid using germicidal wipes on foam and elastic band
- Store reused full face shield alongside labeled paper bag containing re-used N95 respirator.

References:

<https://www.nebraskamed.com/sites/default/files/documents/covid-19/COVID-Extended-Use-Reuse-of-PPE-and-N95.pdf?date03212020>

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