



## **Update on Masking: When and How to Use Higher Quality Masks**

**April 19, 2021**

This guidance was developed by the San Francisco Department of Public Health and is posted at [www.sfgdcp.org/ppe](http://www.sfgdcp.org/ppe).

*Updates from the March 2, 2021 version:*

- Includes more information about proper N95 respirator usage
- Minor formatting and changes in phrasing for readability and consistency.

**AUDIENCE:** General public. This does NOT include those in occupations with regulations requiring the use of certain masks or PPE, including N95 respirators, given the risks involved in the work (e.g., healthcare workers).

**PURPOSE:**

- 1) Clarify who and in what settings people should wear more effective masks, including when people may consider using N95 respirators
- 2) Provide tips on how to choose a properly fitted mask and how to make your mask more effective to protect you and those around you from COVID-19

For more thorough guidance on wearing masks, see: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>

**BACKGROUND:** COVID-19 is mostly spread from person-to-person in the air through virus-containing droplets in the breath of someone with COVID-19. These droplets enter the air when a person breathes. Even more droplets can get in the air when infected people talk, sing, cough, or sneeze. These droplets can float in the air for a period of time and/or travel beyond 6 feet, especially in enclosed spaces with poor ventilation. People with COVID-19 may have no symptoms but can still be breathing out virus-containing droplets that can infect others. In fact, most COVID-19 infections are caused by people who have no symptoms.

Over the past year, we have learned about how the quality and fit of a mask affects how much it can protect the wearer and those around the wearer. There are also new COVID-19 variants in the San Francisco Bay Area that are more contagious and some are more likely to cause serious illness and death so it is very important to continue to do the following while we wait for more people to be vaccinated.

- ✓ Wear well-fitted masks that cover your mouth and nose especially when talking,
- ✓ Avoid indoor settings and other poorly ventilated areas to the extent possible,
- ✓ Maintaining at least 6 feet distance from those you don't live with,
- ✓ If you are ill, get tested for COVID-19 and isolate, and
- ✓ Wash your hands especially after touching shared objects and before touching your face

## Those Who Are Recommended to Use Higher Quality Masks

The following groups are **recommended** to have higher quality masks with improved fit and filtration and may want to consider wearing an N95 respirator. They should also see the section below on **“Ways to Improve Mask FIT and FILTRATION.”**

- Those who are unvaccinated for COVID- 19 AND
  - Are at higher risk of severe illness if they get COVID-19 due to age or underlying medical conditions (see [www.sfgdcp.org/vulnerable](http://www.sfgdcp.org/vulnerable))
  - Must be in higher-risk situations where they can't practice ideal safety precautions such as being indoors and can't maintain 6 feet distance or they must be indoors around people who are unmasked. Examples include:
    - Being indoors around unmasked individuals (e.g., dining, personal services where masks are removed, public transit, etc.)
    - Entering indoor settings where people have been unmasked (e.g., dining, hotel room service, janitors, personal services, etc.)
    - Being indoors with exposure to high volume of masked people throughout the day (high volume grocery store workers, high volume retail workers, transit operators)
    - Being outdoors around unmasked individuals and unable to maintain at least 6 feet apart (e.g., outdoor dining, personal services where masks are removed, etc.)
  - Must be indoors around someone with COVID-19 or is a close contact of someone with COVID-19

People who fall into any of the categories above may want to **consider wearing a NIOSH-approved N95 respirator**. Please be aware that in order to be effective at preventing COVID-19, N95 respirators need to form a complete seal against your face. Gaps in face contact and facial hair (beards) will cause the respirator to leak and not add any extra protection. N95 respirators is not for everyone, is not designed for children, and will increase the work of breathing, which may make it difficult to wear for long periods of time. If you feel worse when wearing an N95 respirator, please use a different kind of face covering instead. Read more on how to safely and properly wear and N95 at [www.sfgdcp.org/ppe](http://www.sfgdcp.org/ppe)

People in the above categories may also read more at [What can I do to protect myself if I am at higher risk for severe illness from COVID-19 or at higher risk of getting exposed to COVID-19?](#) (also found at [www.sfgdcp.org/vulnerable](http://www.sfgdcp.org/vulnerable))



### Effective Types of Masks Include:

- **Cloth masks** made out of 2-3 layers of tightly woven breathable fabric
- **Medical procedure** (surgical or disposable) masks that fit well on your face
- Real **KN95** respirators
  - Respirator made in China that is tested in China to a similar standard as N95s are in the US.
  - Make sure they meet these requirements <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/international-respirator-purchase.html>
  - Be aware that ~60% KN95 respirators in the US are counterfeit/fake and DO NOT meet Chinese (GB2626-2006) requirements
  - Make sure facial hair does not interfere with the seal of the mask
- **NIOSH-approved N95 respirator** should be considered for higher risk populations. Please refer the specific higher risk populations listed under “Those Who Are Recommended to Use Higher Quality Masks.” An N95 mask is not for everyone, is not designed for children, and will increase the work of breathing, which may make it difficult to wear for long periods of time. If you feel worse wearing an N95 mask, do not wear one. See more on how to safely and properly wear N95 respirators at [www.sfcddcp.org/ppe](http://www.sfcddcp.org/ppe).

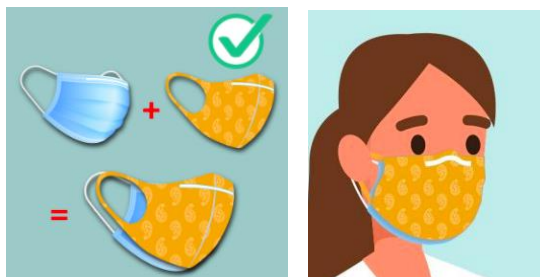
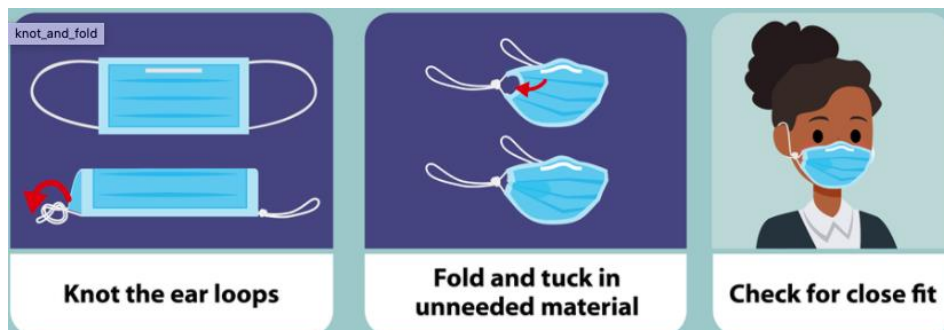
### Face Coverings that are NOT recommended:

- Single-layer gaiters, scarves, ski mask, balaclava, and bandanas. These may be worn OVER an acceptable mask or respirator for either looks or to extend the life of the mask.
- Please note, in accordance with the CDC, scarves, ski mask, balaclava, and bandanas are not allowed on transit.

## Ways to Improve Mask Fit & Filtration Further:

A mask's fit refers to how well it sits on your face, over your nose, the side of your face, and under your chin in order to prevent respiratory droplets from traveling in and out through the gaps. Ways to improve the fit include:

- Having a nose wire in your cloth or procedure mask
- Using a mask fitter or brace over your mask to reduce air leak
- Knotting the straps of the procedure mask. Instructions can be found here: <https://www.youtube.com/watch?v=UANi8Cc71A0&feature=youtu.be>
- Shaving or trimming your beard, so that hair doesn't interfere with the mask sealing against the face
- Wearing nylon stocking over a mask
- Double masking (wearing two different types of masks)
- Using an N95 respirator with a "seal check" shown on the respirator's packaging.



## Double Masking: Layering Using Two Different Masks

Double masking refers to wearing two masks of different material in order to improve the fit as well as the filtration. The outer cloth mask improves the fit of the inner procedure mask by making it fit snugly around your face better without gaps. Using two masks made from different materials may also provide better protection (filtration) because one mask may capture particles the other doesn't and vice versa (This is sometimes referred to as the "Swiss Cheese Model of Protection" because of the way slices of swiss cheese can be stacked to block off holes). Wearing a second mask may offer better protection to the wearer and those around them. However double masking may not be better than single masking especially if you have a very high quality, effective single mask or a N95 respirator.

However, double masking may make mask use more uncomfortable, including making it harder to breathe. The most important factor is that you consistently wear a mask that covers your mouth and nose. If a mask becomes uncomfortable and leads you to take it off periodically, it cannot protect you or those around you and is much more harmful than wearing a single mask consistently.

### How to Double Mask:

- Wear disposable mask underneath a cloth mask
- Do NOT wear two disposable masks because they do not improve the fit of each other
- Do NOT wear another mask under an N95 or KN95 respirator
- Do NOT double mask if it is difficult to breath or uncomfortable or blocks your vision

## Resources

San Francisco Department of Public Health (SFDPH)

- <https://sf.gov/information/masks-and-face-coverings-coronavirus-pandemic>
- <https://www.sfdcp.org/ppe>

California Department of Public Health (CDPH)

- <https://covid19.ca.gov/masks-and-ppe/>

Centers for Disease Control and Prevention (CDC)

- <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/mask-fit-and-filtration.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/older-adults.html>
- <https://www.cdc.gov/mmwr/volumes/70/wr/mm7007e1.htm>