Respiratory Protection Awareness for New York Federally Qualified Health Centers

Advanced Training

Thursday, Dec. 10, 2020

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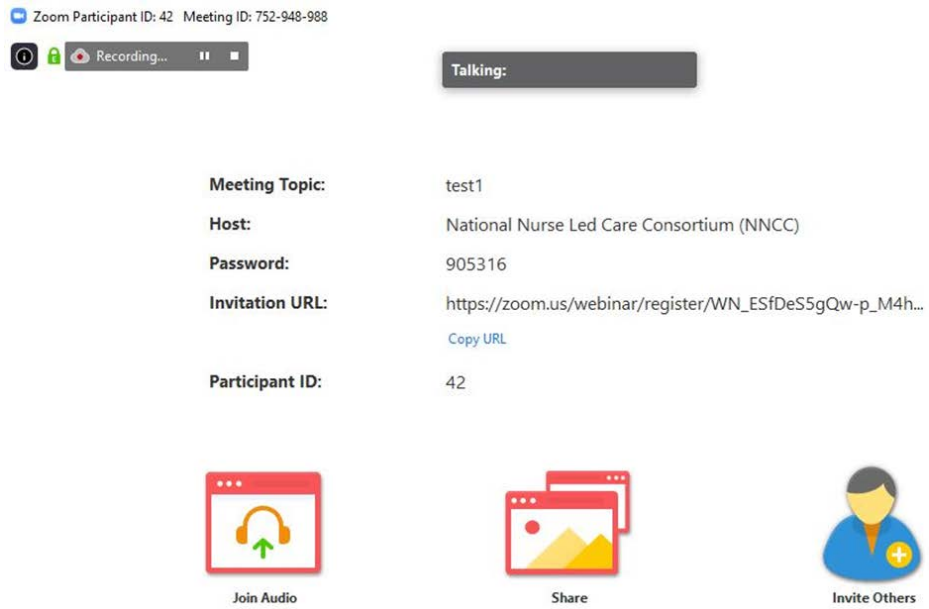
Housekeeping Items

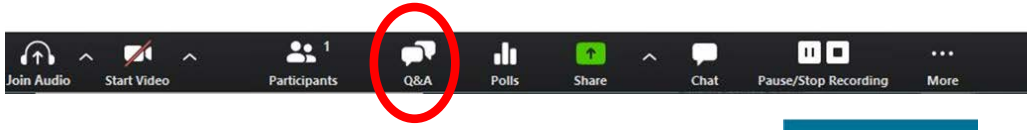
Question & Answer

- Click Q&A and type your questions into the open field.
- The Moderator will either send a typed response or answer your questions live at the end of the presentation.

Continuing Education Credits

- Please complete the evaluation survey after today's training.
- Certificate will arrive within 2 weeks of completing the survey.





CHCANYS DEFINING NEW DIRECTIONS
Community Health Care Association of New York State

Learning Objectives

- Participants will improve their understanding of and ability to implement a respiratory protection program at their health center
- Participants will gain confidence in their knowledge of fit testing procedures
- Participants will increase their awareness of available fit-test resources

CHCANYS DEFINING NEW DIRECTIONS
Community Health Care Association of New York State

Speakers

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NATIONAL NURSE-LED CARE CONSORTIUM
Respiratory Protection Awareness Training
December 9, 2020

Protecting the Safety and Health of Workers

Coronavirus Disease 2019 (COVID-19) Respiratory Protection

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DISCLAIMER

This information has been developed by an OSHA staff member and is intended to assist employers, workers, and others improve workplace health and safety. While we attempt to thoroughly address specific topics. it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in this presentation. This information is a tool for addressing workplace hazards, and is not an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards.

This document does not have the force and effect of law and is not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. It does not create (or diminish) legal obligations under the Occupational Safety and Health Act. Finally, OSHA may modify rules and related interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at www.osha.gov.

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Impact on workers

- **OSHA is closely coordinating with CDC, including NIOSH, and other agencies to monitor the ongoing pandemic.**
- **The risk of exposure in many workplaces likely reflects the risk to the general public in the community where the workplace is located.**
- **Risk increases when workers have frequent, close contact with the general public or other coworkers.**

Photo: U.S. Navy / Seaman Rob Aylward

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Occupational exposure risks

- **Workers in some sectors have increased risk of occupational exposure to SARS-CoV-2 from known or suspected sources of the virus, including in:**
  - Healthcare
  - Laboratories
  - Emergency response
  - Mortuary services and other deathcare

Photo: CDC

Exposure risk – very high

- **Healthcare workers (e.g., doctors, nurses, dentists, paramedics, EMTs) performing or present for aerosol-generating procedures (e.g., intubation, cough induction procedures, bronchoscopies, CPR, some dental procedures and exams, invasive specimen collection) on known or suspected COVID-19 patients.**
- **Healthcare or laboratory personnel collecting or handling specimens from known or suspected COVID-19 patients.**
- **Morgue workers performing autopsies on the bodies of people who are known to have, or suspected of having COVID-19 at the time of their death.**

Exposure risk – high

- **Healthcare delivery and support staff (e.g. doctors, nurses, and other hospital staff who must enter patients rooms) exposed to known or suspected COVID-19 patients. (While NO aerosol generating procedures are being performed.)**
- **Medical transport workers (e.g., ambulance vehicle operators) moving known or suspected COVID-19 patients in enclosed vehicles.**
- **Mortuary workers involved in preparing the bodies of people who are known to have, or suspected of having COVID-19 at the time of their death.**

Exposure risk – medium

- **Jobs that require frequent (i.e., more than a few minutes) and/or close (i.e., within 6 feet) contact with people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients.**
- **Examples include:**
  - Critical retail workers, such as those in pharmacies and grocery stores.
  - Transit workers, such as bus drivers, subway operators, and taxi drivers.
  - Workers in other transportation operations.

Exposure risk – low (caution)

- **Jobs that do not require contact with people known to be, or suspected of being infected with SARS-CoV-2 nor frequent close contact with (within 6 feet) of the general public.**
- **Workers in this category have minimal occupational contact with the public and other coworkers.**

Existing OSHA standards protect workers from exposure

- **Existing OSHA standards can help protect workers from exposure to SARS-CoV-2 and infection with COVID-19.**
- **OSHA can use the General Duty Clause, Section 5(a)(1), of the Occupational Safety and Health Act to ensure that workers are protected from recognized safety and health hazards that may cause serious harm.**

Relevant OSHA requirements

- **Personal Protective Equipment (29 CFR 1910 subpart I), including:**
  - **PPE General Requirements (1910.132)**
  - **Eye and Face Protection (1910.133)**
  - **Respiratory Protection (1910.134)**
  - **Hand Protection (29 CFR 1910.138)**
- **Bloodborne Pathogens (29 CFR 1910.1030)**
- **Hazard Communication (29 CFR 1910.1200)**
- **Recordkeeping (29 CFR part 1904)**

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OSHA enforcement discretion

- **OSHA has provided enforcement discretion for some of its requirements, including:**
  - Respiratory Protection standard (29 CFR 1910.134)
  - Other health standards with respirator requirements
  - Recording and Reporting Occupational Injuries and Illness (29 CFR Part 1904)

Memorandum	Effective
Healthcare Respiratory Protection Annual Fit-Testing for N95 Filtering Facepieces During the COVID-19 Outbreak	March 14, 2020 - present
Enforcement Guidance for Respiratory Protection and the N95 Shortage Due to the 2019 Novel Coronavirus Disease (COVID-19) Pandemic	April 3, 2020 – present
Enforcement Guidance for Use of Respiratory Protection Equipment Certified Under Standards of Other Countries or Jurisdictions During the COVID-19 Pandemic	April 3, 2020 - present
Expanded Temporary Enforcement Guidance on Respiratory Protection Fit-Testing for N95 Filtering Facepieces in All Industries During the COVID-19 Pandemic	April 8, 2020 - present
Enforcement Guidance for Recording Cases of Coronavirus Disease 2019 (COVID-19)	April 10, 2020 – present
Enforcement Guidance on Decontamination of Filtering Facepiece Respirators in Healthcare During the COVID-19 Pandemic	April 24, 2020 – present

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RESPIRATORY PROTECTION GUIDANCE

for the Employers of Those Working in Nursing Homes, Assisted Living, and Other Long-Term Care Facilities During the COVID-19 Pandemic

https://www.osha.gov/sites/default/files/respiratory-protection-covid19-long-term-care.pdf

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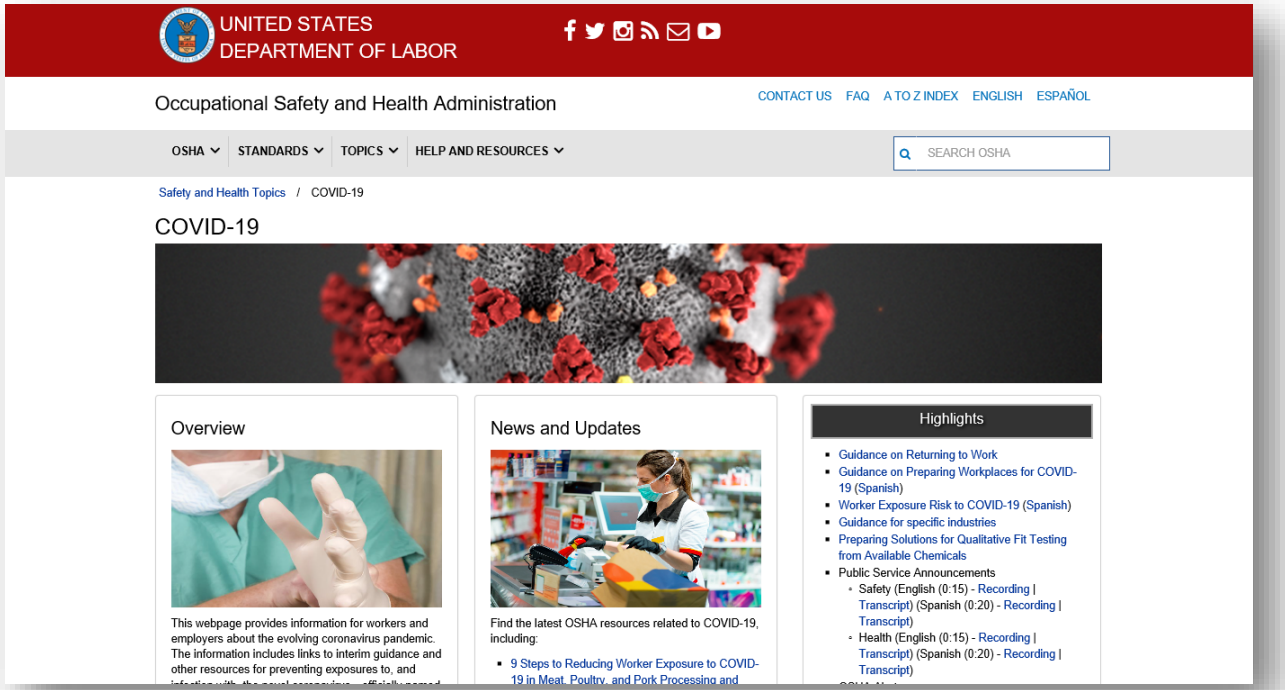
OSHA guidance

- **OSHA has developed a variety of guidance materials for workers and employers on how to stay healthy during the pandemic.**
- **OSHA.gov/coronavirus includes information on implementing the hierarchy of controls when workers have specific exposure risks.**



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OSHA Guidance: Frequently Asked Questions (FAQs)

FAQ topics include:

- General Information
- Cleaning and Disinfection
- Cloth Face Coverings
- Employer Requirements
- Healthcare
- Personal Protective Equipment
- Restrooms and Handwashing Facilities
- Retaliation
- Return to Work
- Testing for COVID-19
- Training
- Worker Protection Concerns
- Industry-Specific
  - Construction
  - Health Care

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OSHA guidance

- **OSHA guidance helps employers comply with OSHA standards.**
- **Guidance is based on anticipated hazards and risks, and incorporates standard, contact, and airborne precautions, and use of face/eye protection.**
- **Guidance should be adapted based on employer's hazard assessment and workers' tasks.**

Clockwise from L: public domain; WikimediaCommons; CDC/Kimberly Smith & Christine Ford

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OSHA guidance

For all workers, regardless of specific exposure risks:

- Practice good and frequent hand hygiene.
- Follow good cough/sneeze etiquette.
- Avoid touching the eyes, nose, or mouth with unwashed hands.
- Avoid close contact with people who are sick.

Photo: U.S. Department of Defense

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OSHA guidance

- **Train all workers about their risk of occupational exposure to COVID-19 as well as on what to do if they have traveled to high-risk areas or been exposed to possible cases.**
- **For workers at particular risk of exposure (e.g., in healthcare, others), discuss:**
  - Sources of exposure to the virus and hazards associated with that exposure.
  - Appropriate ways to prevent or reduce the likelihood of exposure, including use of engineering and administrative controls, safe work practices, and PPE.
- **Some OSHA standards (e.g., BBP, PPE) require worker training.**

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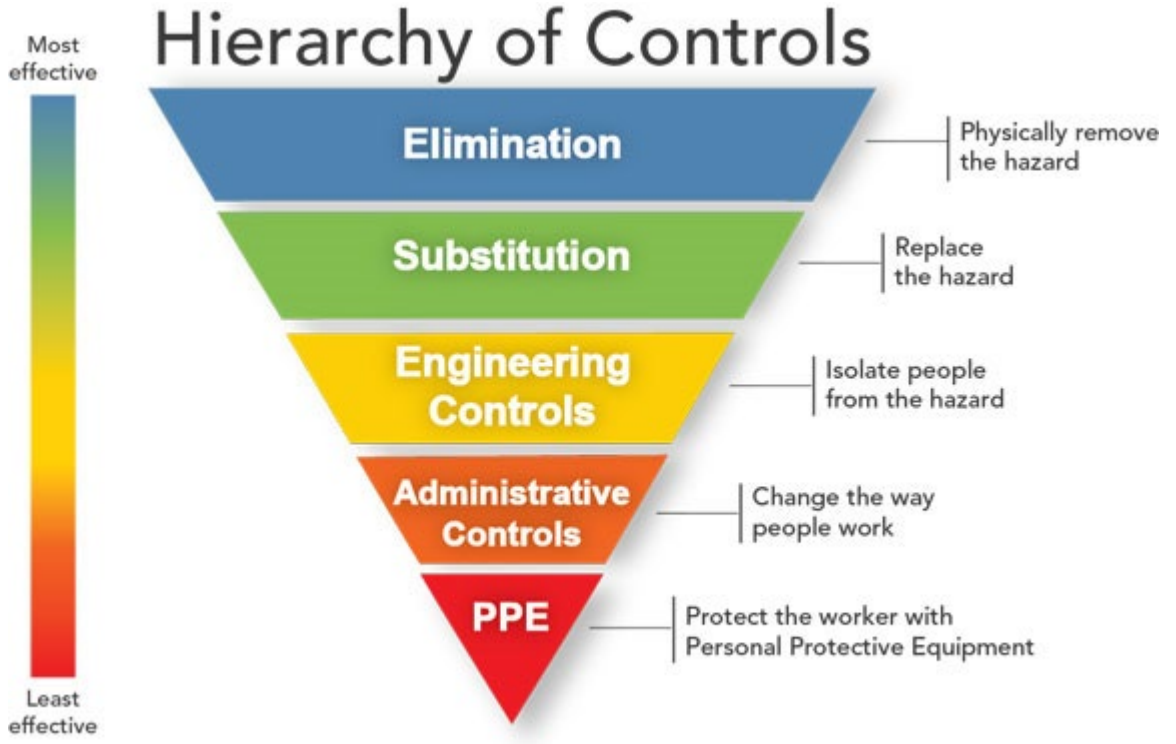
OSHA guidance

For U.S. workers and employers of workers with potential occupational exposures to COVID-19:

- Identify and isolate suspected cases.
- Implement other precautions appropriate for the worksite and job tasks, and according to the hierarchy of controls.



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OSHA guidance

- **What should standard, contact, and airborne precautions consist of in workplaces where workers may be exposed to COVID-19?** *OSHA guidance breaks this down by worker type.*
  - Engineering controls, such as isolation rooms and other physical barriers, can limit most workers' exposures.
  - Administrative controls and safe work practices include measures such as limiting access to patient care areas, effective sharps management, and worker training.
  - PPE may include gloves, gowns, goggles or face shields, and N95 or better respirators.

Worker Rights

All workers have the right to:

- Raise a safety or health concern with their employer or OSHA, request personal protective equipment, or report a work-related injury or illness, including COVID-19.
- Receive information and training on job hazards in their workplace.

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Whistleblower Protections under the OSH Act

- **Employers cannot retaliate (fire, lay off, demote, etc.) against employees for engaging in activity protected under the OSH Act.**
- **Protected activity includes:**
  - Requesting personal protective equipment
  - Wearing personal protective equipment
  - Reporting a work-related injury or illness, including COVID-19, to an employer or OSHA
  - Reporting an unsafe condition to an employer or OSHA
  - Requesting guidance on workplace safety from an employer, OSHA, or other government entity

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Work Refusals under the OSH Act

- **Under the OSH Act, employees have the right to refuse to perform an assigned task if they:**
  - Have a reasonable apprehension of serious injury or death arising from a hazardous condition at the workplace; and
  - Refuse in good faith to expose themselves to the hazardous condition; and
  - Have no reasonable alternative; and
  - Have insufficient time, due to the urgency of the situation, to eliminate the danger through resort to regular statutory enforcement channels (i.e., contacting OSHA or an OSHA State Plan); and
  - Where possible, sought from their employer, and were unable to obtain, a correction of the dangerous condition.

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For continual updates

- **Visit OSHA's website to sign up to receive OSHA information:**
  - QuickTakes biweekly newsletter
  - Tip of the Day
  - www.osha.gov/contactus
- **Follow OSHA on social media**
  - Twitter: @OSHA_DOL
  - Facebook: Follow the Department of Labor page

OSHA's Respiratory Protection Standard 29 CFR 1910.134

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Organization of Standard

(a) Permissible practice
(b) Definitions
(c) Respirator program
(d) Selection of respirators
(e) Medical evaluation
(f) Fit testing
(g) Use of respirators
(h) Maintenance and care
(i) Breathing air quality and use
(j) Identification of filters, cartridges, and canisters
(k) Training and information
(l) Program evaluation
(m) Recordkeeping
(n) Dates
(o) Appendices (mandatory)
    A: Fit Testing Procedures
    B-1: User Seal Checks
    B-2: Cleaning Procedures
    C: Medical Questionnaire
    D: Information for Employees Wearing Respirators When Not Required Under the Standard

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Permissible Practice

- The primary means to control occupational diseases caused by breathing contaminated air is through the use of **feasible engineering controls**, such as enclosures, confinement of operations, ventilation, or substitution of less toxic materials
- When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this standard
- Employer shall provide respirators, when necessary, which are applicable and suitable for the purpose intended
- Employer shall be responsible for establishment and maintenance of a **respirator program** which includes the requirements of paragraph (c), *Respiratory protection program*

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Employee Exposure

Exposure to a concentration of an airborne contaminant that would occur if the employee were **not** using respiratory protection.

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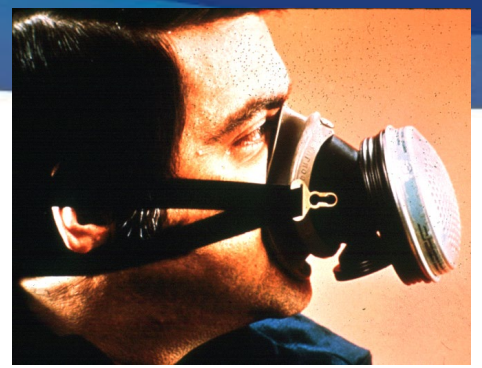
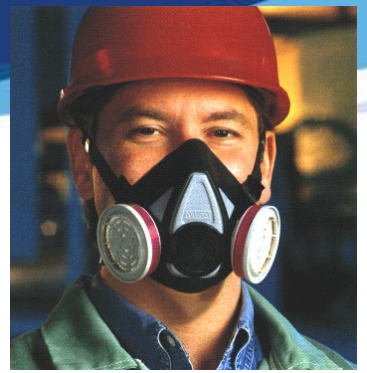
Respiratory Inlet Covering

- That portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both
- May be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp

Tight -Fitting Coverings



Quarter Mask



Half Mask

N95- filtering facepiece

Full Facepiece

Mouthpiece/Nose Clamp
(no fit test required)

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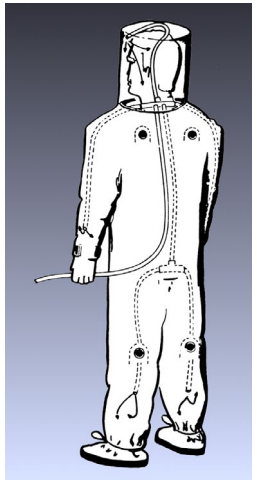
Loose-Fitting Coverings

Hood

Helmet

Loose-Fitting Facepiece



Full Body Suit

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Filter

A component used in respirators to remove solid or liquid aerosols from the inspired air. Also called **air purifying element**.

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Canister or Cartridge

A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

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Negative Pressure Respirator

A respirator in which the air pressure inside the facepiece is **negative during inhalation** with respect to the ambient air pressure outside the respirator.

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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.

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Air-Purifying Respirator (APR)

A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

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Positive Pressure Respirator

A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

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Powered Air-Purifying Respirator (PAPR)

An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

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Respirator Program

- Must develop a **written program** with **worksite-specific procedures** when respirators are necessary or required by the employer
- Must update program as necessary to reflect changes in workplace conditions that affect respirator use
- Must designate a **program administrator** who is qualified by appropriate training or experience to administer or oversee the program and conduct the required program evaluations
- Must provide respirators, training, and medical evaluations at no cost to the employee

Note: OSHA has prepared a *Small Entity Compliance Guide* that contains criteria for selection of a program administrator and a sample program.

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Small Entity Compliance Guide for the Respiratory Protection Standard

https://www.osha.gov/Publications/3384small-entity-for-respiratory-protection-standard-rev.pdf

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Program Administrator
29 CFR 1910.134 (c) (3)

- You must designate a program administrator to run the program and evaluate its effectiveness.
- An individual is qualified to be a program administrator if he or she has appropriate training or experience in accord with the program's level of complexity.
- This training or experience is appropriate if it enables the program administrator to fulfill the minimum requirements of recognizing, evaluating, and controlling the hazards in your workplace.

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How do I, or a designated employee, become a qualified program administrator?

- If your workers are exposed only to nuisance dusts and relatively low-toxicity materials, and they use only a few types of relatively simple respirators, knowledge of this guide and materials supplied by the manufacturer may be sufficient for you, or a designated employee, to serve as the program administrator.
- If more dangerous substances are present, if the potential for high exposures exists, or if more complex respirators are used, the program administrator must have more extensive experience and/or training. In these circumstances, you may need to seek out the expertise needed or obtain appropriate training.

Is there a list of approved training courses my program administrator can attend?

- No, OSHA does not provide a training course specifically to train respiratory protection program administrators, nor does OSHA require program administrators to attend a specified course.
- OSHA only requires the program administrator to have an adequate level of training or experience to deal with the complexity of the respiratory protection program at the worksite.

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Respirator Program Elements

1. Selection
2. Medical evaluation
3. Fit testing
4. Use
5. Maintenance and care
6. Breathing air quality and use
7. Training
8. Program evaluation

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Selection of Respirators

Employer must select and provide an appropriate respirator based on the respiratory hazards to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.

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Selection of Respirators (cont'd)

- Select a **NIOSH-certified respirator** that shall be used in compliance with the conditions of its certification
- Identify and evaluate the respiratory hazards in the workplace, including a reasonable estimate of employee exposures and identification of the contaminant's chemical state and physical form
- Where exposure cannot be identified or reasonably estimated, the atmosphere shall be considered **Immediately Dangerous to Life or Health (IDLH)**
- Select respirators from a sufficient number of models and sizes so that the respirator is acceptable to, and correctly fits, the user

Classes of Nonpowered Air-Purifying Particulate Filters

Nine classes: three levels of filter efficiency, each with three categories of resistance to filter efficiency degradation due to the presence of oil aerosols

N	R	P
100	100	100
99	99	99
95	95	95

N for *N*ot resistant to oil
R for *R*esistant to oil
P for oil *P*roof

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Selection and Use

- If no oil particles are present, use any series (N, R, or P)
- If oil particles are present, use **only** R or P series
- Follow the respirator filter manufacturer's service-time-limit recommendations

High Efficiency Filters

Filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter.
(HEPA filter per NIOSH 30 CFR 11)

Equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

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Physician or Other Licensed Health Care Professional (PLHCP)

An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him/her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e), *Medical evaluation*.

Medical Evaluation
Procedures

- Must provide a medical evaluation to determine employee's ability to use a respirator, **before fit testing and use**
- Must identify a PLHCP to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information
- Medical evaluation must obtain the information requested by the questionnaire in Sections 1 and 2, Part A of App. C
- Follow-up medical examination is required for an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of App. C or whose initial medical examination demonstrates the need for a follow-up medical examination

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Medical Evaluation
Additional Medical Evaluations

- **Annual review** of medical status is **not required**
- At a minimum, employer must provide additional medical evaluations if:
  - Employee reports medical signs or symptoms related to the ability to use a respirator
  - PLHCP, supervisor, or program administrator informs the employer that an employee needs to be reevaluated
  - Information from the respirator program, including observations made during fit testing and program evaluation, indicates a need
  - Change occurs in workplace conditions that may substantially increase the physiological burden on an employee

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Fit Testing

Before an employee uses any respirator with a **negative or positive pressure tight-fitting facepiece**, the employee must be fit tested with the same make, model, style, and size of respirator that will be used.

Half mask Filtering Facepiece Dust mask
APF=10
Needs to be fit tested

Half mask Elastomeric Respirator
APF=10
Needs to be fit tested

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Fit Test Exercises

- Normal breathing
- Deep breathing
- Turning head side to side
- Moving head up and down
- Talking
- Grimace
- Bending over
- Normal Breathing

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Qualitative Fit Test (QLFT)

A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

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Quantitative Fit Test (QNFT)

An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

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Fit Testing (cont'd)

- Employees using tight-fitting facepiece respirators must pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT):
  - prior to initial use,
  - whenever a different respirator facepiece (size, style, model or make) is used, and
  - at least annually thereafter
- Must conduct an additional fit test whenever the employee reports, or the employer or PLHCP makes visual observations of, changes in the employee's physical condition (e.g., facial scarring, dental changes, cosmetic surgery, or obvious change in body weight) that could affect respirator fit

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Fit Testing (cont'd)

- The fit test must be administered using an OSHA-accepted QLFT or QNFT protocol contained in Appendix A
  - QLFT Protocols:
    - Isoamyl acetate
    - Saccharin
    - Bitrex
    - Irritant smoke
  - QNFT Protocols:
    - Generated Aerosol (corn oil, salt, DEHP)
    - Condensation Nuclei Counter (PortaCount)
    - Controlled Negative Pressure (Dynatech FitTester 3000)
    - Controlled Negative Pressure (CNP) REDON

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Fit Factor

A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio:

$$\frac{\textit{Concentration of a substance in ambient air}}{\textit{Concentration inside the respirator when worn}}$$

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Fit Testing (cont'd)

- QLFT may only be used to fit test negative pressure APRs that must achieve a fit factor or 100 or less
- If the fit factor is determined to be equal to or greater than 100 for tight-fitting half facepieces or equal to or greater than 500 for tight-fitting full facepieces, the QNFT has been passed with that respirator

Use of Respirators
Facepiece Seal Protection

- Respirators with tight-fitting facepieces must not be worn by employees who have facial hair or any condition that interferes with the face-to-facepiece seal or valve function
- Corrective glasses or goggles or other PPE must be worn in a manner that does not interfere with the face-to-facepiece seal
- Employees wearing tight-fitting respirators must perform a user seal check **each time they put on the respirator** using the procedures in Appendix B-1 or equally effective manufacturer's procedures

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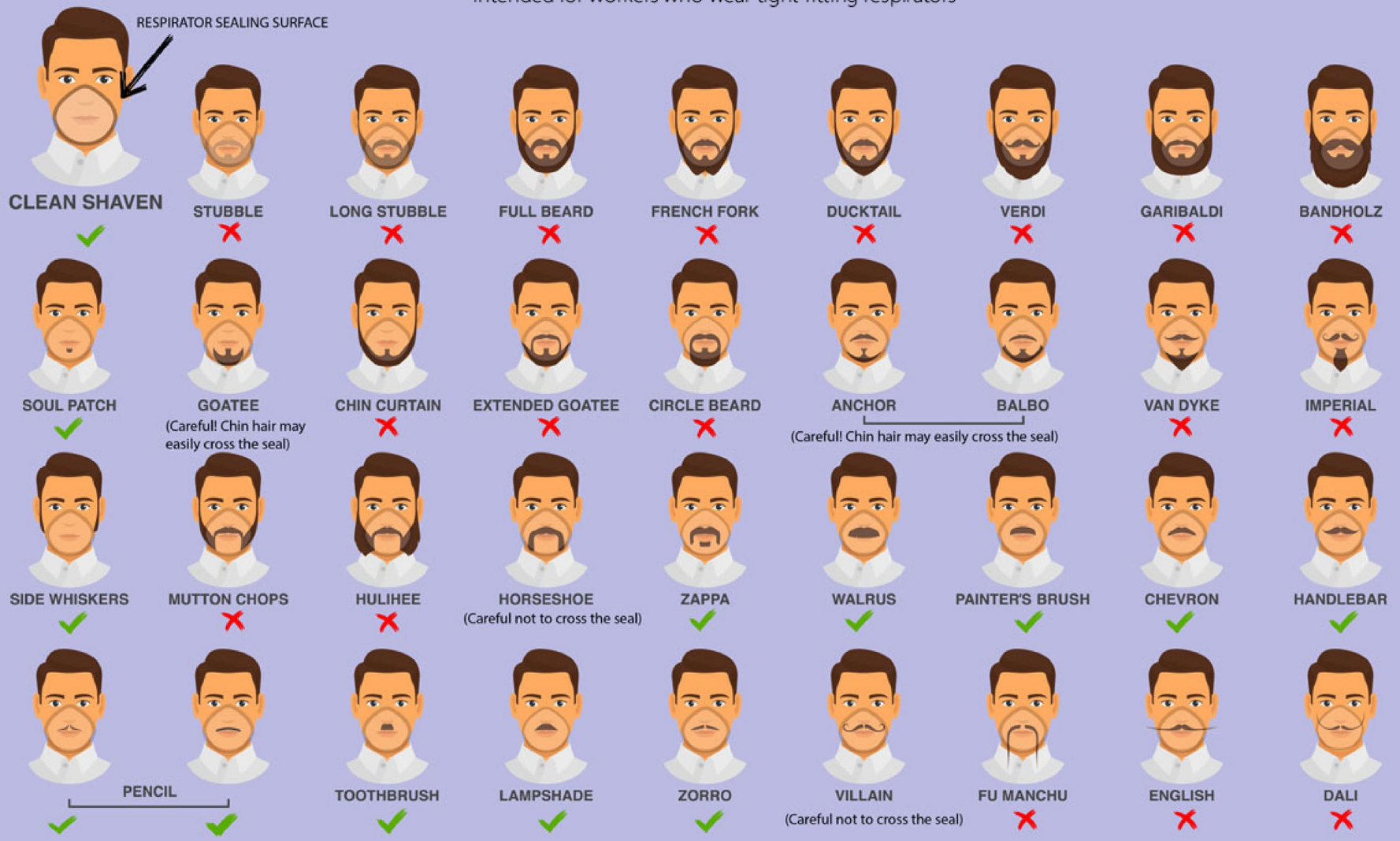
Facial Hairstyles and Filtering Facepiece Respirators

Intended for workers who wear tight-fitting respirators



Original image vector by fredrisher/Shutterstock.com

*If your respirator has an exhalation valve, some of these styles may interfere with the valve working properly if the facial hair comes in contact with it.

†This graphic may not include all types of facial hairstyles. For any style, hair should not cross under the respirator sealing surface.

Source: OSHA Respiratory Protection Standard
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=12716

Further Reading: NIOSH Respirator Trusted-Source Webpage
https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/respsource3fittest.html

CDC NIOSH
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

2017

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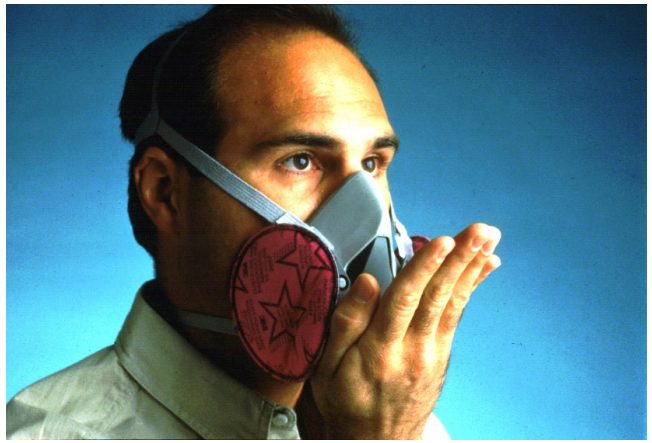
User Seal Check

An action conducted by the respirator user to determine if the respirator is properly seated to the face.



Positive Pressure Check

Negative Pressure Check

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Maintenance and Care

- Provide each user with a respirator that is clean, sanitary and in good working order
- Use procedures in Appendix B-2 or equivalent manufacturer's recommendations
- Clean and disinfect at the following intervals:
  - as often as necessary when issued for exclusive use
  - before being worn by different individuals when issued to more than one employee
  - after each use for emergency respirators and those used in fit testing and training

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Identification of Filters, Cartridges, and Canisters

- All filters, cartridges and canisters used in the workplace must be labeled and color coded with the NIOSH approval label
- The label must not be removed and must remain legible
- “TC number” is no longer on cartridges or filters (Part 84)
- Marked with “NIOSH”, manufacturer’s name and part number, and an abbreviation to indicate cartridge or filter type (e.g., N95, P100, etc.)
- Matrix approval label supplied, usually as insert in box

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Training and Information

Employers must provide effective training to employees who are required to use respirators.

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Training and Information

- Employees who are required to use respirators must be trained such that they can demonstrate knowledge of at least:
  - why the respirator is necessary and how improper fit, use, or maintenance can compromise its protective effect
  - limitations and capabilities of the respirator
  - effective use in emergency situations
  - how to inspect, put on and remove, use and check the seals
  - maintenance and storage
  - recognition of medical signs and symptoms that may limit or prevent effective use
  - general requirements of this standard

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Training and Information (cont'd)

- Training must be provided prior to use, unless acceptable training has been provided by another employer within the past 12 months
- Retraining is required annually, and when:
  - changes in the workplace or type of respirator render previous training obsolete
  - there are inadequacies in the employee's knowledge or use
  - any other situation arises in which retraining appears necessary
- The basic advisory information in Appendix D must be provided to employees who wear respirators when use is not required by this standard or by the employer

Program Evaluation

- Must conduct evaluations of the workplace as necessary to ensure effective implementation of the program
- Must regularly consult employees required to use respirators to assess their views on program effectiveness and to identify and correct any problems
  - factors to be assessed include, but are not limited to:
    - respirator fit (including effect on workplace performance)
    - appropriate selection
    - proper use
    - proper maintenance

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Recordkeeping

- Records of medical evaluations must be retained and made available per 29 CFR 1910.1020
- A record of fit tests must be established and retained until the next fit test is administered
- A written copy of the current program must be retained
- Written materials required to be retained must be made available upon request to affected employees and OSHA

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Questions?

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  OSHA Region 2
  Email: levy.mike@dol.gov

  Phone: 212-337-4637

- **OSHA Directorate of Technical Support and Emergency Management**

  Phone: 202-693-2300

www.osha.gov

1-800-321-OSHA (6742)

Q & A

Speaker

Jillian Bird, MSN, RN
Nurse Training Manager
National Nurse-Led Care Consortium

Respiratory Protection Awareness Training

December 10, 2020

NATIONAL NURSE-LED CARE CONSORTIUM
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About NNCC

The **National Nurse-Led Care Consortium (NNCC)** is a membership organization that supports nurse-led care and nurses at the front lines of care.

NNCC provides expertise to support comprehensive, community-based primary care.

- Policy research and advocacy
- Technical assistance and support
- Direct, nurse-led healthcare services

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Learning Objectives

1. Participants will improve their knowledge of the importance of a respiratory protection program at their health center
2. Participants will be able to identify successes or gaps in their program
3. Participants will develop plans to improve their program as needed

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Why a Respiratory Protection Program?

Ensures all employees are protected from:

- person-to-person transmission of airborne infectious agents
- other possible harmful environmental risk

Poll + Sharing

At which stage in the process is your health center regarding having an RPP?

- Established-up and running protocols
- Revamping-evaluating, modifying
- Implementation-training, fit test
- Planning stages-writing program,
- Aware of RPP-need to start, but where?

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Emergency Management

CHCANYS

Respiratory Protection Program

Toolkit

V2020.08.20

Phases of planning and implementation

1 Design the Workflows

How, when and who will be conducting the necessary steps of the program

2 Prepare the Team

Communicate and create buy-in, provide all necessary information about what to expect as program is implemented

3 Identify Key Personnel

Identify what members of the center will be needed to help execute the program, this will be site-specific

4 Implement

PIlot with a small cohort, perhaps all new hires or all the PHCPs

5 Evaluate Success

Define a timeframe for evaluation and measure success based on predetermined metrics

6 Scale Up

Adjust when ready to include next cohort and continue to scale up, be sure to get feedback along the way

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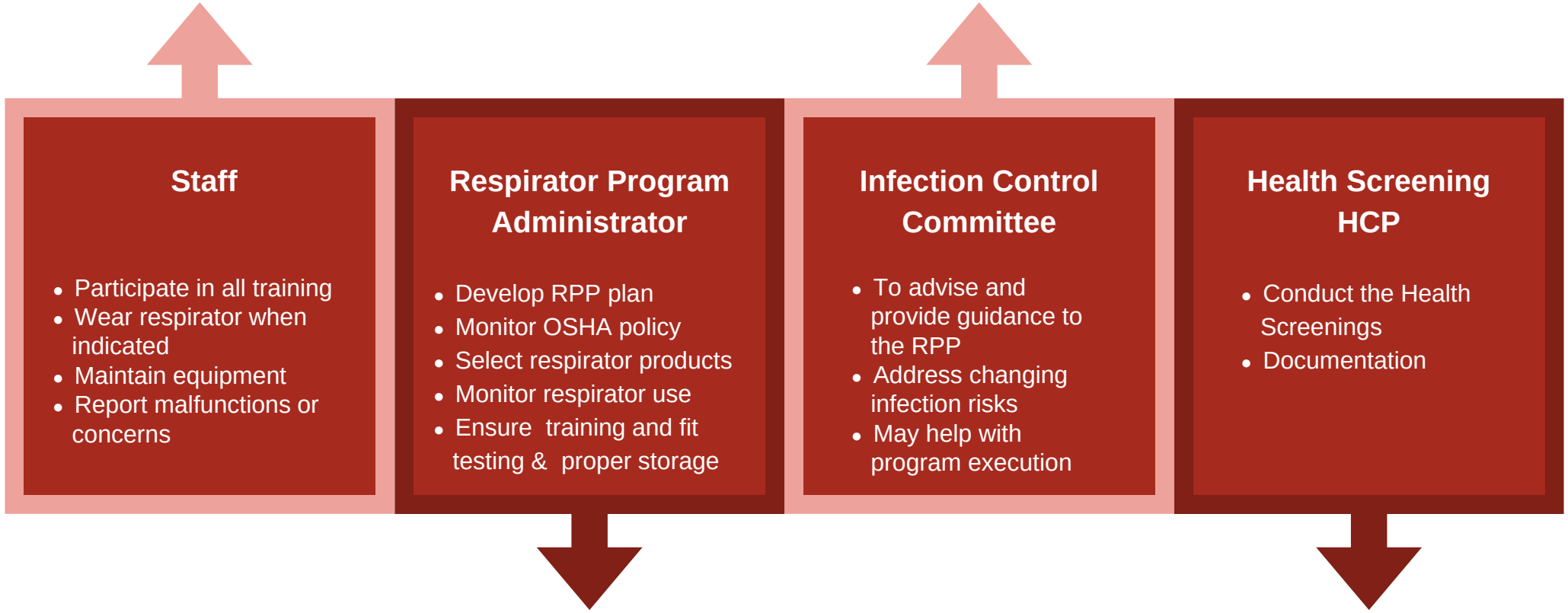
Key Personnel Roles



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Respirator Program Administrator

Identify who this is for your site:

- Clinic supervisor
- Nurse Manager
- HR manager
- Safety officer
- Other

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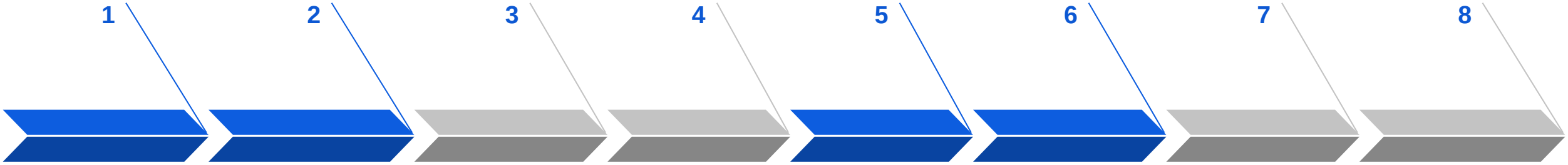
Program Overview



1	2	3	4	5	6	7	8
Risk Assessment	**Selection of Respirators**	**SOP**	**Medical Screening**	**Provide Training**	**Fit Testing**	**Maintenance Program**	**Evaluate**
Likelihood of adverse effects resulting from exposure to a disease	Selecting the “right” respirator based on the risk assessment	Written SOP administered by a “suitably” trained respiratory program administrator	Determines one’s ability to use a respirator in the workplace; completed by appropriately licensed HCP	Training provided to all employees required to use respirators	Determines which make, model, style, and size of respirator will be used; OSHA-accepted qualitative fit test	Ongoing cleaning and disinfecting, storage, inspection, and repair of respirators	Conducted annually or as needed; documented and stored

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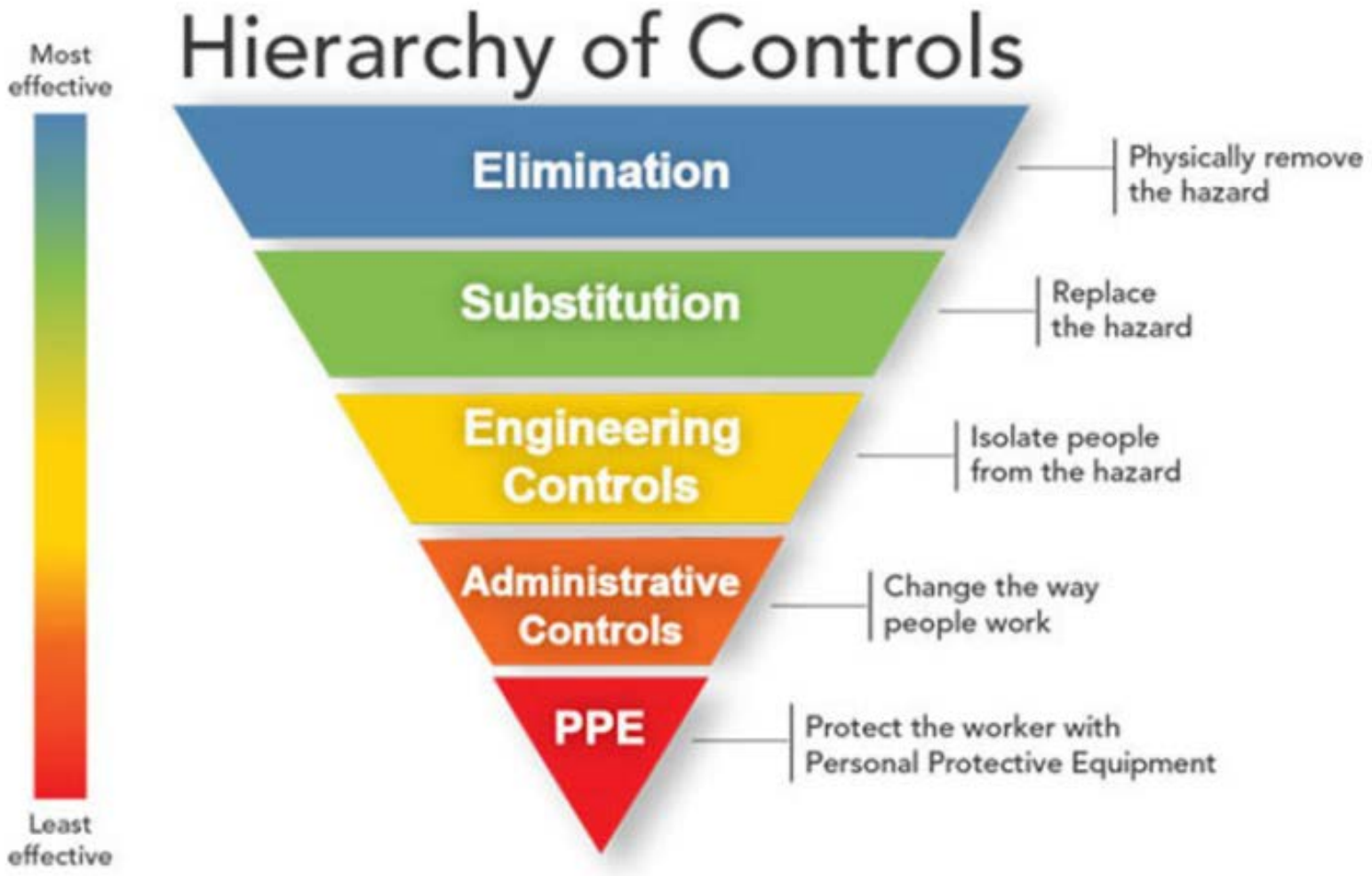
Risk Assessment



https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html

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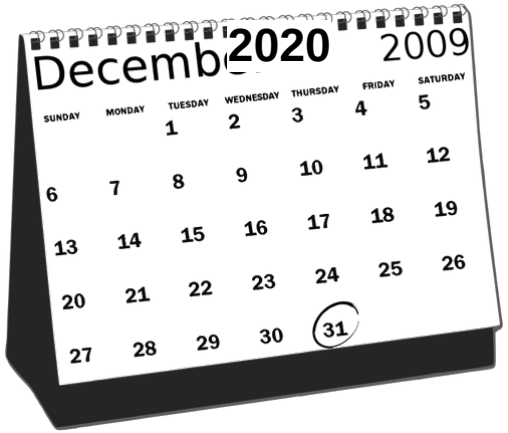
Risk Assessment

Engineering controls: ventilation, isolation or enclosure of the work process

Administrative controls: staffing rotation, or scheduling safety protocols

Review all Environmental norms Workflows



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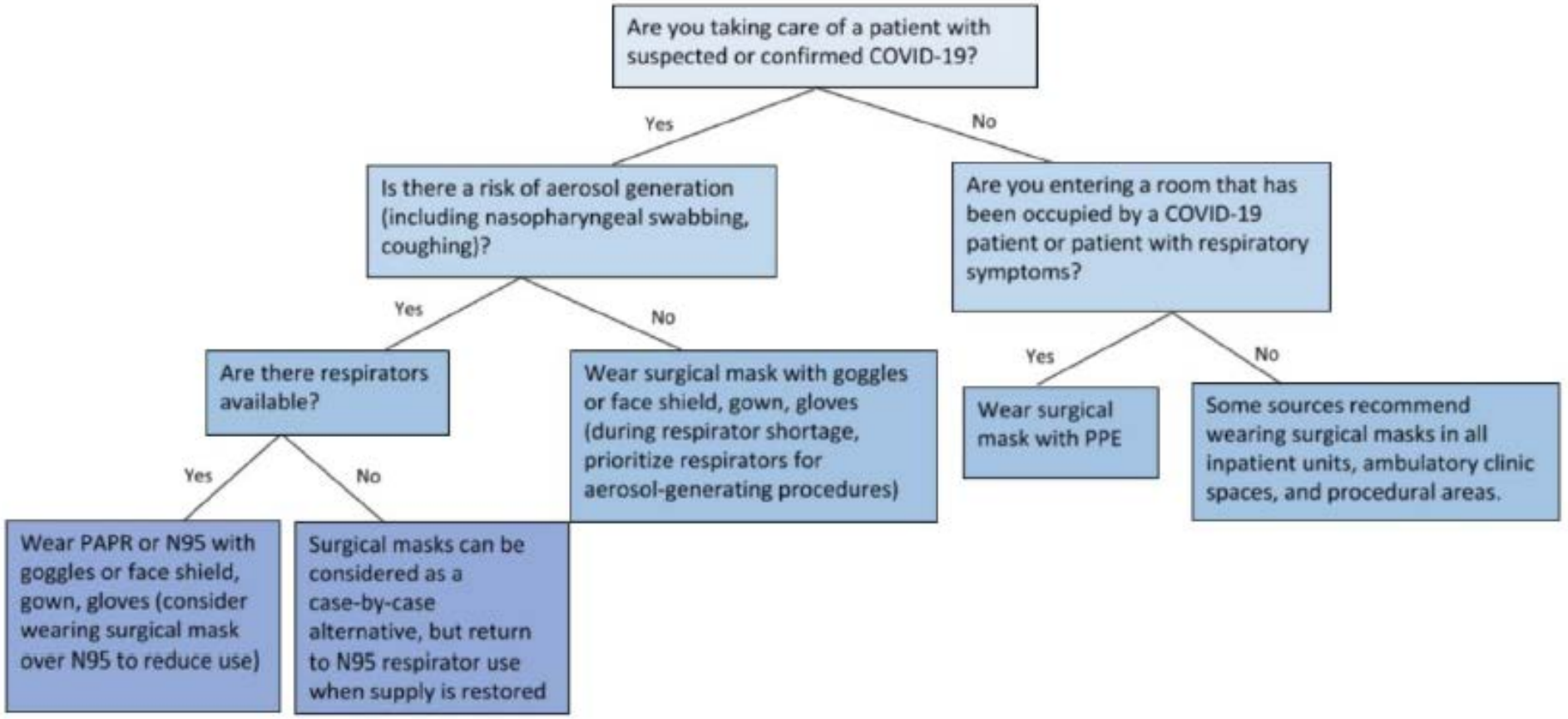
AIIRs in ambulatory care settings

COVID-19: MASKS AND RESPIRATORS FOR HEALTH CARE PROVIDERS

Quick reference: PPE decision tree



https://www.pennmedicine.org/

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Selection of Respirator

To address exposure airborne respiratory illnesses/other:

- N95 respirators:
  - 95% of 0.3 µm airborne particles free of oil
- Powered air-purifying respirator (PAPR)
  - contact tracing, disease investigation and patient contact/care
  - include this only if your agency has one or intends to buy one
- Other: as indicated by risk assessment

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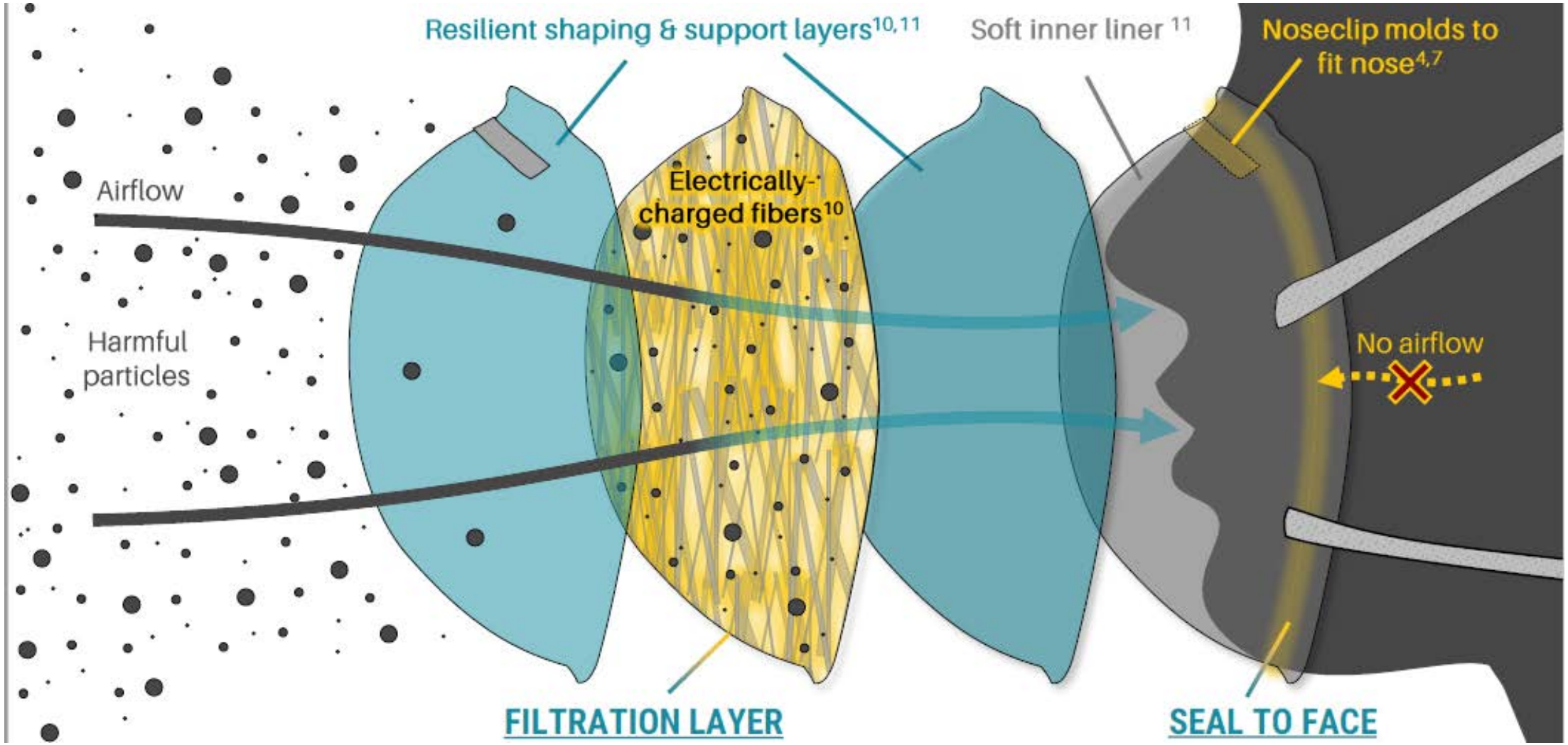
N95


Resilient shaping & support layers[10,11]
Soft inner liner [11]
Noseclip molds to fit nose[4,7]
Airflow
Harmful particles
Electrically-charged fibers[10]
No airflow
FILTRATION LAYER
SEAL TO FACE

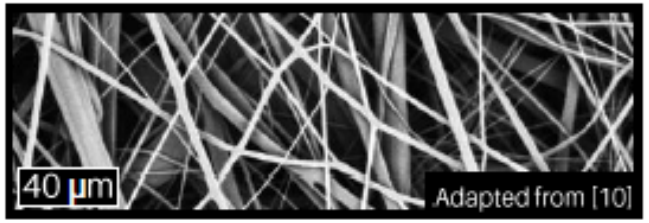
N95

KEY FUNCTIONAL FEATURES

FILTRATION LAYER

Primary filtration is provided by a layer of nonwoven electrically-charged melt-blown polypropylene fibers[10,11].

Electric charge on fibers enables high filtration efficiency and low resistance to breathing (low pressure drop)[10].



SEAL TO FACE

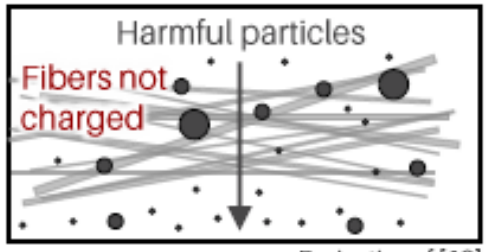
Proper seal forces air through filtration layer[4,5,6,7].

Procedures to ensure proper seal:

- Fit testing (yearly)[6]
- Don/doff procedure[5]
- Seal-checking procedure (every don)[7]

CAUTION!

Filtration efficiency can be reduced by physical damage to filter or static charge degradation[10].



Inadequate seal allows harmful particles to leak around respirator edges[4,6,8,9].

Inadequate seal may occur due to:

- Poor fit to user's face[6]
- Structural degradation (straps, noseclip)[8]
- Facial hair along sealing region[9]

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Standard Operating Procedure

- Written, contain info on all aspects of the RPP covered here today
- administered by a “suitably trained” RPA
- Tool kits provides that SOP, tailor to site

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Medical Screening

- Ensures people are physically able to perform job safely while wearing respirator
- Written procedures for medical determination
- Communicate well to staff-expectation
- Completed prior to Fit testing
- Reevaluated under certain circumstances
  - Respiratory condition
  - Deemed necessary (Q 1-8, answer yes)

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Medical Screening

- physician or another licensed health care professional (PLHCP)
- a nurse, who qualifies as a PLHCP can perform
- employees select their own provider
  - maintain contact with each
  - employee to be evaluated during working hours
  - employer pays for this screening
- provided a copy of RPP

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Medical Screening

CHECKLIST FOR MEDICAL EVALUATION

√ Check that the following has been done at your facility:

- ❑ All employees have been evaluated to determine their ability to wear a respirator prior to being fit tested for or wearing a respirator for the first time in your workplace.
- ❑ A physician or other licensed healthcare professional (PLHCP) has been identified to perform the medical evaluations.
- ❑ The medical evaluations obtain the information requested in *Sections 1 and 2, Part A of Appendix C of the standard, 29 CFR 1910.134. (See Attachment 3 at page 67)*
- ❑ Employees are provided follow-up medical exams if they answer positively to any of *questions 1 through 8 in Section 2, Part A of Appendix C* of the standard, or if their medical examination reveals that a follow-up exam is needed.
- ❑ Medical evaluations are administered confidentially during normal work hours, and in a manner that is understandable to employees.
- ❑ Employees are provided the opportunity to discuss the medical evaluation results with the PLHCP.
- ❑ The following supplemental information is provided to the PLHCP before he or she makes a decision about respirator use:
  - Type and weight of the respirator.

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Small Entity Compliance Guide for the Respiratory Protection Standard

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Training

- Prior to first use and as needed
- Identify potential exposure to hazards and health effects
- Respirator fit, improper fit, usage, limitations, and capabilities for maintenance, usage, cleaning,storage
- Inspecting, donning, removal, seal check, troubleshooting
- Explaining respirator program (policies, procedures, OSHA standard, resources)

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Donning and Doffing

- Perform a user seal check
- Perform hand hygiene before donning further PPE

- Improper doffing puts wearer at risk
- Proper doffing must accompany decontamination.

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Fit Testing

- Complete prior to wearing
- Repeated annually
  - Under certain circumstances
    - Respiratory condition
    - Altered body composition by 10%
- Tool kits has
  - Checklist to conduct test
  - Documentation template

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Fit Testing

- Conditions can interfere with seal
- Can use without:
  - interfering with the face-to-facepiece seal
  - distorting the employee's vision
  - causing physical harm

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Maintenance Program

- Proper use
- Replacement: per manufacturer's recommendation, defective
- Cleaning
- Inspected
- Storage
- Repair

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COVID-19 N95 DECON & REUSE

DECON OR DISPOSE?

SAVE FOR DECON

No soil
Nosepiece intact
Straps intact
No tears
No deformation

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N95DECON

Labeled N95 FFRs

Different hospitals have chosen to label either the N95 facepiece or strap.[6] The effect of labeling on N95 integrity or decontamination is unknown.

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Replacement

DISCARD

Soiling

Broken Strap

Nosepiece Detachment

Deformation

Tearing

Nosepiece Fracture

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Cleaning

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Inspection

PAPR

1. Inspect the High Efficiency Particulate Air (HEPA) filter
   - Breathing tube and body
   - Signs of damage
2. Examine the hood for physical damage (notify RPA if found)
3. Check for airflow prior to use
4. Follow manufacturer's recommendations
   - Maintenance
   - Battery recharging

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Inspection

N95 - disposable

1. Examine the face piece for structural integrity
   Discard
   - nicks, abrasions, cuts, or creases in seal area
   - if the filter material is physically damaged or soiled
1. Check the respirator straps
   - no cuts or other damage
2. Metal nose clip
   - in place and functions properly
3. Disposable respirators are not to be stored after use are to be discarded

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Inspection

Respirators Certified in Other Countries that are Similar to the N95		
Country	Performance Standard	Acceptable Classifications
Australia	AS/NZS 1716:2012	P3; P2
Brazil	ABNT/NBR 13694:1996 and 13697:2010	P3; P2
China	GB 2626-2006	KN100; KP100; KN95; KP95
Europe	EN 149-2001	FFP3; FFP2
Japan	JMHLW-2000	DS/DL3; DS/DL2
Korea	KMOEL-2017-64	Special 1st
Mexico	NOM-116-2009	N100; P100; R100; N99; P99; R99; N95; P95; R95

Storage

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Repair

- Not working properly
- When an employee detects
  - changes in breathing resistance
  - facepiece leakage
  - before allowing the employee to return to the work area

Who performs the repair work?

- Appropriately trained person
  - use NIOSH-certified parts
  - designed for that particular respirator
- Manufacturer or a technician
  - Valves, regulators, and alarms

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Evaluate

- Annually
- Feedback and surveys from staff
- New hazards or changes in policy
- Recommendations for any needed changes

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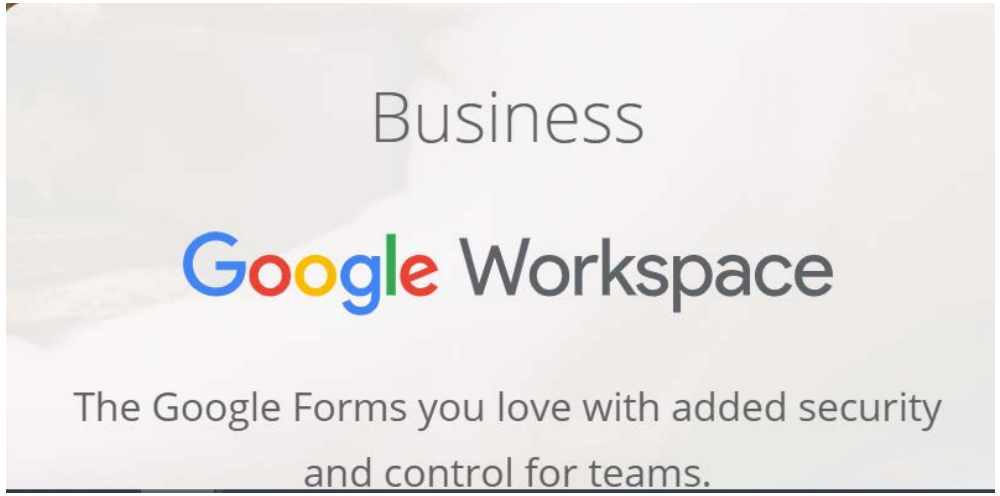
Evaluate/Management Tools

Doodle PREMIUM

Connect the right people at the right time

Less busy work, more meaningful work

Collaborate more, schedule less



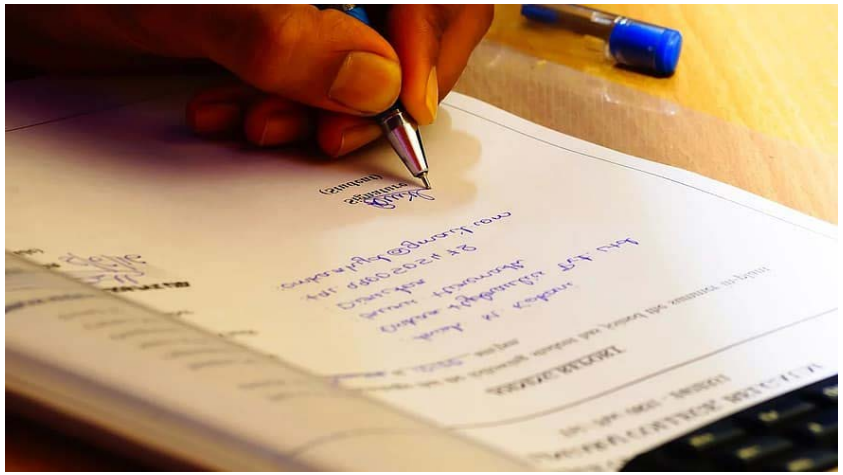
smartsheet Products Solutions Pricing Customers Support

More than a platform for work, Smartsheet is a platform for change.

SurveyMonkey

Documentation and Records

- Written RPP, SOP
- Medical Records for RPP participants
- Record of trainings
- Record of Fit Tests
- Length of time of employment plus 30 years



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Documentation and Records

You must retain certain records to

- assist you in auditing the adequacy of your respiratory protection program
- facilitate employee involvement
- allow OSHA to inspect your records and make compliance determinations

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Tool Kit Overview

- Template of a Respiratory Protection Program
- Attachment A
  - OSHA Respirator Medical Evaluation Questionnaire
- Attachment B
  - Fit Testing Documentation Form
- Attachment C
  - Fit Testing Checklist
- Attachment D
  - Respiratory Protection Program Evaluation Form
- Attachment E
  - Staff Evaluation Form
- Attachment F
  - OSHA Quick Card of Respirator Types
- References and Additional Resource

Final Thoughts and Next Steps

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References

Environmental Health and Safety, *Kansas State University*
https://www.k-state.edu/safety/occupational/respiratory-protection/

N95DECON
https://www.n95decon.org

OSHA Respiratory Protection
https://www.osha.gov/respiratory-protection

Respirator Protection Program. *Minnesota Department of Health.*
https://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/rpp/index.html

Strategies for Optimizing the Supply of N95 Respirators
https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html

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