

How to Choose Respiratory Protection

Protecting What Matters Most

Keeping employees and customers safe is a top priority for all of us and protecting them from airborne particles and pathogens has never been more important. Use this guide to help choose respiratory protection for you and your colleagues. Find related definitions and distinctions between types of masks and respirators and PPE options based on the operational task.



Cloth Masks

Cloth masks are reusable (washable) and nonsterile. Commonly worn to reduce aerosols that can spread viruses in social situations, they are soft, breathable, and comfortable for everyday wear. Most have front panel pleats, soft elastic ear loops, and an adjustable nose piece for better fit. Cotton masks offer low levels of filtration efficiency and are not recommended for surgical use. They do not require fit testing and are not airtight.

Hanesbrands Inc. Triple Layer 100% Cotton Reusable Mask

Cat. No. 18-400-100



Disposable Non-Woven Masks

Disposable face masks are designed for single or limited use and are similar to surgical masks in filtration and fluid resistance. Universally sized, they are latex free with soft, elastic ear loops. Not intended for medical use, disposable face masks have 2- or 3-ply construction, do not require fit testing, and are not airtight.

Protective Disposable Face Masks with Ear Loops

Cat. No. 12-888-001



Procedure and Surgical Masks

Surgical masks are tested to meet levels of barrier protection as specified in ASTM F2100-19.* Procedure masks are FDA-approved medical devices for use in healthcare procedures. They do not require fit testing and are not airtight.

Medicom™ SafeMask™ FreeFlow Earloop Mask, Level 3

Cat. No. 19-910-717

Medicom™ DisTech™ Earloop Face Mask, Pleated, Nonsterile

Cat. No. 12-888-30

*ASTM Levels

- Level 1: Low barrier protection; for low-risk, non-surgical procedures and exams that do not involve aerosols, sprays, or fluids
- Level 2: Moderate barrier protection; for low-to-moderate levels of aerosols, sprays, and fluids
- Level 3: Maximum barrier protection; for situations with potential for heavy aerosols, sprays, and fluid exposure

N95 Respirators



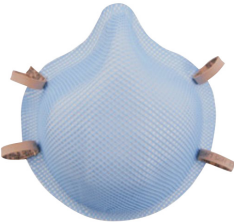
An N95 mask or respirator filters at least 95% of airborne particles as defined by the U.S. National Institute for Occupational Safety and Health (NIOSH, 42 CFR Part 84). They are functionally equivalent to FFP2 respirators (European Union) and KN95 respirators (China), with slightly different certification criteria.

In the United States, the Occupational Safety and Health Administration (OSHA) requires that healthcare workers use N95 respirators if they are working with patients suspected or confirmed to be infected with COVID-19, Ebola, Mycobacterium tuberculosis, pandemic or avian influenza, or severe acute respiratory syndrome (SARS).

Fit testing is required by OSHA for N95 respirator wearers to both identify the right model, style, and size, and to verify fit thereafter. These respirators can make breathing more difficult, so the wearer must also be medically evaluated for heart conditions, lung disease, and claustrophobia.

Moldex™ N95 Disposable Particulate Respirators
Cat. No. 18-999-1449

Surgical N95 Respirators



Surgical respirators (also called Surgical N95, medical, or healthcare respirators) are N95 masks used specifically in healthcare; they meet both FDA and NIOSH requirements. In response to shortages during the COVID-19 pandemic, the Families First Coronavirus Response Act changed liability and certification requirements to allow the use of industrial N95 respirators.

Fit testing is required by OSHA for N95 respirator wearers to both identify the right model, style, and size, and to verify fit thereafter. These respirators can make breathing more difficult, so the wearer must also be medically evaluated for heart conditions, lung disease, and claustrophobia.

Moldex™ N95 Healthcare Particulate Respirators
Surgical Masks
Cat. No. 19-150-0429

Hand Sanitizer



Use hand sanitizers with an alcohol content between 60% and 95% when soap and water are not available. Use an adequate amount of sanitizer (read the label for direction) and rub over your hands until they are completely dry.

Feel Welcome Hand Sanitizer, 70% Ethyl Alcohol
Cat. No. 22-899-682

Advanced Hand Sanitizer, 70% Ethyl Alcohol
Cat. Nos. 22-026-761, 22-026-763

Beard Covers

Lightweight, breathable beard covers help prevent contamination from hair and other particulates; non-woven and disposable.

Disposable Beard Covers, 18 in.
Cat. No. 12-898-001

Face Shields

Clear face shields offer visibility while adding a layer of splash protection to the face and neck; flexible plastic with adjustable straps.

Disposable Face Shields
Cat. Nos. 12-888-202, 12-888-204

Due to recent unprecedented global demand, some respiratory protection products have limited availability and extended lead times.

Available Resources

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>

https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html

<https://www.cdc.gov/niosh/npptl/pdfs/UnderstandDifferenceInfographic-508.pdf>

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=12716&p_table=standards

<https://www.nelsonlabs.com/en14683-harmonizes-bacterial-filtration-efficiency-and-differential-pressure-with-astm-f2100/>

<https://buyandsell.gc.ca/specifications-for-COVID-19-products#200>

<https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/medical-devices/personal-protective-equipment/medical-masks-respirators/face-covering-classifications-notice.html>

Useful Links

<https://www.cdc.gov/niosh/npptl/hospresptoolkit/default.html>

<https://www.cdc.gov/coronavirus/2019-ncov/communication/print-resources.html>

Visit fishersci.com/respiratory-protection to find other respiratory PPE products.

Visit fishersci.com/safety-specialist-contact to contact your safety specialist.

In the United States

Order online: fisherhealthcare.com

Fax an order: 1-800-290-0290

Call customer service: 1-800-640-0640

© 2020 Thermo Fisher Scientific Inc. All rights reserved.

Trademarks used are owned as indicated at fishersci.com/trademarks.

20-1705 AL 08/20 BN20205304

