

Re-Use of N-95 Masks

A how-to guide for the re-use of N-95 masks for optimizing the supply of N-95 masks.

Overview

When there is a critical shortage of respirator equipment (N-95 respirators and PAPR hoods), re-use or extended use of these items is necessary to continue patient care activities while also protecting healthcare workers. Safe single-person reuse of N-95 masks is possible and CDC guidelines exist with recommendations to guide this process.

With this information, the Illinois Department of Public Health is directing all Illinois hospital and pre-hospital care settings to **IMMEDIATELY** implement conservation strategies to extend the use of N95 masks and PAPRs in all healthcare settings.

Supplies of N-95 respirators and PAPR hoods are in increased demand in critical settings during infectious diseases outbreaks. Existing CDC guidelines recommend a combination of approaches to conserve supplies while safeguarding health care workers in such circumstances. In these situations, existing guidelines recommend that health care institutions and EMS providers:

- Minimize the number of individuals who need to use respiratory protection through the preferential use of engineering and administrative controls;
- Use alternatives to N-95 respirators and PAPR's where feasible;
- Implement practices allowing extended use and/or limited reuse of N-95 masks and reuse of PAPR hoods, when acceptable

Re-use N-95 masks under the following conditions

- N-95 respirators must only be used by a single user
- Use a cleanable full-face shield (preferred) or a surgical mask over an N-95 respirator to reduce surface contamination of the respirator.
- Keep used respirators in a clean breathable container between uses (e.g. paper bag).
- Store respirators so that they do not touch each other. Staff will write their name on the bag and/or on the elastic straps so the person using the respirator is clearly identified. (Do NOT write on the actual mask)
- Storage containers should be disposed of or cleaned each time mask is removed.

Discard and DO NOT re-use N-95 masks under the following conditions

- Following use during aerosol generating procedures.
- Contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- The straps are stretched out, so they no longer provide enough tension for the respirator to seal the face.
- If the nosepiece or other fit enhancements are broken.
- The respirator that is obviously damaged or becomes hard to breathe through.
- If the mask has been used at least 5 times, replace mask (unless manufacture says mask may be used longer).

N-95 considerations

- Clean hands with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit).
- Avoid touching the inside of the respirator. If inadvertent contact is made with the inside of the respirator, discard the respirator and perform hand hygiene as described above.
- Use a pair of clean (non-sterile) gloves when donning a used N95 respirator and performing a user seal check. Discard gloves after the N95 respirator is donned and any adjustments are made to ensure the respirator is sitting comfortably on your face with a good seal.

To reduce the chances of decreased protection caused by a loss of respirator functionality, respiratory protection program managers should consult with the respirator manufacturer regarding the maximum number of donnings or uses they recommend for the N95 respirator model(s) used in that facility. If no manufacturer guidance is available, preliminary data suggests limiting the number of reuses to no more than five uses per device to ensure an adequate safety margin. Management should consider additional training and/or reminders for users to reinforce the need for proper respirator donning techniques including inspection of the device for physical damage (e.g., Are the straps stretched out so much that they no longer provide enough tension for the respirator to seal to the face?, Is the nosepiece or other fit enhancements broken?, etc.).

Adapted from:

Centers for Disease Control and Prevention. Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings. Access at: <https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>

Illinois Department of Public Health. Recommended Guidance for Extended Use of N-95 Masks, Regular Masks, and PAPRs. Published March 25, 2020.

N-95 Replacement Guide

