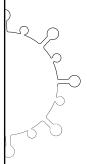


#### **Course Overview**

- Update on CDC and OSHA interim guidance during pandemic
- · Disinfecting protocols and product selection
- Respiratory protection masks vs. respirators
- OSHA-required documentation for respiratory protection and COVID-19 preparedness and response





# What, Who and How?

#### What?

PPE, Screening, Air Purification

#### Who?

OSHA and CDC

#### How?

Interim guidance and regulations

3

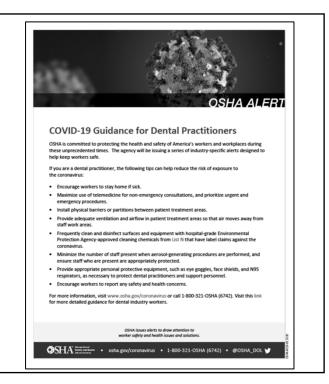
#### CDC vs. OSHA

- Regulation/requirement vs. Recommendation
  - OSHA enforcement
  - State dental board
  - Public health agency









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#### OSHA Regulations – Interim Guidance

#### Dentistry work tasks associated with exposure risk levels

High Very High Lower (caution) · Performing administrative duties in non- Providing urgent or emergency dental • Entering a known or suspected COVID- Performing aerosol-generating public areas of dentistry facilities, away care, not involving aerosol-generating 19 patient's room or care area. procedures on known or suspected from other staff members. procedures, to well patients (i.e., to Providing emergency dental care, not COVID-19 patients. members of the general public who are involving aerosol-generating procedures, Collecting or handling specimens from Note: For activities in the lower (caution) risk not known or suspected COVID-19 to a known or suspected COVID-19 known or suspected COVID-19 patients. category, OSHA's Interim Guidance for Workers and Employers of Workers at Lower Working at busy staff work areas within a Performing aerosol-generating Risk of Exposure may be most appropriate. dentistry facility. procedures on well patients.

<u>COVID-19 - Control and Prevention | Denstistry Workers and Employers | Occupational Safety and Health Administration (osha.gov)</u>

#### OSHA Regulations – Interim Guidance

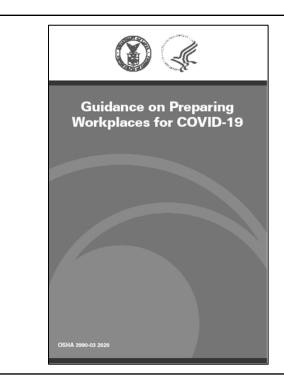
#### Personal Protective Equipment

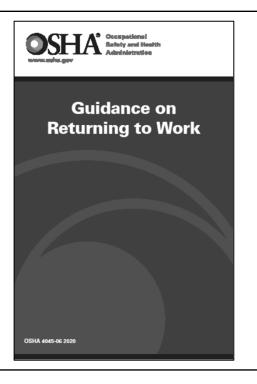
Dentistry workers must use proper PPE when exposed to patients. PPE differs for the care of well patient care during the COVID-19 pandemic versus PPE needed when providing emergency care to a patient with suspected or confirmed COVID-19 (See OSHA's PPE standards at 29 CFR 1910 Subpart I).

OSHA recommends the following PPE for dentistry during the COVID-19 pandemic:

Well	patients	Patients with suspected	or confirmed COVID-19
Dental procedures not involving aerosol- generating procedures	Dental procedures that may or are known to generate aerosols	Dental procedures not involving aerosol- generating procedures	Dental procedures that may or are known to generate aerosols
Work clothing, such as scrubs, lab coat, and/or smock, or a gown     Gloves     Eye protection (e.g., goggles, face shield)     Face mask (e.g., surgical mask)	Gloves Gown Eye protection (e.g., goggles, face shield) NIOSH-certified, disposable N95 filtering facepiece respirator or better*	Gloves Gown Eye protection (e.g., goggles, face shield) NIOSH-certified, disposable N95 filtering facepiece respirator or better*	Gloves Gown Eye protection (e.g., goggles, face shield) NIOSH-certified, disposable N95 filtering facepiece respirator or better*

<u>COVID-19 - Control and Prevention | Denstistry Workers and Employers |</u> <u>Occupational Safety and Health Administration (osha.gov)</u>





#### **OSHA RESOURCE LINKS**

<u>COVID-19 - Control and Prevention - Dentistry Workers and Employers | Occupational Safety and Health Administration (osha.gov)</u>

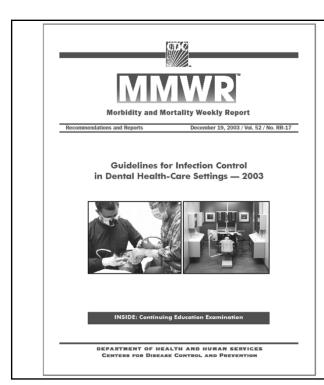
COVID-19 Guidance for Dental Practitioners (osha.gov)

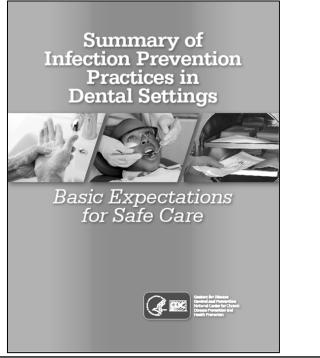
Guidance on Preparing Workplaces for COVID-19 (osha.gov)

Guidance on Returning to Work (osha.gov)

<u>Bloodborne Pathogens - Standards | Occupational Safety and Health Administration (osha.gov)</u>









Recommendations and Reports

October 25, 2002 / Vol. 51 / No. RR-16

B

#### **Guideline for Hand Hygiene in Health-Care Settings**

**Recommendations of the Healthcare Infection Control Practices** Advisory Committee and the HICPAC/SHEA/APIC/IDSA **Hand Hygiene Task Force** 

**Guideline for Disinfection and** 



William A. Rutala, Ph.D., M.P.H.<sup>1,2</sup>, David J. Weber, M.D., M.P.H.<sup>1,2</sup>, and the Healthcare Infection Control Practices Advisory Committee (HICPAC)<sup>3</sup>

<sup>1</sup>Hospital Epidemiology University of North Carolina Health Care System Chapel Hill, NC 27514

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<sup>2</sup>Division of Infectious Diseases University of North Carolina School of Medicine Chapel Hill, NC 27599-7030

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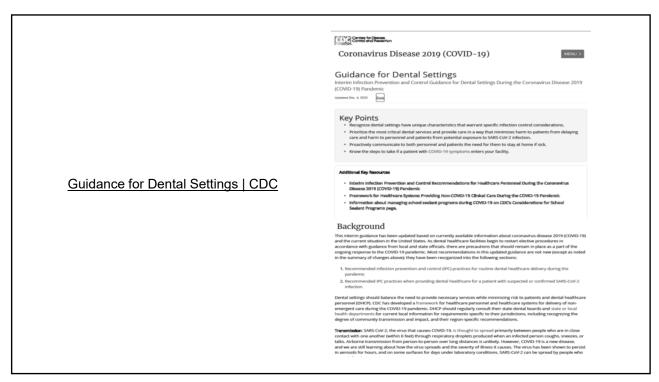
#### **CDC RESOURCE LINKS**

RR5217 Dental Front.pmd (cdc.gov)

Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care (cdc.gov)

Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 (cdc.gov)

RR5116-Front Cover.p65 (cdc.gov)



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#### **COVID-19 DOCUMENTATION**

- Hazard Assessment
  - BBPS and HazCom
  - · COVID-19
  - · Documents exposure risks and mitigation

# Hazard Assessment for Personal Protective Equipment and Respirators Date of assessment: Assessment is being conducted in the office/facility of: located at: Assessment conducted by: Types of hazards that exist in this facility: Exposure to bloodborne pathogens Penetration/puncture Airborne pathogens (aerosols) Radiation Chemicals Nitrous Oxide Harmful dust Heat Other: Describe the level of risk or potential injury to employees created by the following hazards: (do not consider the use of personal protective equipment) e.g. low, moderate, high. Bloodborne pathogens: Penetration/puncture: Airborne pathogens(aerosols): Radiation: Chemicals: Nitrous Oxide:

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,	•
Low	
	Inadequate
Low	Inadequate
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Low	Inadequate
appt.) Sympt	oms (each appt.)
) Sympt	ioms (daily)
Yes	No
Yes	No
Yes	No
tment rooms	employee lounge
Date:	
)	Low Sympt Sympt Yes Yes Yes ment rooms

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#### **COVID-19 DOCUMENTATION**

- Exposure Determination
  - BBPS
  - COVID-19
  - · Classifies job descriptions according to risk of exposure

#### EXPOSURE DETERMINATION

In this office, Category 1 employees are: the doctor(s), dental hygienist(s) and dental assistants. These employees have a routine risk of exposure to blood, body fluids and tissue, and are required to follow standard precautions to protect themselves from exposure and to prevent transmissions to patients.

Category 2 employees are: the business team members. These employees do not have routine exposure to blood, body fluids and tissue; but may be required to perform unplanned procedures normally performed by Category 1 employees.

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Exposure Determination for COVID-19				
Level of Exposure Ris		Work Area	PPE Required	
Lower	Administrative tasks – checking patients in and out, patient screening upon entering the facility, scheduling appointments	Business office	Face covering	
Medium	Non-aerosol-generating procedures – consultations, emergency, initial or periodic examinations, radiographs, instrument reprocessing, laboratory procedures	Operatory/treatment Room, Sterilization/instrument reprocessing area, lab area	ASTM Level 3 face mask, full face shield, exam gloves, protective gown/lab coat	
High	Aerosol-generating procedures on well patients or patients with no symptoms or potential exposure to COVID-19 - use of handpieces (high and slow speed), air/water syntem, emchanical scalers (ultrasonic, piezo-electric or sonic), air polishers or air abrasion technology	Operatory/treatment room	N95 respirator or higher level of protection (XN95 is allowed by FAC ELA during the COVID-19 pandemic)*; full face shield, exam gloves, protective gown/hab coat "If N95 and KN95 respirators are not available, a Level 3 face mask is allowable, but does not provide optimal respiratory protection	
Very High	Aerosol-generating procedures (emergencies only) on patients suspected of having COVID-19 or patients with symptoms of potential exposure to COVID-19—use of handpieces (high and slow speed), air/water syringe, mechanical scalers (ultrasonic, piezo-electric or sonic), air polishers or air abrasion technology	Operatory/treatment room	N95 respirator or higher level of protection (KN95 is allowed by FDA EUA during the COVID-19 pandemic)*; hill face shield, exam gloves, protective gown/lab coat "If N95 and KN95 respirators are not available, treatment should be referred to a facility where the appropriate respiratory protection is available.	

#### **Screening Patients and Team**

- Temperature of ≥100∘F subjective fever
- Screening for symptoms and recording in patient record
- Screening employees and recording in confidential file



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# UNIVERSAL SOURCE CONTROL – APPLIES TO EVERYONE!

- DHCP should wear face mask <u>at all times</u> while they are in a dental setting.
  - Meetings/training
  - Break room when not eating



 When doctors, hygienists, dental assistants are not engaged in direct patient care activities, they can take off their respirator and switch to a surgical mask or cloth face mask



#### **EYE PROTECTION**







Source: Palmero Health Care



Source: Op-d-op



Source: A-dec



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#### PPE FOR NON-AEROSOL GENERATING PROCEDURES

- During procedures likely to generate splashing or spattering of blood or other body fluids - non-aerosol generating:
  - Surgical mask ASTM Level 3
  - · Eye protection
    - · Goggles, protective eyewear with solid side shields or a full-face shield
  - · Gown or protective clothing
  - Gloves

# PPE FOR AEROSOL-GENERATING PROCEDURES

- During AGP's conducted on patients assumed to be non-contagious, consider the use of an N95 respirator or a respirator that offers a higher level of protection, such as:
  - Disposable filtering facepiece respirators
  - Elastomeric respirators
    - · Half facepiece
    - · Full facepiece
  - PAPR
  - Gowns, gloves, goggles/face shields



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### CLEANING AND DISINFECTING FACE SHIELDS



Source: Dental Reach Today





#### RESPIRATORY PROTECTION





Source: Crosstex



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#### RESPIRATORY PROTECTION



Source: 2M



Source: Halyard Health



Crosstex Isolator Plus



Source: 3M

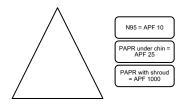


Source: Honeywe

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#### POWERED AIR-PURIFYING RESPIRATORS

- Alternative to N95 respirator higher level of protection
  - Higher air purifying factor (APF)
- Fit testing not required (by most manufacturers) but wearers must be trained on use
- · May be less taxing from a physiological/breathing resistance







• https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/powered-air-purifying-respirators-strategy.html

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#### FIT TESTING FOR RESPIRATORS



- Must be done with the exact brand, size of N95 that will be worn
- · Must be redone when the brand, size is changed
- Must be redone if there is a significant change for the wearer:
  - Facial hair
  - · Facial scarring
  - · Significant weight loss or gain
  - · Significant changes in dentition
- Requirement for annual fit testing has been temporarily suspended by OSHA
- · Medical questionnaire must be completed prior to fit-testing

#### THE LOGISTICS OF FIT TESTING

- No special certification required to be a fit-tester
- · Training programs available
  - Online
  - Manufacturers
  - Other groups
- · Fit test kits available
  - Dental distributors
  - Safety companies

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### RESPIRATORY PROTECTION TRAINING AND DOCUMENTATION

- · OSHA Respiratory Protection Standard
  - https://www.osha.gov/SLTC/respiratoryprotection/index.html
- · Written respiratory protection plan
- Respirator training
  - https://www.osha.gov/video/respiratory\_protection/fittesting.html



Source: Microsoft Creative Commons

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#### **ENGINEERING CONTROLS**

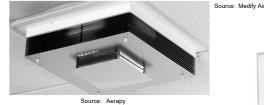
- HVAC modifications
  - Filtration
  - Air exchanges





Source: Microsoft Creative Commons

- · Air purification
  - HEPA filtration units
  - Upper Room UVGI
    - Ultraviolet germicidal irradiation





· Barriers for facilities with open floor plans

Source: globalindustrial.com

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#### **ENGINEERING CONTROLS – USE OF HVE**

- Restorative & Hygiene Procedures
  - Aerosol containment
  - Studies show reduces aerosol by 90% or more
    - 8mm opening is most effective
  - Intraoral and Extraoral
  - Can be combined with use of saliva ejector or dental dam
- System capacity can be a factor in effectiveness
- · Routine system maintenance must be performed
  - Daily cleaning
  - Periodic shocking



Source: PH Dental Inc.



Source: Air Techniques

# ENGINEERING CONTROLS – USE OF HVE

- Challenges for RDH's the struggle is real!
  - https://youtu.be/HZj5icVLChc
  - Hygiene assistant available?
  - Comfort ergonomics
    - · Patient comfort and ease of use for RDH
      - Single device that attached to scaler handpiece
      - Scale with one hand hold suction in the non-dominant hand
      - What about the mirror for indirect vision, retraction, light reflection?



Source: dentaladvisorblog.com

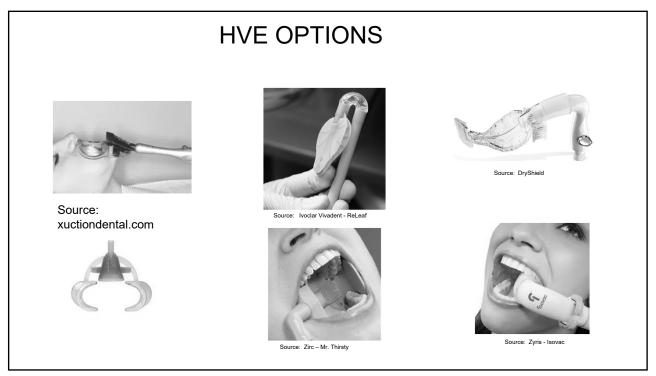


Source: Dentsply/Sirona

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# HVE OPTIONS Source: Quality Aspirators Source: Dentsply

# HVE OPTIONS Source: Hager Worldwide - Mirror Suction Source: ErgoFinger



#### WORK PRACTICE CONTROLS



Preprocedural mouth rinse (PPMR)

- · Adjust water volume on powered scalers
- · Increase use of hand scaling





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#### **CLEANING AND DISINFECTING**

- · Clean and disinfect the room and equipment according to the CDC Guidelines for Infection Control in Dental Health-Care Settings – 2003.
- Use a product on EPA List N and is tuberculocidal



#### COVID EXPOSURE OR TRANSMISSION IN A DENTAL SETTING

- PPE what was being worn?
- · Duration of exposure
- Any duration of exposure should be considered prolonged if the exposure occurred during performance of an aerosol-generating procedure (AGP)
- Community exposure or non-AGP exposure defined as 15 minutes or longer at <6ft.</li>
- DHCP's who test positive for COVID-19 must quarantine for 7-10 days.



Source: forbes.com



Source: Microsoft Creative C

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MORE RESOURCES

Options to Reduce Quarantine for Contacts of Persons with SARS-CoV-2 Infection Using Symptom Monitoring and **Diagnostic Testing** 

Updated Dec. 2, 2020 Languages ▼ Print







Options to Reduce Quarantine for Contacts of Persons with SARS-CoV-2 Infection Using Symptom Monitoring and Diagnostic Testing | CDC

Local public health authorities determine and establish the quarantine options for their jurisdictions. CDC currently recommends a quarantine period of 14 days. However, based on local circumstances and resources, the following options to shorten quarantine are acceptable alternatives.

- Quarantine can end after Day 10 without testing and if no symptoms have been reported during daily monitoring.
  - With this strategy, residual post-quarantine transmission risk is estimated to be about 1% with an upper limit of about 10%.
- When diagnostic testing resources are sufficient and available (see bullet 3, below), then quarantine can end after Day 7 if a diagnostic specimen tests negative and if no symptoms were reported during daily monitoring. The specimen may be collected and tested within 48 hours before the time of planned quarantine discontinuation (e.g., in anticipation of testing delays), but quarantine cannot be discontinued earlier than after Day 7.
  - With this strategy, the residual post-quarantine transmission risk is estimated to be about 5% with an upper

In both cases, additional criteria (e.g., continued symptom monitoring and masking through Day 14) must be met and are outlined in the full text.

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