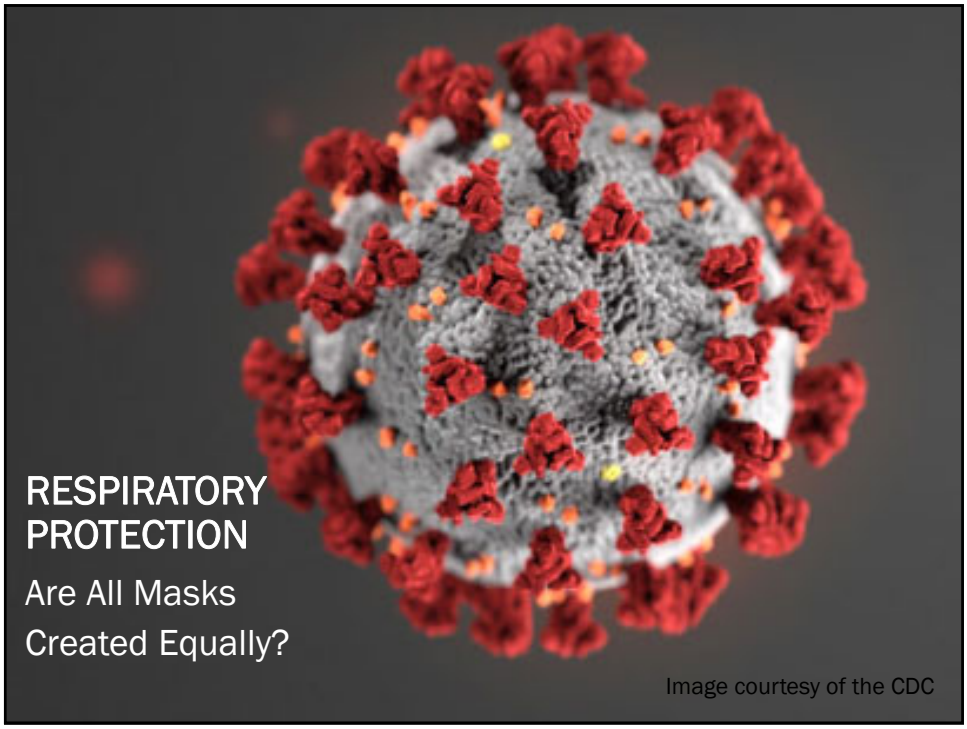
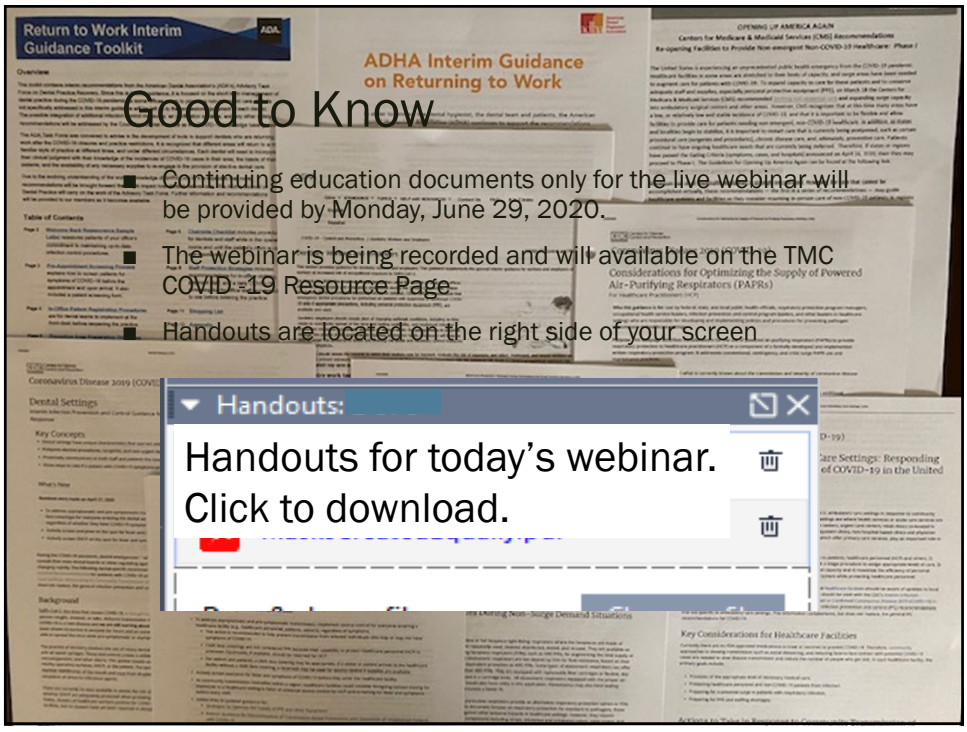

RESPIRATORY PROTECTION
Are All Masks Created Equally?
Image courtesy of the CDC

1


Return to Work Interim Guidance Toolkit
ADHA Interim Guidance on Returning to Work
Good to Know
Continuing education documents only for the live webinar will be provided by Monday, June 29, 2020.
The webinar is being recorded and will available on the TMC COVID -19 Resource Page
Handouts are located on the right side of your screen
Handouts:
Handouts for today's webinar. Click to download.

2

Disclaimer

- Karen Gregory RN is an employee of Total Medical Compliance.
- She is a Hu-Friedy Key Opinion Leader and a consultant for SciCan.
- This does not serve as legal or medical advice.

3

Objectives

- Discuss the different level of masks based on ASTM categories
- Explain two differences between N95 respirators and surgical masks

4

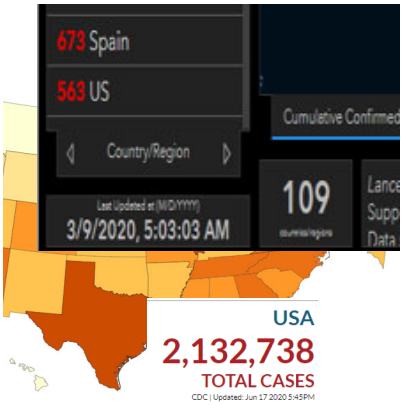
5

CASES Reported to the CDC: January 21 – June 24, 2020

Last updated on June 24, 2020

TOTAL CASES	TOTAL DEATHS
2,336,615	121,117
34,313 New Cases*	784 New Deaths*

*Compared to yesterday's data About the Data



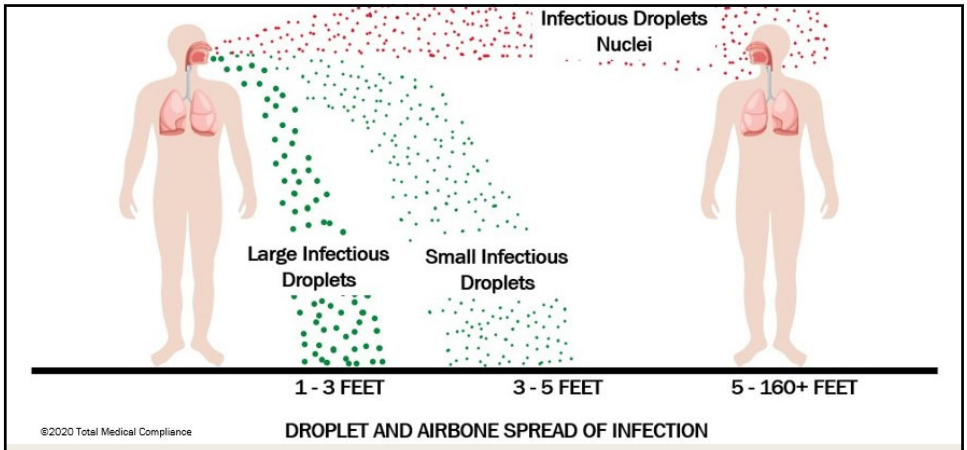
USA
2,132,738
TOTAL CASES
CDC | Updated: Jun 17 2020 5:45PM

USA
116,878
TOTAL DEATHS
CDC | Updated: Jun 17 2020 5:45PM

www.cdc.gov/covid-data-tracker/#cases

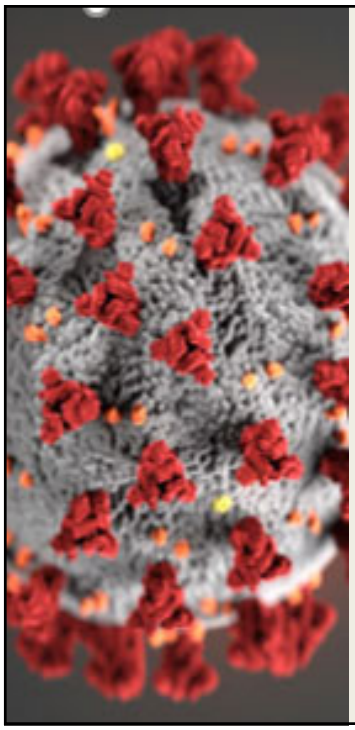
6

6



DROPLET AND AIRBORNE SPREAD OF INFECTION

7



Close Contact

a) being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case

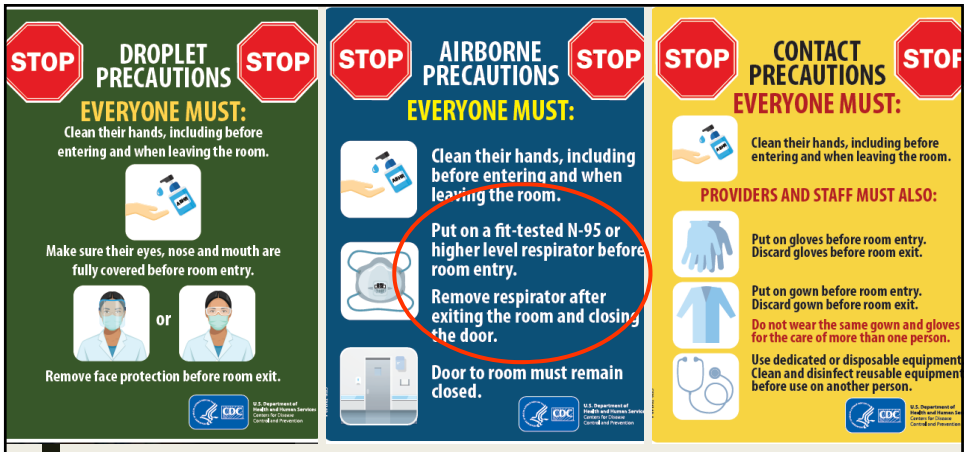
b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on)

8

Airborne Transmissible Disease

- Measles
- Chicken Pox
- TB
- COVID – 19
- Emerging pathogens

9



TRANSMISSION-BASED PRECAUTIONS

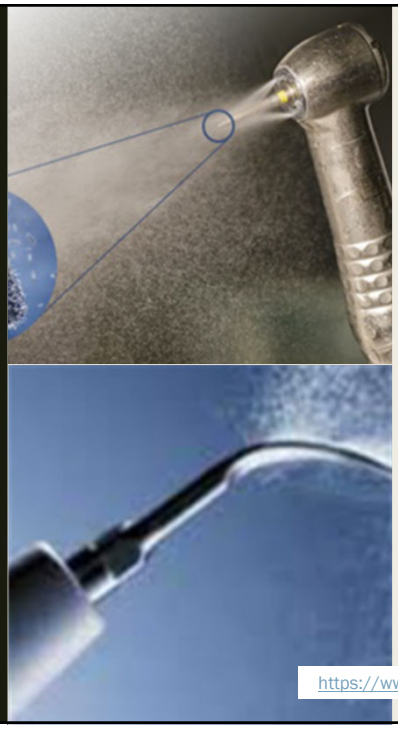
10

Aerosol – Generating Procedures

- Some procedures performed on patient with known or suspected COVID-19 could generate infectious aerosols. In particular, procedures that are likely to induce coughing (e.g., sputum induction, open suctioning of airways) should be performed cautiously and avoided if possible.
- If performed, the following should occur:
  - HCP in the room should wear an N95 or higher-level respirator, eye protection, gloves, and a gown.
  - The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for the procedure.
  - AGPs should ideally take place in an airborne infection isolation room (AIIR)
  - Clean and disinfect procedure room surfaces promptly as described in the section on environmental infection control below.

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

11



Dental Guidance

Aerosol-generating procedures (e.g. use of dental handpieces, air/water syringe, ultrasonic scalers)

- If necessary, for emergency care, use four-handed dentistry, high evacuation suction and dental dams to minimize droplet spatter and aerosols.
- Limit number of DHCP present during the procedure
- N95 respirator or a respirator that offers a higher level of protection

https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html

12

OSHA Guidance on Preparing Workplaces for COVID -19

Very High Exposure Risk

Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures. Workers in this category include:

- Healthcare workers (e.g., doctors, nurses, dentists, paramedics, emergency medical technicians) performing aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, some dental procedures and exams, or invasive specimen collection) on known or suspected COVID-19 patients.

Workers, including those who work within 6 feet of patients known to be, or suspected of being, infected with SARS-CoV-2 and those performing aerosol-generating procedures, need to use respirators:

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Low Risk	• Performing administrative duties in non-public areas of dental facilities, away from other staff members.
Medium Risk	• Providing urgent or emergency dental care, not involving AGPs to well patients (i.e., to members of the general public who are not known or suspected COVID-19 patients). • Working in busy staff work areas.
High Risk	• Entering a known or suspected COVID-19 patient's care area. • Providing emergency dental care, not involving AGPs, to known or suspected COVID-19 patients. • Performing AGPs on well patients.
Very High Risk	• Performing AGPs on known or suspected COVID-19 patients. • Collecting or handling specimens from known or suspected COVID-19 patients.

OSHA Risk Designation - Dental

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14

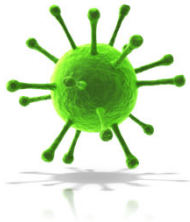
Community Transmission

Asymptomatic and pre-symptomatic transmission

- Reduce facility risk
- Isolate symptomatic patients ASAP
- Protect healthcare personnel
- Hospital capacity

Source Control

- Patients and visitors wearing masks
- Cloth or disposable
- Preserve practice supply of PPE
-



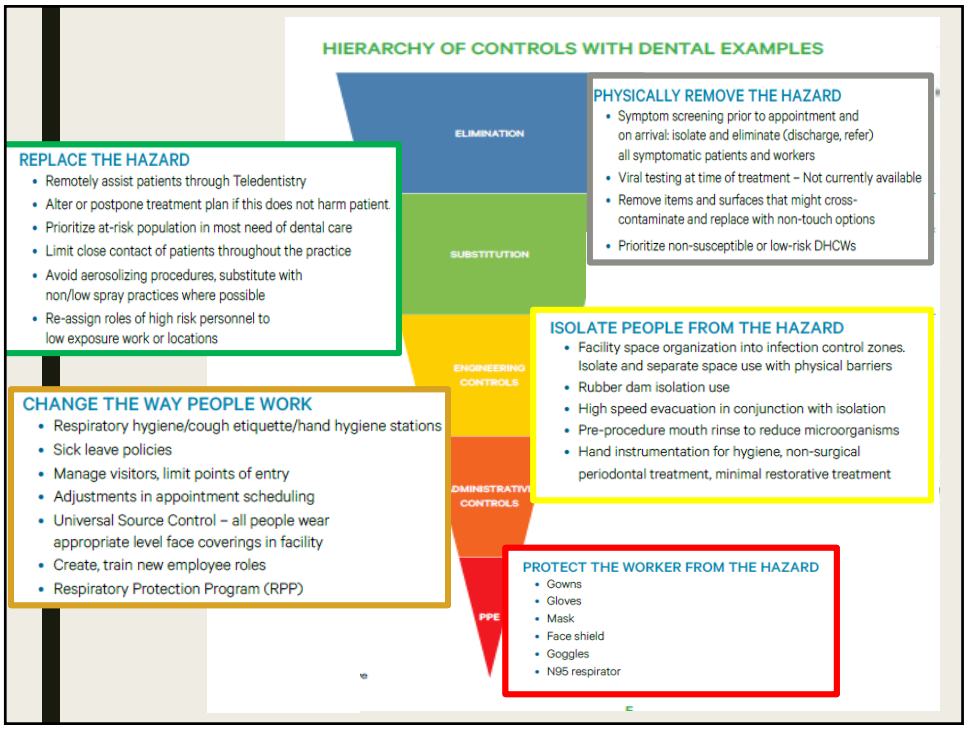
Local health department directory

State health department directory

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

15

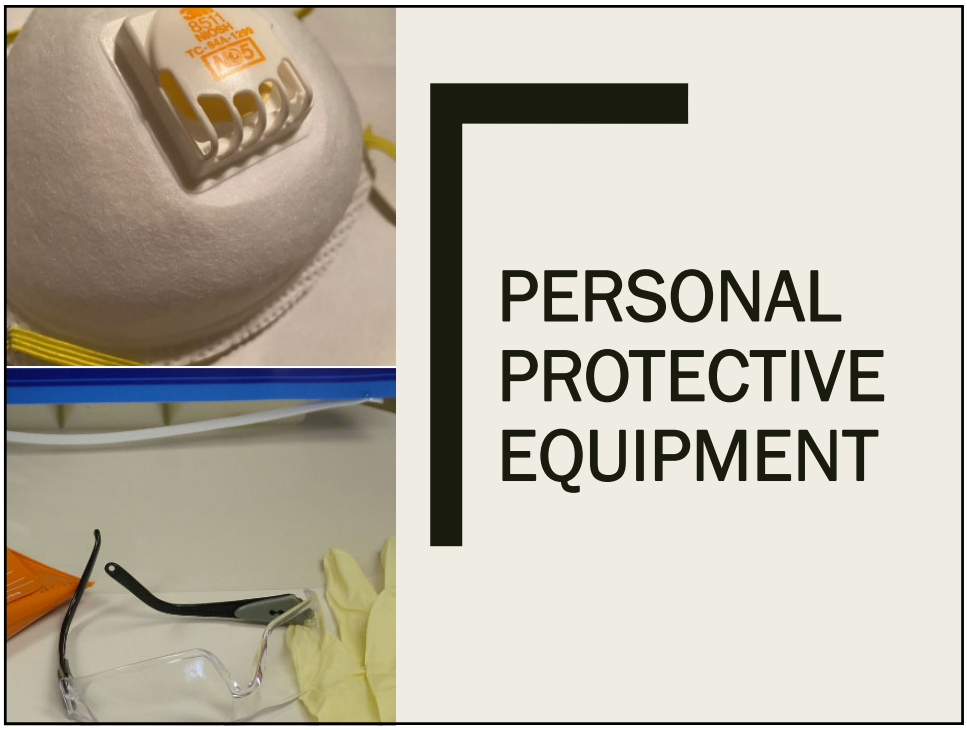
15



16


STOP
STOP
STOP
STOP
STOP
STOP
STOP
PROCEED WITH
CAUTION
You are in the
Mask Zone

17


PERSONAL
PROTECTIVE
EQUIPMENT

18

Hazard Assessment

- Infectious agents – May not be able to quantify level of exposure OR know what level of exposure will cause infection to an individual
- Identify and evaluate potential exposures to infectious agents by task
- For novel or emerging infectious diseases guidance provided by CDC, OSHA and other agencies

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Pandemic Plan - Hazard Assessment Dental Offices
Potential Exposure to SARS – CoV -2/COVID-19

TASK/LOCATION	PPE	EMPLOYEES IMPACTED BY JOB TITLE
☐ Initial patient triage including obtaining temperature.	☐ Gloves ☐ Gown/jacket ☐ Surgical mask ☐ Eye protection	☐ Doctor ☐ Assistant ☐ Hygienist ☐ Sterilization tech

Pandemic Plan - Hazard Assessment Medical Offices
Potential Exposure to SARS – CoV-2/COVID-19

☐ Check In/Ch

TASK/LOCATION	PPE	EMPLOYEES IMPACTED BY JOB TITLE
☐ Initial patient triage including obtaining temperature.	☐ Gloves ☐ Gown ☐ Surgical mask ☐ Eye protection ☐ Face shield ☐ Respirator*	☐ Doctor/NP/PA ☐ RN/LPN ☐ CMA/NA ☐ Laboratory ☐ Radiology ☐ Non-clinical staff
☐ Check In/Check out patients.	☐ Gloves ☐ Mask ☐ Cloth mask (source control only)	☐ Doctor/NP/PA ☐ RN/LPN ☐ CMA/NA ☐ Laboratory ☐ Radiology ☐ Non-clinical staff

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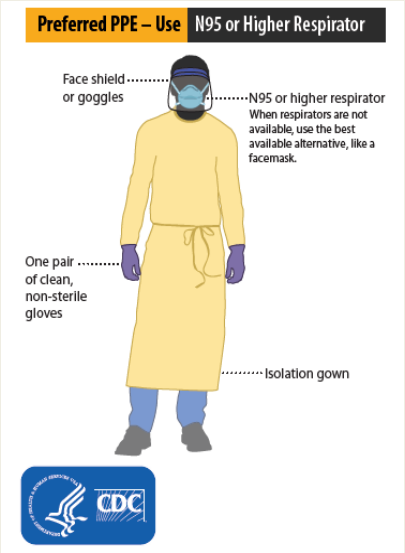
CDC PPE Guidance

- Identify and gather the proper PPE to don.
- Perform hand hygiene.
- Put on gown.
- Put on NIOSH-approved N95 filtering facepiece respirator or higher.
  - *use a facemask if a respirator is not available.*
- Put on face shield or goggles.
- Perform hand hygiene before putting on gloves.
- Enter patient room.



https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

21

Lack of Supplies?

- CDC recommends alerting your state/local health department and local healthcare coalition, with helping troubleshoot through temporary shortages.
- FDA encourages manufacturers and healthcare facilities to report supply disruptions to the device shortages mailbox: deviceshortages@fda.hhs.gov.
- Mailbox is closely monitored and is an important surveillance resource to augment FDA efforts to detect and mitigate potential supply chain disruption.

https://success.ada.org/en/practice-management/patients/coronavirus-frequently-asked-questions#employeremployee

22

- Gown
- Mask
  - *Level II ASTM*
  - *N95 Respirator – aerosol generating procedures*
- Eye protection
  - *Goggles*
  - *Glasses with side shields*
  - *Face shield*
- Gloves

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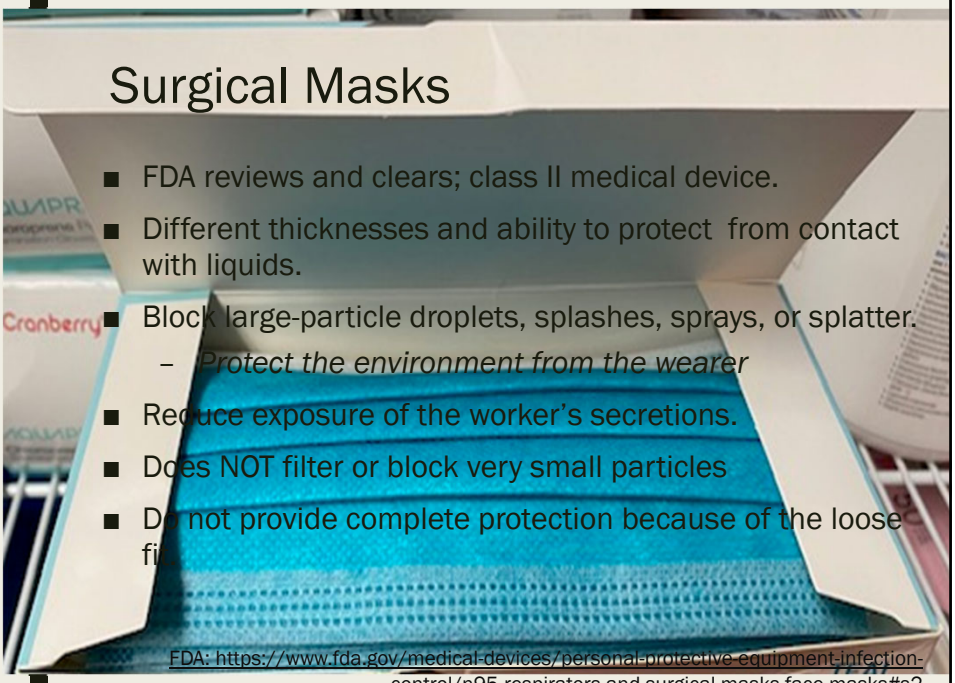
Respiratory Protection

- Facemasks are an acceptable alternative when the supply chain of respirators cannot meet the demand.
- Available respirators should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP.
- Facemasks protect the wearer from splashes and sprays.

Add face shield

24



Surgical Masks

- FDA reviews and clears; class II medical device.
- Different thicknesses and ability to protect from contact with liquids.
- Block large-particle droplets, splashes, sprays, or splatter.
  - *Protect the environment from the wearer*
- Reduce exposure of the worker's secretions.
- Does NOT filter or block very small particles
- Do not provide complete protection because of the loose fi

FDA: https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/n95-respirators-and-surgical-masks-face-masks#s2

25

ASTM - Standards Setting

Understanding ASTM Face Mask Performance Levels

FEATURE	EXPLANATION
Fluid Resistance	Mask resistance to penetration by synthetic blood under pressure (mmHg). Higher fluid resistance = Higher protection.
BFE - Bacterial Filtration Efficiency	Percentage of aerosol particles filtered at a size of 3 microns.
PFE - Submicron Particle Filtration Efficiency	Percentage of submicron particles filtered at 0.1 microns.
Delta P - Differential Pressure	Pressure drop across mask, or resistance to air flow in mmH_2O/cm^2. Greater resistance = better filtration but less breathability.
Flame Spread	Measures the flame spread of the mask material.

Crosstex

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ASTM Mask Levels

MAXIMUM FILTRATION — N95

NIOSH Approved N95 Particulate Respirator

High Fluid Resistance	160 mmHg
Filtration Efficiency	PFE = 99.9% @ 0.1 micron
Breathability - Delta P	> 5.0 mm H_2O/cm^2
Flame Spread	Class 1

ASTM LEVEL 3 — LEVEL 3

High Fluid Resistance	160 mmHg
Filtration Efficiency	BFE ≥ 98% PFE ≥ 98% @ 0.1 micron
Breathability - Delta P	< 5.0 mm H_2O/cm^2
Flame Spread	Class 1

ASTM LEVEL 2 — LEVEL 2

Moderate Fluid Resistance	120 mmHg
Filtration Efficiency	BFE ≥ 98% PFE ≥ 98% @ 0.1 micron
Breathability - Delta P	< 5.0 mm H_2O/cm^2
Flame Spread	Class 1

ASTM LEVEL 1 — LEVEL 1

Low Fluid Resistance	80 mmHg
Filtration Efficiency	BFE ≥ 95% PFE ≥ 95% @ 0.1 micron
Breathability - Delta P	< 4.0 mm H_2O/cm^2
Flame Spread	Class 1

LOW PERFORMANCE

Surgical Molded Utility Mask
Physical Barrier Only
No LEVEL Performance Level **
Filtration Efficiency N/A
**Unless mask manufacturer certifies mask meets ASTM performance Level 1

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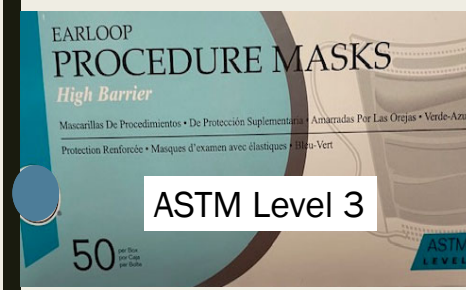
Limited Supply?

ASTM Level 2



ASTM Level 3

ASTM LEVEL 3 — LEVEL 3

High Fluid Resistance	160 mmHg
Filtration Efficiency	BFE ≥ 98% PFE ≥ 98% @ 0.1 micron
Breathability - Delta P	< 5.0 mm H_2O/cm^2
Flame Spread	Class 1

ASTM LEVEL 2 — LEVEL 2

Moderate Fluid Resistance	120 mmHg
Filtration Efficiency	BFE ≥ 98% PFE ≥ 98% @ 0.1 micron
Breathability - Delta P	< 5.0 mm H_2O/cm^2
Flame Spread	Class 1

ASTM LEVEL 1 — LEVEL 1

Low Fluid Resistance	80 mmHg
Filtration Efficiency	BFE ≥ 95% PFE ≥ 95% @ 0.1 micron
Breathability - Delta P	< 4.0 mm H_2O/cm^2
Flame Spread	Class 1

LOW PERFORMANCE

Surgical Molded Utility Mask
Physical Barrier Only
No LEVEL Performance Level **
Filtration Efficiency N/A
**Unless mask manufacturer certifies mask meets ASTM performance Level 1

Crosstex

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Examples of Mask Use - Dental

Level 1	Level 2	Level 3
• Patient exams • Op cleaning • Impressions • Lab work (trim/polish) • Orthodontics	• Limited oral surgery • Endodontics • Prophy • Restorative • Sealants	• Complex oral surgery • Crown prep • Implant • Periodontal surgery • Ultrasonic scaling

Crosstex Secure Fit Mask Technology

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NIOSH Approved Respirators

(certificate of approval)

- N95: filter class that removes at least 95% of airborne particles during **"worst case"** testing a "most-penetrating" sized particle during NIOSH testing
- 0.3 micron particle
- Respirator filter certification - 84 L/min above the typical 10 to 30 L/min breathing rates

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NIOSH Approved Respirators

- Filtering facepiece respirator (FFP) – Disposable, single use and removes at least 95% of airborne particles.
- Elastomeric half facepiece respirator – Reusable facepiece and replaceable canister, cartridges or filters used to filter user's breathing air.
- Powered air-purifying respirator (PAPR) –Powered by batteries and pulls air through attached filters or cartridges
  - *Loose fitting: Does not require fit testing.*
  - *Tight fitting: Fit testing required.*

https://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respsars.htmll

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Levels/Types of Respirators

- Rated
  - *"**N**," if they are **N**ot resistant to oil*
  - *"**R**" if somewhat **R**esistant to oil*
  - *"**P**" if strongly resistant (oil **P**roof)*
- Filtering capacity
  - *N-95, N-99, and N-100*
  - *R-95, R-99, and R-100*
  - *P-95, P-99, and P-100*

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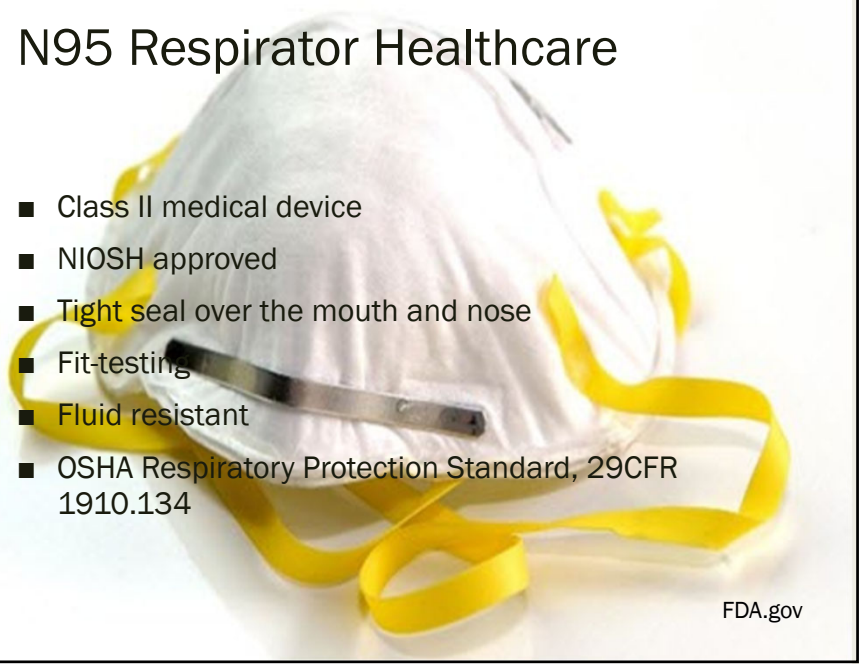
N95 Respirator Healthcare



- Class II medical device
- NIOSH approved
- Tight seal over the mouth and nose
- Fit-testing
- Fluid resistant
- OSHA Respiratory Protection Standard, 29CFR 1910.134

FDA.gov

33

FDA Responds to CDC Request

- Emergency Use Authorization 3.28.20
- All disposable filtering facepiece respirators (FFRs) approved by the National Institute for Occupational Safety and Health (NIOSH)
- Respirators from other countries meeting similar NIOSH testing procedures
- Stockpiled respirators
  - *FEMA*

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N95 Respirator - Industrial

- Tight seal over the mouth and nose
- Fit-testing required
- Not necessarily fluid resistant
- OSHA Respiratory Protection Standard, 29CFR 1910.134
- Regulated by:
  - *National Protective Technology Laboratory (NPPTL)*
  - *National Institute for Occupational Safety and Health (NIOSH)*

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Mask, N95, Surgical N95

Standard Earloop Mask
Photo courtesy of Newton Safety/Sanax

Molded Cup Style N95 Respirator
Photo courtesy of Sperian

Molded Cup Style Surgical N95 Respirator
Photo courtesy of Sperian

Standard Tie on Surgical Mask
Photo courtesy of Newton Safety/Sanax

Pleated Style N95 Respirator
Photo courtesy of Alpha TechPro

Duck Bill Style Surgical N95
Photo courtesy of Kimberly Clark

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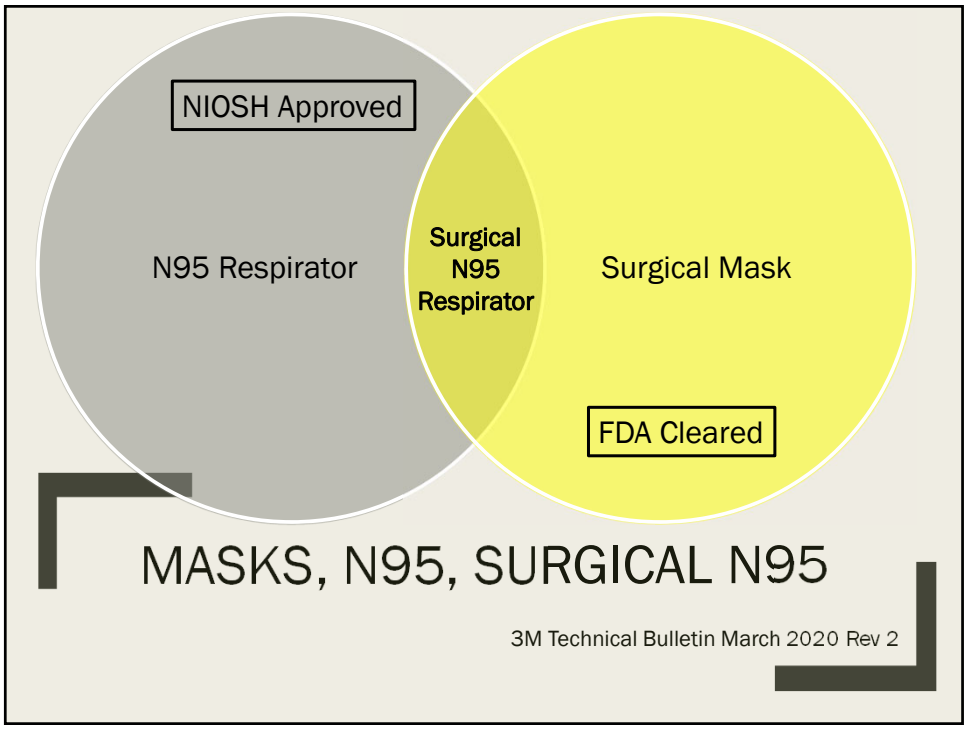
	Surgical Mask	N95 Respirator
Testing and Approval	Cleared by the U.S. Food and Drug Administration (**FDA**)	Evaluated, tested, and approved by **NIOSH** as per the requirements in **42 CFR Part 84**
Intended Use and Purpose	Fluid resistant and provides the wearer protection against large droplets, splashes, or sprays of bodily or other hazardous **fluids**. Protects the patient from the wearer's respiratory emissions.	Reduces wearer's exposure to particles including small particle aerosols and large droplets (**only non-oil aerosols**).
Face Seal Fit	Loose-fitting	Tight-fitting
Fit Testing Requirement	No	Yes
User Seal Check Requirement	No	Yes. Required each time the respirator is donned (put on)
Filtration	Does NOT provide the wearer with a reliable level of protection from inhaling smaller airborne particles and is not considered respiratory protection	Filters out at least 95% of airborne particles including large and small particles
Leakage	Leakage occurs around the edge of the mask when user inhales	When properly fitted and donned, minimal leakage occurs around edges of the respirator when user inhales
Use Limitations	Disposable. Discard after each patient encounter.	Ideally should be discarded after each patient encounter and after aerosol-generating procedures. It should also be discarded when it becomes damaged or deformed; no longer forms an effective seal to the face;

37



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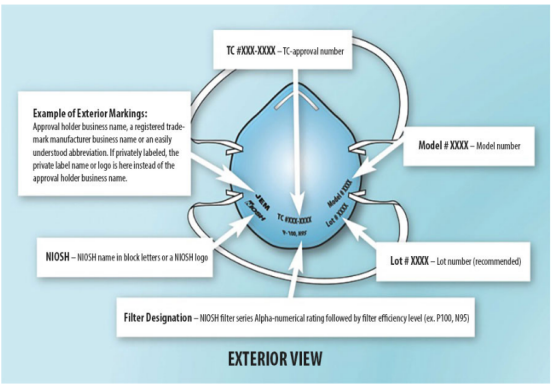
Counterfeit Respirators

Example of typical markings on filtering facepiece respirators.



- FDA Website lists acceptable respirators from China.

Appendix A: Authorized Imported, Non-NIOSH Approved Respirators Manufactured in China (Updated: June 17, 2020)

The table below includes a list of non-NIOSH respirators authorized by this Umbrella EUA for emergency use during the COVID-19 public health emergency.

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Respiratory Protection 1910. 134

Establish and implement a written respiratory protection program with worksite-specific procedures.

Medical evaluation
Fit testing
Training

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Medical Evaluation

- Prior to fit testing, change in worker health status or job demand
- The medical evaluation
  - *physician or other licensed healthcare professional review responses to the questionnaire*
  - *"in-person" medical examination that obtains the same information*
- Confidential health information

OSHA INFOSHEET

Respirator Medical Evaluation Questionnaire

Respirators must be used in workplaces in which employees are exposed to hazardous airborne contaminants. When respiratory protection is required employers must have a respirator protection program as specified in OSHA's Respiratory Protection standard (29 CFR 1910.134). Before wearing a respirator, workers must first be medically evaluated using the mandatory medical questionnaire or an equivalent method. To facilitate these medical evaluations, this INFOSHEET includes the mandatory medical questionnaire to be used for these evaluations.

Medical Evaluation and Questionnaire Requirements

The requirements of the medical evaluation and for using the questionnaire are provided below:

- The employer must identify a physician or other licensed health care professional (PLHCP) to perform all medical evaluations using the medical questionnaire in Appendix C of the Respiratory Protection standard or a medical examination that obtains the same information
- The employer must ensure that a follow-up medical examination is provided for any employee who gives a positive response to any question among questions 1 through 8 in Part A Section 2, of Appendix C, or whose initial medical examination demonstrates the need for a follow-up medical examination. The employer must provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP. (See Paragraph (e)(3)(i).)

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upational Safety and Health Administration

STANDARDS | TOPICS | HELP AND RESOURCES

nent Memos / Expanded Temporary Enforcement Guidance on Respiratory

020

ORANDUM FOR: REGIONAL ADMINISTRATORS
STATE PLAN DESIGNEES

THROUGH: AMANDA EDENS
Deputy Assistant Secretary

FROM: PATRICK J. KAPUST, Acting Director
Directorate of Enforcement Programs

SUBJECT: Expanded Temporary Enforcement Guidance on Respira
Disease 2019 (COVID-19) Pandemic

norandum expands temporary enforcement guidance provided in OSHA's Ma

FIT TESTING PROCESS

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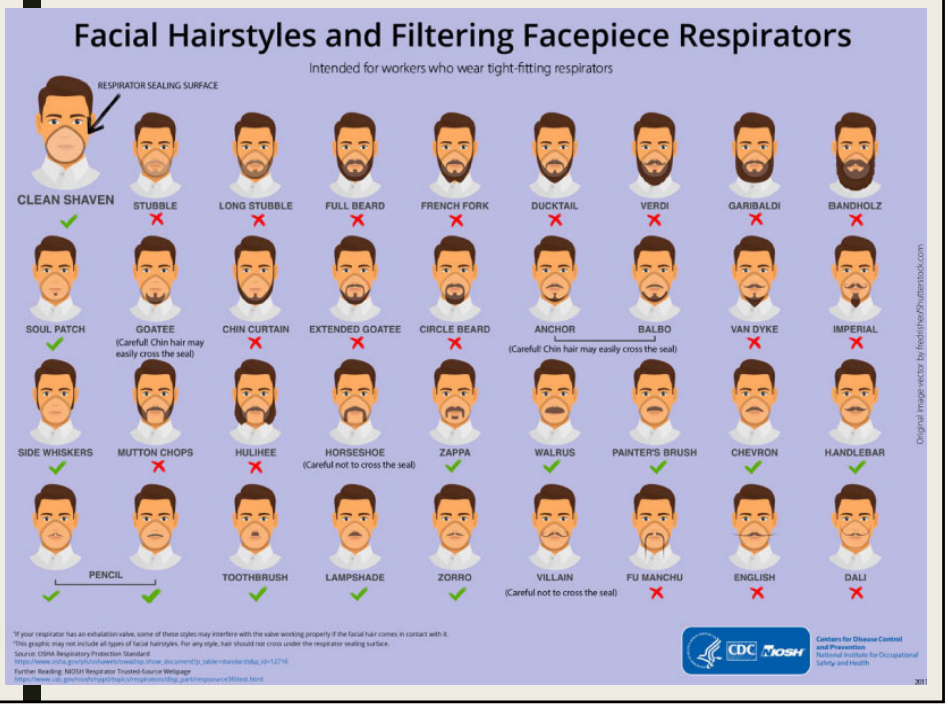

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This memorandum expands temporary enforcement guidance provided in OSHA's March 14, 2020, memorandum to Compliance Safety and Health Officers for enforcing annual fit-testing requirements of the Respiratory Protection standard, 29 CFR § 1910.134(f)(2), with regard to supply shortages of N95s or other filtering facepiece respirators (FFRs) due to the coronavirus disease 2019 (COVID-19) pandemic. OSHA field offices will exercise enforcement discretion concerning the annual fit-testing requirements, as long as employers have made good-faith efforts to comply with the requirements of the Respiratory Protection standard and to follow the steps outlined in the March 14, 2020 memorandum.

Further, given additional concerns regarding a shortage of fit-testing kits and test solutions (e.g., Bitrex™, isoamyl acetate), employers are further encouraged to take necessary steps to prioritize use of fit-testing equipment to protect employees who must use respirators for high-hazard procedures.

In the absence of quantitative or qualitative fit-testing capabilities required under mandatory Appendix A to 29 CFR § 1910.134 Appendix A, the following additional guidance is provided to assist with decision-making with respect to use of N95s or other FFRs. Most respirator manufacturers produce multiple models that use the same basic head form for size/fit. Manufacturers may have a crosswalk (i.e., a list of their respirators with equivalent fit). Therefore, if a user's respirator model (e.g., model x) is out of stock, employers should consult the manufacturer to see if it recommends a different model (e.g., model y or z) that fits similarly to the model (x) used previously by employees.

During this COVID-19 pandemic, OSHA field offices should exercise additional enforcement discretion regarding compliance with 29 CFR § 1910.134(f) when an employer switches to an equivalent-fitting make/model/size/style N95 or other filtering facepiece respirator without first performing an initial quantitative or qualitative fit test

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Fit Under Fire

Situational Strategies to Achieve the Best Respirator Fit During Crisis

- Under **serious outbreak conditions** in which respirator supplies are severely limited, however, you may not have the opportunity to be fit tested on a respirator before you need to use it.
- While this is not ideal, in this scenario, you should work with your employer to choose the respirator that fits you best, as, even without fit testing, a respirator will provide better protection than a facemask or using no respirator at al

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Putting On The Respirator

Position the respirator in your hands with the nose piece at your fingertips.

Cup the respirator in your hand allowing the headbands to hang below your hand. Hold the respirator under your chin with the nosepiece up.

The top strap (on single or double strap respirators) goes over and rests at the top back of your head. The bottom strap is positioned around the neck and below the ears. Do not crisscross straps.

Place your fingertips from both hands at the top of the metal nose clip (if present). Slide fingertips down both sides of the metal strip to mold the nose area to the shape of your nose.

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Removing Your Respirator

DO NOT TOUCH the front of the respirator! It may be contaminated!

Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator.

Discard in waste container. WASH YOUR HANDS!

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Checking Your Seal[2]

Place both hands over the respirator, take a quick breath in to check whether the respirator seals tightly to the face.

Place both hands completely over the respirator and exhale. If you feel leakage, there is not a proper seal.

If air leaks around the nose, readjust the nosepiece as described. If air leaks at the mask edges, re-adjust the straps along the sides of your head until a proper seal is achieved.

If you cannot achieve a proper seal due to air leakage, ask for help or try a different size or model.

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OPTIMIZING SUPPLIES

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Assumptions

- Aware of facemask inventory and supply chain.
- Aware of facemask utilization rate.
- Facilities are in communication with local healthcare coalitions, federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) regarding identification of additional supplies.
- Facilities have already implemented other engineering and administrative control measures including:
  - *Reduction in number of patients seen*
  - *Reducing face-to-face HCP encounters with patients*
  - *Maximizing use of telemedicine*
- Training for any changes to normal processes.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html

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Surge Capacity

- Conventional capacity: No change in the delivery of patient care.
- Contingency capacity: May change daily practices but may not have any significant impact on the care delivered to the patient or the safety of healthcare personnel.
- Crisis capacity: Are not commensurate with U.S. standards of care. These measures, or a combination of these measures, may need to be considered during periods of known facemask shortages.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html

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Crisis Capacity

- Cancel all elective and non-urgent procedures and appointments
- Use facemasks beyond the manufacturer-designated shelf life
- Implement limited re-use of facemasks - using the same facemask by one HCP for multiple encounters with different patients but removing it after each encounter.
  - *Carefully remove, not touching front of mask*
  - *Discard if soiled, damaged, hard to breath through*
  - *Masks with elastic loops better choice*

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Extended Use: N95 Respirator

- Wearing the same N95 respirator for close contact encounters with several patients, without removing the respirator between patient encounters
- Involves less touching of the respirator and therefore less risk of contact transmission

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Limited Reuse: N95 Respirators

- Using the same N95 respirator, for multiple encounters, different patients BUT removing it after each encounter.
- Consult with manufacturer regarding maximum uses.
  - *No guidance available: no more than 5 uses*
- Do NOT share N95 and other disposable respirators

https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhcp%2Frespirators-strategy%2Fcrisis-alternate-strategies.html

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Contamination is a Risk

- Discard grossly contaminated respirators.
- Use a face shield or facemask over the respirator to reduce/prevent contamination of the N95 respirator.
- Use clean pair of gloves when re-using, donning or adjusting a previously worn N95 respirator.
- Discard gloves and perform hand hygiene after the respirator is donned or adjusted.

NOTE:

- [3] *Use of a cleanable face shield is strongly preferred to a surgical mask to reduce N95 respirator contamination. Concerns have been raised that supplies of surgical masks may also be in limited supply during a public health emergency and that the use of a surgical mask could affect the function of the N95 respirator.(17)*

https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html

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Decontamination

- Guidance on potential methods

Decontamination and Reuse of Filtering Facepiece Respirators

Disposable filtering facepiece respirators (FFRs) are not approved for routine decontamination and reuse as standard of care. However, FFR decontamination and reuse may need to be considered as a crisis capacity strategy to ensure continued availability. Based on the limited research available, ultraviolet germicidal irradiation, vaporous hydrogen peroxide, and moist heat showed the most promise as potential methods to decontaminate FFRs. This document summarizes research about decontamination of FFRs before reuse.

Introduction

Reusing disposable filtering facepiece respirators (FFRs) has been suggested as a contingency capacity strategy to conserve available supplies for healthcare environments during a pandemic. Strategies for FFR extended use and reuse (without decontamination of the respirator) are currently available from CDC's National Institute for Occupational Safety and Health (NIOSH).

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html

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Removing PPE

- Remove gloves.
- Remove gown.
- Healthcare personnel may now exit patient room.
- Perform hand hygiene.
- Remove face shield or goggles.
- Remove and discard respirator (or facemask if used instead of respirator). Do not touch the front of the respirator or facemask.
- Perform hand hygiene after removing the respirator/facemask and before putting it on again if your workplace is practicing reuse.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html

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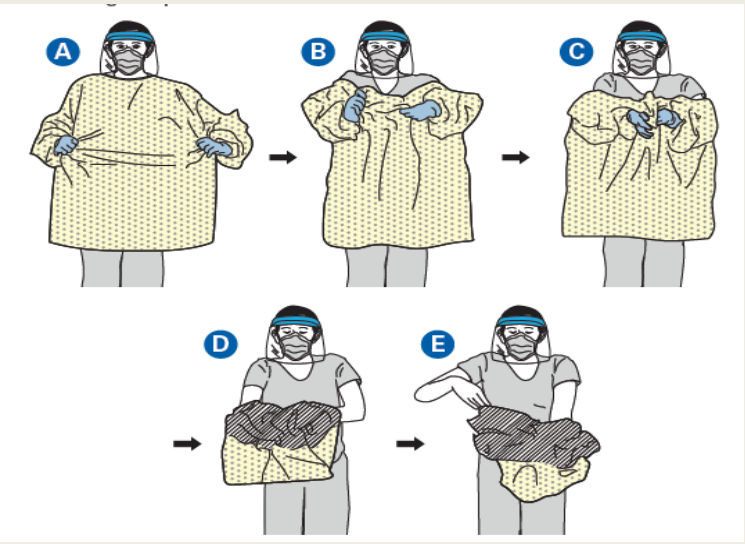
PPE Removal – In the Room



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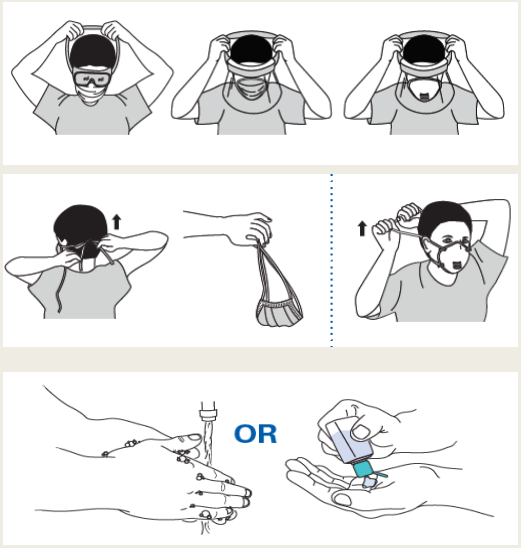
PPE Removal – Outside the Room



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Storage

- Manufacturers provide instructions for cleaning, sanitizing, repairing, inspecting, and storing their respirators.
- Packed or stored so that the respirators do not become damaged or deformed.
- Never store disposable respirators in pockets, plastic bags, or other confined areas.
- Remove the respirator and either hang it in a designated area or place it in a bag
  - *Label respirators with a user's name before use*

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Worker Exposure?

48 hours after appointment

HEALTHCARE PERSONNEL (HCP) POTENTIAL EXPOSURE DETERMINATION (HEALTHCARE SETTING TO PATIENTS, VISITORS, OR OTHER HCP WITH CONFIRMED COVID-19)

EXPOSURE	PERSONAL PROTECTIVE EQUIPMENT USED	DESCRIPTION
HCP who had prolonged close contact* with a patient, visitor, or HCP with confirmed COVID-19	• HCP not wearing a respirator or facemask • HCP not wearing eye protection if the person with COVID-19 was not wearing a cloth face covering or facemask • HCP not wearing all recommended PPE (i.e., gown, gloves, eye protection, respirator) while performing an aerosol-generating procedure	• Exclude from work for 14 days after last exposure • Advise HCP to monitor themselves for fever or symptoms consistent with COVID-19 • Any HCP who develop fever or symptoms consistent with COVID-19 should immediately contact their established point of contact (e.g., occupational health program) to arrange for medical evaluation and testing.

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After Patient Discharge

- Disinfect surfaces with EPA registered hospital level disinfectant
- EPA list of products
- American Chemistry

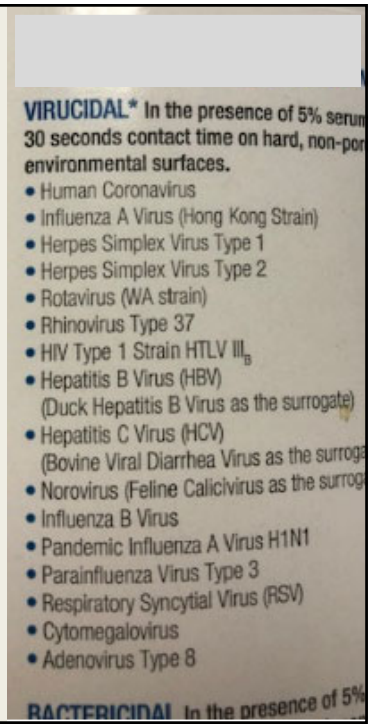

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Table B.1. Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency *

ACH § ¶	Time (mins.) required for removal 99% efficiency	Time (mins.) required for removal 99.9% efficiency
2	138	207
4	69	104
6+	46	69
8	35	52
10+	28	41

AFTER PATIENT DISCHARGE

SOURCE: www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html#b1

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TMC Resource Page

TMC COVID – 19 Resource Page

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Trusted Resources

- CDC Coronavirus website
- Local health department
- State health department
- OSAP.org
- ADA Coronavirus Info
- EPA list of products
- American Chemistry
- N95 – Filtering Facepiece Respirator Information
  - *Information on Respirator Use*
  - *Use of stockpiled equipment*

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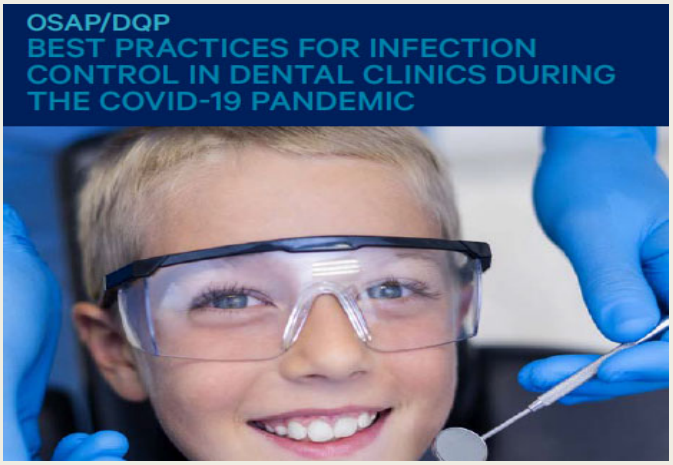
New Checklist

Best Practices for Infection Control in Dental Practices During the COVID-19 Pandemic



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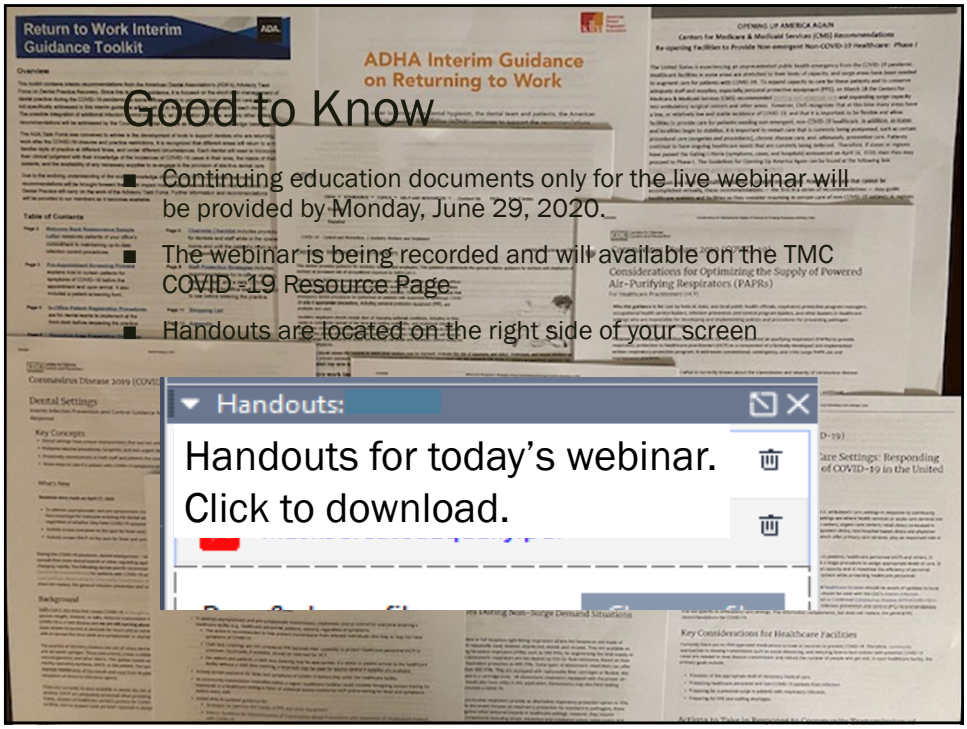

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References

- COVID -19
- Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings
- Johns Hopkins
- WHO
- OSAP
- ADA
- NIOSH

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Thank you!

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