

COVID-19 Recommendations for N95 Respirator Shortages Based on OSHA and CDC Guidance

This document provides a series of options to optimize supplies of disposable N95 filtering facepiece respirators (“N95s”) in healthcare settings or what to do when they run out or are not available. These recommendations are temporary and should only be implemented while there are national and international shortages of protective equipment. These recommendations are based on Centers for Disease Control and Prevention (“CDC”) and Occupational Safety and Health Administration (“OSHA”) guidance, although while the guidance of each agency differs somewhat the intent is similar. In addition, CDC and OSHA are challenged to keeping pace with updates during this rapidly evolving time. This guidance is applicable to all long term care providers including assisted living, skilled nursing facilities, and providers serving residents with ID/DD.

General Guidelines

Most providers are operating under CDC contingency capacity or crises capacity [guidance](#).

- Extended use is preferred over re-use.
 - Assumption that it is safer for the employee to leave their mask and eye protection in place in order to reduce risk of self-contamination through frequent donning and doffing of the same equipment.
- Re-use of respirators and eye protection should only be utilized by a single person (See option #2).
- Prioritize usage of N95s for those personnel at the highest risk of contracting or experiencing complications of infection. Staff providing close prolonged contact and care for individuals with active COVID-19 infections who are coughing and requiring respiratory treatments (e.g., such as nebulizer treatment, trach care, ventilator care) are at highest risk.
- Room and unit traffic should be limited where possible by ensuring only those essential for care enter the room.
- OSHA released [guidance](#) on the required annual fit test for N95 respirators.
- OSHA has released [additional guidance](#) that if fit-test kits are in low supply or unavailable a tight-fitting powered air purifying respirators (PAPRs) without initial or annual fit-test is more protection than not using any respirator when performing job task with high or very high occupational exposure risk to COVID-19.

Low Supply of N95 and Other Respirators

First Option:

Use of NIOSH-approved respirators beyond manufacturer-designated shelf life

- Use of NIOSH-approved respirators beyond the manufacturer-designated shelf life is permitted, however, such respirators may not perform sufficiently.
- Components such as straps and nose bridge material may degrade.
- Respirator must maintain its fit and function - users should take precautionary measures prior to using respirator:
 - Visually inspect the N95 to determine if its integrity has been compromised.
 - Check that components such as the straps, nose bridge, and nose foam material did not degrade, which can affect the quality of the fit and seal, and therefore, the effectiveness of the respirator.
 - If integrity has been compromised or if successful user seal check cannot be performed, discard respirator and try another.
 - Users should perform a user seal check immediately after donning each respirator and should not use a respirator on which the user cannot perform such check successfully.

Second Option:

Limited re-use of N95s

- Re-use: practice of using the same N95 respirator by one healthcare professional for multiple encounters with different residents but doffing it after each encounter.
- Important to consult with respirator manufacturer specifications regarding maximum number of donnings or uses recommended.
- If no manufacturer guidance is available, data suggests limiting number of re-uses to no more than five uses per device.
- N95 and other disposable respirators should not be shared by multiple healthcare professionals.
- [CDC](#) and [OSHA](#) have provided guidance as well as [NIOSH](#) on reuse and decontamination of N-95 masks.
- Consider administrative and engineering controls to limit potential N95 respirator surface contamination:
 - Use barriers to prevent droplet spray contamination.
 - Additional training or reminders for staff to reinforce:
 - Need to minimize unnecessary contact with respirator surface;
 - Strict adherence to hand hygiene practices; and
 - Proper PPE donning and doffing techniques.
- Respirator must maintain its fit and function - users should take precautionary measures prior to using respirator.
 - Visually inspect the N95 to determine if its integrity has been compromised.
 - Check that components such as the straps, nose bridge, and nose foam material did not degrade, which can affect the quality of the fit and seal, and therefore, the effectiveness of the respirator.
 - If integrity has been compromised or if successful user seal check cannot be performed, discard respirator and try another.

- Discard the respiratory if it has been contaminated, distorted in shape/form, wet, creased or bent.
- Users should perform a user seal check immediately after donning each respirator and should not use a respirator on which the user cannot perform such check successfully.

Third Option:

Use of non-NIOSH-approved respirators that have been evaluated by NIOSH

- Use of respirators approved under standards used in other countries that are similar to NIOSH-approved respirators.
 - Australia and Europe: P2
 - Brazil: PFF2
 - China: KN/KP95, KN/KP100
 - Japan: DS/DL2
 - Korea: Special 1st
- Protection is expected to be similar to that provided by N95 respirators, assuming a proper fit is achieved.
- CDC does not recommend use of these non-NIOSH-approved respirators during aerosol generating medical procedures unless none are available then see fourth and fifth option.

Fourth Option:

Use of non-NIOSH-approved respirators beyond manufacturer-designated shelf life

- Use of non-NIOSH-approved respirators beyond the manufacturer-designated shelf life is permitted, however, such respirators may not perform sufficiently.
- Components such as straps and nose bridge material may degrade.
- Respirator must maintain its fit and function - users should take precautionary measures prior to using respirator:
 - Visually inspect the N95 to determine if its integrity has been compromised.
 - Check that components such as the straps, nose bridge, and nose foam material did not degrade, which can affect the quality of the fit and seal, and therefore, the effectiveness of the respirator.
 - If integrity has been compromised or if successful user seal check cannot be performed, discard respirator and try another.
 - Users should perform a user seal check immediately after donning each respirator and should not use a respirator on which the user cannot perform such check successfully.

Fifth Option

No N95 or other respirators are available

- Per CDC recommendations, for lower risk situations, use of face shield with surgical mask should be used. "The optimal way to prevent airborne transmission

is to use a combination of interventions from across the hierarchy of controls, not just PPE alone. Applying a combination of controls can provide an additional degree of protection, even if one intervention fails or is not available.”

- Surgical facemasks can be used by HCP entering a patient care area and will be within 6 feet of symptomatic patient, including providing direct patient care, if the resident can wear a source control mask (i.e., masking of symptomatic patients). A face shield should also be worn if available.
- Surgical mask or other source control mask can we worn if entering a room but no patient care or remaining at least 6 or more away from the resident will occur.
- Assign staff who have or are recovering from COVID-19 to care for COVID-19 (+) residents and avoid assigning staff with high risk (residents over 60 or with chronic disease)
- For high risk exposure residents, (e.g., such as nebulizer treatment, trach care, ventilator care) transfer to another setting (e.g., SNF or hospital) who have N-95 masks available.