

Use of Personal Protective Equipment by Dental Personnel in Resource-Constrained Settings

Issued jointly by Oregon Occupational Safety and Health Division (Oregon OSHA) and Oregon Health Authority (OHA), this publication is intended to clarify requirements and strategies that dentists, dental hygienists, and others involved in the provision of dental care must follow to optimize the use of personal protective equipment (PPE) during procedures that employ instruments that are known to generate aerosols, as well as during procedures that do not employ the use of instruments that generate aerosols. We hope it will prove useful to dental practitioners around the state, guide them as they provide important care, and allow them to do so in a way that is safe for them, their office staff, their clients, and their community. Keep in mind, it is important for dental practitioners to provide care by making decisions based on their PPE supply and their use rate.

SARS-CoV-2, the virus that causes COVID-19, is spread primarily through respiratory droplets when an infected person coughs, sneezes, or talks. Airborne transmission from person-to-person over long distances is unlikely. However, COVID-19 is a new disease. **We are still learning about it** and the severity of illness it causes. When aerosols are generated in a laboratory, the virus has been shown to remain in the air for hours. It survives on some surfaces for several days. There are also indications that patients may be able to spread the virus while pre-symptomatic or asymptomatic.⁽¹⁾

Dental procedures on patients with known or suspected COVID-19 infection are especially high risk for dental healthcare personnel (DHCP). A dental office must provide employees effective protections for use during all procedures involving patients with COVID-19 symptoms.

Infection control practices are required to minimize the likelihood of COVID-19 transmission in dental offices and protect dental employees from disease. Employers must implement or use hazard control measures including elimination, substitution, engineering controls, administrative controls, and PPE to protect dental workers.



Based on literature review and consultation with dentists by OHA and Oregon-OSHA, few procedures in dental offices are performed without the use of at least one instrument that is aerosol generating. Surges in healthcare need and availability of PPE could require prioritizing PPE for certain procedures and care of certain patients, based on likely risk of transmission. Currently, Oregon OSHA requires use of [standard precautions](#), [contact precautions](#), and [airborne precautions](#), that is, gown, gloves, eye protection (goggles or face shield), and at least a fitted, NIOSH-approved N95 filtering facepiece respirator (FFR) or a higher-level respiratory protection, for aerosol-generating procedures. If PPE availability is limited, a procedure cannot be deferred, and appropriate, good-faith efforts are made to ensure the safety and protection of the healthcare workers, Oregon OSHA will evaluate the situation based on PPE availability and adherence to guidance outlined in Oregon OSHA's and OHA's Interim Guidance: Use of Personal Protective Equipment by Healthcare Personnel in Resource-Constrained Settings.

DEFINITIONS

Administrative Controls – Work practices that prevent or reduce hazardous exposures

Aerosol-Generating Procedure (AGP) – Any dental procedure that is performed using instruments known to generate an aerosol, that is, a fine spray that can hang in the air for prolonged periods. The small droplet nuclei can be produced in high concentration, presenting a risk for airborne transmission of pathogens not otherwise able to spread by the airborne route (e.g., coronavirus, influenza). Use of the following instruments would result in a procedure being classified as aerosol generating:⁽²⁾ This list is not exhaustive; other procedures also may generate aerosols.⁽³⁾

- High-speed drills or hand pieces
- Ultrasonic scalers
- Air-water syringes
- Air polishers

Contingent Capacity Strategies – Policies and procedures adopted during times of resource constraint or surges in healthcare need that are not “business as usual” and would not ordinarily be considered standard of care, but that might be appropriate in a public health emergency to expand the number of people who can receive care.

Conventional Capacity Strategies – Policies and procedures that are in accordance with the usual

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community standard of care and that are typically followed in the absence of resource constraints or large surges in healthcare need.

Decontamination Of Filtering Facepiece Respirators – A process that destroys pathogens and leaves integrity of PPE intact. The process must be approved by the Food and Drug Administration (FDA).⁽⁴⁾ NIOSH-approved respirators only retain their NIOSH approval status after decontamination if the respirator manufacturer permits decontamination with the specific system and cycle parameters used. Respirators with exhalation valves are not approved for decontamination under FDA-issued EUAs.

DEFINITIONS CONTINUED

For up-to-date information on FDA-approved decontamination systems, refer to FDA's [EUA information on PPE and related devices](#).

Compatible N95 respirators are FDA authorized, NIOSH-approved respirators or respirators that are FDA authorized and listed in Exhibit 1 to FDA's EUA for non-NIOSH-approved imported filtering facepiece respirators (FFRs) that are not manufactured in China, and that do not have exhalation valves, nor contain cellulose-based materials.

Engineering Controls – Measures that protect workers by removing exposure to hazards. Examples include, but are not limited to, exhaust ventilation and barriers between the worker and the hazard.

Extended Use Of PPE – Extended use refers to wearing the same mask, respirator, or eye protection (goggles or face shield) for encounters with several different patients, **without removing them between encounters**. HCP must take care not to touch their eye protection and respirator or facemask until PPE is doffed (removed) according to standard procedures. N95 and other single-use filtering facepiece respirators (FFRs) that are worn under an impermeable full face shield (covers the forehead, extends below the chin, and wraps around the sides of the face) that completely covers them can be worn for an extended period - for up to 12 hours. They should be removed and discarded if they become visibly soiled or damaged. Otherwise, they can be used until the end of shift and then sent for decontamination by an FDA approved process.

Re-use of FFRs during the same shift is acceptable (e.g., after lunch or restroom breaks) if the respirator was completely covered by an impermeable face shield, hands are cleaned before and after donning and doffing the FFR, and the respirator is not damaged or visibly soiled.

Face Mask – A mask covering the nose and mouth to protect the wearer or the environment from respiratory droplets; a surgical mask as well as a procedure mask are both considered face masks.

Filtering Facepiece Respirator (FFR) – A negative pressure particulate respirator with a filter as an

integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Industrial-Grade PPE With EUA – PPE designed for use in other industries determined by federal regulatory agencies to provide adequate protection in a healthcare setting.

International Respirators – In general, these are filtering facepiece respirators meeting standards of other countries, but not U.S. standards, such as a KN95 respirator. Certain manufacturers in other countries have produced respirators approved by FDA but not certified by [The National Institute for Occupational Safety and Health \(NIOSH\)](#). NIOSH has determined that a number of these do not provide effective filtration and present challenges in obtaining a tight seal with the face and a successful fit test. Use of these respirators is considered a Tier 3 strategy.

Limited Re-Use Of PPE – The practice of using the same PPE for multiple encounters with different patients but **removing it** after each encounter. The following examples of limited re-use are considered Tier 2 strategies:

- The rotating use of multiple respirators assigned to a given HCP with at least a 5-day interval between uses of a given respirator,
- Re-use after reprocessing by a decontamination system approved by FDA under an EUA. NIOSH-approved respirators only retain their NIOSH approval status after decontamination if the respirator manufacturer permits decontamination with the specific system and cycle parameters used. Respirators with exhalation valves are not approved for decontamination under FDA-issued EUAs. For more information, see Decontamination of FFRs, above.
- Re-use during the same shift (e.g., after lunch or restroom breaks) if the respirator was completely covered by an impermeable face shield, hands are cleaned before and after donning and doffing the FFR, the respirator is not damaged or visibly soiled, and it is used exclusively in the care of patients without suspected or confirmed COVID-19 or other serious communicable respiratory disease.

DEFINITIONS CONTINUED

Otherwise, re-use is considered a Tier 3 strategy. (NOTE: single-use respirators should be discarded after use during an AGP if the patient involved had suspected or confirmed COVID-19 or another serious communicable respiratory disease.)⁽¹¹⁾ The limit of re-use is according to the manufacturer's maximum number of donnings (up to five if the manufacturer does not provide a recommendation) and recommended inspection procedures. For most up-to-date information, refer to FDA's [EUA information on PPE and related devices](#) and [NIOSH's Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings](#).

NIOSH-Approved Particulate Filtering Facepiece Respirator – Particulate respirators that meet or exceed standards for design suitability, quality assurance, and laboratory performance, which includes filtration efficiency and ability to maintain a seal on the user's skin. Here is a listing of [NIOSH-approved particulate filtering facepiece respirators](#). NIOSH, under authorization of the Occupational Safety and Health Act of 1970, provides a testing, approval, and certification program assuring respirators used in the workplace meet the standards of 42 CFR Part 84. Since 1994, NIOSH has maintained a searchable, online version of the Certified Equipment List, accessible from the web page listed above.

Reprocessible Devices – Devices such as goggles, face shields, gowns, elastomeric negative pressure and powered air-purifying respirators (PAPRs) that are not disposable and can be cleaned and sanitized without compromising their protective qualities.

Respirators With Exhalation Valves – Respirators with a valve allowing unfiltered breath from the wearer to escape into the environment. Such respirators should not be used for surgical and other procedures requiring a sterile field, are not appropriate for source control, and are not approved for decontamination under FDA-issued EUAs.

Respiratory Protection Program – A program to ensure safe and appropriate use of respirators (including N95 FFRs) at a workplace. It is required for any facility where employees use a respirator under

29 CFR 1910.134 – Oregon OSHA'S Respiratory Protection Standard.

Single Use – The practice of using the PPE for one encounter with one patient, then discarding it

Source Control – Use of protective equipment or other measures to prevent the spread of illness from an infectious person to others. A typical example is use of a mask, worn by an infectious person, to limit the spread of a respiratory illness.

Tier 1 – Oregon Health Authority strategies for PPE use when PPE supply and rate of use makes conventional capacity strategies unsustainable. Tier 1 strategies include contingent strategies not necessarily considered “business as usual,” but which ensure safety and protection of healthcare personnel and patients.

Tier 2 – Strategies for PPE use when PPE supply and rate of use makes Tier 1 capacity strategies unsustainable. Tier 2 strategies include contingent strategies not considered “business as usual,” that, based on the preponderance of evidence, ensure safety and protection of healthcare personnel and patients, but the evidence supporting them is not as strong as for Tier 1 strategies.

Tier 3 – Strategies for PPE use when PPE supply and rate of use makes Tier 2 capacity strategies unsustainable. These correspond to the CDC's crisis capacity strategies. Refer to OHA- Oregon OSHA Interim Guidance: Use of Personal Protective Equipment by Healthcare Personnel in Resource-Constrained Settings⁽¹¹⁾ for additional details.

Tier 4 – Strategies for PPE use when PPE supply and rate of use makes Tier 3 capacity strategies unsustainable. These correspond to the CDC's crisis capacity strategies. Refer to OHA-Oregon OSHA Interim Guidance: Use of Personal Protective Equipment by Healthcare Personnel in Resource-Constrained Settings⁽¹¹⁾ for additional details.

User Seal Check – **A user seal check is not a fit test.** A user seal check is a quick and easy way for employees to verify that they have put on their respirators correctly and that the respirators are working properly.

DENTAL PROCEDURES INVOLVING AEROSOL-GENERATING PROCEDURES (AGPs)

REQUIRED During Aerosol-Generating Procedures

- Dental offices must provide effective employee protections when performing procedures for patients with COVID-19 symptoms.
- If a medically necessary procedure will be provided to a patient who is suspected or known to be COVID-19 positive, the procedure must be done using a gown, gloves, eye protection (goggles or face shield), and respiratory protection as stated in the OHA strategy to optimize the use of PPE. For example, a fitted, NIOSH-approved, disposable N95 filtering facepiece (FFR) or higher level respiratory protection would be required in most cases.*
- If there is a facility in the community with an airborne-infection isolation room (AIIR), the procedure must be performed in the AIIR. Otherwise, the procedure must be performed in a private room with closed door. (Note: a positive-pressure room, from which air flows under pressure to other parts of the facility, **cannot** be used.)

***NOTE:** During extended procedures, where aerosols or other splashes/sprays of water, saliva, or other body fluids could cause moisture to collect on a filtering facepiece respirator: successfully fitted **R95**, **P95**, or better filtering facepiece, an elastomeric respirator with an appropriate cartridge, plus eye protection (goggles or face shield); or powered air-purifying respirator (PAPR) are recommended, in accordance with 29 CFR 1910.134(f). **Respirators with an exhalation valve are not acceptable during procedures where there is a need for a sterile field.**

Elimination Of Exposure

- Screen all scheduled patients prior to entry into the waiting area; defer appointments for any patients with symptoms of respiratory illness;
 - Limit number of people entering the office
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RECOMMENDED During Aerosol-Generating Procedures

Engineering controls

Perform AGPs for all patients, even those without symptoms of respiratory illness, in an airborne infection isolation room (AIIR) if available, or, if possible, in a private room with the door closed.^(1, 5, 6)

NOTE: a positive-pressure room, from which air flows under pressure to other parts of the facility, **should not** be used.

Properly Maintain Ventilation Systems

- Ventilation systems that provide air movement in a clean-to-less-clean flow direction reduce the distribution of contaminants and are better at protecting staff and patients.
- Consult an HVAC professional to investigate increasing filtration efficiency to the highest level compatible with the HVAC system without significant deviation from designed airflow.
- Consult an HVAC professional to investigate the ability to safely increase the percentage of outdoor air supplied through the HVAC system (requires compatibility with equipment capacity and environmental conditions).
- Limit the use of demand-controlled ventilation (triggered by temperature set point and/or by occupancy controls) during occupied hours and when feasible, up to 2 hours post occupancy to assure that the ventilation rate does not automatically change. Run bathroom exhaust fans continuously during business hours.
- Consider the use of a portable HEPA air filtration unit while the patient is undergoing, and immediately following, an aerosol-generating procedure.
 - Select a HEPA air filtration unit based on its Clean Air Delivery Rate (CADR). The CADR is an established performance standard defined by the Association of Home Appliance Manufacturers and reports the system's cubic feet per minute (CFM) rating under as-used conditions. The higher the CADR, the faster the air cleaner will work to remove aerosols from the air. The AHAM maintains a [HYPERLINK "https://www.ahamdir.com/room-air-cleaners/"](https://www.ahamdir.com/room-air-cleaners/) database of certified room air cleaners.
 - Rather than just relying on the building's HVAC system capacity, use a HEPA air filtration unit to reduce aerosol concentrations in the room and increase the effectiveness of the turnover time.
 - Place the HEPA unit near the patient's chair, but not behind the DHCP. Ensure the DHCP are not positioned between the unit and the patient's mouth. Position the unit to ensure that it does not pull air into or past the breathing zone of the DHCP.
- Consider the use of upper-room ultraviolet germicidal irradiation (UVGI) as an adjunct to higher ventilation and air cleaning rates.

Patient Placement

- Dental treatment should be provided in individual patient rooms whenever possible.
- For dental facilities with open floor plans, to prevent the spread of pathogens there should be:
 - At least 6 feet of space between patient chairs.
 - Physical barriers between patient chairs. Easy-to-clean floor-to-ceiling barriers will enhance effectiveness of portable HEPA air filtration systems (check to make sure that extending barriers to the ceiling will not interfere with fire sprinkler systems).
 - Operatories should be oriented parallel to the direction of airflow if possible.
- Where feasible, consider patient orientation carefully, placing the patient's head near the return air vents, away from pedestrian corridors, and toward the rear wall when using vestibule-type office layouts.



Patient Volume

- Account for the time required to clean and disinfect operatories between patients when calculating daily patient volume.

Administrative Controls

- 4-handed dentistry plus high volume evacuator (HVE)^(1, 2) to limit aerosol dispersion.
- As feasible, limit use of instruments in a way that generates aerosols.
- Use of dental dams to limit aerosol dispersion.
- Preprocedural mouth rinses (PPMR). According to the CDC, there is no published evidence regarding the clinical effectiveness of PPMRs to reduce SARS-CoV-2 viral loads or to prevent transmission. Although COVID-19 was not studied, PPMRs with an antimicrobial product (chlorhexidine gluconate, essential oils, povidone-iodine or cetylpyridinium chloride) may reduce the level of oral microorganisms in aerosols and spatter generated during dental procedures.

REQUIRED During Aerosol-Generating Procedures When PPE Supply And Rate Of Use Allow Conventional Capacity Strategies

- Eye protection
 - Goggles or face shield
 - N95 Filtering facepiece respirator
 - Successfully fitted
 - **Medical grade**
 - **NIOSH-approved**
 or
 - More protective respirator
 - Gloves
 - Gown
- Gown and gloves should be changed after each patient and eye protection should be disinfected. Hand hygiene should be performed.
- Use unexpired medical-grade PPE that follows FDA regulations, obtained through usual vendors, other healthcare venues, the Strategic National Stockpile, or through State purchase and allocation.
- No extended use or re-use of equipment designed for single use in the absence of resource constraints or large surges in healthcare need.

Not Acceptable

Respirators with an exhalation valve are **not** acceptable for use during surgical procedures due to potential contamination to the procedural field.

Oregon OSHA Respiratory Protection Program Elements

All applicable elements of the Respiratory Protection Standard - 29 CFR 1910.134.⁽⁹⁾

These include, but are not limited to:

- Implementation of a written respiratory protection program – 29 CFR 1910.134(c)
- Initial medical evaluation questionnaire -- 29 CFR 1910.134(e)
- Successful respirator fit-testing – 29 CFR 1910.134(f)
- Employee respirator training – 29 CFR 1910.134(k)

Ensure that employees are trained how to safely put on and take off respirators and properly maintain, clean, and use their respiratory protection.

Ensure that employees perform a user seal check that demonstrates a successful seal to the face each time the mask is donned.⁽¹⁰⁾

TIER 1 STRATEGIES

REQUIRED During Aerosol-Generating Procedures If PPE Supply And Rate Of Use Makes Conventional Capacity Strategies Unsustainable

- Eye protection (goggles or face shield)
- Gloves
- Gown (sanitary)
- Respirator

Eye Protection

Medical grade, authorized by FDA under EUA. Reprocessable face shields or goggles preferred. Consider preferential use of powered air-purifying respirators (PAPRs) or full-face elastomeric respirators, which have built-in eye protection. Items designed for single use should be discarded after each patient encounter. (Exceptions: extended use in dedicated COVID-19 units in healthcare facilities that have them; re-use of goggles and **reprocessable** face shields with appropriate reprocessing between patients).

Respirators

For all aerosol-generating procedures, Oregon OSHA requires use of a successfully fitted **medical grade, NIOSH approved** N95 or more protective filtering face piece respirator, reusable respirators such as elastomeric half and full face with appropriate cartridges; other powered air-purifying respirator (PAPR) with appropriate cartridges.

Protective equipment designed for use in **other industries** and determined by federal regulatory agencies to provide adequate protection in a healthcare setting can be used. For example, FDA issued Emergency Use Authorizations (EUAs) on March 2 and March 27, 2020 allowing such use of filtering facepiece respirators (including N95s) and of powered air-purifying respirators (PAPRs). <https://www.fda.gov/media/137928/download>⁽⁴⁾

Gloves

Medical grade, FDA-cleared or conforming to other U.S. and international standards. Single Use.

Gowns

Medical grade, conforms to U.S. or international standards, or NIOSH specifications. Gowns or coveralls that can be laundered are preferred. Single use (extended use in dedicated COVID-19 units in healthcare facilities that have them).

NOTE: During extended procedures, where aerosols or other splashes/sprays of water, saliva, or other body fluids could cause moisture to collect on a filtering facepiece respirator: successfully fitted R95, P95, or better filtering facepiece, an elastomeric respirator with an appropriate cartridge, plus eye protection (goggles or face shield); or powered air-purifying respirator (PAPR) are recommended, in accordance with 29 CFR 1910.134(f).

Single use (Exceptions: re-use of reprocessable alternatives to N95 respirators such as elastomeric half-mask and full facepiece air purifying respirators and PAPRs). Extended use can also be implemented in dedicated COVID-19 unit in healthcare facilities that have them. Collection and storage for decontamination and re-use when Tier 2 strategies become necessary could be considered.

In general, protective equipment designed for use in other industries and determined by federal regulatory agencies to provide adequate protection in a healthcare setting.

PPE designed for reprocessing and reuse is an acceptable and, in many cases, preferred strategy, and can preserve PPE supplies. This includes use of gowns that can be laundered, goggles and face shields that can be reprocessed, and alternatives to N95 FFRs such as elastomeric half-mask and full facepiece air purifying respirators and PAPRs.

Not Acceptable

Respirators with an exhalation valve are **not** acceptable for use during surgical procedures due to potential contamination to the procedural field.

Oregon OSHA Respiratory Protection Program Elements

All applicable elements of the Respiratory Protection Standard - 29 CFR 1910.134.⁽⁹⁾

These include, but are not limited to:

- Implementation of a written respiratory protection program – 29 CFR 1910.134(c)
- Initial medical evaluation questionnaire -- 29 CFR 1910.134(e)
- Successful respirator fit-testing – 29 CFR 1910.134(f)
- Employee respirator training – 29 CFR 1910.134(k)

Ensure that employees are trained how to safely put on and take off respirators and properly maintain, clean, and use their respiratory protection.

Ensure that employees perform a user seal check that demonstrates a successful seal to the face each time the mask is donned.⁽¹⁰⁾

TIER 2 STRATEGIES

REQUIRED During Aerosol-Generating Procedures If PPE Supply And Rate Of Use Makes Tier 1 Strategies Unsustainable

Eye protection

Gloves

Gowns

Respiratory protection



Same as Tier 1

Respirators

- **Extended use** of PPE may be implemented for respiratory protection when providing care exclusively to patients without suspected or confirmed communicable respiratory infection or infection spread through contact transmission.
- **Rotating use** of multiple FFRs assigned to a given HCP with at least a 5-day interval between uses of a given respirator. The limit of re-use is according to the manufacturer's maximum number of donnings (up to five if the manufacturer does not provide a recommendation) and recommended inspection procedures.
- **Re-use** of FFRs during the same shift is acceptable (e.g., after lunch or restroom breaks) if the respirator was completely covered by an impermeable face shield, hands are cleaned before and after donning and doffing the FFR, and the respirator is not damaged or visibly soiled.
- **Extended use** of N95 and other single-use FFRs may be implemented if worn with an impermeable face shield completely covering them (covers the forehead, extends below the chin, and wraps around the sides of the face), so long as care does not involve an AGP for a patient with suspected or confirmed communicable respiratory illness. The maximum duration of extended use is as long as one shift (up to 12 hours). FFRs should be removed and discarded if they become visibly soiled or damaged, if they can no longer pass a seal check, or after use during an AGP for a patient with suspected or confirmed COVID or other serious communicable respiratory infection. Otherwise, they can be removed and sent for decontamination by an FDA approved process. The manufacturer of the FFR must permit decontamination with the decontamination system and cycle parameters used.
- **Limited re-use** after **reprocessing by a compatible decontamination** system approved by FDA under an EUA is acceptable. NIOSH-approved respirators only retain their NIOSH approval status after decontamination if the respirator manufacturer permits decontamination with the specific system and cycle parameters used. Refer to the definition, "Decontamination of filtering face piece respirators" for additional limitations. Respirators with exhalation valves are not approved for decontamination under FDA-issued EUAs. Follow the manufacturer's maximum number of donnings (or up to five if the manufacturer does not provide a recommendation) and recommended inspection procedures. For most up-to-date information, refer to FDA's [EUA information on PPE and related devices](#) and NIOSH's Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings.⁽¹²⁾

Single-use respirators **must be** discarded after an AGP for a patient with suspected or confirmed COVID or other serious communicable respiratory infection.

Eye Protection

Extended use of eye protection may be implemented when providing care exclusively to patients without suspected or confirmed communicable respiratory infection or infection spread through contact transmission.

Gloves

Medical grade, FDA-cleared or conforming to other U.S. and international standards. Single Use.

Gowns

Medical grade, conforms to U.S. or international standards, or NIOSH specifications. Gowns or coveralls that can be laundered are preferred. Single use (extended use in dedicated COVID-19 units/facilities)

Oregon OSHA Respiratory Protection Program Elements

All applicable elements of the Respiratory Protection Standard — 29 CFR 1910.134.⁽⁹⁾

These include, but are not limited to:

- Implementation of a written respiratory protection program — 29 CFR 1910.134(c)
- Initial medical evaluation questionnaire — 29 CFR 1910.134(e)
- Successful respirator fit-testing — 29 CFR 1910.134(f)
- Employee respirator training — 29 CFR 1910.134(k)

Ensure that employees are trained how to safely put on and take off respirators and properly maintain, clean, and use their respiratory protection.

Ensure that employees perform a user seal check that demonstrates a successful seal to the face each time the mask is donned.⁽¹⁰⁾

TIER 3 & TIER 4

Evidence of efficacy of these strategies in ensuring HCP and patient safety is less than for Tier 1 and Tier 2 strategies. For a description of these strategies, see OHA-Oregon OSHA Interim Guidance: Use of Personal Protective Equipment by Healthcare Personnel in Resource-Constrained Settings.⁽¹¹⁾

DENTAL PROCEDURES NOT INVOLVING AEROSOL-GENERATING PROCEDURES

NOTE: Based on what is known about how COVID-19 spreads, Oregon-OSHA and OHA recommend using a combination of [standard precautions](#), [contact precautions](#), and [droplet precautions](#), including eye protection (e.g., goggles or face shields), to protect dentistry workers performing patient **care that does NOT involve aerosol-generating procedures on individuals without suspected or confirmed COVID-19.**⁽³⁾

REQUIRED During Procedures **Not Involving** Aerosol-Generating Procedures

Source Control Practices

Follow source control practices as stated for [AGPs above](#).

RECOMMENDED During Procedures **Not Involving** Aerosol-Generating Procedures

Administrative Controls

- 4-handed dentistry plus high volume evacuator (HVE)^(1, 8) to limit aerosol dispersion.
- Use of dental dams to limit aerosol dispersion.

Engineering Controls

- Implement engineering controls as described [above](#).
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REQUIRED AS MINIMUM During Procedures **Not Involving** Aerosol-Generating Procedures When PPE Supply And Rate Of Use Allow Conventional Capacity Strategies

- Eye protection (goggles or face shield)
 - Face mask (e.g., surgical mask) - medical grade
 - Prioritize FDA-cleared surgical masks for activities with anticipated splashes and sprays (e.g., surgical procedures)
 - Gloves
 - Gown - medical grade, conforms to U.S. or international standards, or NIOSH specifications
 - No re-use of equipment designed for single use
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TIER 1 STRATEGIES

Dental Procedures **NOT INVOLVING** Aerosol-Generating Procedures

- Eye protection (goggles or face shield)
- Gown
- Gloves
- Face mask – medical grade, must be FDA-cleared for activities where splashes and sprays are anticipated

Eye Protection

Medical grade, authorized by FDA under EUA. Reprocessable face shields or goggles preferred. Consider use of PAPRs or full-face elastomeric respirators, which have built-in eye protection. Single use (exceptions: extended use in dedicated COVID-19 units in healthcare facilities that have them; re-use of goggles and **reprocessable** face shields with appropriate reprocessing between patients)

Masks

Medical grade, (must be FDA-cleared for activities where splashes and sprays are anticipated). Single use (exceptions: extended use in dedicated COVID-19 units in healthcare facilities that have them; extended use by HCP for source control and not for patient care in the context of a universal masking policy)

Gowns

Medical grade, conforms to U.S. or international standards, or NIOSH specifications. Single use (exception: extended use in dedicated COVID-19 units in healthcare facilities that have them). Gowns or coveralls that can be laundered preferred.

Gloves

Medical grade, FDA-cleared or conforming to other U.S. and international standards. Single use.

TIER 2 STRATEGIES

Dental Procedures **NOT INVOLVING** Aerosol-Generating Procedures

- Mask - medical grade, FDA approved
- Eye protection
- Gowns
- Gloves
- Extended use of PPE may be implemented for eye and respiratory protection

Mask

Extended use of medical grade, FDA approved

Eye Protection

Extended use

Gowns

Medical grade, conforms to U.S. or international standards, or NIOSH specifications. Gowns or coveralls that can be laundered are preferred. Single use (extended use in dedicated COVID-19 units in healthcare facilities that have them).

Gloves

Medical grade, FDA-cleared or conforming to other U.S. and international standards. Single Use.

TIER 3 & TIER 4

Evidence of efficacy of these strategies in ensuring HCP and patient safety is less than for Tier 1 and Tier 2 strategies. For a description of these strategies, see OHA's Interim Guidance: Use of Personal Protective Equipment by Healthcare Personnel in Resource-Constrained Settings.⁽¹¹⁾

With regard to dentistry worker infection prevention, CDC guidance may differ somewhat from Oregon OSHA and OHA guidance.

Oregon OSHA's infection prevention methods, including for PPE ensembles, help **employers** to remain in compliance with the agency's standards for Bloodborne Pathogens ([29 CFR 1910.1030](#)), Respiratory Protection ([29 CFR 1910.134](#)) and other PPE ([OAR 437-002-0134](#)).

Some healthcare facilities, including dental offices, are experiencing shortages of PPE, including gowns, face shields, face masks, and respirators, as a result of the COVID-19 pandemic. This may affect PPE availability for dentistry.

Oregon OSHA is addressing supply chain considerations, including respirator shortages, through enforcement flexibilities, as discussed in the federal OSHA [Enforcement Memoranda](#) section of the [Standards](#) page.

See information on PPE flexibilities and prioritization in the [Personal Protective Equipment Flexibilities](#) section within the [Interim Guidance for U.S. Workers and Employers of Workers with Potential Occupational Exposures to SARS-CoV-2](#).

Medical Questionnaire Evaluation

Oregon OSHA's respiratory protection standard 29 CFR 1910.134(e), requires employers to provide employees with a medical evaluation when respirators are required in the workplace. A professionally licensed healthcare provider PLHCP must be legally permitted by his or her professional license to conduct the type of medical evaluation required by the respirator standard. All PLHCPs who participate in any aspect of the medical evaluation must be practicing within the scope of their license. A dental healthcare provider is advised to obtain written confirmation from their Oregon licensing board stating that their license, registration, or certification qualifies them to evaluate medical questionnaires for respirator use if they wish to perform such service.

[Dental Office Written Respiratory Protection Program Sample Template](#)

[Respiratory Protection Program Development Tool](#)



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