N95 Respirators and Respiratory Protection Program

Residential Care Facilities

General Information

Like other personal protective equipment (PPE), the selection of a respirator type must take into consideration the nature of the exposure and risk involved. The Michigan Occupational Safety and Health Administration (MIOSHA) requires that employers ensure employees have been trained on when PPE is necessary, what PPE is necessary, how to don/doff/adjust and wear PPE, the limitations of the PPE, and the proper care/maintenance/useful life and disposal of the PPE.[1]

It is important to refer to the manufacturer's instructions for information specific to the respirator being used by an employee(s). A copy of the instructions may be added to a procedure and/or training materials to document information specific to the respirator(s) used at your facility.

Ensure the respirator is FDA approved. Respirator Trusted-Source Information, CDC/NIOSH, provides a list of approved filtering facepiece respirators and counterfeit respirators. *KN95 respirators are not approved by the FDA; the N95 respirator is the current required PPE for healthcare personnel (HCP) caring for suspected or positive COVID-19 patients.*

The following is general information regarding N95 respirators. *Follow the instructions that are provided with the respirator.* Manufacturer instructions (including seal checks) for many NIOSH approved disposable respirators are located at: NIOSH-Approved Particulate Filtering Facepiece Respirators, CDC/NIOSH.

What is an N95 respirator?

The N95 filtering facepiece respirator (FFR) is a type of respirator which removes particles from the air that are breathed through it. These respirators filter out at least 95% of very small (0.3 micron) particles. N95 FFRs are capable of filtering out all types of particles, including bacteria and viruses.[2]

The MIOSHA infographic Covid-19 Facemasks Vs. Respirators explains the differences between cloth, surgical and N95 respirators.

When should HCP wear an N95 respirator?

- A respirator is used to reduce the wearer's risk of inhaling hazardous airborne particles (including infectious agents such as Mycobacterium tuberculosis), gases or vapors. Respirators, including those intended for use in healthcare settings, are certified by the CDC/NIOSH.[2]
- HCP should (are required) to wear an ***N95 or higher-level respirator***, eye protection (i.e., goggles or a face shield that covers the front and sides of the face), gloves, and gown when caring for a patient with suspected or confirmed COVID-19.[3]

How to Don/Doff/Adjust/Wear an N95 Respirator

- Prior to each use, determine the structural integrity of the respirator (i.e., face piece, straps). Discard if there are nicks/abrasions/cuts/creases in the seal area, if the filter material is physically damaged, or if the straps or nose clip are not functioning properly.
- The respirator is put on BEFORE entering a treatment area of a person with suspected or confirmed disease. Do not remove the respirator in the airborne hazard area – remove in a designated area.

What is a user seal check and how do you perform a seal check?

- A user seal check (sometimes referred to as a fit check) is a procedure conducted by the respirator wearer to determine if the N95 respirator is being properly worn**.**
- ***A user seal check should be completed each time the respirator is donned (put on*)**. Refer to the manufacturer's instructions for conducting a user seal check. This information can be found on the box or individual respirator packaging.[4] It can also be found at NIOSH-Approved Particulate Filtering Facepiece Respirators, CDC/NIOSH.
- See User Seal Check for general information on performing a seal check. ***The user seal check cannot be used to replace a fit test*** *(see Respiratory Protection Program section below).*

Poster Respirator On/Respirator Off, CDC

General Procedures for Properly Putting on and Taking Off a Disposable Respirator CDC

Video How to Perform a User Seal Check with an N95 Respirator, CDC

[1] OSHA PPE
[2] Respirators, CDC
[3] Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes, CDC
[4] User Seal Check, CDC/NIOSH

Limitations of the N95 Respirator[2]

- The N-95 may reduce exposure to the number of airborne disease causing organisms, but doesn't eliminate the breathing in of all contaminants and does not eliminate the possibility of contracting infection, illness, or disease.
- Fit is important; if the N-95 does not fit properly, airborne contaminates will penetrate under the face piece.
- N95 respirators are not designed for children or people with facial hair. Because a proper fit cannot be achieved on children and people with facial hair, the N95 respirator may not provide full protection.
- Hair, jewelry, glasses and clothing should not be between the face and the respirator.
- People with chronic respiratory/cardiac/other medical conditions that make breathing difficult should check with their health care provider before using an N95 respirator because the respirator can make it more difficult for the wearer to breathe.
- Improper fit/usage/maintenance can compromise the protective effect of the N95.
- Some models have exhalation valves that can make breathing out easier and help reduce heat build-up. Note that N95 respirators with exhalation valves should not be used when sterile conditions are needed.

Proper Care/Maintenance/Useful Life/Disposal of the N95 respirator[2, 5]

Proper Care/Maintenance/Useful Life

- All FDA-cleared N95 respirators are labeled as "single-use," disposable devices. It is important to consult with the respirator manufacturer regarding the maximum number of donnings or uses they recommend for the N95 model. For guidance when there is a shortage of N95 respirators see Strategies for Optimizing the Supply of N95 Respirators COVID-19, CDC.
- If the respirator is damaged or soiled, or if breathing becomes difficult, the respirator should be removed, discarded properly, and replaced with a new one.
- The N-95 is not designed to be repaired. Discard a respirator failing inspection or found to be defective.

Storage: Store unopened N-95's in a clean and sanitary location to protect from damage. Avoid temperature extremes and direct sunlight. Take care to prevent crushing or deformity.

Disposal: To safely discard the N95 respirator, place it in a plastic bag and put it in the trash. Wash hands after handling the used respirator.
See Coronavirus Disease 2019 PPE Waste Disposal Guidance, EGLE

[5] OSHA

Respiratory Protection Program (RPP)

Understanding the respiratory protection standard can be confusing and especially when respirators may not have been a part of patient care in the past.

Not all work environments, operations or tasks will present the same level of exposure to COVID-19, the standard's requirement for establishment of a respiratory protection program and provision of respirators is not applicable to all employers or all employees. Completing an assessment of the employee's exposure risk based on work task or operation is the required first step.[6]

OSHA's COVID-19 Healthcare Worksite Checklist & Employee Job Hazard Analysis may be helpful in determining exposure risk of employees.

Review the MIOSHA Fact Sheet and the Mini Respiratory Protection Program (voluntary use) for guidance on what standards may apply to your facility. ***For assistance*** contact MIOSHA at 517-284-7720 or 800-866-4674.

A fit test (part of the RPP) is conducted to verify that a respirator is both comfortable and correctly fits the user. Fit testing uses a test agent, either qualitatively detected by the wearer's sense of taste, smell, or involuntary cough (irritant smoke) or quantitatively measured by an instrument, to verify the respirator's fit.[7] If the employee is required to wear an N95 respirator for protection, the employee must be fit tested.

Fit testing can be completed by an Occupational Health Center or by the facility itself with proper training, equipment, and documentation. The Ingham County Health Department is in the process of working with MIOSHA to determine options for fit testing employees in residential care facilities, to see if there is a more convenient and economical solution.

Requirements of a RPP, CDC/NIOSH Covid-19 Voluntary Vs. Required Respirator Use, MIOSHA

Resources PPE: Q&A – Respirators, CDC NPPTL Infographics, CDC
N95 Respirators, Surgical Masks, and Face Masks, FDA
Proper N95 Respirator Use for Respiratory Protection Preparedness, NIOSH Blog
Respiratory Protection, CDC/NIOSH

ICHD 7/26/21

[6] MIOSHA Fact Sheet, MIOSHA
[7] Respirator Trusted-Source Information, CDC/NIOSH