



# COVID-19

# Types of Masks and Respirators

Updated Sept. 10, 2021

Print

# Summary of Recent Changes

Updates as of September 10, 2021

- Made minor updates to the sections on Cloth Masks and Disposable Masks
- Updated the section on Masks that Meet a Standard
- Added section about Respirators that Meet International Standards (e.g., KN95s)
- Added considerations for use of NIOSH-approved respirators because the availability of NIOSH-approved N95
  respirators has increased significantly over the last several months
- Added section on Alternative Masks for Special Situations
- Updated section on Choosing a Mask or Respirator for Different Situations

This page describes different types of masks and respirators you can use to protect yourself and others from getting and spreading COVID-19.

Masks are designed to contain your respiratory droplets and particles. They also provide you some protection from particles expelled by others.

Respirators are designed to protect you from particles, including the virus that causes COVID-19, and in doing so they also contain your respiratory droplets and particles so you do not expose others.

CDC continues to learn more about the effectiveness of different types of masks and respirators for preventing COVID-19.

# Masks

# Cloth Masks

Cloth Masks can be made from a variety of fabrics and many types of cloth masks are available.

## Wear cloth masks with

- A proper fit over your nose and mouth to prevent leaks
- Multiple layers of tightly woven, breathable fabric
- Nose wire
- Fabric that blocks light when held up to bright light source



### Do NOT wear cloth masks with

- Gaps around the sides of the face or nose
- Exhalation valves, vents, or other openings (see example)
- Single-layer fabric or those made of thin fabric that don't block light



# Disposable Masks

Disposable face masks are widely available. They are sometimes referred to as surgical masks or medical procedure masks.

## Wear disposable masks with

- A proper fit over your nose and mouth to prevent leaks
- Multiple layers of non-woven material
- Nose wire

## Do NOT wear disposable masks with

- Gaps around the sides of the face or nose (see example)
- Wet or dirty material

## Ways to have better fit and extra protection with cloth and disposable masks

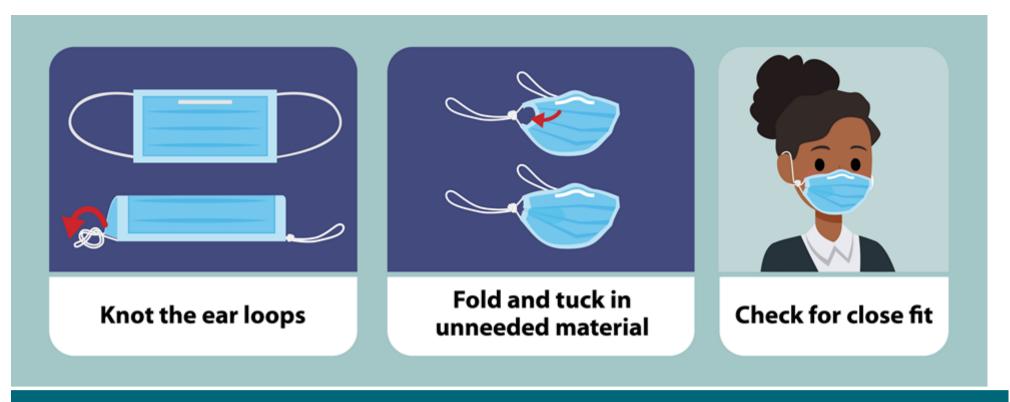
- Wear two masks (disposable mask underneath AND cloth mask on top)
- Combine either a cloth mask or disposable mask with a fitter or brace
- Knot and tuck ear loops of a 3-ply mask where they join the edge of the mask
  - For disposable masks, fold and tuck the unneeded material under the edges. (For instructions, see the following https://youtu.be/GzTAZDsNBe0 )
- Use masks that attach behind the neck and head with either elastic bands or ties (instead of ear loops)











## Masks that Meet a Standard

Some masks are designed and tested to ensure they perform at a consistent level. These masks are labeled to tell you what standard they meet.

### Wear masks that are labeled as

- MEETS ASTM F3502 ☐
- MEETS WORKPLACE PERFORMANCE
- MEETS WORKPLACE PERFORMANCE PLUS

These are new standards. Lists of masks that meet these standards and more information on their availability can be found on the National Institute for Occupational Safety and Health (NIOSH) Personal Protective Equipment Info (PPE-INFO) webpage.

### Do NOT wear

- If you have certain types of facial hair 🔼
- If hard to breathe
- If wet or dirty
- With other masks
- As a replacement for NIOSH-approved respiratory protection when required by your job

### How to wear

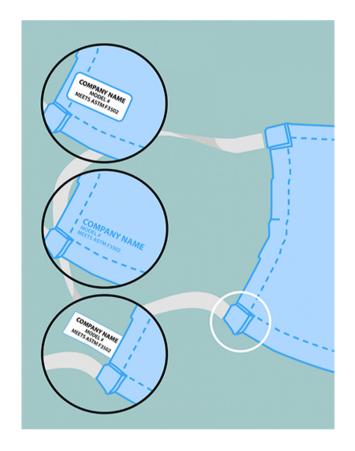
Follow the manufacturer's instructions to wear, store, and clean or dispose of the mask properly.

# Respirators

# Respirators that Meet International Standards

Some respirators are designed and tested to meet international standards. These respirators are labeled to tell you what standard they meet. Respirators approved by NIOSH are evaluated by NIOSH against a specific US standard that includes a quality requirement. International standards do not often have quality requirements.

The most widely available respirators that meet an international standard are KN95s.



Other examples include 1st, DL2, DL3, DS2, DS3, FFP2, FFP3, KN100, KP95, KP100, P2, P3, PFF2, PFF3, R95, and Special.

#### Do NOT wear

- If you have certain types of facial hair
- Counterfeit (fake) KN95 respirators
  - BE AWARE: About 60% KN95 respirators in the United States are counterfeit (fake) and DO NOT meet
     NIOSH requirements.
  - A webpage and a webinar are available about factors to consider when purchasing an international respirator.
- International respirators with exhalation valves or vents
- If hard to breathe
- If wet or dirty
- As a replacement for NIOSH-approved respiratory protection when required by your job

#### How to wear

Follow the manufacturer's instructions to wear, store, and clean or dispose of the respirator properly.

## **NIOSH-Approved Respirators**

NIOSH approves many types of filtering facepiece respirators. The most widely available are N95, but other types (N99, N100, P95, P99, P100, R95, R99, and R100) offer the same or better protection as an N95.

## **NIOSH-Approved N95 Respirators**

When supplies are available, individuals may choose to use a basic disposable N95 respirator for personal use, instead of a mask, in some situations.



CDC recommends that special N95 respirators labeled as "surgical" or "medical" should be prioritized for healthcare providers.

Employers who want to distribute N95 respirators to employees shall follow an Occupational Safety and Health (OSHA) respiratory protection program 🖸 .

#### What to know about N95s

- Filter up to 95% of particles in the air when approved by NIOSH and proper fit can be achieved
- Seal tightly to the face when fitted properly
- Since N95 respirators form a seal to the face, they may feel harder to breathe through than a cloth mask
- N95 respirators cannot be washed. They need to be discarded when they are dirty, damaged, or difficult to breathe through
- N95 respirators tend to be more expensive than masks

#### Wear an N95 with

- Cup, flat fold, or duck bill shape
- Two straps that go around the head
- Formable wire nose bridge
- Appropriate markings printed on the filter indicating the N95 respirator has been approved by NIOSH

## Do NOT wear an N95

- If you have certain types of facial hair
- If it is a counterfeit (fake) N95 respirator

- If wet or dirty
- With a mask or second respirator

#### How to wear

- Individuals who want to use a respirator for personal use should follow the user instructions exactly.
- Fit testing (a process that uses specialized equipment) is the best way to determine if the respirator fits you. Even without fit testing, a well-fitting properly worn respirator may provide more protection than a mask. However, a poorly fitting or improperly worn respirator or mask may reduce its intended benefit.
- NIOSH and OSHA have developed a video demonstrating how to perform a user seal check and how to properly put on (don) and take off (doff) a respirator, as well as a NIOSH factsheet.

## Alternative Masks for Special Situations

Clear masks or cloth masks with a clear plastic panel are an alternative type of mask that may be helpful when interacting with certain groups of people, such as:

- · People who are deaf or hard of hearing
- · Young children or students learning to read
- Students learning a new language
- People with disabilities
- People who need to see the proper shape of the mouth for making appropriate vowel sounds (for example, when singing)

The FDA recently approved a transparent medical mask. These transparent medical masks should be reserved for use by healthcare workers and patients who require them.

If you use this type of mask, make sure

- You can breathe easily
- Excess moisture does not collect on the inside of the mask

# Choosing a Mask or Respirator for Different Situations

Some situations may have a higher risk of exposure to COVID-19 than others. So, you may want to consider the type of mask or respirator to wear depending on the situation. Always choose a well-fitting and comfortable mask or respirator and wear it properly (covering your nose and mouth). A poorly fitting or uncomfortable mask or respirator may be worn improperly or taken off frequently, which may reduce its intended benefit.

These situations might include:

- Riding on planes, buses, trains, or other forms of public transportation\*, especially when riding for a prolonged period of time on crowded conveyances
- Taking care of someone who is sick with COVID-19
- Working at a job where you interact with large numbers of the public, especially when public mask use is inconsistent. Examples of these jobs might include bus drivers and grocery store workers
- If you are at increased risk for severe illness, for example, older adults or people with certain underlying medical conditions
- If you are immunocompromised or unvaccinated





transportation. Learn more about attributes of masks needed to fulfill the requirements of the Order at this website.

For more information on science behind improving how your mask protects you, see:

- Scientific Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2
- Efficacy of Portable Air Cleaners and Masking for Reducing Indoor Exposure to Simulated Exhaled SARS-CoV-2 Aerosols
   United States, 2021
- Maximizing Fit for Cloth and Medical Procedure Masks to Improve Performance and Reduce SARS-CoV-2 Transmission and Exposure, 2021

# **Related Pages**

- Your Guide to Masks
- Masks Protect You & Me
- > How to Wear Your Mask
- > Improve How Your Mask Protects You
- > I Wear a Mask Because

Last Updated Sept. 10, 2021