

# Personal Protective Equipment (PPE) for the COVID-19 response

## Respirators

Worn on the face, respirators cover at least the nose and mouth to reduce the risk of inhaling hazardous airborne particles (including infectious agents)

**Source:**

[https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/respsource1quest1.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource1quest1.html)

### APRs

Air-Purifying Respirators are one of two types of respirators. There are **three** categories of APRs.

**Particulate respirators** are a category of APRs. They are usually disposable; the entire respirator is discarded when it becomes unsuitable for further use due to considerations of hygiene, excessive resistance, or physical damage.

### FFRs

Filtering Facepiece Respirators are a kind of particulate respirator.

**N95s** are a class of FFR that remove at least **95% of airborne particles** during “worst case” testing using a “most-penetrating” sized particle during NIOSH testing.

### PAPRs

Powered Air-Purifying Respirators are another category of APR. They rely on a battery-powered blower that moves airflow through **replaceable filters**.

**Elastomeric respirators** are the third category of APRs. They are usually **reusable respirators**; the facepiece is cleaned and reused, but the filter cartridge is discarded and replaced when it becomes unsuitable for further use.

**More about respirators:**

[https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/RespSource.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/RespSource.html)

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>

## Surgical masks

Surgical masks are **not** considered particulate respirators. They provide barrier protection against droplets including large respiratory particles. Most surgical masks do not effectively filter small particles from the air and do not prevent leakage around the edge of the mask when the user inhales.

**Source:** <https://blogs.cdc.gov/niosh-science-blog/2009/10/14/n95/>

**NIOSH video:** The Difference Between Respirators and Surgical Masks -

<https://youtu.be/ovSLAuY8ib8>

## **Eye protection**

### **Goggles**

**Face shield** that fully covers the front and sides of the face; disposable

## **Protective Clothing**

Items that offer barrier protection against microorganisms in blood and body fluids.

**Isolation Gowns** are a type of protective clothing meant to protect front chest and arms. They usually extend to the mid-calf, and some overlap to cover the back.

**Surgical gowns** will be labeled as such. They are intended for surgical procedures. They protect the front of the body from top of shoulders to knees and the arms from the wrist cuff to above the elbow.

**Coveralls** typically provide 360-degree protection. They are designed to cover the whole body, including back and lower legs and sometimes head and feet as well.

### **Gloves**

Nonsterile disposable patient examination gloves, which are used for routine patient care in healthcare settings, are appropriate for first responders.

### **Sources:**

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

<https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/medical-gowns>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>