

UTHealth/UT Physicians Respiratory Protection and Masking Summary for COVID-19

There are multiple types of facial coverings or masks that can be used to limit the transmission of COVID-19.

Some, specifically respirators, are intended to protect the wearer while others are intended to protect those around the wearer. Some respirators provide protection to both the wearer and those around them.

Respirators



Masks/facial coverings



Type of Respirator or Mask	Powered/Controlled Air Purifying Respirator (PAPR/CAPR)	N95 Filtering Facepiece Respirator (FFR) without exhalation valve	N95 FFR with exhalation valve	Half-face elastomeric respirator (P100 filter) with exhalation valve	Surgical mask	Cloth/homemade mask	Neck gaiter	Bandana
How does it work?	Provides positive pressure, HEPA-filtered air to the wearer. Since the air exits around the PAPR's openings, it does not offer protection to others around the wearer.	Provides filtered air to wearer. FFRs without exhalation valves also offer protection to those around the wearer.	Provides filtered air to wearer. FFRs with exhalation valves do not offer protection to those around the wearer.	Provides filtered air to wearer via the attached filter cartridges. Since all masks of this type have an exhalation valve that does not have a filter, they do not offer protection to others around the wearer.	Fluid resistant and provides the wearer protection against large droplets, splashes, or sprays of bodily or other hazardous fluids. Reduces the spread of respiratory droplets from the wearer.	Reduces the spread of respiratory droplets from the wearer while also providing the wearer with a limited degree of droplet protection.	Intended to reduce the spread of respiratory droplets from the wearer.	Intended to reduce the spread of respiratory droplets from the wearer.
Protects wearer from:	Droplets?	Yes	Yes	Yes	Yes	Yes	Maybe	Maybe
	Particulates?	Yes	Yes	Yes	No	No	No	No
	Aerosols?	Yes	Yes	Yes	No	No	No	No
Protects others from wearer? (source control) ¹	No	Yes	No (unless overmasking) ²	No (unless overmasking) ²	Yes	Yes	Maybe	Maybe
Appropriate setting for use	Healthcare (high-risk procedures)	Healthcare	Healthcare (if overmasking) ²	Healthcare (if overmasking) ²	Healthcare & General public	General public	General public	General public
Fit testing required?	No, but extensive training required	Yes	Yes	Yes	No	No	No	No
Other considerations	Primarily for high risk aerosol generating procedures. A primary choice for beard wearers or others who cannot be fit tested successfully.	Strongly suggest only NIOSH approved N95s be considered. KN95s are not found to be suitable equivalents.	Strongly suggest only NIOSH approved N95s be considered. KN95s are not found to be suitable equivalents.	Not typically used in healthcare, but ongoing studies indicate these may be used safely during supply shortages.	ASTM Type 1, 2, 3 indicate level of fluid resistance (level 3 is highest)	Ongoing research being conducted on different types of materials and integrity of masks to provide protection.	Many clinics and hospitals will not allow entry if wearing a neck gaiter. Research suggests that neck gaiters may not be as effective as surgical or cloth masks at reducing droplet spread from the wearer.	Many clinics and hospitals will not allow entry if wearing a bandana. Bandanas have been found to be less effective than cloth masks at reducing droplet spread from the wearer.
Is the device reusable?	Yes, but requires extensive disinfection and maintenance protocol	No, single use only. Limited reuse and extended use protocols available. Reprocessing also possible in extreme circumstances.	No, single use only. Limited reuse and extended use protocols available. Reprocessing also possible in extreme circumstances.	Yes, but requires extensive disinfection and maintenance protocol	No, single use only. Limited reuse and extended use protocols available.	Yes, can be laundered at home	Yes, can be laundered at home	Yes, can be laundered at home

¹**Source control** is the practice of wearing a mask to prevent the wearer's respiratory droplets from reaching individuals around them. Source control is especially important when social distancing measures are difficult to maintain due to the possibility of an individual transmitting COVID-19 while they do not feel any symptoms.

²**Overmasking** is the practice of wearing a surgical mask over the front of a respirator that has an exhalation valve. This provides a degree of source control by limiting the spread of exhaled respiratory droplets.