

# Respiratory Protection in Healthcare: Standard N95 vs. Surgical N95 Respirators

This quick reference guide is intended to help healthcare providers understand the differences between standard N95 respirators and surgical N95 respirators and some potential considerations for selection and use of these respirators.

During disease outbreaks, recommendations are often made to provide healthcare workers with respirators at least as protective as an N95 or similar particulate respirator. N95 respirators are intended to help reduce the wearer's exposure to airborne particulate hazards. In the United States, respirators are tested and certified by the National Institute for Occupational Safety and Health (NIOSH). Some N95 respirators certified by NIOSH may also be cleared by the U.S. Food and Drug Administration (FDA) as a surgical mask. These N95 respirators may be frequently referred to as medical respirators, healthcare respirators, or surgical N95s. Surgical N95 respirators and standard N95 respirators are similar in appearance and both can effectively filter airborne biological particles such as viruses and bacteria when properly selected and worn.<sup>1,2,3,4</sup> The key difference between a standard N95 respirator and a surgical N95 respirator is fluid resistance. Understanding this difference can help healthcare providers prioritize respirator use to help ensure that surgical N95s are available for those healthcare workers who need respiratory protection while in surgery, while working in a sterile field, or who may be exposed to high velocity streams of bodily fluids.

**This document has an associated video. Click the link below to access the video.**

This short educational video provides additional information on some common questions such as:

- Do surgical masks provide respiratory protection?
- What is the difference between standard and surgical N95 respirators?
- When are surgical N95 respirators needed and when are standard respirators acceptable?

[Respiratory Protection in Healthcare: Standard N95 vs. Surgical N95 Respirators](#)

## Additional 3M Resources

- [Surgical N95 vs. Standard N95—Which to consider?](#)
- [Possible Alternatives to Surgical N95 Respirators](#)

## Other Available Resources

- NIOSH science blog "[N95 Respirators and Surgical Masks](#)" Lisa Brosseau, ScD, and Roland Berry. October 14th, 2009
- [Hospital Respiratory Protection Program Toolkit](#)-joint effort of U.S. OSHA, U.S. Centers for Disease Control and Prevention (CDC), and U.S. National Institute

## References

1. Brosseau, L.M., Schaffer, R. Do We Need to Challenge Respirator Filters With Biological Aerosols? NIOSH Blog; 2014.
2. Chen, S.K., Vesley, D., Brosseau, L.M., and J. H. Vincent. Evaluation of single-use masks and respirators for protection of health care workers against mycobacterial aerosols. Am. J. Infect. Control. 22:65-74; 1994.
3. Brosseau, L.M., McCullough, N.V. and D. Vesley. Mycobacterial aerosol collection efficiency of respirator and surgical mask filters under varying conditions of flow and humidity. Appl. Occup. Environ. Hyg. 12(6):435-445; 1997.
4. McCullough, N.V., Brosseau, L.M. and D. Vesley. Collection of three bacterial aerosols by respirator and surgical mask filters under varying conditions of flow and relative humidity. Ann. Occup. Hyg. 41(6):677-690; 1997 References

**3M Personal Safety Division Technical Service 1 (800) 243-4630**