Beyond The Pandemic

Presented by: Mary Govoni, MBA, CDA, RDH

Brought to you by:

VIVA LEARNING™

1

1

Thank you to our Sponsor!

HealthFirst

2

2

Overview

- Update on state of the pandemic
- Update on CDC guidance
- Why should we continue to be concerned about aerosols in dentistry?
- Aerosol management beyond COVID-19

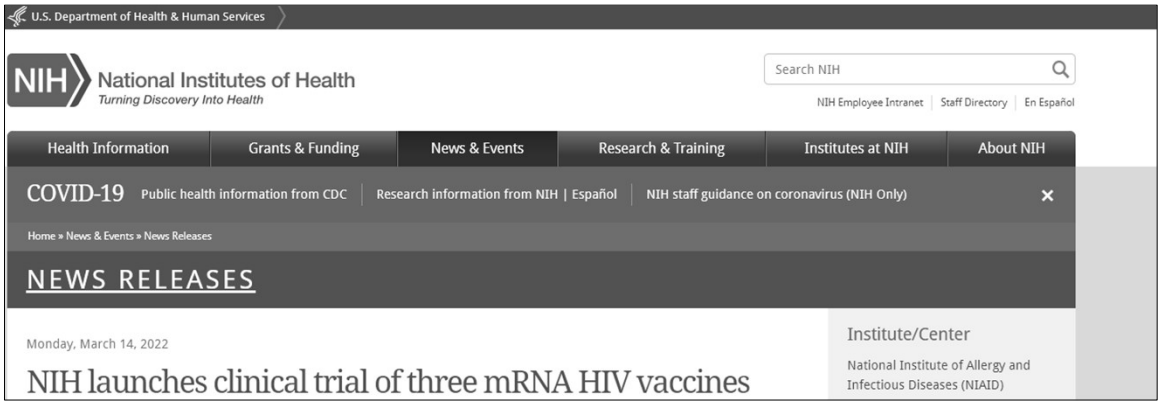
3

Good News!!!

4

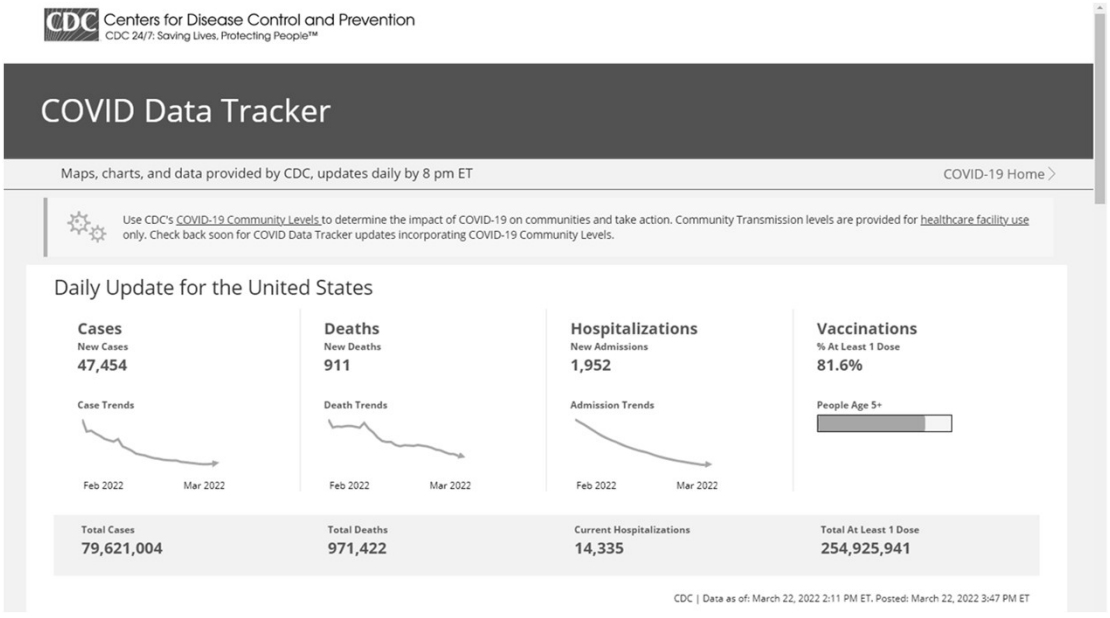
4

mRNA Vaccines for HIV in Clinical Trials



https://bit.ly/37VoZBh

5

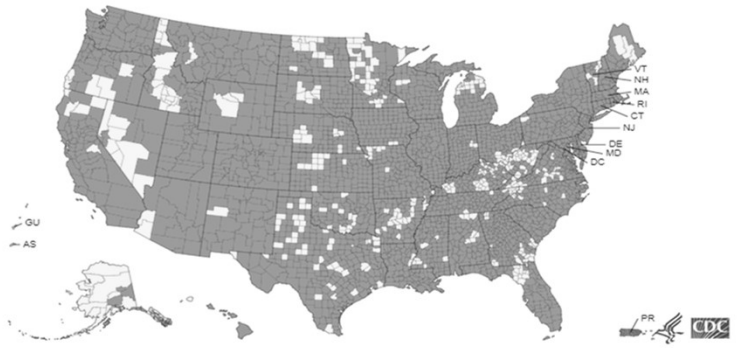


https://bit.ly/3NhdfJC

6

U.S. COVID-19 Community Levels by County Map

Maps, charts, and data provided by CDC, updates every Thursday by 8 pm ET
Updated: March 17, 2022



Legend

High
Medium
Low

https://bit.ly/3NfrU7U

7

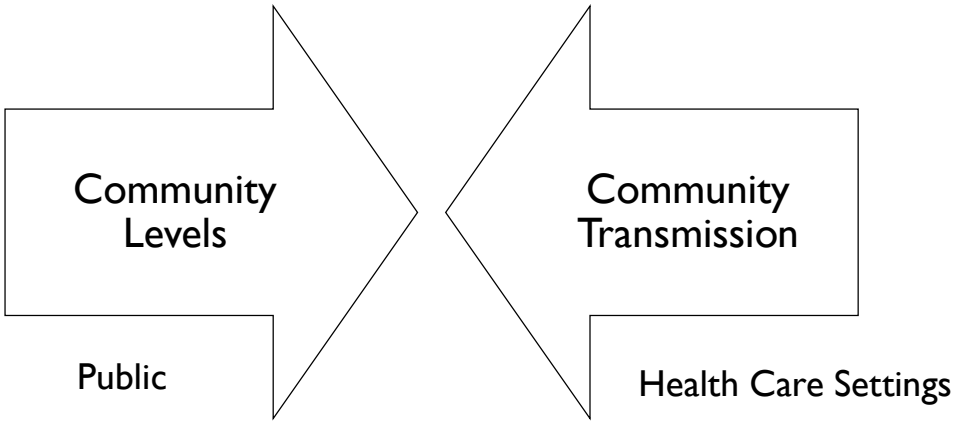
Reported cases of All Counties in US

0 1 to 9 10 to 99 100 to 999 1,000 to 4,999 5,000 to 9,999 10,000+ No Data

Wed Mar 23 2022 17:02:24 GMT-0500

https://bit.ly/3JI5gDi

8

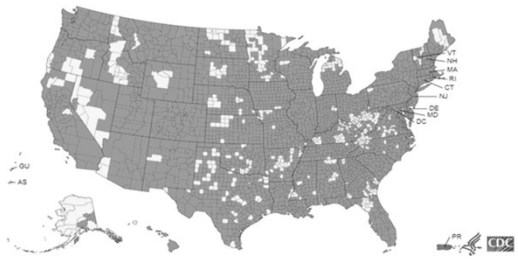


9

U.S. COVID-19 Community Levels by County Map

Maps, charts, and data provided by CDC, updates every Thursday by 8 pm ET

Updated: March 17, 2022



Legend

High

Medium

Low

https://bit.ly/3NfrU7U

0 1 to 9 10 to 99 100 to 999 1,000 to 4,999 5,000 to 9,999 10,000+ No Data

Time Period: Wed Mar 16 2022 - Tue Mar 22 2022

https://bit.ly/3L8eDw7

10

https://bit.ly/3isjGeH

COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%

The COVID-19 community level is determined by the higher of the new admissions and inpatient beds metrics, based on the current level of new cases per 100,000 population in the past 7 days

11

What Prevention Steps Should You Take Based on Your COVID-19 Community Level?

Low	Medium	High
• Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• If you are at high risk for severe illness, talk to your healthcare provider about whether you need to wear a mask and take other precautions • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms	• Wear a mask indoors in public • Stay up to date with COVID-19 vaccines • Get tested if you have symptoms • Additional precautions may be needed for people at high risk for severe illness

People may choose to mask at any time. People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a mask.

If you are immunocompromised, learn more about how to protect yourself.

U.S. COVID-19 Community Levels by County

Data provided by CDC
Updated: Feb. 24, 2022

https://bit.ly/3D7zAEx

12

COVID-19 Community Levels

A measure of the impact of COVID-19 illness on health and healthcare systems

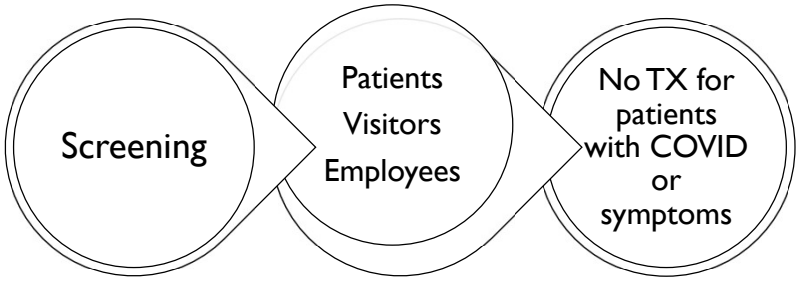
Updated Mar. 17, 2022 Languages Print

For Healthcare Facilities: COVID-19 Community Levels do **not** apply in healthcare settings, such as hospitals and nursing homes. Instead, healthcare settings should continue to use community transmission rates and follow CDC's infection prevention and control recommendations for healthcare workers.

https://www.cdc.gov/coronavirus/2019-ncov/science/community-levels.html

13

OSHA's ETS Standard and Exemption



https://bit.ly/3D5XzUD

https://bit.ly/36fGlbH

Does the workplace meet ALL of the following conditions?
- It is a non-hospital ambulatory care setting[2];
- ALL non-employees are screened prior to entry; and
- People with suspected or confirmed COVID-19 are not permitted to enter.

14

Coronavirus Disease (COVID-19) / COVID-19 Healthcare ETS

EMERGENCY TEMPORARY STANDARD

COVID-19 Healthcare ETS

Statement on the Status of the OSHA COVID-19 Healthcare ETS

(December 27, 2021)

On June 21, 2021, OSHA adopted a Healthcare Emergency Temporary Standard (Healthcare ETS) protecting workers from COVID-19 in settings where they provide healthcare or healthcare support services. 86 FR 32376. Under the OSH Act, an ETS is effective until superseded by a permanent standard – a process contemplated by the OSH Act to occur within 6 months of the ETS's promulgation. 29 U.S.C. 655(c).

OSHA announces today that it intends to continue to work expeditiously to issue a final standard that will protect healthcare workers from COVID-19 hazards, and will do so as it also considers its broader infectious disease rulemaking. However, given that OSHA anticipates a final rule cannot be completed in a timeframe approaching the one contemplated by the OSH Act, OSHA also announces today that it is withdrawing the non-recordkeeping portions of the healthcare ETS. The COVID-19 log and reporting provisions, 29 CFR 1910.502(q)(2)(ii), (q)(3)(ii)-(iv), and (r), remain in effect. These provisions were adopted under a separate provision of the OSH Act, section 8, and OSHA found good cause to forgo notice and comment in light of the grave danger presented by the pandemic. See 86 FR 32559.

With the rise of the Delta variant this fall, and now the spread of the Omicron variant this winter, OSHA believes the danger faced by healthcare workers continues to be of the highest concern and measures to prevent the spread of COVID-19 are still needed to protect them. Given these facts, and given OSHA's anticipated finalization of this rule, OSHA strongly encourages all healthcare employers to continue to implement the ETS's requirements in order to protect employees from a hazard that too often causes death or serious physical harm to employees.

As OSHA works towards a permanent regulatory solution, OSHA will vigorously enforce the general duty clause and its general standards, including the Personal Protective Equipment (PPE) and Respiratory Protection Standards, to help protect healthcare employees from the hazard of COVID-19. The Respiratory Protection Standard applies to personnel providing care to persons who are suspected or confirmed to have COVID-19. OSHA will accept compliance with the terms of the Healthcare ETS as satisfying employers' related obligations under the general duty clause, respiratory protection, and PPE standards. Continued adherence to the terms of the healthcare ETS is the simplest way for employers in healthcare settings to protect their employees' health and ensure compliance with their OSH Act obligations.

OSHA believes the terms of the Healthcare ETS remain relevant in general duty cases in that they show that COVID-19 poses a hazard in the healthcare industry and that there are feasible means of abating the hazard. OSHA plans to publish a notice in the Federal Register to implement this announcement.

https://bit.ly/3ww0nZV

15

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

COVID-19 MENU >

Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic

Updated Feb. 2, 2022 Print

CDC's new COVID-19 Community Levels recommendations do not apply in healthcare settings, such as hospitals and nursing homes. Instead, healthcare settings should continue to use community transmission rates and continue to follow CDC's infection prevention and control recommendations for healthcare settings.

CDC has updated guidance

- Isolation and work restriction guidance for healthcare personnel
- Contingency and crisis management in the setting of significant healthcare worker shortages

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

16

https://bit.ly/3itwl0X

Recommended PPE ensembles for dentistry

Care of patients in areas where community transmission of COVID-19 has subsided in the local area		Care of patients in areas where community transmission of COVID-19 continues in the local area		Care of patients with suspected or confirmed COVID-19, regardless of community transmission of COVID-19 in the local area	
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*	*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) ▪ At a minimum, face mask (e.g., surgical mask,) with face shield ▪ NIOSH-certified, disposable N95 filtering facepiece respirator (or better) offers more protection to workers who may encounter asymptomatic or pre-symptomatic patients who can spread COVID-19 or other aerosolizable pathogens†	▪ Work clothing, such as scrubs, lab coat, and/or smock, or a gown ▪ Gloves ▪ Eye protection (e.g., goggles, face shield) ▪ At a minimum, face mask (e.g., surgical mask,)with face shield ▪ NIOSH-certified, disposable N95 filtering facepiece respirator (or better) offers more protection to workers who may encounter asymptomatic or pre-symptomatic patients who can spread COVID-19 or other aerosolizable pathogens†	▪ 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†

17

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

Implement Source Control Measures

Source control refers to use of respirators or well-fitting facemasks or cloth masks to cover a person's mouth and nose to prevent spread of respiratory secretions when they are breathing, talking, sneezing, or coughing.

Source control options for HCP include:

- A NIOSH-approved N95 or equivalent or higher-level respirator OR
- A respirator approved under standards used in other countries that are similar to NIOSH-approved N95 filtering facepiece respirators (Note: These should not be used instead of a NIOSH-approved respirator when respiratory protection is indicated) OR
- A well-fitting facemask.

When used solely for source control, any of the options listed above could be used for an entire shift unless they become soiled, damaged, or hard to breathe through. If they are used during the care of patient for which a NIOSH-approved respirator or facemask is indicated for personal protective equipment (PPE) (e.g., NIOSH-approved N95 or equivalent or higher-level respirator) during the care of a patient with SARS-CoV-2 infection, facemask during a surgical procedure or during care of a patient on Droplet Precautions, they should be removed and discarded after the patient care encounter and a new one should be donned.

18

FDA Revokes Emergency Use Authorizations for Non-NIOSH-Approved Disposable Respirators and Decontamination Systems as Access to FDA-authorized and NIOSH-approved N95s Increases Nationwide

On June 30, 2021, the FDA announced the revocation of the following EUAs:

- Imported, Non-NIOSH-Approved Disposable Filtering Facepiece Respirators (effective July 6, 2021)
- Non-NIOSH-Approved Disposable Filtering Facepiece Respirators Manufactured in China (effective July 6, 2021)
- Decontamination and Bioburden Reduction System EUAs for Personal Protective Equipment (effective June 30, 2021)

As of the effective date of the revocations, these devices will no longer be authorized for use by health care personnel in health care settings. For additional information, please see Update: FDA No Longer Authorizes Use of Non-NIOSH-Approved or Decontaminated Disposable Respirators - Letter to Health Care Personnel and Facilities.

Historical information regarding these EUAs can be found on Historical Information about Device Emergency Use Authorizations.

https://bit.ly/36okNto

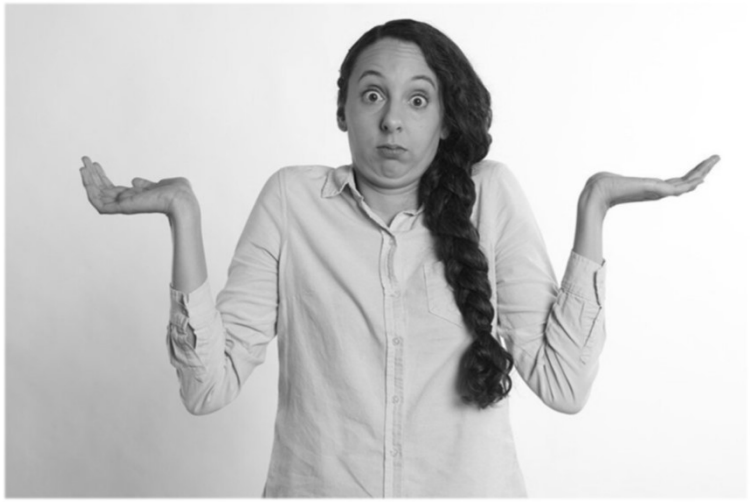
19

When do we go back to "normal"?

Maybe never….

20

20



21

What should the new normal be? And why…

- Old
  - Minor concerns for infectious aerosols
  - PPE
    - Masks
    - Eyewear
  - Lack of universal use of HVE
  - Lack of air purification
- New
  - Heightened concern for infectious aerosols and air quality in dentistry
  - Use of respirators
  - Use of face shields
  - Universal use of HVE
  - Use of air purification

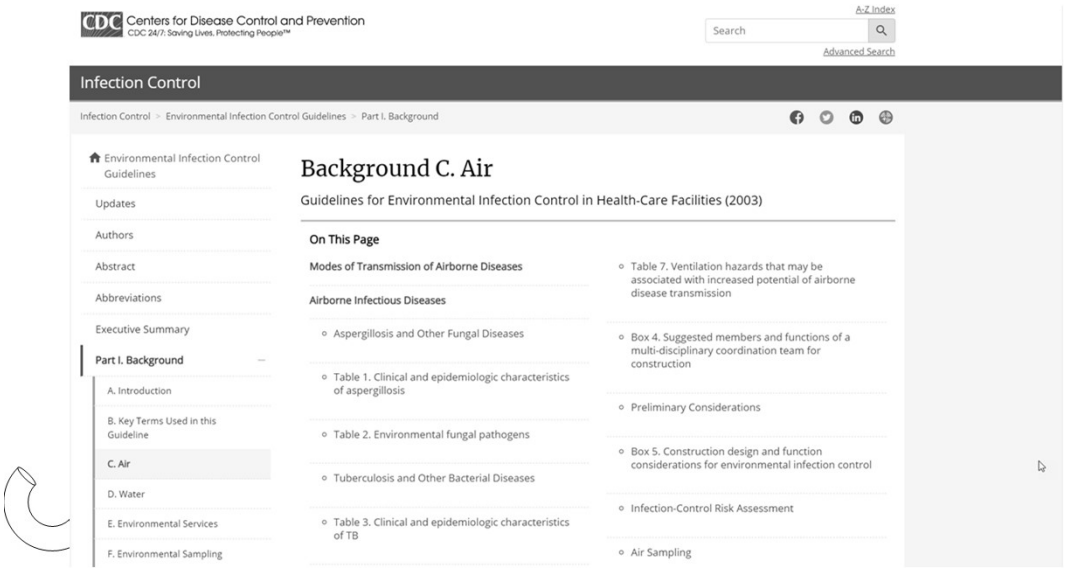
22

Airborne Infectious Diseases

- SARS and SARS-CoV-2
- Influenza *
- Corona viruses (colds)
- Chicken Pox
- Measles
- Mumps
- Pertussis (Whooping Cough)
- Tuberculosis
- Diphtheria
- Meningitis

23

Airborne Infectious Diseases



https://bit.ly/3wMcZN1

24

Airborne Infectious Diseases

The spread of airborne infectious diseases via droplet nuclei is a form of indirect transmission.[34] Droplet nuclei are the residuals of droplets that, when suspended in air, subsequently dry and produce particles ranging in size from 1–5 µm. These particles can

a. contain potentially viable microorganisms,
b. be protected by a coat of dry secretions,
c. remain suspended indefinitely in air, and
d. be transported over long distances.

The microorganisms in droplet nuclei persist in favorable conditions (e.g., a dry, cool atmosphere with little or no direct exposure to sunlight or other sources of radiation). Pathogenic microorganisms that can be spread via droplet nuclei include *Mycobacterium tuberculosis*, VZV, measles virus (i.e., rubeola), and smallpox virus (i.e., variola major).[6] Several environmental pathogens have life-cycle forms that are similar in size to droplet nuclei and may exhibit similar behavior in the air. The spores of *Aspergillus fumigatus* have a diameter of 2–3.5 µm, with a settling velocity estimated at 0.03 cm/second (or about 1 meter/hour) in still air. With this enhanced buoyancy, the spores, which resist desiccation, can remain airborne indefinitely in air currents and travel far from their source.[35]

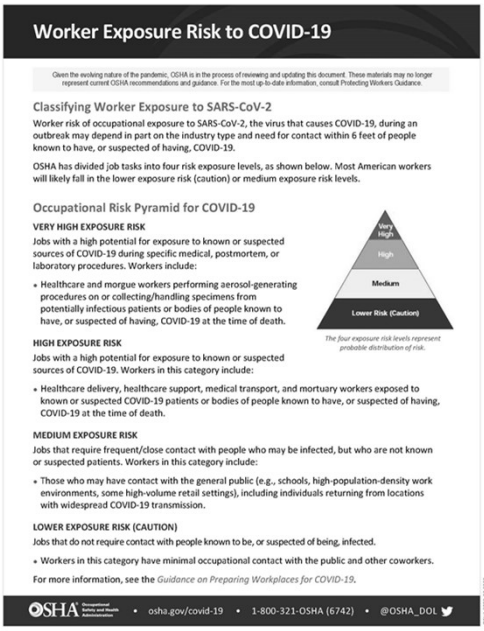
https://bit.ly/3wMcZN1

25

Health Risks for Dental Teams

(and patients)

- Dental Aerosol as a Hazard Risk for Dental Workers
  - https://bit.ly/3iwDIVk
- OSHA Hazard Recognition
  - https://www.osha.gov/coronavirus/hazards
- What to Know about Airborne Diseases – Medical News Today
  - https://bit.ly/3iwtsMU



Worker Exposure Risk to COVID-19

Given the evolving nature of the pandemic, OSHA is in the process of reviewing and updating this document. These materials may no longer represent current OSHA recommendations and guidance. For the most up-to-date information, consult Protecting Workers Guidance.

Classifying Worker Exposure to SARS-CoV-2

Worker risk of occupational exposure to SARS-CoV-2, the virus that causes COVID-19, during an outbreak may depend in part on the industry type and need for contact within 6 feet of people known to have, or suspected of having, COVID-19.

OSHA has divided job tasks into four risk exposure levels, as shown below. Most American workers will likely fall in the lower exposure risk (caution) or medium exposure risk levels.

Occupational Risk Pyramid for COVID-19

VERY HIGH EXPOSURE RISK

Jobs with a high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. Workers include:

- Healthcare and morgue workers performing aerosol-generating procedures on or collecting/handling specimens from potentially infectious patients or bodies of people known to have, or suspected of having, COVID-19 at the time of death.

The four exposure risk levels represent probable distribution of risk.

HIGH EXPOSURE RISK

Jobs with a high potential for exposure to known or suspected sources of COVID-19. Workers in this category include:

- Healthcare delivery, healthcare support, medical transport, and mortuary workers exposed to known or suspected COVID-19 patients or bodies of people known to have, or suspected of having, COVID-19 at the time of death.

MEDIUM EXPOSURE RISK

Jobs that require frequent/close contact with people who may be infected, but who are not known or suspected patients. Workers in this category include:

- Those who may have contact with the general public (e.g., schools, high-population-density work environments, some high-volume retail settings), including individuals returning from locations with widespread COVID-19 transmission.

LOWER EXPOSURE RISK (CAUTION)

Jobs that do not require contact with people known to be, or suspected of being, infected.

- Workers in this category have minimal occupational contact with the public and other coworkers.

For more information, see the *Guidance on Preparing Workplaces for COVID-19*.

OSHA Occupational Safety and Health Administration • osha.gov/covid-19 • 1-800-321-OSHA (6742) • @OSHA_DOL

https://www.osha.gov/sites/default/files/publications/OSHA3993.pdf

26

Aerosol Research in Dentistry

- Interventions to reduce contaminated aerosols produced during dental procedures for preventing infectious diseases – The Cochrane Library
  - https://bit.ly/3D7awNZ
- Aerosols and splatter in dentistry – JADA
  - https://bit.ly/3wNpS9B

This Photo by Unknown Author is licensed under CC BY

This Photo by Unknown Author is licensed under CC BY

27

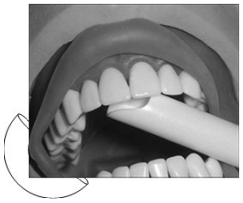
Aerosol Generating Procedures

CDC and OSHA Classifications

- High speed handpiece
- Ultrasonic scaler
- Air/water syringe
- Air polisher
- Air abrasion

28

Mitigating the Risks



- PPE
- HVE
- Enhanced ventilation
- Air purification

Engineering Controls

29

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic

Updated Feb. 2, 2022 Print

Optimize the Use of Engineering Controls and Indoor Air Quality

- Optimize the use of engineering controls to reduce or eliminate exposures by shielding HCP and other patients from infected individuals (e.g., physical barriers at reception / triage locations and dedicated pathways to guide symptomatic patients through waiting rooms and triage areas).
- Explore options, in consultation with facility engineers, to improve ventilation delivery and indoor air quality in all shared spaces.
  - Guidance on ensuring that ventilation systems are operating properly are available in the following resources:
    - Guidelines for Environmental Infection Control in Health-Care Facilities
    - American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) resources for healthcare facilities, which also provides COVID-19 technical resources for healthcare facilities
    - Ventilation in Buildings, which includes options for non-clinical spaces in healthcare facilities

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

30

HVAC Systems in Health Care Facilities

3. Heating, Ventilation, and Air Conditioning Systems in Health-Care Facilities

a. Basic Components and Operations

Heating, ventilation, and air conditioning (HVAC) systems in health-care facilities are designed to

a. maintain the indoor air temperature and humidity at comfortable levels for staff, patients, and visitors

b. control odors;

c. remove contaminated air;

d. facilitate air-handling requirements to protect susceptible staff and patients from airborne health-care associated pathogens; and

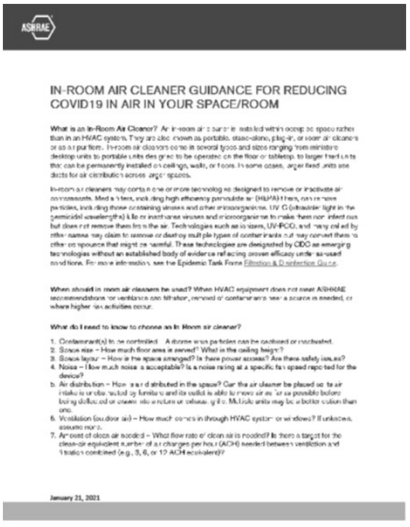
e. minimize the risk for transmission of airborne pathogens from infected patients.[35, 120]

https://bit.ly/3KZjgIW

31

Resources - ASHRAE

https://bit.ly/3Ni6zL2



https://bit.ly/35aeUQ0

32

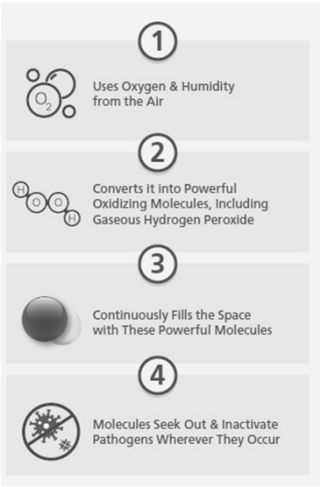
Air Cleaning/Purification Systems

- Ultraviolet Air Purifiers
- HEPA Air Purifiers
- Activated Carbon Air Purifiers
- Ionic Air Purifiers
- Electronic Air Cleaners
- Central Air Cleaners
- Air-to-Air Exchangers

Passive ⟹ **Proactive**

33

Proactive Air Purification Technology



- Continuous production and propulsion of oxidizing molecules into ambient air
- Reduces airborne viruses and bacteria
- Removes other particles/VOC's from room air through ionization and HEPA filtration

ActivePure®
HealthFirst

https://www.healthfirst.com/infection-prevention-control/activepure/

34

Mary Govoni, CDA, RDH, MBA
https://www.marygovoni.com
mary@marygovoni.com
517-214-8223

35

35

Join Us!

The Compliance Divas Podcast

www.thecompliancedivas.com

36

Thank you to our Sponsor!

37

37