



Respiratory Protection Programs in Long Term Care Facilities During the COVID-19 Pandemic

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Agenda

1:00-1:40	Respiratory Protection Programs in Long Term Care Facilities	Elon Ullman
1:40-2:00	Q&A Session	Jennifer McNary Janice Kim Eric Berg



Objectives

1. Understand all elements required for a respiratory protection program (RPP)
2. Obtain additional resources to implement your RPP



Why do LTC Facilities need a Respiratory Protection Program?

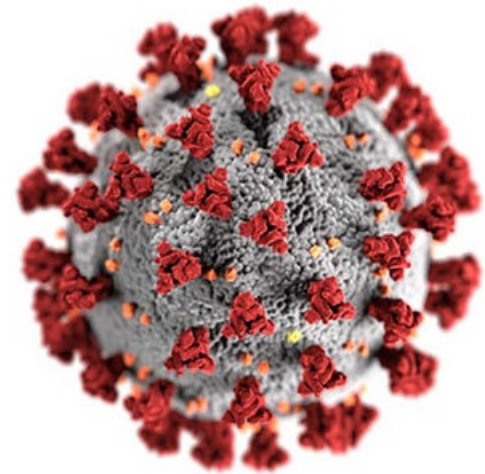
- COVID-19 spreads through droplets/aerosols
- Respirators (like N95s) are required to prevent exposure to infectious droplets/aerosols
- Cal/OSHA requires a RPP whenever respirator use is required





Aerosol Transmissible Diseases Standard

- Cal/OSHA ATD Standard covers LTC staff with occupational exposure to aerosol transmissible diseases
- COVID-19 is an aerosol transmissible disease
- ATD standard requires respiratory protection



[Cal/OSHA ATD Guide](#)

Masks vs. Respirators

- Surgical masks and respirators are not the same
- Respirators **protect the wearer from COVID-19**



Surgical Mask



N95 Respirator

What are Surgical Masks?

- Provide some protection to wearer against COVID
- Do not reliably protect against COVID-19 aerosols
- Source control: Control release of droplets/particles from wearer that could spread COVID-19 if infected
- Used in healthcare to protect against splash/spray, FDA approved



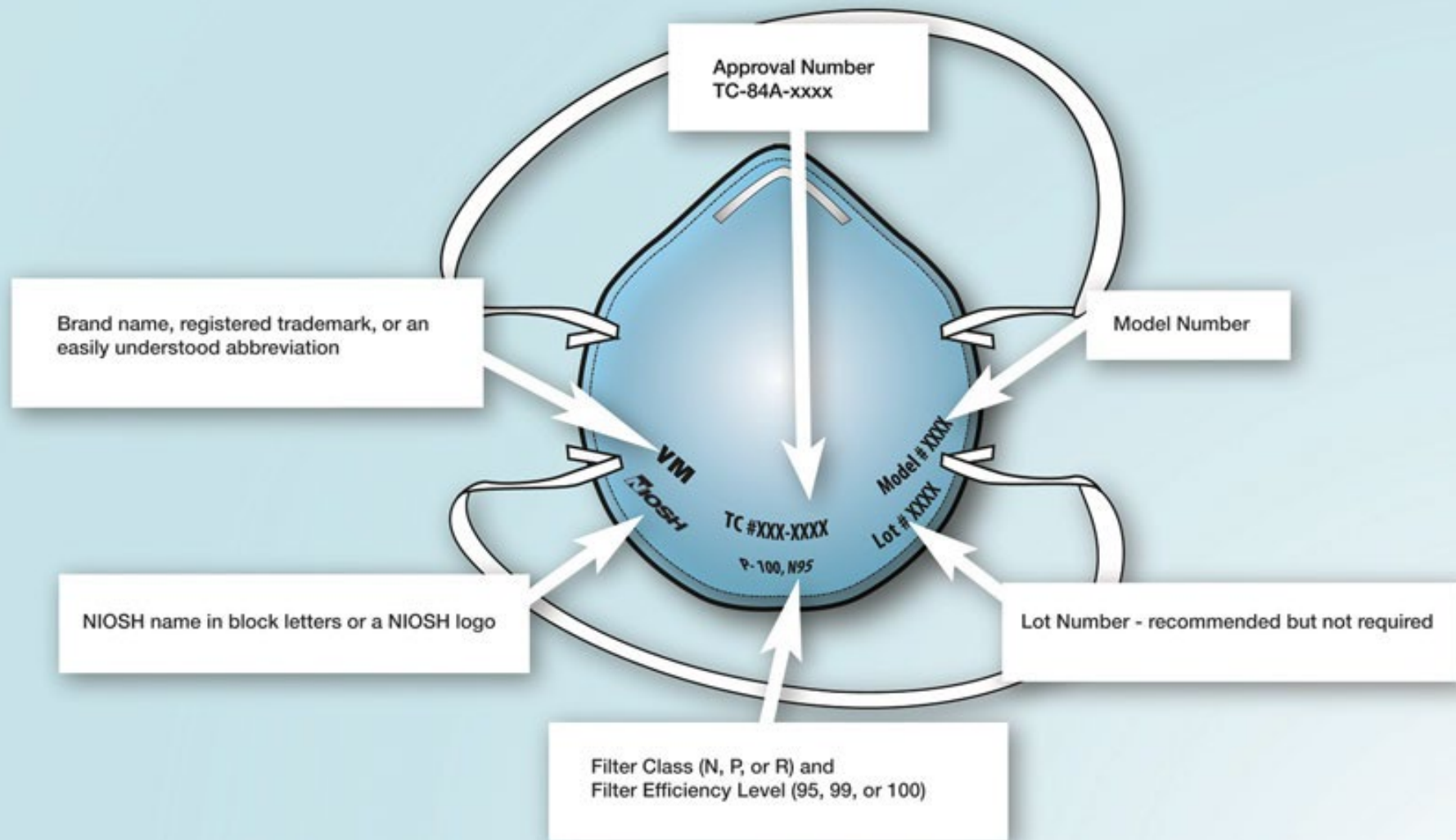
What are Respirators?

- Protect wearer from infectious aerosols (COVID-19)
- Reduce exposure by filtration and tight facial seal
- Must be NIOSH-certified





Example of Exterior Markings on a NIOSH-approved Filtering Facepiece Respirator





RESPIRATOR SEALING SURFACE

CLEAN SHAVEN

STUBBLE

(Careful! Chin hair may easily cross the seal)

(Careful not to cross the seal)

✓	✗	✗	✗	✗
✓	✗	✗	✗	✗
✓	✗	✗	✗	✗
✓	✗	✗	✗	✗
✓	✓	✗	✓	✓

Respirators Used for COVID-19

Filtering Facepiece Respirators



- Entire facepiece is made of filtering material
 - N95
 - Surgical N95
- Fit test required

Powered Air-Purifying Respirators (PAPR)



- Battery-powered respirator brings filtered air to wearer
- Positive pressure, air leakage outward
- No fit test needed
- Surgical mask for source control

Alternative: Elastomeric Respirators






Must have NIOSH-approved filters with 95% or greater efficiency

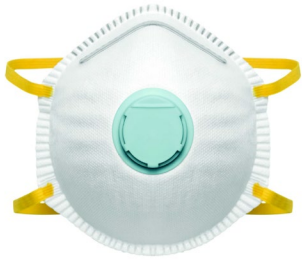


Exhalation valve must be covered by surgical mask for source control

Advantages	Disadvantages
Reusable	Disinfection and Storage
Cheaper	Communication

Respirator Options

Type			
Name	N95 Respirator	PAPR	Elastomeric Respirator
Fit Test Needed?	Yes	No	Yes
Facial Hair Allowed?	No	Yes	No
Reusable?	No	Yes	Yes
Additional source control?	No	Yes	Yes



FAQs: Valved N95s

- If no other alternatives are available, N95 respirators with exhalation valves can be used
- If used, they should be worn with a face shield with a drape as source control
- Wearing a surgical mask over a valved N95 is prohibited





FAQs: Reusing Respirators

- Do not reuse N95s unless crisis strategy
- Maximum extended use for N95s is 8-12 hours
- Consult [Cal/OSHA guidance on respirator shortages](#)
- Elastomeric respirators and PAPRs can be reused hundreds of times



FAQs: KN95s

KN95s should **not** be used

- Unreliable
- Ear loops instead of straps
- Testing shows low filtration efficiency in >50% tested



1 [Respirator Assessments to Support the COVID-19 Response](#)



Respiratory Protection Programs (RPP)

- Cal/OSHA (8 CCR §5144) requires employers to develop a written RPP when respirators are used
- Resources are available to help those who lack a written RPP for COVID-19



How Do I Create an RPP?

- Designate a Respirator Program Administrator (RPA) to be responsible
- Create a written program covering all policies and procedures you will implement to ensure effective respirator use



What Must the Written Program Include?

- When and where respirators must be worn
- Type of respirator to wear for high hazard activities
- Training
- Medical evaluation
- Respirator fit testing
- Proper use, storage, maintenance, repair and disposal of used respirators
- Program recordkeeping and evaluation



Hazard Evaluation & Respirator Selection

- Identify all areas with COVID transmission risk where respirators must be worn
- ATD standard requires PAPRs be used for aerosol-generating (“High Hazard”) procedures on patient suspected or confirmed with COVID-19

Respirators for high hazard procedures

- Examples of aerosol-generating equipment/procedures:
 - **CPAP/BiPAP**
 - **Nebulized medication**
 - open suctioning
 - sputum induction
 - CPR
 - intubation/extubation
 - bronchoscopy
 - manual ventilation
 - High flow O₂ delivery



PAPR required for aerosol generating procedures on positive or suspect residents



Respirator Use in Long Term Care Facilities

Recommendation	COVID Positive Residents (Red Area)	Symptomatic, Suspected COVID, Awaiting Test Results (Yellow PUI, Single Room if Available)	COVID Exposed Residents (Yellow-Exposed)	Newly Admitted Residents Under Observation (Yellow-Observation)	Residents with No Known Exposure or COVID Recovered (Green Area)
N95 Respirator	Yes*	Yes*	Yes*	Yes*	No, with exceptions**

[COVID-19 PPE, Resident Placement/Movement, and Staffing Considerations by Resident Category](#). July 22, 2021
 Source: [CDPH All Facilities Letter 20-74](#), July 22, 2021

***PAPR required when performing aerosol generating procedure in Red or Yellow Areas.**

**** Updated July 22, 2021.** N95 recommended in green area if caring for resident undergoing an aerosol generating procedure in a facility located in a county with moderate to substantial community transmission or during an outbreak.



Respirators for high hazard procedures

“If PAPRs are unavailable and cannot be obtained, an N95 respirator is the minimum protection that should be used and more protective respirators should be used if available, such as elastomeric half-mask or full-face respirators, which are more likely to seal well to the face and achieve a better fit factor.”

[Cal/OSHA Guidance for Respirator Shortage](#)



Universal Masking

- Face coverings always required for employees
- Face coverings encouraged for residents
- Source control and protection
- Surgical masks preferable to cloth masks





Training

- Training must occur prior to use of respirator
- Annual and when deemed necessary by Respirator Program Administrator
- See [Cal/OSHA Respiratory Protection Standard, subsection \(k\)](#) and [Cal/OSHA Aerosol Transmissible Diseases Standard, subsection \(i\)](#) for training specifics



Medical Evaluation

- Employees must be medically cleared to wear a respirator during job duties
- Employees complete questionnaire which is reviewed by a physician/licensed healthcare professional (PLHCP)
 - [Cal/OSHA Respiratory Protection Standard Appendix C](#)
- PLHCP may require physical exam or other testing after review of questionnaire
- Medical director not recommended (employee-employer confidentiality)



How to Find A Clinic Doing Medical Evaluations?

- Several statewide occupational medicine networks offer medical evaluations
- See [CDPH OHB website](#) for support and recommendations
- [3M online medical evaluation services](#)



What is Fit Testing?

- After medical clearance, employees must be fit tested
- Fit test ensures respirator provides a tight face seal
- Fit test must be conducted with exact make, model, and size of respirator that will be worn performing job duties
- Employees must pass fit test on each model of respirator they plan to wear
- Provided annually



Types of Fit Testing

Qualitative



Quantitative



Quantitative Fit Test

- Measures particle concentration to determine how much leakage occurring
- More objective, gives quantitative measure of fit



Qualitative Fit Test

- Relies on user detection of test agent to determine if leakage occurring
- More subjective, employees must be able to detect agent
- Pass/Fail test





Qualitative Fit Test



[CAHF Just in Time Fit Test Training](#)



Who Can Do Fit Testing?

- No certification needed to perform fit testing (someone on your staff can do it), but must be carried out by a well-trained individual
- Training Resources
 - Online fit testing videos (CAHF, 3M)
 - SNFs can call CDPH for coaching
HESIS Workplace Hazard Helpline (866-282-5516)



Who Can Do Fit Testing?

- Some statewide occupational medicine networks offer fit testing
- See [CDPH OHB website](#) for support and recommendations to find a clinic
- You can also find an industrial hygienist for fit testing
 - Sometimes available through Workers' Comp Insurance Carrier through "Loss Control Services"
 - [American Industrial Hygiene Association consultant's directory](#)



Storage and Disinfection of Reusable Respirators

- RPP must contain written procedures for storage and disinfection of reusable respirators
- [Cal/OSHA Mandatory Respirator Cleaning Procedures](#)
- Consult manufacturer's recommendation on disinfection and storage
- Use [EPA - List N of approved disinfectants for COVID-19](#)



Recordkeeping

- Written RPP - available to all employees in respiratory program
- Medical evaluations - clearance records from evaluating health provider
- Fit test records



Program Evaluation

- RPP includes section on program evaluation and effectiveness
 - Evaluated as needed
 - Consult employees on program effectiveness
 - Observe respirator practices among employees



Common Mistakes

- Improper fit testing → respirators don't fit and then don't protect wearer effectively
- Not providing a variety of respirators
- N95 wearers not clean-shaven
- Incorrect selection of type of respirator for tasks
- Fit tested to one model but using a different N95 make/model
- Written program incomplete, RPA not identified, RPA lacks training/resources



Resources to Establish an RPP

- [Respiratory Protection Program Template for infection control](#)
- [CAHF Model Respiratory Protection Program](#)
- [CDPH Toolkit for Respirator Program Administrators](#)



Additional Resources

- [CDPH Healthcare Associated Infections Program COVID-19 Recommendations for PPE](#)
- [Cal/OSHA Interim Guidance for Protecting Workers at Skilled Nursing and Long-term Care Facilities](#)

Additional Resources

- [Cal/OSHA ATD Standard Fact Sheet](#)
- [Cal/OSHA Interim Guidance on Respirator Shortages for Employers Covered by ATD Standard](#) (August 6, 2020)
- [Cal/OSHA Respiratory Protection in the Workplace: A Practical Guide for Small-Business Employers](#)



Additional Resources

- [CAHF “Just in Time Training” on Qualitative Fit Testing](#)
- [3M Respirator Fit Test Demonstration](#)
- Qualitative fit-test kits availability
 - Safety equipment supplier
 - [MHOAC Contact List](#)

Contact Us

CDPH Occupational Health Branch

RPP Questions: resp@cdph.ca.gov

Fit test coaching (OHB HESIS): 866-282-5516

CDPH Healthcare Associated Infection Program



Clinical questions: HAIProgam@cdph.ca.gov