



Differences between cloth face covering, mucosal protection and respiratory protection



Cloth Face Covering¹

- Nonpharmaceutical measure to decrease spread of the virus
- CFC should
 - fit snugly but comfortably against the side of the face
 - be secured with ties or ear loops
 - include multiple layers of fabric
 - allow for breathing without restriction
 - be able to be laundered and machine dried without damage or change to shape
- Home made or commercial
- Who wears it?
 - I wear it for you and you wear it for me



Surgical Mask

Face Mask
(surgical mask, procedure mask)²

- Personal protective equipment
- Surgical masks help protect your nose and mouth from splattered body fluids
- Should be worn as part of standard precautions or droplet precautions
- Cleared by US Food & Drug Administration
- Can be "medical grade" if produced in an ISO-accredited facility, or can be commercially produced for many other purposes
- Loose fitting
- No fit testing required
- Does not provide reliable level of protection from inhaling small airborne particles
- surgical mask only provides barrier protection against large-particle droplets and does not effectively filter inhaled small particles, fumes, or vapors
- It is not considered respiratory protection
- Disposable
- Who wears it?
 - non-health care providers at medium/high risk of exposure
 - HCW performing medical procedures such as surgery or other treatments
 - patients or others with symptoms to prevent spread of the virus to health-care providers or caretakers



Filtering Facepiece Respirator (N95, elastomeric)³

- Personal protective equipment
- Evaluated, tested and approved by NIOSH as part of the 42CFR Part 84
- Filters out at least 95% of very small (0.3 micron) particles
- A respirator is designed to protect the wearer from inhaling airborne contaminants such as dusts, fumes, vapors, and infectious agents associated with inhaling small and large particle droplets; guidance on appropriate selection and use is covered by OSHA's respiratory protection and PPE standards.⁴
- Medical clearance and fit testing is required
- Adequate seal to face is required- tight fitting
- Seal check required after donning
- A successful fit test is completed for the use of a specific brand/make/model/size of respirator used for the test.
- Who wears it?
 - healthcare providers,
 - workers in high containment facilities (BSL3/ABSL3)



Powered Air Purifying Respirator⁵

- Personal protective equipment
- Evaluated, tested and approved by NIOSH as part of 42 CFR Part 84
- **PAPR** uses a blower to force the ambient air through air-purifying elements to the inlet covering.
- If it is a loose-fitting facepiece, the respiratory inlet covering is designed to form a partial seal with the face.
- Both training for use and maintenance are required
- Requires medical clearance but not a fit-test
- Provides eye protection
- Reusable components and replaceable parts⁵
- Who wears it?
 - healthcare providers,
 - workers in high containment facilities (BSL3/ABSL3)

Abbreviations:

CFC—cloth face covering

ISO—International Organization for Standardization

HCW—health care worker

NIOSH—National Institute for Occupational Safety and Health

OSHA—Occupational Safety and Health Administration

BSL3—Biosafety Level 3

ABSL3—Animal Biosafety Level 3

PAPR—Powered Air-Purifying Respirator

42 CFR Part 84—Federal regulation for certifying air-purifying particulate respirators

References:

1. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>;
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2. <https://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/ppe/comp/masks.html>
3. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>
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5. <https://www.cdc.gov/niosh/npptl/respstandards/papr.html>
6. <https://www.cdc.gov/coronavirus/2019-ncov/images/hcp/N95-infographic-What-Are-APR-508.png>