Guidance for Wearing Masks & How to Improve your Protection

What you need to know

- When you wear a mask, you protect others as well as yourself. **Masks work best when everyone wears one.**
- A mask is NOT a substitute for **social distancing**. Masks should still be worn in addition to staying at least 6 feet apart, especially when indoors around people who don't live in your household.
- Masks should completely cover the nose and mouth and fit snugly against the sides of face without gaps.
- Masks should be worn **any time you are traveling** on a plane, bus, train, or other form of public transportation traveling into, within, or out of the United States and in U.S. transportation hubs such as airports and stations.
- People age 2 and older should wear masks in public settings and when around people who don't live in their household.
- Wear a mask inside your home if someone you live with is sick with symptoms of COVID-19 or has tested positive for COVID-19.
- Wash your hands with soap and water for at least 20 seconds or use **hand sanitizer** with at least 60% alcohol after touching or removing your mask.
- Masks may not be necessary when you are outside by yourself away from others, or with other people who live in your household. However, some areas may have mask mandates while out in public, so please check for the rules in your local area (e.g. city, county, state). Additionally, check whether any federal mask mandates apply to where you will be going.

**People with certain underlying medical conditions**

Most people with underlying medical conditions can and should wear masks.

- If you have respiratory conditions and are concerned about wearing a mask safely, discuss with your healthcare provider the benefits and potential risks of wearing a mask.
- If you have **asthma**, you can wear a mask. Discuss with your healthcare provider if you have any concerns about wearing a mask.
Evidence for Effectiveness of Masks

Your mask helps protect those around you

COVID-19 spreads mainly from person to person through respiratory droplets. Respiratory droplets travel into the air when you cough, sneeze, talk, shout, or sing. These droplets can then land in the mouths or noses of people who are near you or they may breathe these droplets in.

Mask are a simple barrier to help prevent your respiratory droplets from reaching others. Studies show that masks reduce he spray of droplets when worn over the nose and mouth.

You should wear a mask, even if you do not feel sick. This is because several studies have found that people with COVID-19 who never develop symptoms (asymptomatic) and those who are not yet showing symptoms (pre-symptomatic) can still spread the virus to other people. Wearing a mask helps protect those around you, in case you are infected but not showing symptoms.

It is especially important to wear a mask when you are indoors with people you do not live with and when you are unable to stay at least 6 feet apart since COVID-19 spreads mainly among people who are in close contact with one another.

Your mask offers some protection to you

A cloth mask also offers some protection to you too. How well it protects you from breathing in the virus likely depends on the fabrics used and how your mask is made (e.g. the type of fabric, the number of layers of fabric, how well the mask fits). CDC is currently studying these factors.

Improve How Your Mask Protects You

Correct and consistent mask use is a critical step everyone can take to prevent getting and spreading COVID-19. Masks work best when everyone wears them, but not all masks provide the same protection. When choosing a mask, look at how well it fits, how well it filters the air, and how many layers it has.

Medical procedure masks (a.k.a. surgical masks or disposable face masks)

Medical procedure masks are single-use masks that are not made of cloth and are not designed to be washed or laundered. They are sold online and through large retail stores. These are not the same as other medical masks.

You may prefer using medical procedure masks in situations where your mask is likely to get wet or dirty. As with cloth masks, make sure your medical procedure mask fits close to your face without large side gaps and completely covers your nose and mouth. Bring extra medical procedure masks with you in case you need to change out a dirty or wet mask.

**Knotting and Tucking**: Knot the ear loops of a 3-ply face mask where they join the edge of the mask, then fold and tuck the unneeded material under the edges. This method is call "knotting and tucking" (for instructions, see: https://youtu.be/UANi8Cc71A0.)
KN95 Masks (a.k.a. KN95 Respirators)

KN95 masks are a type of filtering facepiece respirator that are commonly made and used in China. KN95 masks may be preferable in some situations or for some people – especially for situations that require prolonged close contact with people who do not live in the same household, or for people who are at increased risk for severe illness from COVID-19.

What to look for:

- Look for KN95 masks that meet requirements similar to those set by CDC's National Institute for Occupational Safety and Health (NIOSH) for respirators. Some KN95 masks sold in the United States meet requirements similar to those set by NIOSH, while other KN95 masks do not.

Features:

- Often have ear loops that fit behind the ears. However, some available options have head straps.
- **Note: Do NOT** wear KN95 masks with exhalation valves since they allow respiratory droplets containing the virus to escape.

Pros: Filter up to 95% of particles in the air (when they meet the right requirements and are not counterfeit/fake, and when proper fit can be achieved).

Cons: Can be uncomfortable; often requires more effort to breath; may be more expensive and difficult to obtain; designed for one-time use; many counterfeit (fake) KN95 masks are commercially available, and sometimes it is hard to tell if they meet the right requirements just by looking at them. At least 60% of the KN95 masks evaluated by NIOSH did not meet the requirements that they claim to meet.

Additional Considerations: It may be hard to achieve a proper fit with certain types of facial hair.

NIOSH-Approved N95 Respirators

CDC does not recommend the use of N95 respirators for protection against COVID-19 in non-healthcare settings. N95 respirators should be reserved for healthcare personnel and for other workers who are required to wear them for protection against other hazards.
Two important ways to make sure your mask works the best it can

1. **Make sure your mask fits snugly against your face.** Gaps can let air with respiratory droplets leak in and out around the edges of the mask.

2. **Pick a mask with layers to keep your respiratory droplets in and others’ out.** A mask with layers will stop more respiratory droplets getting inside your mask or escaping from your mask if you are sick.

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**How to Wear**

Wear a mask **correctly** and **consistently** for the best protection.

- Be sure to **wash your hands or use hand sanitizer** before putting on a mask.
- Do NOT touch the mask when wearing it. If you have to often touch/adjust your mask, it doesn't fit you properly, and you may need to find a different mask or make adjustments.

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**Do wear a mask that**

- Covers your nose and mouth and secure it under your chin.
- Fits snugly against the sides of your face.

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**Recommended**

- Masks that fit properly (snugly around the nose and chin with no large gaps around the sides of the face)
- Masks made with breathable fabric (such as cotton)
- Masks made with tightly woven fabric (i.e., fabrics that do not let light pass through when held up to a light source)
- Masks with two or three layers
- Masks with inner filter pockets

**Not Recommended**

- Masks that do not fit properly (large gaps, too loose or too tight)
- Masks made from materials that are hard to breathe through (such as plastic or leather)
- Masks made from fabric that is loosely woven or knitted, such as fabrics that let light pass through
- Masks with one layer
- Masks with exhalation valves or vents
Clear masks or cloth masks with a clear plastic panel

If you interact with people who rely on reading lips, you may have difficulty communicating while wearing a mask.

- Consider wearing a clear mask or a cloth mask with a clear panel
- If you are not able to get a clear mask, consider using written communication, closed captioning, or decreasing background noise to make communication possible while wearing a mask that blocks lips

Clear masks or cloth masks with a clear plastic panel are an alternative type of mask for people who interact with

- 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, e.g., in singing

If you use this type of mask, make sure

- You can breathe easily
- Excess moisture does not collect on the inside of the mask
- You remove the mask before sleeping, since the plastic part could form a seal around your mouth and nose and make it hard to breathe

Gaiters & face shields

Wear a gaiter with two layers, or fold it to make two layers

Not recommended: Evaluation of face shields is ongoing, but effectiveness is unknown at this time.

Cold weather gear

Wear your scarf, ski mask or balaclava over your mask

Scarfes, ski masks and balaclavas are not substitutes for masks

If you work in a setting where masks could increase the risk of heat-related illness or cause safety concerns (for example, straps getting caught in machinery), call this to the attention of health and safety by emailing healthandsafety@seattlecolleges.edu.

What to do if you find wearing a mask uncomfortable?

- It may help to practice wearing a mask at home for short periods to get used to the feeling and try different styles and fabrics recommended above.
- Try relaxation techniques such as breathing in and out deeply or listening to soothing music while wearing a face mask, which can help to keep you calm.
### How to Improve Fit

COVID-19 spreads mainly from person to person through respiratory droplets that come out of the nose and mouth when people breathe, cough, sneeze, talk, shout, or sing. These respiratory droplets travel in the air and can then land in the noses and mouths of others, which spreads COVID-19. Therefore, in order to be effective, masks must always be worn over the nose and mouth.

Ensuring that masks fit well on the face is very important to help prevent getting and spreading COVID-19. A common problem with some masks is that there can sometimes be gaps between the mask and the mask wearer's face. When there are gaps, air with respiratory droplets containing the virus can leak in and out around the edges of the mask (on the top or the sides). To help prevent air leakage, masks should fit snugly against the sides of the face and not have gaps.

#### Do

- **Choose a mask with a Nose Wire**
  - A nose wire is a metal strip along the top of the mask
  - Nose wires prevent air from leaking out of the top of the mask.
  - Bend the nose wire over your nose to fit close to your face.

- **Use a Mask Fitter or Brace**
  - Use a mask fitter or brace over a disposable mask or a cloth mask to prevent air from leaking around the edges of the mask.

- **Check that it Fits Snugly over your nose, mouth, and chin**
  - Check for gaps by cupping your hands around the outside edges of the mask.
  - Make sure no air is flowing from the area near your eyes or from the sides of the mask.
  - If the mask has a good fit, you will feel warm air come through the front of the mask and may be able to see the mask material move in and out with each breath.

#### Things to Watch Out for When Improving Mask Fit and Filtration

Take into account the following considerations when improving mask fit and filtration:

**Ensure the following:**

- **Breathing is not difficult**
  - Breathing might take more effort when wearing a mask that fits and filters better. For example, it might require more effort to breathe when wearing a “double mask.”

- **Vision is not obstructed**
  - Adding an extra layer or mask could block vision. Reduced vision could lead to trips, falls, or other injuries.

**Try it at home first:**

- Try out any potential techniques for improved mask fit and filtration at home before trying it out in public. For example, try walking around the house or outside for several minutes while wearing a mask with improved fit and filtration to assure that you can breathe comfortably and that your vision is not reduced.
How to Improve Filtration

Another important step to increase the protection offered by your mask is to improve filtration. Masks capture respiratory droplets containing the virus when the wearer breathes out, blocking them from reaching the outside air and protecting others. They also serve as a barrier to protect the wearer by capturing respiratory droplets containing the virus breathed out by others, so that the wearer does not breathe them in. A mask with improved filtration will stop more respiratory droplets containing the virus from getting inside your mask if others are sick or escaping from your mask if you are sick.

Layering

Adding more layers of material to a mask (layering) is a good way to reduce the number of respiratory droplets containing the virus that come through the mask. One layering strategy is to use a cloth mask that has multiple layers of fabric. Another strategy is to wear two masks or a “double mask.”

Improve Mask Fit and Filtration by Wearing Two Masks (Wearing a “Double Mask”)

Wearing a second mask on top of a first mask (to create a “double mask”) can:

- **Improve fit** by pressing the inner mask closer to the face, thereby reducing the amount of air that leaks around the edges of the masks.
- **Improve filtration** by adding more layers of material to reduce the number of respiratory droplets containing the virus that come through the masks.

One way to do this is to wear a medical procedure mask underneath a cloth mask. A recent study conducted in a laboratory found that this “double mask” combination provided much better protection to the wearer and to others as compared with a cloth mask by itself or a medical procedure mask by itself.

![Diagram showing layers of masks](image)

However, there are some mask combinations that should not be used to “double mask.”

**Do NOT**

- Combine two disposable masks
  - Do not combine two medical procedure masks to create a “double mask.” Medical procedure masks are not designed to fit tightly and wearing a second medical procedure mask on top of the first medical procedure mask does not help to improve the fit.

- Combine a KN95 mask with any other mask.
  - You should only use one KN95 mask at a time, and you should not use any type of second mask on top of or underneath a KN95 mask.
How to Clean
Reusable masks should be washed regularly. Always remove masks correctly and wash your hands after handling or touching a used mask.

- Include your mask with your regular laundry
- Use regular laundry detergent and the warmest appropriate water setting for the cloth used to make the mask
- Use the highest heat setting and leave in the dryer until completely dry

For more information, visit our How to Wash Masks web page.
Choosing a Mask for Different Situations

Some situations may have higher risk of exposure to COVID-19 than others, so the level of protection needed may vary. In many circumstances, cloth masks or medical procedure masks work well for community use.

Please be aware that recent news articles about double masking are extrapolating on the federal standards (or lack thereof) and do not account for the standards already established by Washington State. The State of Washington has already reviewed the science of masks and given guidance on the appropriate levels of protection in several situational work environments. This guidance is available here: https://www.lni.wa.gov/forms-publications/F414-168-000.pdf. Seattle Colleges is actively practicing these standards.

At Seattle Colleges, each group that has returned to on-campus activities has a designated minimum mask requirement that is appropriate for their specific tasks being performed and work or study environments. This declaration is based on a transmission risk assessment guided by Washington State Labor & Industries (L&I). This scientific, evidence-based, health and safety assessment evaluates which mask is appropriate for the planned activity. It is just one reason that each returning program is subject to the Return to School & Work (RTW) review process described in the district's Infection Control Program.

If you would like to explore for yourself some of the situational considerations for determining mask requirements from the Return to School & Work (RTW) review process, feel free to explore the L&I internet application available here: http://wisha-training.lni.wa.gov/training/articulate/maskselection/story.html

The important thing to note about cloth coverings is that the materials should be
- a tight weave fabric (if you can see the individual fibers easily, that’s no good)
- multiple layers of fabric – ideally two and a filter
- a tight seal and shape that cups to the face
- pleats or folds that allow more air to flow through the fabric of the mask instead of leaking out the sides

If your staff or students wish to increase their level of protection beyond a cloth covering, they may consider their own use of a surgical mask and brace. For instructions on how to make your own surgical mask brace go to https://youtu.be/CVjGCPfRwUo or fixthemask.com.

We hope this article helps to ease your concerns and equips you with the knowledge and tools to reduce the risk of transmission, both while in the community at home with your loved ones.
Thank You!

Hello Pioneer & DIY-er,

Thank you for joining the Fix The Mask community and creating a Surgical Mask Brace 2.0. We have tried dozens of different shapes for different faces, and we have finally arrived at this design. Try it out and let us know what you think!

Tips for Wear

Please note that while this design works well for some faces, it does not work well for everyone. Below are some tips to maximize success.

Donning Procedure

We recommend anchoring the brace on the top of your nose and hooking it underneath your cheek bones. Try the brace on your bare face first, without a surgical mask, playing around with it until the nose gap is minimized. Then try it on with a surgical mask.

Size

Place a quarter next to your nose. The brace is a size S. If you are size M, print the brace at 110%. If you are a size L, print the brace at 115%.

Nose Cushions

If you still have issues with glasses fogging, try placing cushions on either side of the nose (cotton balls, paper towels, etc.)

If you’re still having issues with the V2.0 brace, we recommend trying our newest and most improved version, the Essential Mask Brace. We took into account all of the feedback we received from our V2.0 design. Learn more at www.fixthemask.com.
MEASUREMENT POINTS

- A1
- A2
- A3
- A4
- A5
- A6
- A7
- A8
- A9
- A10

DIMENSIONS ARE IN INCHES

MATERIAL: RUBBER SHEET, 40A BUNA RUBBER/NEOPRENE
FINISH: SMOOTH

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES TOLERANCES:
FRACTIONAL ±0.04
TWO PLACE DECIMAL ±0.04

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TOLERANCE:
DO NOT SCALE DRAWING

TITLE:
SURGICAL MASK
BRACE 2.0

SIZE: A
DWG. NO.: 00001
REV: 01
SCALE: 2:3
WEIGHT: SHEET 2 OF 3
FOR REFERENCE: DIY CUTOUT

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.04
TWO PLACE DECIMAL ±0.04

TITLE:
SURGICAL MASK
BRACE 2.0

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INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
RUBBER SHEET, 40A
BUNA RUBBER/NEOPRENE

FINISH
SMOOTH

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±0.04
TWO PLACE DECIMAL ±0.04

DO NOT SCALE DRAWING

SCALE: 1:1
WEIGHT:
SHEET 3 OF 3

SIZE DWG. NO. REV
A 00001 01