FREE CE for members!

IN EACH ISSUE

Infection Control in Practice focuses on infection prevention and control basics, strategies, and tools to:
- maintain a safe work environment
- limit the spread of contamination
- promote compliance with infection prevention guidelines in dental facilities.

This will help the Infection Control Coordinator (ICC) communicate the importance of **the safestdentalvisit**™

WHAT'S IN THIS ISSUE

Know your choices for respiratory protection.

TEAM HUDDLE: Personal Protective Equipment for Respiratory Protection

SARS-CoV-2 changed respiratory safety protocols in dentistry by requiring the practice of both Standard and Transmission-Based Precautions to address high infection transmission risk during the COVID-19 pandemic.[1] As COVID-19 risk levels change, and new infection risks may arise, dental teams need to know the appropriate precautions to take. To be safe, dental settings must be prepared with a respiratory protection program that goes beyond Standard Precautions. Is your safety team prepared?

LEARNING OBJECTIVES

After reading this publication, the reader should be able to:

1. explain what a respiratory protection program (RPP) is,

2. understand why, when, and how to select and use different types of respiratory PPE,

3. review techniques and sequence of donning, wearing, and doffing masks and respirators.

TEAM HUDDLE: Personal Protective Equipment for Respiratory Protection (cont'd)

One of the most important changes in safety standards since COVID-19 is the selection and use of N95 respirators along with or in place of surgical masks as a part of a complete safety program that includes safe indoor air and screening for symptomatic patients.[1] This issue explores dental infection prevention and control (IPC), emphasizing personal protective equipment (PPE), specifically for respiratory protection.

Using respiratory PPE has many inherent variables; the correct respirator must be available, selected, tested, and used correctly every time. Human error is responsible for many breaches in respiratory safety. A respiratory protection program must be written to include a process for training and dialogue, a dedicated safety team, and a plan for ongoing PPE program evaluation and management.[2]

Workplace Scenario: The Situation

In a continuing workplace scenario, a new dental hygienist, Dylan, has helped implement changes in his aunt's dental office to tackle indoor air quality. He now felt much more comfortable with the indoor air safety of the office but realized he still had not completed the office's respiratory protection program.

To better understand how to do this, Dylan earned his Certified in Dental Infection Prevention and Control (CDIPC) certification, a program he heard about at OSAP's recent Infection Control Boot Camp.

He felt determined and now equipped to complete a respiratory safety program at his aunt's dental office.

Workplace Scenario: The Situation (cont'd)

Dylan had watched the progress as mechanical engineers and licensed professionals upgraded the dental office air ventilation and filtration systems. One great benefit of the new Heating, Ventilation and Air Conditioning (HVAC) system was that the garlic smell from the restaurant next door was much less, but he could still smell it, even with the N95 respirator he was using.

He needed a better-fitting N95!

He began to observe how others were wearing respiratory PPE. Everyone seemed to be making their own choices about masks and respirators using quite different criteria.

> As a first step in creating a respiratory protection program, Dylan observed the following.
>
> › A new dental assistant was hired, who wore a stylish beard that made his masks fit loosely. He used one mask for at least ½ day and parked the mask in his pocket (with his phone) between patients.
>
> › Another assistant refused to wear anything but the procedure mask for comfort and because "An N95 seems unnecessary now that the office air was cleaner".
>
> › The dentist, Dylan's aunt, occasionally wore a procedure mask, but inconsistently wore an N95 or a KN95.

Dylan remembered being at dental hygiene school during the height of COVID-19, where the rules were clear about which masks to wear and when and how to wear them.

Outside of school and following the worst of COVID-19, he saw how the office tried to follow the Occupational Safety and Health Administration (OSHA) and Health Department rules, but there was a lack of agreement and consistency.

It was time to get some clarity about rules and recommendations!

"The Hierarchy of Hazard Controls"[3] demonstrates the essentials of a layered approach to a respiratory protection program when viewed from most effective to least effective, considering possible human error.

HIERARCHY OF HAZARD CONTROLS

MOST EFFECTIVE
LEAST EFFECTIVE

ELIMINATION
SUBSTITUTION
ENGINEERING CONTROLS
ADMINISTRATIVE CONTROLS
PPE
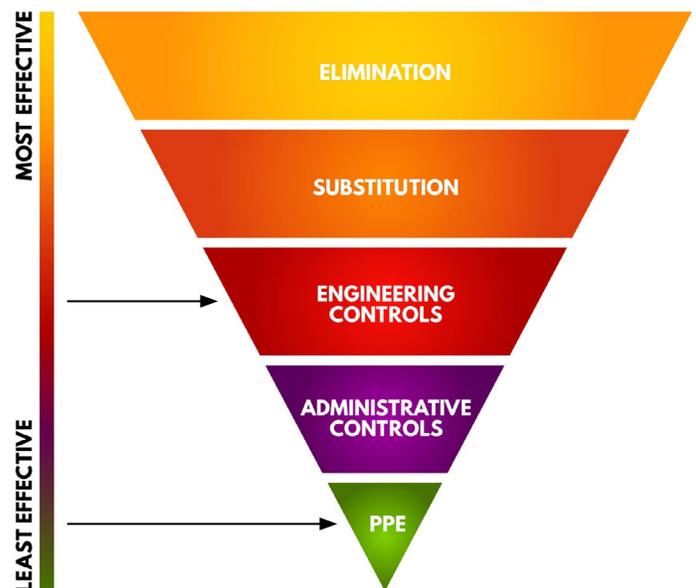
For example, the successful use of vital respiratory PPE requires users to wear correctly-fitted respirators exactly as instructed every time, yet people are not always consistent. Therefore, engineering controls, such as well-maintained air ventilation and filtration equipment, add more consistent performance because the equipment relies less on constant human actions. In this way, a layered approach to hazardous exposure leads to a more effective respiratory protection program.

Workplace Scenario: The Situation (cont'd)

Dylan decided to tackle the process of completing a respiratory program into **four separate steps**. He took the following steps to help him manage the process to bring the entire dental team on board with the program.

First Step: Beginning a Respiratory Protection Program

Dylan split this step into three parts to help himself get started.

A. He knew that they were required to have a written Respiratory Protection Program as an addendum to their OSHA Injury and Illness Protection Program.[2]

    💡 He modified a master RPP he found on their State Dental Association website, which used OSHA's Respiratory Protection Standard 29CFR 1910.134 to write their policy.[2]

B. Once Dylan had the written RPP, he knew he had to get everyone on the same page about why and when an N95 was appropriate and when procedure masks might be selected.

    💡 His research started with the differences between surgical procedure masks and respirators, and then looked at recommendations for when and why N95 respirators are recommended.

C. They would follow State and Local OSHA and Health Department rules, and when mandates allowed them to choose the level of respiratory PPE, they used Centers for Disease Control and Prevention (CDC) guidelines to make their choices for "Best Practices".

    💡 His aunt, the dentist, set a policy for selecting the level of protection based on risk. See page 8 for details.

Second Step: Getting The Dental Team On Board

It took some discussion, but the assistant, who would only wear a procedure mask, finally understood why N95 respirators were sometimes best when given the choice.

The dental team realized they had only considered one mask design (medium size), and began the search for other alternatives. The hope was to encourage consistent use after more comfortable and better-fitting masks were available.

After the team had a clear idea of when and why to wear respirators instead of procedural masks, the next step was to create a policy on HOW to use respirators and masks. See pages 9-10 for details.

Workplace Scenario: The Situation (cont'd)

Third Step: Making Time for Assessment and Fit-Testing

Dylan looked up the N95 respirator they had been using and found that it was a "counterfeit" product: it was not National Institute for Occupational Safety and Health (NIOSH)-certified!

He purchased a Qualitative Fit test kit and several models and sizes of NIOSH-certified surgical N95 respirators, i.e., "flat fold", molded, and duck-bill. The goal was to find one for each person that was comfortable and fit correctly.

The dentist had her colleague, a licensed health care professional (PLHCP), evaluate the medical questionnaires that everyone filled out. Any "Yes" answers required a medical evaluation to be sure it was safe for the person to wear an N95 respirator.[4]

Fourth Step: Keeping The Dental Team Involved

The office decided to write a "Safety Dress Code" that included this and other safety issues. They discussed how the outside of a used mask is contaminated and should not be touched (or stored in one's pocket).

Their dress code included putting on (donning) and removing (doffing) respirators without contaminating themselves. A key part of this was calibrating everyone on how to do a proper seal check. Dylan noticed right away that his new brand of surgical N95 filtered out the smell of garlic!

They all agreed to fit-test yearly, or if any changes were made in the masks they used, as required.[5]

A surgical N95 that passed the fit test was found for every team member except the new assistant with a beard. This is because facial hair prevented a tight seal against the skin and the mask leaked.

Dylan had to have "the talk". He showed the assistant the OSHA rule that prohibits facial hair, including stubble, between the facepiece's sealing surface and the face.[6] The dentist found a NIOSH poster showing some allowed mustaches and beards because the hair is contained within the mask and does not interfere with the mask seal.

Facial Hairstyles and Filtering Facepiece Respirators
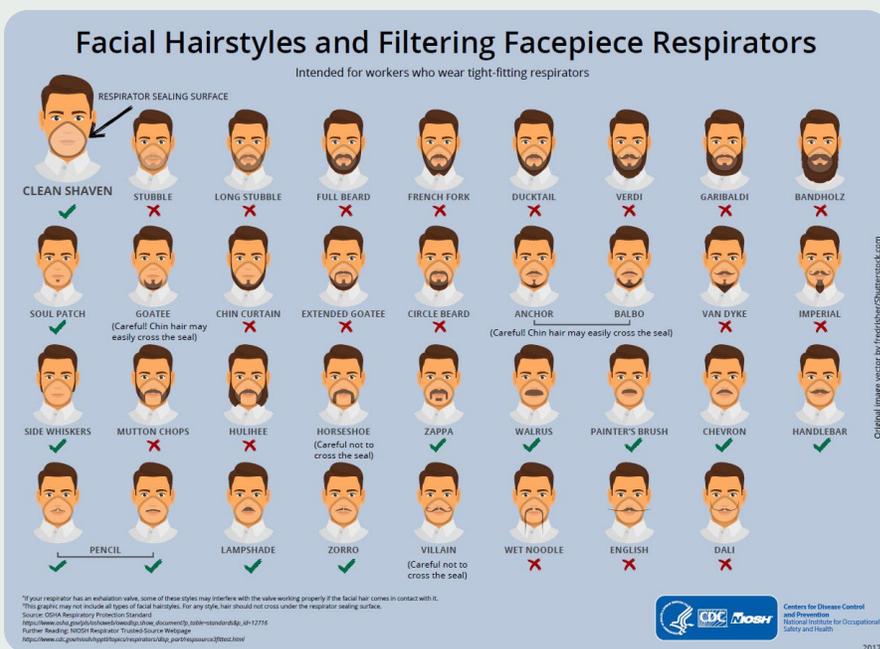
(link to NIOSH beard poster) **cdc.gov/niosh/npptl/images/infographics/FacialHairWmaskLG.jpg**)

5 Problem-Solving Strategies to Put a Respiratory Program in Place

Strategy 1: Write A Respiratory Protection Program[2]

The employer is required to develop, implement and update a written respiratory protection program that is specific to their dental office.[2]

	Checklist of Requirements to Include In a Written Respiratory Protection Program[2]
	1. A qualified (trained) program administrator.
	2. Provisions for safe voluntary use of respirators.
	3. Procedures for selecting respirators.
	4. A selection of approved and appropriate respirators.
	5. Medical evaluations of employees required to use respirators.
	6. Fit testing procedures for tight-fitting respirators.
	7. Procedures for proper use of respirators in routine and emergency situations.
	8. Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.
	9. Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators.
	10. Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations.
	11. Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.
	12. Procedures for regularly evaluating the effectiveness of the program.

The respiratory protection program must be followed when an N95 respirator is required. **When an N95 is not required, employees may voluntarily wear an N95;** if they do, the employer is responsible for supplying respirators and for ensuring they are medically safe, but fit-testing is not required. The masks must be clean, stored, and maintained to ensure safety. Employees may use their own respirators if that does not create a hazard.[7]

Strategy 2: Understand The Differences Between Surgical/Procedure Masks and N95 Respirators (cont'd)

Surgical masks may be labeled as surgical, isolation, dental, or medical procedure masks. Dental workers should only use masks labeled "surgical" to provide fluid protection.

Surgical masks:

› are single-use: they must be used for only one patient.[8,9,10]

› are bi-directional barriers, providing source control and protecting the wearer from direct exposure to large-particle droplets that may contain infectious pathogens.

› do not provide complete protection from germs and other contaminants because of the mask filtration limits and the loose fit between the mask and your face.[8]

› are regulated under OSHA 21 CFR 878.4040 and are NOT considered respiratory protection.[8,9]

› are available in three levels of protection. Level 3 provides the most protection against particle or bacterial penetration; (98% filtration) and the best fluid protection.

› come in a variety of designs and sizes and should fit the wearer. While they can be fit to the bridge of the nose by fitting the nose strip to the face, they still allow some air leakage around the edges. Some also have a chin strip or pleating that improves fit and helps reduce cheek gaps. Stronger strips hold their shape and hold the mask in place better.

Surgical Mask	Surgical N95 Respirator

Surgical masks (level 3) and surgical N95 respirators provide added fluid protection during procedures.

Surgical N95 respirators are commonly used in healthcare settings and are a subset of N95 Filtering Facepiece Respirators (FFR), often referred to as N95. Employers must provide NIOSH-approved surgical N95 respirators or better.[2]

Surgical N95 respirators:

› provide fluid protection, while other types of respirators may not. The CDC recommends specially labeled "surgical" N95 respirators for healthcare that provide additional protection against hazards present during medical procedures, such as blood splatter.

› filter at least 95% of 0.3-micron particles in the air when properly fitted and can protect the wearer from non-oil aerosols, including infectious pathogens such as tuberculosis, SARS-CoV-2, chickenpox, and measles.[8,9,10,11]

› are required or recommended in areas with moderate to substantial transmission rates of infectious diseases and during aerosolizing procedures, including the use of high-speed and low-speed handpieces, air/water syringes, ultrasonic scalers, and laser devices.

› should fit tightly against the face, forcing the air to be filtered through the facemask material.

› must be certified by NIOSH to ensure proper performance and fit-tested to be sure the edges seal against each person's face, and the wearer must perform a seal-check each time the mask is donned.

› may restrict breathing, so part of the initial fit-testing is ensuring each person can tolerate wearing the respirator.

› may be worn for more than one patient when worn for source control, following the manufacturer's directions and safe practices to avoid cross and self-contamination when re-using them.

› rely on correct facial fit and consistent use, which are vital to providing respiratory protection. The presence of facial hair where the N95 edges conform to the face will defeat the seal's effectiveness.[10,11]

💡 Understanding the Differences" is a CDC infographic showing the differences between the surgical mask and the N95 respirator. It is found at: **cdc.gov/niosh/npptl/pdfs/understandingdifference3-508.pdf**

Problem-Solving Strategies (cont'd)

Strategy 2: Understand The Differences Between Surgical/Procedure Masks and N95 Respirators (cont'd)

When to select a new mask
Masks or respirators worn for source control may be worn all day. However, if worn due to the risk of exposure during high-risk procedures, they must be changed per patient or sooner. This criterion may be applied to assessing the risk of exposure to SARS-CoV-2 and other possible airborne pathogens.[1,11,12]

Respirators that meet International Standards
KN95 is a Chinese standard respirator, with filtration equivalent to N95. The main difference between a KN95 and an N95 is that a KN95 usually has ear loops, and an N95 has headbands or ties. N95 respirators are more effective due to a tighter seal.

N95

KN95

› International respirators may not meet the declared quality and performance standards.

› NIOSH-approved brands are the most reliable and may be substituted for surgical masks when an N95 is NOT required.

› Do NOT wear international respirators if they are not NIOSH-approved, have exhalation valves, vents, or other openings, or as a replacement for NIOSH-approved respiratory protection when required by your job.[2,11]

› Masks or respirators with exhalation valves are not allowed because they allow the wearer's breath to escape unfiltered. This is not acceptable source control.[8,9]

Helpful Links:

› **A list of NIOSH-approved surgical N95[13] respirators can be found here**

› **How to detect counterfeit (not NIOSH-approved) respirators**

› **CDC video: How to Tell if Your N95 Respirator is NIOSH-Approved.**

Strategy 3: WHEN Should You Wear An N95 Respirator?

Respirators may be required by your employer, local, territorial, tribal, state, and federal requirements, including OSHA.[1,2] If respirators are required, they must be worn.

If an N95 is not required and you have a choice between use of a surgical mask or an N95 respirator, make the choice based on risk assessment.

Consider the following risk factors:

1. The Community Transmission Rate is a key recommended criterion to guide the decision to use respirators in healthcare settings.[12] See page 18 (COVID-19 Update) for new CDC resources to assess risk based upon community respiratory disease outbreaks.[12]

2. Assume higher risk during respiratory virus season (approximately October – April).[2,3,4,5,6]

3. When available, access local SARS-CoV-2 community incidence data.

4. Aerosol-generating procedures (AGPs) are a risk factor. Commonly used dental equipment known to create aerosols and airborne contamination include ultrasonic scaler, high-speed dental handpiece, air/water syringe, air polishing, and air abrasion.[1,10]

5. If you, your coworkers, patients, or your family members are at high risk for severe illness, consider respirators.[14] Examples of high-risk health conditions can be found here: **cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html**

6. Asymptomatic transmission of SARS-CoV-2 and other airborne diseases is possible and patients cannot wear source control during their treatment. Thus, facilities in counties with substantial or high transmission may consider implementing universal use of NIOSH-approved N95 or equivalent or higher-level respirators for healthcare personnel during all patient care or in specific areas of the facility at higher risk for respiratory disease transmission.

Problem-Solving Strategies (cont'd)

Donning, Doffing, and Seal Check Techniques [8,9,10,11,15,16,17,18]

A User Seal Check is used to determine if a respirator (not a surgical mask) properly fits the face each time it is donned. A seal check is NOT a substitute for a fit test.[6,15] There are two methods to conduct a respirator seal check:

Positive pressure seal check for respirators:

1. Fit mask tightly to face, place hands over the outside of the mask, molding it to your face.
2. Exhale gently to build up pressure inside your mask.
3. Notice leakage along edges.

Negative pressure seal check for respirators:

1. Fit mask tightly to face, place hands over the outside of the mask, molding it to your face.
2. Inhale sharply.
3. Softer masks should collapse towards the face. Air should travel through the mask, not around the edges.
4. Notice leakage along the edges.[15]

The CDC presents a **video** demonstrating how to conduct a seal check, and don and doff an N95 respirator.[2,11]
cdc.gov/niosh/npptl/topics/respirators/disp_part/donningdoffing.html

N95 Respirator Tip DO's[11,16,18,19]	N95 Respirator Tip DON'Ts [11,16]
Choose a surgical N95 for the best protection against small particles and airborne diseases.	DO NOT wear if soiled or wet.
Always inspect the N95 for defects and damage before donning.	DO NOT reuse after treating one patient.
Perform hand hygiene and follow the manufacturer's instructions for donning, using, and doffing.	DO NOT wear an N95 without proper fit testing.
For airborne precautions, don a respirator before entry into the patient room.	DO NOT wear the N95 if air leaks around the respirator edges (confirm with seal check).
Ensure proper fit; completely cover mouth and nose with mask and perform a seal check.	DO NOT touch the outside/front of the N95 respirator; after use, the front is contaminated. Touching the mask with wet or contaminated hands/gloves introduces contamination that may expose the wearer.
Remove the N95 outside the clinical space after treatment is completed.	DO NOT snap the straps – this may spread germs.
To remove aseptically, avoid touching the outside of the mask: handle straps only. Tilt head forward, remove the bottom strap first, the then top strap, and discard.	DO NOT share your N95 respirator with others. This will spread germs.
Perform hand hygiene.	DO NOT leave N95 respirators hanging around your neck.
	DO NOT wear if it is hard to breathe while wearing them.
	DO NOT wear with other masks or respirators.

Problem-Solving Strategies (cont'd)

Strategy 5: HOW Should You Wear A Surgical Mask? Methods For Selecting And Using A Surgical Mask.

Surgical Mask Tips: What TO DO[17]	Surgical Mask Tips: What NOT TO DO[17,18]
Select surgical masks for barrier protection against spray, spatter, dust and as source control.	DO NOT use for protection against aerosolized very small particles, including infectious pathogens such as measles, chickenpox, SARS-CoV-2, tuberculosis, influenza.
Always inspect the mask for defects or damage before donning.	DO NOT wear if wet or soiled.
Perform hand hygiene.	DO NOT crisscross ties or ear-loops (this creates a gap at the edge, reducing protection).
Select and fit the mask to maximize a close facial fit, using metal strips to contour mask to nose and face.	DO NOT move the mask off the face (under the chin, off the ear, etc.); keep mask in place.
If the mask has ties, tie the top ties first, then the bottom ties.	DO NOT reuse.
Remove the mask after treatment is complete, outside the clinical space.	DO NOT touch the front of the mask. After use, the front is contaminated. Touching the mask with wet or contaminated hands/gloves introduces contamination that may wick through the mask.
To remove ear loop masks, handle only the ear loops.	
To remove tied masks, remove by handling only the ties, untying the bottom tie first, then the top tie.	
Properly dispose of the mask and perform hand hygiene.	

Glossary of Terms

Airborne precautions: the second tier of basic infection control to be used in addition to Standard Precautions. It is used for patients who may be infected or colonized with certain infectious agents for which additional precautions are needed to prevent infection transmission by the airborne route (e.g., tuberculosis, measles chickenpox, disseminated herpes zoster, SARS-CoV-2).

Filtering facepiece (dust mask): 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. Most N95 respirators worn in dentistry are filtering facepieces.

Fit factor: a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test (quantitative fit test [QFT]): a protocol to qualitatively evaluate the fit of a respirator on an individual. A chemical is released outside the mask. If the person can taste or smell it the mask FAILS the test. Fit test must be conducted prior to initial use of the respirator, whenever a different respirator facepiece (size, style, model or make) is used, when the person's face contour changes and at least annually thereafter. Medical clearance prior to fit-testing is required because N95 respirators may restrict breathing.[5]

High efficiency particulate air (HEPA) filter: a filter that is at least 99.97% efficient in removing airborne particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Physician or other licensed healthcare professional (PLHCP): an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by OSHA 29 CFR 1910.134(e).

Respiratory protection: the use of personal respirators that prevent inhalation of airborne hazards such as aerosols, droplets, particulate matter, and pathogens including viruses.

Source control: refers to wearing PPE that protects others from exposure to the person wearing the PPE.

Surgical N95 respirator: single-use, disposable respiratory protective devices used and worn by healthcare personnel during procedures to protect both the patient and healthcare personnel from the transfer of microorganisms, body fluids, and particulate material. Surgical N95 respirators are regulated by the FDA, under 21 CFR 878.4040, and CDC NIOSH under 42 CFR Part 84.

User seal check: is an action conducted by the respirator wearer to determine if the respirator is properly seated to the face.

In Case You Missed This – *CDC Update**

Infection Control Guidance

Prior to the May 11, 2023 announcement of the expiration of the federal COVID-19 public health emergency (PHE), the CDC updated its interim recommendations for infection control and prevention for healthcare personnel. This guidance applies to all US settings where healthcare is delivered, including dental settings. The CDC will no longer receive data needed to publish Community Transmission levels for SARS-CoV-2, which influenced the use of source control in all healthcare settings. Facilities are encouraged to look beyond prevention of SARS-CoV-2 to make masking decisions based on facility- and patient-level characteristics. To assist in decision-making, CDC has created an appendix with examples of local metrics that could signal increasing respiratory virus transmission in the community.

cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

*as reported in OSAP InfoBites May 15, 2023

Looking Ahead: September is Dental Infection Control Awareness Month (DICAM)

Stay tuned for support materials and resources for #DICAM23, available on the OSAP website. DICAM was introduced to recognize the importance of the Safest Dental Visit™. DICAM educational resources help clinicians and infection control coordinators promote their commitment to a safe, professional environment, encourage patient dialogue, attract new patients, and enhance the overall image of their practice.

TEAM HUDDLE DISCUSSION GUIDE

1. Are you sure that your respirator fits your face?

2. Are you clear about how to choose between wearing a respirator and a surgical mask?

3. What is the correct sequence for donning and doffing respirators and masks?

Does your office have a written respiratory protection program?

KEY TAKEAWAYS

1. Dental respiratory safety requires a layered approach: first, good indoor air quality should be provided, and second, appropriate and effective respirators should be used correctly.

2. A complete written and implemented respiratory safety program is required by OSHA.

3. Surgical N95 respirators provide respiratory protection against infectious airborne diseases, while surgical (procedure) masks do not provide the filtration or fit required to fully prevent airborne exposure.

4. Surgical N95 respirators must fit the face without leakage.

5. Safe practices for effective respirator use include knowing when, why, and how to use respirators.

6. It is most important to correctly wear a well-fitting mask or respirator that is comfortable for you and that provides good protection.

7. Masks and respirators can provide varying degrees of protection, with well-fitting NIOSH-approved respirators offering the most protection.[11]

Links to Resources

1. Infection Control Guidance. Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic. Updated May 8, 2023. **cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html** Accessed May 2023

2. Respiratory Protection standard 29 CFR § 1910.134(c) **osha.gov/laws-regs/regulations/standardnumber/1910/1910.134** Accessed May, 2023

3. Hierarchy of Controls **cdc.gov/niosh/topics/hierarchy/** Accessed May 2023

4. Respiratory Protection standard 29 CFR § 1910.134(c)(1)(ii) Medical evaluations of employees required to use respirators. **osha.gov/laws-regs/regulations/standardnumber/1910/1910.134** Accessed May, 2023

5. Respiratory Protection standard 29 CFR 1910.134(f)(1-8) **osha.gov/laws-regs/regulations/standardnumber/1910/1910.134** Accessed May, 2023

6. Respiratory Protection standard 29 CFR 1910.134(g)(1)(i)(A) **osha.gov/laws-regs/regulations/standardnumber/1910/1910.134** Accessed May, 2023

7. Respiratory Protection standard 29 CFR 1910.134(c)(2)(ii) **osha.gov/laws-regs/regulations/standardnumber/1910/1910.134** Accessed May, 2023

8. N95 Respirators, Surgical Masks, Face Masks, and Barrier Face Coverings **fda.gov/medical-devices/personal-protective-equipment-infection-control/n95-respirators-surgical-masks-face-masks-and-barrier-face-coverings** Accessed May, 2023

9. CDC's Understanding the Difference (Between Surgical Masks and N95 Respirators) **cdc.gov/niosh/npptl/pdfs/understandingdifference3-508.pdf** Accessed May, 2023

10. Miller, Chris H, *Infection Control and Management of Hazardous Materials for the Dental Team 7th Ed.* Elsevier. Pg.107-110.

11. CDC Masks and Respirators **cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/types-of-masks.html** Accessed May, 2023

12. Infection Control Guidance. Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic. Updated May 8, 2023. **cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html** Accessed May, 2023

13. NIOSH Approved N95 Respirators **cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html** Accessed May, 2023

14. People with Certain Medical Conditions Updated March 21, 2023 **cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html** Accessed May, 2023

15. Poster: Filtering out Confusion: Frequently Asked Questions about Respiratory Protection Seal Check Poster **cdc.gov/niosh/docs/2018-130/pdfs/2018-130.pdf?id=10.26616/NIOSHPUB2018130** Accessed May, 2023

16. Do's & Don'ts for wearing N95 respirators in non-surgical healthcare settings. Association for Professionals in Infection Control and Epidemiology (APIC) **apic.org/Resource_/TinyMceFileManager/consumers_professionals/APIC_DosDonts_Respirators_hiq.pdf** Accessed May, 2023

17. Do's & Don'ts for wearing procedure masks in non-surgical healthcare settings. Association for Professionals in Infection Control and Epidemiology (APIC) **apic.org/Resource_/TinyMceFileManager/consumers_professionals/APIC_DosDontsofMasks_hiq.pdf** Accessed May, 2023

18. Seven Steps to Correctly Wear a Respirator at Work **osha.gov/sites/default/files/publications/OSHA4015.pdf** Accessed May, 2023

19. OSHA: Respiratory Protection. **osha.gov/SLTC/respiratoryprotection/guidance.html** Accessed May, 2023

What's Wrong With This Picture?

For the highest level of personal protection against airborne diseases, can you identify what safe work practices are missing in this picture of a dental aerosol-generating procedure about to begin?

Answer: The dental clinician and the assistant should wear a properly fitted N95 respirator during aerosol-generating procedures to ensure respiratory protection. It also appears the dental clinician and assistant are not wearing protective outerwear during a procedure about to generate spatter. Additionally, the beard worn by one of the operators will compromise the proper fit of an N95 respirator. Facial hair not contained within the N95 respirator borders will interfere with the respirator seal. **cdc.gov/niosh/npptl/images/infographics/FacialHairWmaskLG.jpg**

Take the Silent Video Challenge!

The Scenario: Respiratory Protection

In this video demonstration, what is wrong with the selection of the face mask when it comes to providing source control to protect others?

https://youtu.be/FbgEfXJV-N8

Challenge your knowledge and compare to the lesson below.

The Lesson: This mask contains an exhalation valve. Masks or respirators with exhalation valves are not adequate source control because they allow the wearer's breath to escape unfiltered. An acceptable N95 respirator does not contain an exhalation valve and the user would also perform a seal check after donning. A seal check ensures a proper fit when the mask completely covers the mouth and nose, thus providing source control for the patient and respiratory protection for the operator. The respirator does not appear to fit properly under the chin.

Educational Spotlight

Did you miss the 2023 OSAP Annual Conference?

2023 OSAP
ANNUAL CONFERENCE

Catch the educational replay! There is still time to register for On-Demand Only access. You can view the 2023 OSAP Annual Conference recordings between June 19 – August 18. (Be sure to register by August 4th).

› **A broad range of speakers**. Hear from decision-makers and future-forward thinkers in infection prevention and safety.

› **Stay updated** on current practices and emerging trends.

› **Learn strategies** to improve compliance with safe practices.

› **Invigorate your professional development**. Fulfill CE licensure requirements.

A Sampling of Topics Covered:

› Updates on Regulations: FDA and OSHA
› Updates on Guidance: NIOSH and CDC
› Educating future ICCs
› Dental unit waterline safe practices
› Get clear on standard operating procedures
› Waterborne pathogen-related infections
› The human factors: to improve patient safety
› Achieving a safety culture: why it matters
› A good look at eye safety
› Biological sources of aerosols in dental clinics
› Emerging infectious diseases & safe practices
› Implementing antibiotic stewardship
› Performance testing: sterilization equipment
› …and more!

Register **HERE** for educational recordings from pre-conference, conference-only or both!

View all of the topics presented at the annual conference **HERE**

View topics presented at the pre-conference **HERE**.

For all details or to register, visit **www.osapconference.org/** Questions? Call +1 (410) 571-0003

OSAP 2023 Annual Conference Education: On-Demand Between Jun 19–Aug 18	
Education	
View On-demand recordings (Jun 19 – Aug 18); Not live-streamed	☑
Access PowerPoints, checklists, tools & resources	☑
CE Credits & Recognition	
Over 25+ ADA CERP CE Credits	☑
Digital badge and online certificate of attendance	☑

GET YOUR CE CREDIT ONLINE

Follow the instructions below to receive 1 hour of CE credit FREE to OSAP members. OSAP is an ADA CERP Recognized Provider.*

Step 1: Go to **osap.mclms.net/en/package/11947/view** to register or purchase the course.

Step 2: Log in to your OSAP member account or create a new user account.

Step 3: Complete the registration form. OSAP members FREE! Non-members $20.

Step 4: Complete the online course. You must pass with 7 out of 10 correct answers. When completed, you will receive an email with your CE certificate. The CE certificate will also be available in your new OSAP Infection Prevention & Safety CE Center account under MY ACCOUNT > MY CERTIFICATES.

QUESTIONS TO ONLINE QUIZ:
Select the most correct answer

1. SARS-CoV-2 changed respiratory safety protocols in dentistry by requiring:

   a. the practice of Standard Precautions.

   b. the practice of Transmission-based Precautions in addition to Standard Precautions.

   c. that only N95 respirators be worn by anyone entering a dental office until at least 2024.

   d. that all offices have negative pressure rooms.

2. Identify the one INCORRECT statement regarding respirator fit-testing.

   a. Medical evaluation prior to fit-testing is required if one answers YES to screening questions on the medical questionnaire.

   b. Fit-testing is required yearly or if a new mask is used.

   c. Fit-testing is only required once.

   d. Fit-testing reveals the protective fit of an N95 respirator.

3. Identify the answer that is NOT a requirement of a respiratory protection program.

   a. A qualified (trained) program administrator

   b. Medical evaluations of employees required to use respirators

   c. Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations

   d. Fit testing Level 3 surgical masks

4. Identify the INCORRECT statement below about surgical (procedure) masks.

   a. Surgical masks provide source control.

   b. Surgical masks protect the wearer from direct exposure to large-particle droplets.

   c. Surgical masks are not considered respiratory protection.

   d. Surgical masks are considered respiratory protection.

5. Identify the CORRECT statement below about N95 respirators.

   a. N95 respirators filter out 95% of the particles larger than 3 microns.

   b. N95 respirators filter at least 95% of 0.3-micron particles in the air.

   c. N95 respirators must be worn at temperatures under 95°F.

   d. N95 respirators may be worn for 95 minutes only.

6. Respirators are defined as "surgical N95 respirators" when they have which quality?

   a. Fluid resistance

   b. Sterility

   c. Three head-straps

   d. Duck-bill design

7. Identify the correct statement below regarding NIOSH certified KN95 respirators.

   a. KN95 respirators are an equal replacement for N95 respirators.

   b. KN95 respirators are more effective than N95 respirators.

   c. KN95 respirators are less effective than N95 respirators due to the earloops, resulting in a looser fit.

   d. KN95 respirators have head straps

8. All of the factors below are criteria for wearing an N95 except one. Identify the one INCORRECT answer.

   a. There is a high community transmission rate.

   b The patient has asthma.

   c. You or a family member is chronically ill or immunocompromised.

   d. OSHA, an employer or the Health Department mandates the use of an N95.

9. Identify the one INCORRECT statement below regarding the correct wearing of masks and/or respirators.

   a. Discard moist, worn, damaged, defective masks.

   b. Follow manufacturers' directions for use.

   c. A seal-check is performed each time a surgical mask is used.

   d. A seal-check is performed each time an N95 respirator is used.

10. Identify the one INCORRECT protocol for wearing an N95 respirator.

   a. Always inspect the N95 for defects and damage before donning.

   b. For airborne precautions, don a respirator upon entry into the patient room.

   c. Remove N95 outside clinical space after treatment is completed.

   d. Remove N95 inside clinical space after treatment is completed.

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The Challenge and Hope of Antibiotic Stewardship

Antibiotics are vital to effectively treat bacterial infections, but humanity is challenged with an escalating pandemic of emerging drug-resistant pathogens and few new drugs to address them.

The World Health Organization (WHO) found that antibiotic development is insufficient to tackle antimicrobial resistance, especially against "critical" resistant pathogens.

Widespread inappropriate antibiotic use was made worse during COVID-19. Empiric prescribing of antibiotics when no known treatments were available for COVID-19 was fueled by claims that azithromycin might be effective against COVID or cases that presented as bacterial pneumonia.

Crisis conditions (insufficient information, supplies, PPE, space, time, and healthcare workers) along with fear, fatigue, and panic are thought to have fueled conditions for the growth and spread of healthcare-associated pathogens.

CDC reported a dramatic increase in U.S. *Candida auris* cases, many of which were multi- or pan-drug resistant. Since its discovery in Japan in 2009, *C. auris* cases have caused invasive infections that are resistant to all three classes of antifungal medication, infecting weakened patients with indwelling devices such as catheters and ventilators, resulting in 30% to 40% mortality.

C. auris is easily spread on surfaces and difficult to eradicate in patient care settings. It is important to correctly use surface disinfectants that are effective against fungi.

Dental training was shown to be very effective in changing inappropriate prescribing practices. Education, diligent infection, prevention and asepsis, and continued awareness of updated information are the hope against this challenge.

The OSAP website has links to relevant dental studies and articles and provides helpful resources and tools.
osap.org/antibiotic-stewardship

OSAP-DALE Foundation Dental Infection Prevention and Control Certificate™

A comprehensive online educational program for anyone who wants to learn more about dental infection prevention and control. Earning the certificate demonstrates an in-depth understanding of CDC guidelines and OSHA standards related to standard precautions.

1 Complete the OSAP-DALE Foundation online CDEA® module
Understanding CDC's Summary of Infection Prevention Practices in Dental Settings ($30)

2 Complete the **OSAP-DALE Foundation Dental Infection Prevention and Control eHandbook™** ($195)

Bundle Price $215* **Get the Bundle!**

*Discounts are available for the purchase of multiple courses and groups of learners.

Those who successfully complete the program receive a certificate of completion and a digital badge that can be shared on social media, emailed to friends or colleagues, or downloaded.

dentalinfectioncontrol.org/education

For more certification opportunities see page 16, Set yourself apart.

COVID-19 UPDATE: Federal COVID-19 Public Health Emergency Ends

Here Are Ways To Assess Community Risk

The federal COVID-19 Public Health Emergency (PHE) ended May 11, 2023, and the CDC COVID-19 Community Transmission Rate webpage is no longer available. COVID-19 transmission activity data will now be tracked along with other respiratory diseases. CDC suggests the following ways to determine masking protocol in healthcare settings.[13]

1. Assume higher risk during respiratory virus season (approximately October – April)

2. When available, access local SARS-CoV-2 community incidence.

3. Access CDC COVID Data Tracker, which reports hospital admissions
   covid.cdc.gov/covid-data-tracker/#datatracker-home

4. Access The Respiratory Virus Hospitalization Surveillance Network (RESP-NET) interactive dashboard
   cdc.gov/surveillance/resp-net/dashboard.html

5. Access National Emergency Department Visits for COVID-19, Influenza, and Respiratory Syncytial Virus
   cdc.gov/ncird/surveillance/respiratory-illnesses/index.html

6. Access Morbidity and Mortality Weekly Report (MMWR) **cdc.gov/mmwr/index2022.html**

*Source: Infection Control Guidance. Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic. Updated May 8, 2023. **cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html**

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DENTAL INFECTION CONTROL
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Education

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Certification

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Certified in Dental Infection Prevention and Control® (CDIPC®)

Intended for the dental team, educators, consultants, and others with a clinical background. Earning CDIPC certification demonstrates an advanced level of infection control guidelines and standards knowledge and the analytical and critical-thinking skills to apply them in various scenarios.

Developed by OSAP and DANB

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DANB — Dental Assisting National Board

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