

# Surgical Masks vs N95 Respirators

Surgical masks (also called medical masks) are not the same as N95 respirators. Many people still don't fully understand what surgical masks can and can't do and may mistakenly think a surgical mask is a reasonable substitute for an N95 respirator. This document will help you learn the difference between these, what each one does, and why they are not equal!

## Surgical Masks Are Not Respirators

Surgical masks, or medical masks, are loose fitting single-use devices that help prevent large droplets from being spread by the person wearing one and can help catch large droplets from splashes or sprays in the work environment.



Surgical masks are a type of face mask, similar to a dust mask or cloth mask. Surgical masks are not designed to fit a person's face tightly or seal against it. This permits contaminants to enter the area between the user's face and the mask, allowing them to be breathed in. Surgical masks also do not prevent small airborne contaminants from passing through the mask material and entering the user's respiratory system.

It is important to recognize the purpose and limitations of these devices. The Centers for Disease Control and Prevention (CDC) and National Institute for Occupational Safety and Health (NIOSH) state that these devices "may block droplets," "may protect others around you," and that "it is very difficult to know the level of filtration and protection (these devices) provide<sup>1</sup>." When you see the word "may," it is important to understand that while it indicates something may be possible, it is also uncertain and may not be in fact be happening.

## What is an N95 Respirator?



N95 respirators are a type of face filtering respirator and are designed to fit tightly against the skin of the face. The edges of the respirator form a tight seal around the nose and mouth and efficiently filter out airborne particles as air is drawn through the filter material of the facepiece. The "N" indicates that this type of respirator is not resistant to oil, and the 95 indicates that it filters out at least 95% of airborne particles.

N95 respirators are NIOSH approved and meet established NIOSH requirements including a demonstrated level of manufacturing quality. This type of respirator is tested to prove that it meets certain standards when used properly by a trained and competent person, and this is reflected by the N95 rating.

N95 respirators that have exhalation valves can help make the respirator more comfortable by reducing the heat build-up in it but should not be used in areas that must be kept sterile or if there is a risk that the person wearing it may transmit something like a virus into the work environment.

It is important to remember that N95 respirators are labeled 'single-use.' If your N95 respirator becomes soiled, is damaged, or breathing becomes difficult, you should remove it and replace it with a new one.

## Comparison Chart: Surgical Masks & N95 Respirators Are Not the Same!

N95 respirators and surgical masks are different. Before deciding to use one or the other, a thorough hazard assessment should be performed by a competent person. An N95 respirator provides a higher level of protection, so it would be okay to use an N95 respirator in place of a surgical mask, however, it **would not** be okay to use a surgical mask in place of an N95 respirator, as you can see in the table below.

	Surgical or Medical Mask	N95 Respirator
Is it a respirator?	No	Yes
Does it prevent small particles from entering the area between the users' face and the mask?	Maybe	Yes, when fitted and worn properly
Does it prevent small particles from passing through the filter material?	Maybe	Yes, when handled and worn properly
How well does it protect you?	May block droplets, may not filter out particles <sup>1</sup>	Tested against NIOSH standards and filters out 95% of airborne particles
What is the assigned protection factor (APF)*?	Does not have one	10

**\*All respirators are given a number called an assigned protection factor (APF).** This number represents the expected level of respiratory protection that would be provided by a properly functioning respirator when fitted to and used by someone who is both trained and competent.

### Source:

1. [Centers for Disease Control and Prevention \(CDC\). \(2024, Mar 25\). Respirators and Mask Types and Performance.](#)

## Resources

[AgSafe Alberta Respiratory Protective Equipment \(RPE\) Awareness Manual](#)

[Respiratory Protective Equipment \(RPE\) Awareness Course \(free, online & self-paced\)](#)

[Respiratory Protective Equipment \(RPE\) Video Library \(19 short educational videos\)](#)

[Safety Aid: Air Purifying Respirators Found on Farms](#)