



Topic: Personal Protective Equipment – Respirators

TOOLS & RESOURCES

Project Firstline Video: [Episode 13: What is a Respirator?](#)

Project Firstline Video: [Episode 14: What is an N95 Respirator?](#)

Project Firstline Video: [Episode 15: How Do I Test the Seal on my N95?](#)

NIOSH Respirator Overview: <https://www.cdc.gov/niosh/topics/respirators/default.html>

Sequence for Donning and Doffing PPE: <https://www.cdc.gov/niosh/npptl/pdfs/PPE-Sequence-508.pdf>

Personal Protective Equipment: PPE 101 The Basics of Standard Precautions: <https://www.cdc.gov/infectioncontrol/pdf/strive/PPE101-508.pdf>

Chicago Department of Public Health: <https://www.chicagohan.org/en/web/han/hai/pfi>



The Centers for Disease Control and Prevention Project Firstline initiative aims to provide infection prevention and control training for frontline healthcare workers by supporting their efforts to understand and confidently apply the principles necessary to protect themselves, their facility, and their community from infectious disease threats.

Personal Protective Equipment – Respirators

Personal Protective Equipment (PPE) refers to the equipment that you use to protect yourself, your patients, and your co-workers by keeping germs from spreading in the environment. A respirator prevents the wearer from inhaling infectious particles in the air. Types of respirators that are used in healthcare include: filtering face-piece respirators (FFR), powered air-purifying respirators (PAPR), or elastomeric respirators.

An N95, is a type of FFR respirator commonly used in healthcare settings, which keeps the person wearing it from inhaling very small particles, including small droplets that can carry viruses. N95s achieve this protection because of the filtering material they are made of, and because of their snug fit. N95s are made of a special filtering material that the National Institutes of Occupational Safety & Health (NIOSH) has tested to prove that it filters out at least 95% of very small particles in the air. The N95s snug fit ensures that the air you are breathing in goes through the filter and doesn't leak around the edges.

N95 Respirator Seal Check

Doing a user seal check each time you use your N95 is important to make sure that it is doing its job. It is possible to put on a N95 using the correct technique and not have a good seal around the edges. The seal ensures that the air you are breathing passes through the filtering material. If there is a bad seal, you are likely breathing unfiltered air, which could have germs in it. Steps to perform a seal check include:

- 1) Put on the N95 correctly.
- 2) Put your hands lightly over the surface of the N95 and try to cover as much of the area with your hands as possible.
- 3) Breathe out gently. While breathing out, make sure there's a little buildup of air inside the N95 and that the air doesn't leak around the sides.

If a leak is detected, to correct the leak you can use both hands to mold the metal nose strip to the bridge of your nose, starting from the top and move the straps to different areas at the top and base of your head to get the best possible fit. After making changes to how the N95 fits, you will need to re-check the seal.

Please reach out to InfectionPrevention@team-iha.org if you have any questions or comments.