

Standard Operating Procedures

Clinical Safety Procedure #68 – Use of N95 respirators for aerosol generating dental procedures during the COVID-19 pandemic – crisis capacity	
Date Implemented: 4/28/2020	Revision Date: 5/27/2020

A. Purpose

SARS-CoV-2, the virus that causes COVID-19, is thought to be spread primarily through respiratory droplets. Many dental procedures require the use of handpieces or ultrasonic scalers and air-water syringes. These instruments create a visible spray that contain large particle droplets of water, saliva, blood, microorganisms, and other debris.

B. Scope

When performing aerosol-generating procedures, those procedures that require the use of a handpiece, ultrasonic scaler, rubber cup/air polishing and/or air-water syringe, it is recommended that employees wear a N95 respirator/facemask. When a N95 respirator is utilized, these guidelines are provided:

- Remove facial hair and any clothing or jewelry that will interfere with the seal of the mask
- Remove any makeup that could transfer to the inside of the mask
- Wash hands with soap and water and thoroughly dry before handling the mask
- Cup the mask in one hand and place it over mouth and nose
- Pull the bottom and top straps over the head
- Mold the nose piece over the bridge of the nose
- Check the seal of the mask
 - Set both hands against the masks, inhale to make sure that it seals against the face
 - Exhale, feeling for any leakage from the nosepiece or around the edges. If air is leaking,
 - From the nose piece: remold the nosepiece
 - From the edges of the mask: adjust the placement of the straps
- Wear a reusable face shield and Level 3 face mask over the N95
- After the procedure, remove and disinfect the face shield and remove and discard the Level 3 face mask
- At the end of the day, carefully remove the N95 and place it in a paper bag clear marked with the wearer's name and last date worn

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- Store in an area designate for decontamination, keeping bags separated from each other.
- Rotate use of N95 masks, allowing at least 72 hours between uses.
- Always wear clean exam gloves when handling a previously worn N95 mask. Remove gloves and perform hand hygiene after the N95 is donned and adjusted.

Employees will only use a N95 respirator assigned to them and not one that is assigned to another person.

A medical evaluation will be provided to employees who choose to use a N95 respirator. Fit testing will also be provided as it becomes available.

C. Responsibility/Affected Employees

Dentists, Dental Assistants, Dental Hygienists

D. Personal Protective Equipment

Gloves, Level 3 facemask, N95 respirator, faceshield

E. Definitions & Abbreviations

F. Resources

Appendix D – OSHA Respiratory Protection Standard
Correct Use of N95

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Appendix D to Sec. 1910.134 (Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Correct Use an N95 Mask

1. Wash hands with soap and water

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2. Put on your gown
3. Put on the mask correctly
4. Wear goggle, loupes and/or face shield
5. Put on your gloves

Putting on the N95 Mask correctly

1. **Trim your facial hair before wearing your mask, when possible.** If you know you need to wear an N95 mask, shave off all facial hair. It can get in the way of the mask and prevent a tight, sealed fit, which will compromise the effectiveness of the mask.



2. **Remove any clothing or jewelry that can get between the respirator and the face.** This includes body piercing, loose-fitting headtop/covering, earrings, etc.
3. **Remove any makeup that can transfer to the inside of the N95 respirator.**
4. **Wash your hands well before putting on your mask.** Use soap and water and dry your hands well so you don't get the mask wet. This will prevent you from accidentally contaminating your mask before you put it on
5. **Cup the mask in one hand and place it over your mouth and nose.** Place the mask in the palm of your hand so that the straps face the floor. Set it over your nose and mouth with the nosepiece fitting over the bridge of your nose. The bottom should go just under your chin. Try to touch only the outside and edges of the mask to keep it clean.
6. **Pull the bottom and top straps over your head.** If your mask has two straps, pull the bottom one over your head and secure it around your neck, just under your ears. Continue to hold the mask tightly against your face with the other hand. Then, pull the top strap over and set it above your ears

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7. **Mold the nose piece around the bridge of your nose.** Set your first 2 fingertips on either side of the metal nose clip at the top of your mask. Run your fingers down both sides of the strip, molding it along the bridge of your nose. If your mask doesn't have a nosepiece, simply make sure the fit is tight and snug



around your nose.

Checking the Seal and Removing Your Mask.

Breathe through the mask and test for leaks. Set both hands against the mask and take a breath to make sure that it seals against your face. Then exhale, feeling for any leakage from the nosepiece or around the edges. If you feel air leaking from the nose area, re-mold the nosepiece. If it's coming from the edges of the mask, adjust the placement of the straps on the sides of your head.

Removing the mask and storing it.

Remove your mask by pulling the straps over the top of your head. Without touching the front of the mask, pull the bottom strap over your head. Let it hang down over your chest. Then, pull the top strap over. You can either throw the mask away or store it in a clean, sealed container or bag. Avoid touching the mask itself, as it might be contaminated. Make sure that you thoroughly wash your hands after handling the mask.

Re-wear your mask as long as it stays dry and fits tightly.

- Seal has deteriorated and the mask does not fit tightly. Test the seal of your mask each time you put it on to make sure it still fits snugly.
- When the respiratory impedance increases significantly
- Contaminated masks (e.g. when contaminated with foreign bodies such as blood stains or droplets)
- Store your mask in a clean, sealed container or bag and make sure it doesn't get bent out of shape by surrounding objects.

Best Practices

- It is important to remember that respirators cannot eliminate the breathing in of all particles in the air and cannot eliminate the possibility of becoming sick. For your respirator to help reduce the number of particles you breathe, you need to make sure it fits right and that no gaps or leaks are detectable around the edge of the respirator.
- Minimize unnecessary contact with the respirator surface, strictly adhere to hand hygiene practices, and proper PPE donning and doffing techniques, including physical inspection and performing a user seal check.

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- Discard N95 respirators contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
- Use a reusable face shield over an N95 respirator and/or other steps (e.g., masking patients, use of engineering controls), when feasible to reduce surface contamination of the respirator.
- Use a ASTM 3 mask over an N95 respirator, when feasible, to reduce surface contamination of the respirator
- Store used N95 respirators in a designated storage area or keep them in a clean, breathable container such as a paper bag between uses. To minimize potential cross-contamination, store respirators so that they do not touch each other. Clearly label storage containers (paper bags) with the wearer's name and last date worn. Dispose of and replace after each use.
- Avoid touching the inside of the respirator. If inadvertent contact is made with the inside of the respirator, discard the respirator and perform hand hygiene as described above.
- Use a pair of clean (non-sterile) gloves when donning a used N95 respirator and performing a user seal check. Discard gloves after the N95 respirator is donned and any adjustments are made to ensure the respirator is sitting comfortably on your face with a good seal.
- Remove gloves and clean hands with soap and water or an alcohol-based hand sanitizer after touching or adjusting the KN95 mask
- Discard any respirator that is obviously damaged or becomes hard to breathe through.
- Pack or store respirators between uses so that they do not become damaged or deformed.
- Single wearer ONLY. Secondary exposures can occur from respirator reuse if respirators are shared among users and at least one of the users is infectious (symptomatic or asymptomatic). To prevent inadvertent sharing of respirators, make sure you label containers used for storing respirators or label the respirator itself (e.g., on the straps) between uses with the user's name to reduce accidental usage of another person's respirator.

<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>