THE MOST EFFECTIVE PROTECTION COMBINES MASK USE WITH PHYSICAL DISTANCING AND HAND HYGIENE.[1,2]

# FACE MASKS

## UNDERSTANDING THE DIFFERENCE

| TYPE |  |  |  |
|---|---|---|---|
| | **N95 RESPIRATOR** | **SURGICAL MASK*** | **CLOTH MASK** |
| **PURPOSE** | Provides a high level of protection for both the wearer and others from viral spread.<br><br>**NOTE:** N95s with exhalation valves may allow viruses to pass outward. They may not protect others and should be avoided during the COVID-19 pandemic. | Provides partial protection for both the wearer and others from viral spread.<br><br>**NOTE:** Surgical masks are tested, FDA-approved products. The level of protection offered by non-FDA-approved look-alikes is unknown. | Many cloth masks provide some protection to the wearer but mainly serve to protect others from viral spread.<br><br>**NOTE:** Finding a fabric-design combination for the most protective cloth mask is an area of active research. |
| **INTENDED USERS** | Healthcare workers | Healthcare workers and general public | General public |
| **CERTIFICATION** | NIOSH and FDA | FDA | FDA-EUA (or none if homemade) |
| **SPECS** | NIOSH-approved masks have these features:<br>1. Multiple layers including electrostatic filter[4] with >95% filtration efficiency.<br>2. Edges of mask seal to face (requires fit-test and seal-check). | FDA-approved masks have these features:<br>1. Three-ply with an electrostatic filter[5,6,7,8] in the middle and hydrophobic outer layers that reduce liquid penetration.<br>2. Adjustable nose-bridge to reduce gaps through which virus can travel.<br><br>**NOTE:** Surgical masks should be worn with the color side facing out. | The most effective masks have these features:<br>1. 2–3 layers of tightly woven fabric or non-woven fabric with sufficient breathability.<br>2. Adjustable nose-bridge to reduce gaps through which virus can travel.<br>3. Large enough to cover the chin. |
| **DECON FOR REUSE** | **Intended for single-use.**<br><br>If decontamination is necessary, follow CDC guidelines and see www.N95decon.org for more information.<br><br>**DO NOT** wash with soap, put in the dryer, or apply alcohol; these will destroy the electrostatic filter.[11,12] | **Intended for single-use.**<br><br>If decontamination is necessary, a promising method is time-based decontamination: allowing time for viral inactivation[9] by storing in an out-of-the-way place with good aeration for at least 7 days.[10]<br><br>**DO NOT** wash with soap, put in the dryer, or apply alcohol; these will destroy the electrostatic filter.[11,12]<br><br>**NOTE:** Methods for surgical mask decontamination are not validated. | Generally, wash mask after use with hot water and soap and dry completely.[13]<br><br>**FOR ALL MASKS:**<br>**DO NOT** touch the inside or outside of the mask while putting on, wearing, or taking off; the mask might be contaminated on the outside if exposed to others who are infected, or on the inside if wearer is infected. Instead, **handle by ear loops or ties**.<br><br>Always **wash your hands before and after** handling the mask to avoid contamination. |

* Masks vary in quality of filtration efficiency, fluid resistance, and fit. The highest quality masks are fluid-resistant surgical masks. Lower quality masks are sometimes referred to as medical or procedure masks in the USA.[10]

! Those with trouble breathing should speak to their physician about mask use options.

## SUPPORTING RESEARCH

[1] CDC, 2019; [2] Lai et al. 2011; [3] Prather et al, 2020; [4] Martin & Moyer, 2000; [5] CDC, 2009; [6] Guha et al., 2017; [7] Rengasamy et al., 2014; [8] Rengasamy et al., Filtration Performance of FDA-Cleared Surgical Masks, JISRP, Vol. 26, 2009; [9] N95DECON 2020; [10] Chin et al., 2020; [11] Applied Research Associates Bulletin, 2020; [12] Viscusi et al., 2007; [13] CDC, 2019