Extending the Use of N95 Masks

Healthcare workers in all fields have reported difficulties sourcing Personal Protective Equipment (PPE) during the COVID-19 pandemic. Resources are available to help dentists determine when and how to extend the use of N95 masks/respirators while maintaining appropriate infection control.

The National Institute for Occupational Safety and Health (NIOSH), as part of its Pandemic Planning resources, has developed a comprehensive resource, Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings, to help dentists and other healthcare personnel assess the applicability of both options. Masks can provide adequate protection for eight hours of continuous or intermittent use.

“Extended use” and “Reuse” are defined as follows:

- **Extended use** refers to continuous wear of the same N95 respirator, without removal between patients, when working on multiple patients.
- **Reuse** refers to wearing the same N95 mask, with removal between patients for a maximum of five donnings, when working on multiple patients (see “additional steps apply for N95 masks that will be reused,” below.)

You must observe each of the following when reusing or extending the use of N95 masks:

- Conduct a user seal check after each donning.
- Discard any N95 mask contaminated by the patient.
- Discard N95 masks following close contact with patients exhibiting active signs or symptoms of COVID-19 or any other infectious disease.
- Discard any N95 mask that is damaged or difficult to breathe through.
- Consider using a face shield over the N95 mask.
- Perform hand hygiene before and after touching or adjusting the N95 mask.

**Additional steps apply for N95 masks that will be reused:**

- Masks need to be hung in a designated storage area or kept in a clean, breathable container between uses.
- Stored masks should be organized in such a way that they do not touch one another.
- The user of the mask needs to be clearly identified (e.g., writing the user’s name on the straps).
- If the inside of the mask is touched, it needs to be discarded and hand hygiene performed.
- Clean, non-sterile gloves are to be worn when donning an N95 mask or performing a user seal check, after which the gloves are to be discarded.
Extending the Use of N95 Masks

The Centers for Disease Control and Prevention’s (CDC) Summary for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response provides conventional capacity strategies to be incorporated into everyday practices as well as contingency capacity strategies to assist during expected shortages.

The agency also offers a resource on Decontamination and Reuse of Filtering Facepiece Respirators, which offers an additional reuse strategy for disposable N95 masks or filtering face piece respirators (FFR) and notes that:

- A worn N95 mask may be stored in a breathable paper bag for a minimum of five days and then used again.
- Be attentive when doffing the mask, and
- Ensure that the storage bag for each N95 mask is labeled with the user’s name and every date worn to ensure the use is properly tracked.

In the Food and Drug Administration’s Personal Protective Equipment EAU’s (Emergency Use Authorization) the FDA offers guidance on reprocessing respirators (N95 masks), which covers such topics as:

- Vapor Phase Hydrogen Peroxide (VPHP) for single-user reuse by healthcare personnel in a healthcare setting. Examples of entities that provide this technology include Battelle and Steris.

Unsuitable methods for reprocessing that destroy respirator integrity (OSHA also has a page that lists processes not to use):

- Autoclaving, microwaving, dry heat, ionizing radiation, disinfectant wipes, ethylene oxide, isopropyl alcohol, soap, and chlorine bleach.

Additional resources include:

- The Food and Drug Administration’s (FDA) Appendix A: Authorized Respirators (updated April 24, 2020) which offers information on authorized manufacturers and products
- FDA Emergency Use Authorization (EUA)
- The ADA’s Understanding Mask Types provides an easy-to-follow chart that compares masks, N95 respirators and respirators with EUA, including KN95, KP95, PFF2, P2, DS/DL2, KOREAN SPECIAL 1st
- The ADA’s Tips to Avoid Counterfeit Masks provides the Centers for Disease Control and Prevention (D) guidance to help healthcare professionals avoid buying counterfeit masks.

Disclaimer: These materials are intended to provide helpful information to dentists and dental team members. They are in no way a substitute for actual professional advice based upon your unique facts and circumstances. This content is not intended or offered, nor should it be taken, as legal or other professional advice. You should always consult with your own professional advisors (e.g. attorney, accountant, insurance carrier). To the extent ADA has included links to any third party website(s), ADA intends no endorsement of their content and implies no affiliation with the organizations that provide their content. Further, ADA makes no representations or warranties about the information provided on those sites.