

# DENTAL ADVISOR™

Product insights you can trust.

SIMPLIFYING INFECTION CONTROL:

## Face Masks & Respirators





## Why do we wear masks and respirators in dentistry?

- **Surgical masks help protect against** spray, splash and spatter. They retain large droplets inside the mask, produced by the wearer.
- **N95 respirators help protect against** aerosols and droplets.

*The highest concentration of dental aerosols is found **within 3 feet in front of the patient's mouth.***

### How do masks filter?

*Mask filtration capability is measured by:*

- 1 Size of the pores in the mask in microns
- 2 Filtration efficiency, as measured by the percentage of particles and bacteria filtered out by the mask

### Levels of protection:

#### ASTM LEVEL 1

(low level of fluid, splatter, aerosol)

Examination, impressions, operatory clean-up, orthodontics

#### ASTM LEVEL 2

(moderate level of fluid, splatter, aerosol)

Endodontics, prophylaxis, sealants, some oral surgery and restorative procedures

#### ASTM LEVEL 3

(high level of fluid, splatter, aerosol)

Ultrasonic scaling, use of high-speed handpieces, complex surgery

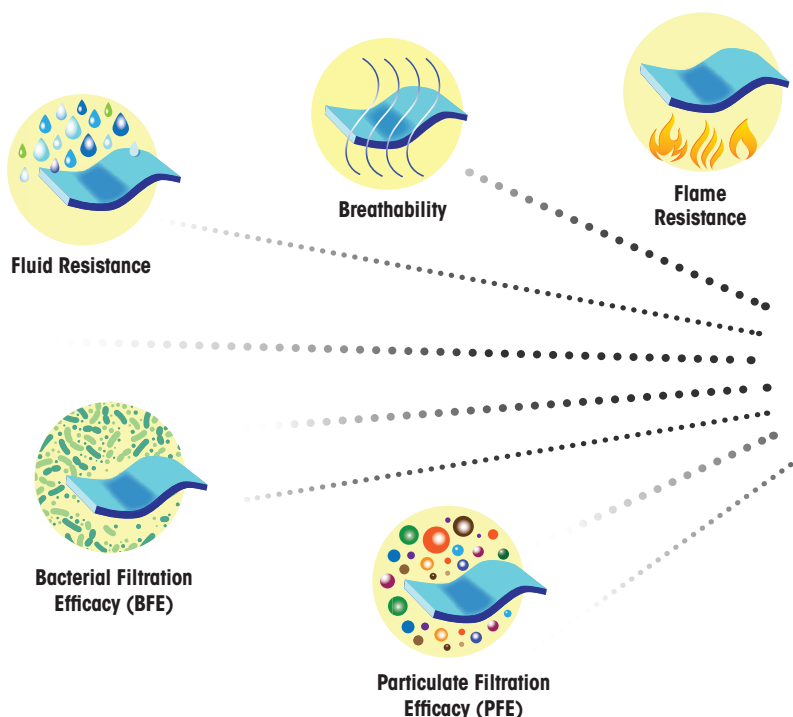
#### N95

(high level of fluid, splatter, aerosol)

Use when airborne infection isolation precautions are needed, such as during the current COVID-19 pandemic, an influenza epidemic and when treating patients with TB

### Masks are rated using ASTM Testing Standards in 5 categories:

ASTM (American Society Testing and Materials) is the organization that provides acceptable performance standards which must be met through testing then submitted as a medical device to the FDA (Food & Drug Administration) for approval.



**Note:** Model is wearing a Level 3, Cranberry 360 mask.



## Donning Mask:



Hold mask by earloops, place loops around each ear.



Mold malleable strip at top edge of mask to shape of nose.



Pull bottom of mask over mouth and chin.

## Removing Mask:



Avoid touching front of the mask that is now contaminated. While only touching the earloops, lift mask off ears and remove from face.



Dispose of the used mask in waste receptacle (Note: contaminated masks are not considered regulated medical waste).



**How do I know when my mask should be discarded?**

**1. Masks are single-use, disposable.**

**2. If they are damp,** they are ineffective due to wicking, which is drawing liquids to the fabric the mask is made of. That means the masks protected fibers swell, reducing filtration efficacy.

**3. Masks should be changed out** if they become damp.

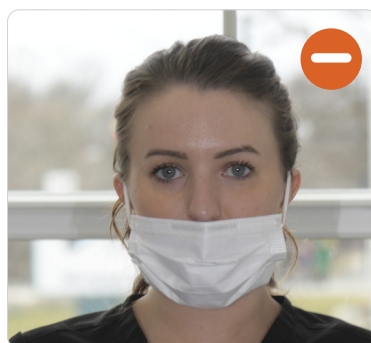
**4. Masks should be discarded** after use on a single patient.



## Proper Fit + Proper Wearing = Maximum Protection



**CORRECT**



**INCORRECT**



## N95 Respirators: What You Need to Know

***N95 respirators are not new.***

**Surgical N95 Respirators:** are the best option for dentistry as they protect against aerosols, transfer of microorganisms, body fluid, and particulate material. They are sometimes called medical or healthcare respirators. They are cleared by the FDA and approved by NIOSH as dual-functioning respirators and surgical masks.



Crosstex Isolator Plus N95 Particulate Respirator (Crosstex)

## Industrial N95 Masks:

N95 masks for industrial use are not manufactured to protect against bloodborne pathogens. These types of masks typically have a respirator valve on them.



## Types of N95 surgical respirators appropriate for dentistry



**3M™ Healthcare Particulate  
Respirator and Surgical Mask  
1860 Respirator**



**FLUIDSHIELD N95  
Particulate Filter Respirator and  
Surgical Mask (Halyard Health)**



**Crosstex Isolator Plus N95  
Particulate Respirator (Crosstex)**



## Respirators cleared for emergency use if N95 is unavailable

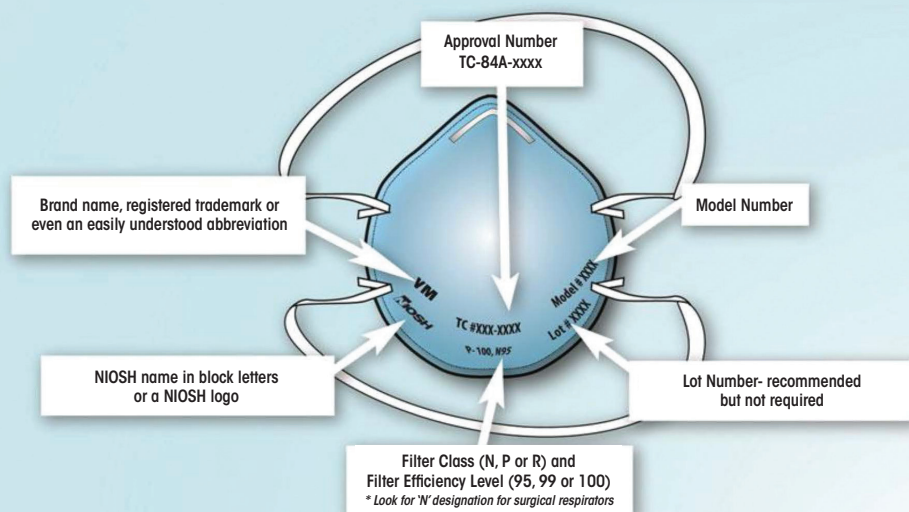
FDA has cleared several masks and respirators under EUA (Emergency Use Authorization). **These masks have not passed NIOSH approval methods, and may not be effective.** One type is the KN95 (see photo at right). They are temporarily authorized for use until enough approved surgical N95 respirators can be manufactured to meet demand. FDA has suggested conservation methods for N95s on their website. CDC is also providing interim guidelines. **Be aware there are counterfeit respirators being sold at this time as import restrictions have been loosened due to emergency use.** It is important that if you are buying, you authenticate your purchase from a reputable dealer and be sure you have the correct PPE to protect yourself.



**KN95 Respirator**

## How can you ensure your surgical N95 respirator is authentic?

Example of Exterior Markings on a NIOSH-approved Filtering Facepiece Respirator



Source: CDC.Gov/NIOSH

### The importance of ASTM ratings

**Masks with ASTM ratings have been tested for their effectiveness.** The ratings also guide the user on which mask to use depending on the procedure/circumstances. With unrated masks, you simply do not know if they are effective or how effective. Respirators are also measured using the same categories, and approved by NIOSH and the FDA. These must be rated.

## Future regulations

**FDA:** Food and Drug Administration is responsible for clearing medical devices used in healthcare, including Surgical Masks and Surgical N95 respirators.

### CDC/NIOSH Facility Requirement for Using N95 Masks:

- Initial and annual fit-testing is performed specific to mask brand and type.
- Training is usually done at the same time that fit testing takes place. The manufacturer instructions for donning and removal for each brand and model may be model-specific and must be followed.
- N95s are put on the user, fit-tested, and maintained according to manufacturer instructions.
- Facilities must have a respiratory protection program. Training for all users is a mandatory part of OSHA's respiratory protection program requirements.