

Back to Work Safely: Respiratory Protection

ASSP Webinar – July 15, 2020

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- This presentation contains an overview of general information and should not be relied upon to make specific decisions.
- Completing this program does not certify proficiency in safety and health.
- Information is current as of the date listed for this presentation, and requirements can change in the future.
- Local country or regional regulations and guidance varies, and the responsibility for the correct implementation of a RPE program in compliance with local country or regional regulations is with the employer.
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Topics

Are Respirators Needed?

- Risk Assessment
- Control Methods

Face Coverings, Masks and Respirators – Comparison

- “Source Control” vs. Respiratory Protection

Respirator Selection Considerations

- Particulate protection
- Respirator types

Optimizing Use of Respirators

- Alternative types, extended use, decontamination, etc.



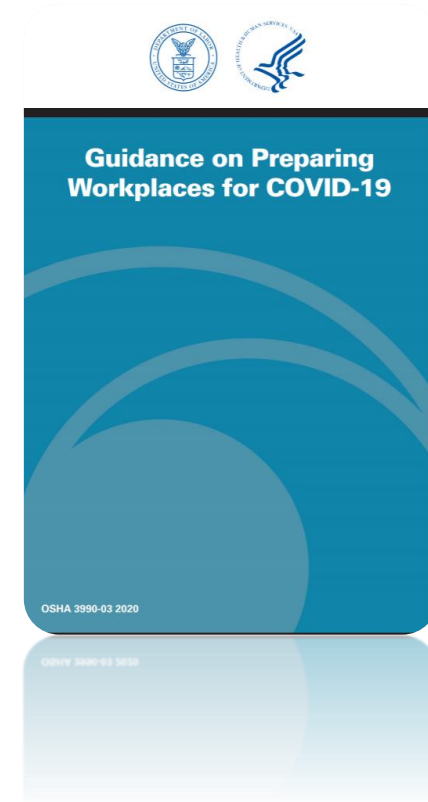
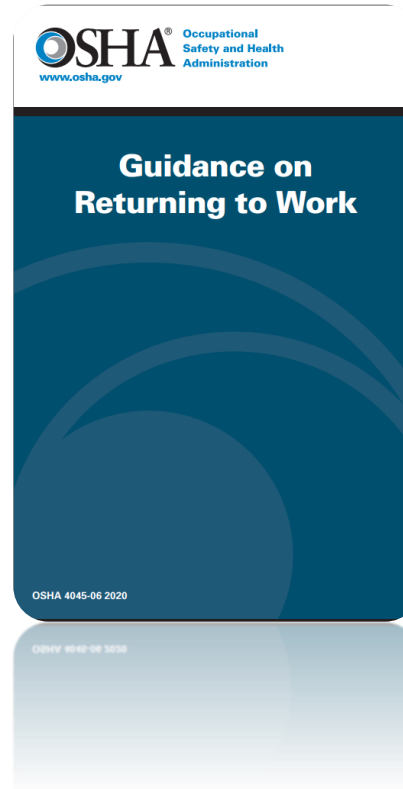
**Are Respirators
Needed?**

Getting Started



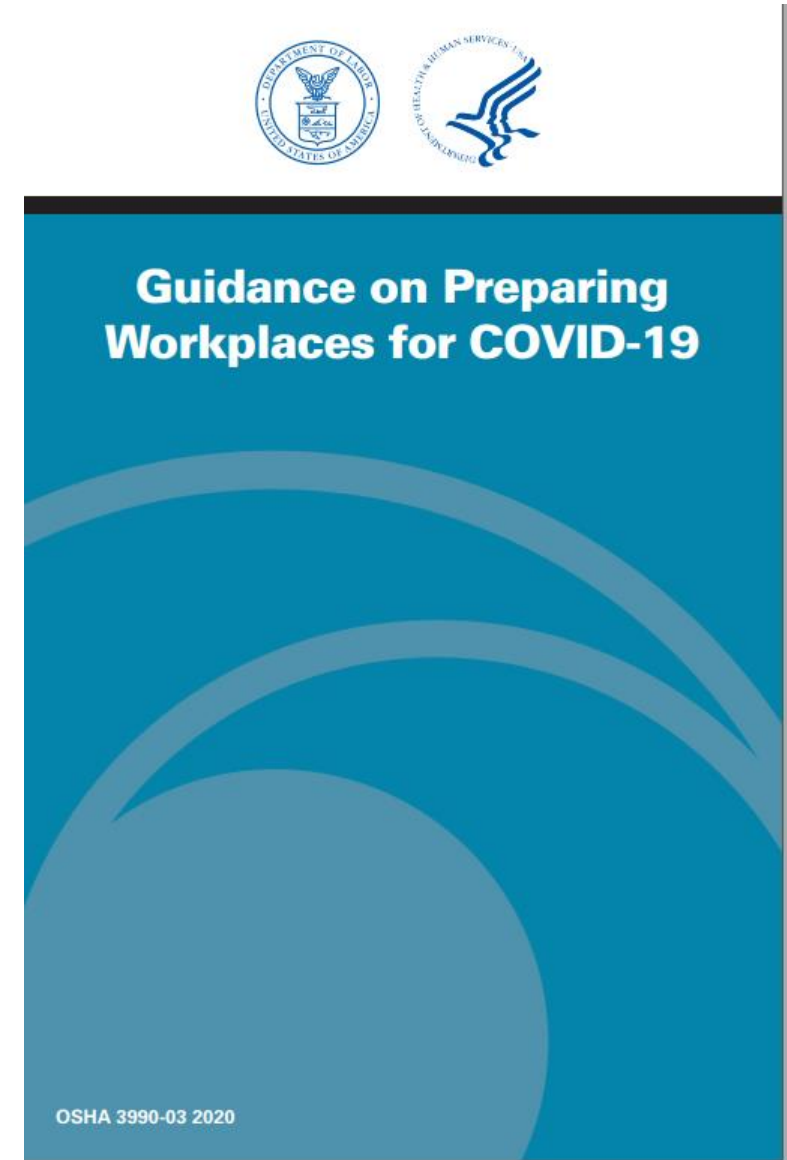
Available Resources

Get information and guidance from trusted sources

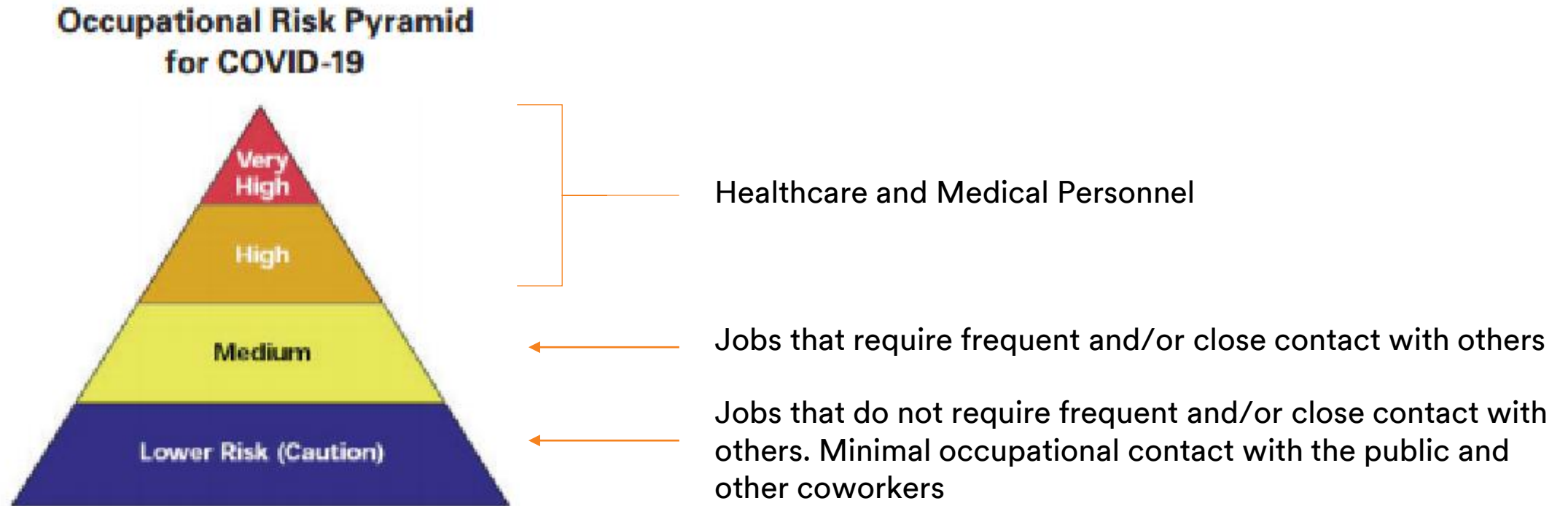


OSHA COVID-19 Guidance

- Key elements of a COVID-19 plan
- Suggested Risk Assessment Categories
- Suggested controls by risk level
 - Engineering
 - Administrative
 - PPE



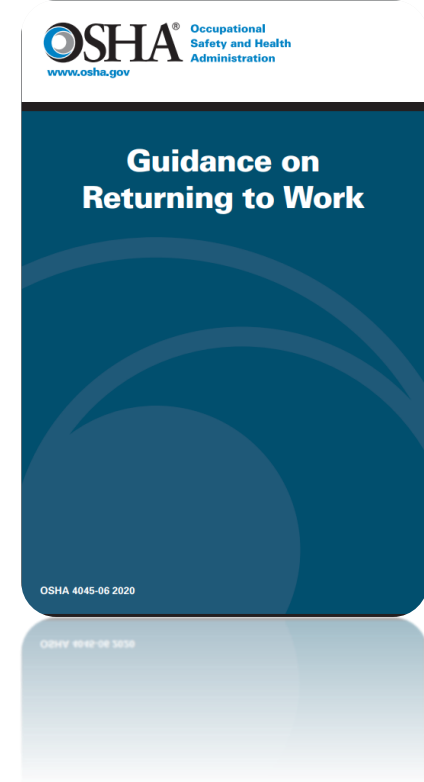
OSHA Guidance on Preparing Workplaces for COVID-19: Risk Pyramid



Risk Assessment

<https://www.osha.gov/Publications/OSHA4045.pdf>

- Every work activity is unique
- Evaluate the workplace individually and practically
- Follow local regulations
- Check with other peers in Industry
- Make simple changes



Evaluating the Need for Respirators

<https://multimedia.3m.com/mws/media/1833462O/evaluating-the-need-for-respirators-during-covid-19-pandemic-non-healthcare-workplaces.pdf>



Technical Bulletin
April, 2020

Evaluating the Need for Respirators during COVID-19 Pandemic – Non-healthcare Workplaces

Summary

During the COVID-19 pandemic, many employers need to determine whether their workers require personal protective equipment (PPE) to help reduce their potential on-the-job exposure to the virus which causes the disease. **According to a non-regulatory guidance document published by the US Occupational Safety and Health Administration (OSHA), which takes a hazard banding approach to categorizing work, the majority of non-medical workers do not require the use of respiratory protection.**

[Guidance on Preparing Workplaces for COVID-19 \(OSHA\)](#)

Background

The COVID-19 Pandemic has resulted in hundreds of thousands of confirmed cases as of April 2020. COVID-19 is a pneumonia-like disease caused by the virus SARS-CoV-2, which is transmitted primarily via airborne droplets, aerosols, and also likely via surface contact.

To help reduce the chance of acquiring the disease, the World Health Organization (WHO) advises members of the public to wash their hands regularly, avoid touching their eyes, mouth and nose, cover their nose and mouth with a tissue or their elbow (not their hand) when sneezing and coughing, and avoid close contact with anyone who is coughing or sneezing or showing signs of respiratory illness. At this time WHO has not made any recommendations for personal protective equipment (PPE) use by the general public, including respirators and masks.

[Coronavirus disease \(COVID-19\) advice for the public \(WHO\)](#)

Non-healthcare Workplaces during COVID-19

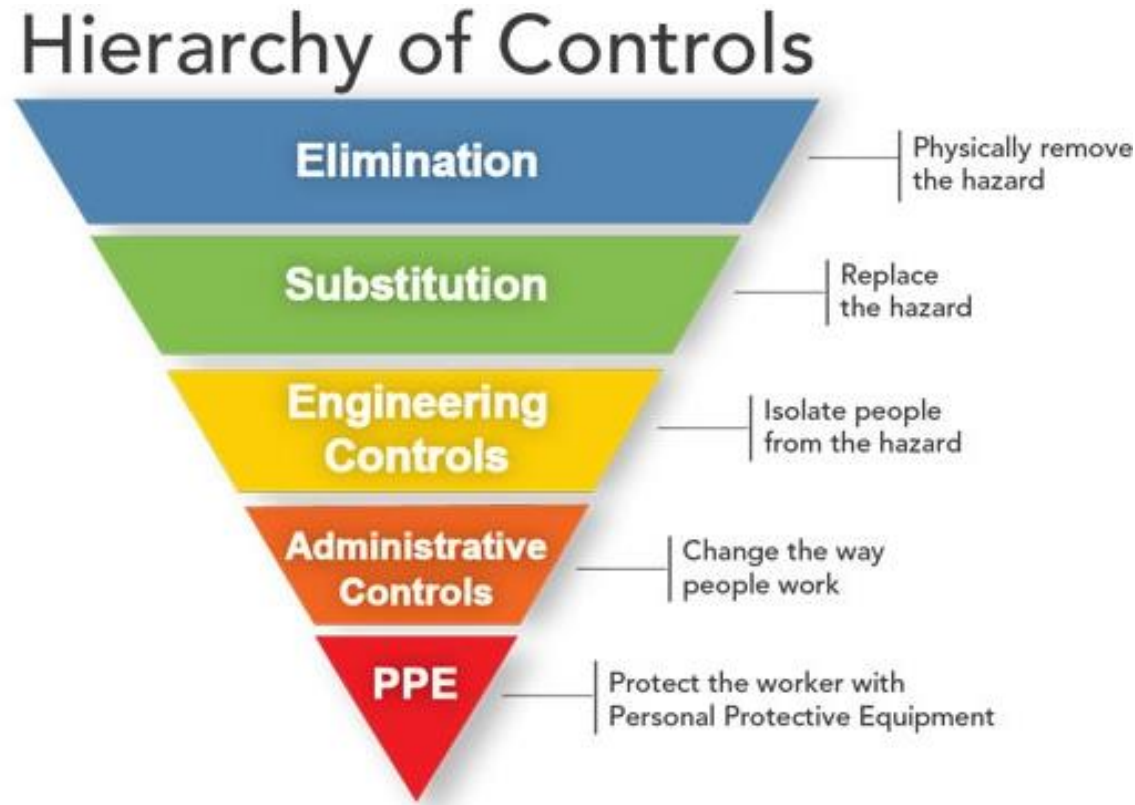
In many parts of the world, governments have issued "Stay at Home" or "Shelter in Place" orders to promote social distancing measures, requiring business to temporarily close. But many operations, such as utilities, transportation, food and other necessary goods, essential construction, etc., are considered critical and must remain operational.

In light of COVID-19, employers around the world have been needing to consider the possibility of PPE to their workers, in many cases for the first time.

Several sets of guidelines have been published to help employers prepare for and cope with the COVID-19 pandemic:

- [Getting Your Workplace Ready for COVID-19 \(WHO\)](#)

Hierarchy of Controls



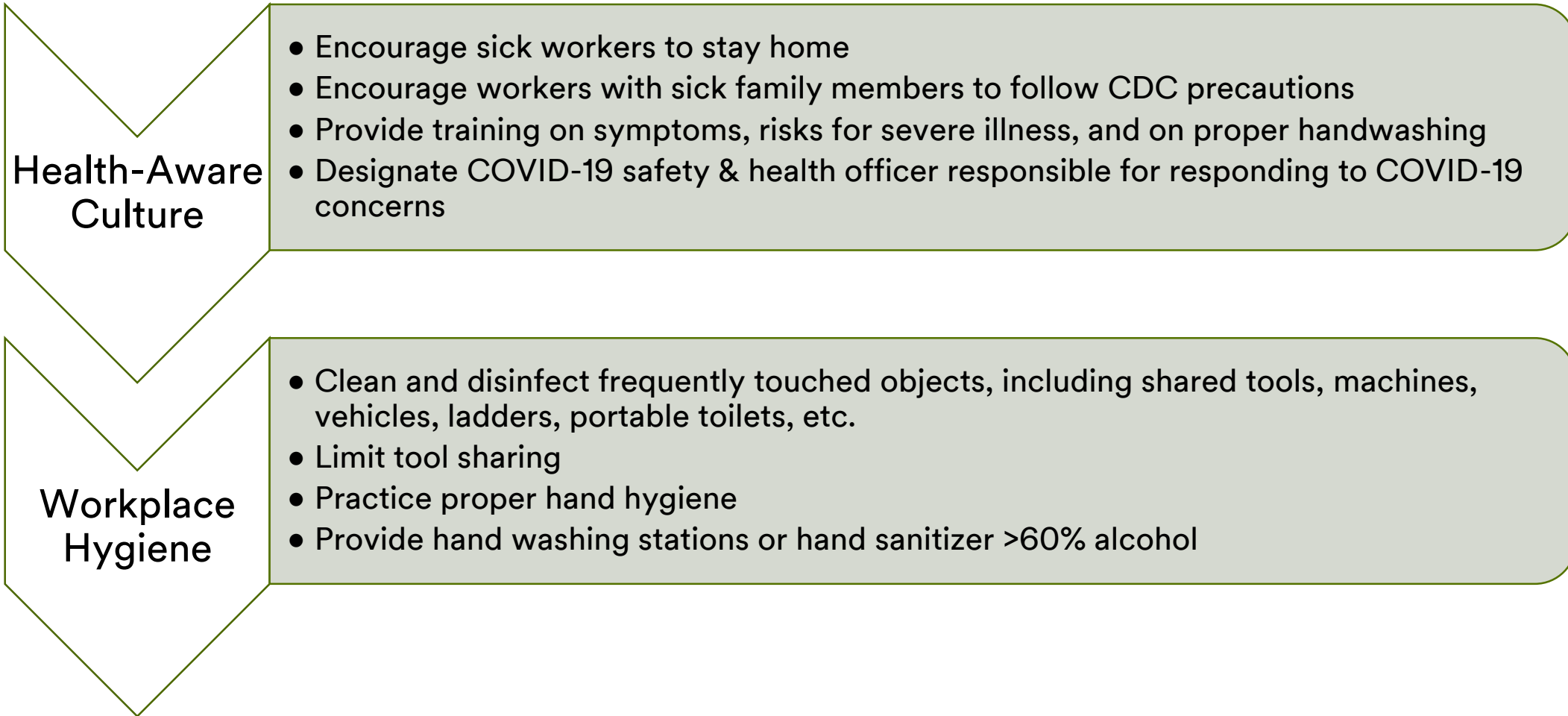
- **Elimination:** Focusses on eliminating / removing the hazard altogether
- **Substitution:** Looks at the materials used in the process and considers there's a suitable alternative that's safer
- **Engineering Controls:** examine what engineering controls can be installed in the existing process, applications or facilities to reduce exposure to the hazard at source
- **Administrative controls:** the last of the collective controls such as safety signage, job rotation, PPE zones
- **PPE :** PPE is classified as the least effective and reliable control measure in the hierarchy of that requires correct selection of adequate and suitable PPE

Promoting productive workplaces
through safety and health research / **NIOSH**®

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

<https://www.cdc.gov/niosh/topics/hierarchy/default.html>

Workplace Programs – Disrupt Chain of Transmission



Compiled from OSHA, CDC, WHO guidance

Select COVID-19 Engineering & Administrative Controls

Engineering Controls

Barriers – 6 feet travel distance face to face

Administrative Controls

Physical distancing

Restrict access or limit capacity in enclosed areas such as elevators, trailers, small spaces, shared vehicles, and break areas

Modify work schedules to stagger trades, or minimize mixing of shifts

Limit in-person meetings

Designate “lanes” in hallways/walkways

Face coverings as source control – **not a substitute for distancing!**

When these controls are not feasible, respiratory protection may be necessary.

- OSHA Guidance on Returning to Work

If workers wear cloth face coverings, is 6-ft distance still required?

“Yes. Cloth face coverings are not a substitute for social distancing measures.”

- OSHA COVID-19 FAQs ([link](#))

Compiled from OSHA, CDC, WHO guidance





**Face Coverings
Masks
Respirators**

Respiratory Protection Devices and Masks

	Not PPE ¹	Considered PPE by OSHA ¹				
	Homemade face covering 	Procedure Mask 	Surgical Mask 	Filtering Facepiece Respirators 	Elastomeric Respirators 	PAPR with hood, helmet, or headcover 
Fitment	Loose	Loose	Loose	Tight	Tight	Loose
Recommended* as source control to help capture spit or mucous expelled by wearer	●	●	●	● (some models only)		
Tested for fluid resistance			●	● (some models only)		
Designed to help reduce the wearer's exposure to airborne particulate hazards when properly selected and worn				●	●	●
At >94-95% filtration efficiency against particulates**				●	●	●
Some components can be cleaned / disinfected and reused					●	●

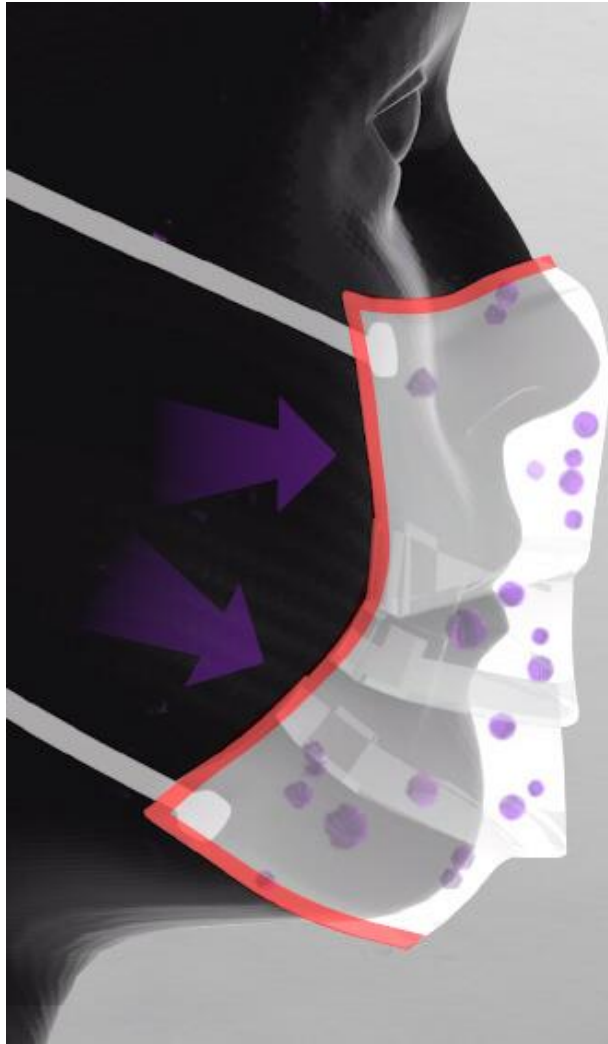
This table provides general information concerning the products shown. Always read and follow all user instructions and applicable guidance.

*Recommended by [CDC](#), [OSHA](#), and/or [FDA](#) as source control.

**when used with an N95, FFP2 or similar particulate filter

¹ OSHA Guidance on Returning to Work <https://www.osha.gov/Publications/OSHA4045.pdf>

Masks Vs. Respirator



Mask

INTENDED USE

Helps reduce the risk of large particles expelled by the wearer — such as spit and mucous

FIT

Often fits loosely, leaving gaps between the mask and the face

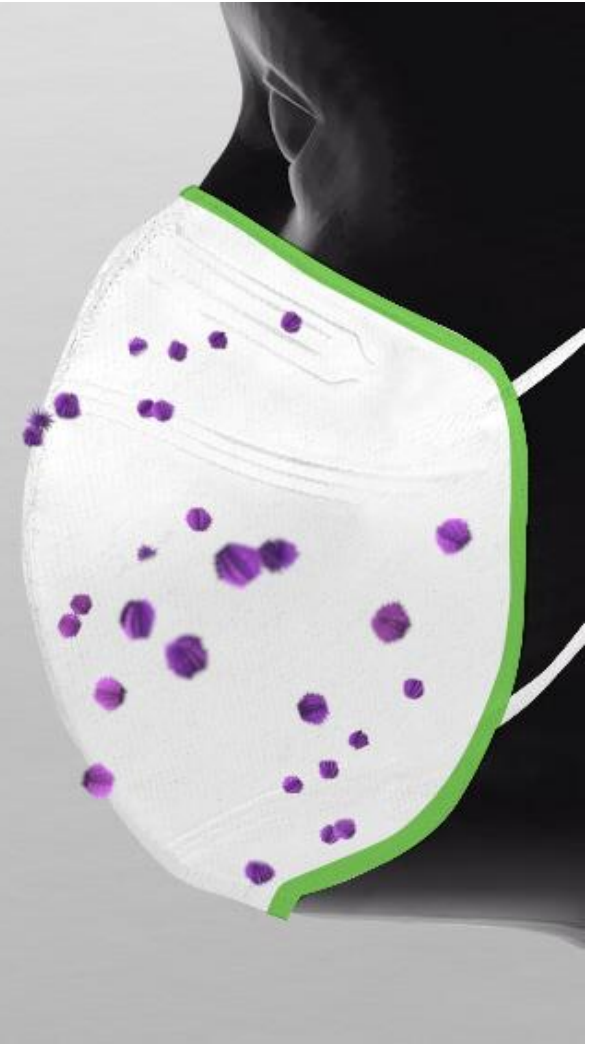
Respirator

INTENDED USE

Helps reduce the wearer's exposure to inhaling certain airborne particles

FIT

Designed to fit tightly and create a seal between the face and the respirator, forcing air to go through the filter





Valved vs Unvalved Respirator

Valved Respirators



Inhalation: As the wearer inhales, air is pulled through the respirator.

- Inhaled air is filtered

Exhalation: As the wearer exhales, the respirator is filled with warm, moist air.

- Exhaled air exits through the valve and filter media
- Exhaled air passing through valve is not filtered

Unvalved Respirators



Inhalation: As the wearer inhales, air is pulled through the respirator.

- Inhaled air is filtered

Exhalation: As the wearer exhales, the respirator is filled with warm, moist air.

- Exhaled air passes through filter media
- Exhaled air is filtered

Half-mask respirator & Loose-fitting PAPR

Half-mask respirator



Inhalation: As the wearer inhales, air is pulled through the attached particulate filters.

- Inhaled air is filtered

Exhalation: As the wearer exhales, the mask is filled with warm, moist air.

- Exhaled air exits through valve
- Exhaled air is not filtered.

Loose-fitting PAPR



A battery-powered motorized fan pulls air through a filter, supplying a continuous flow of air into a hood or headtop.

The continuous flow of filtered air is greater than the volume of air inhaled by the wearer. Therefore, there is a constant flow of air escaping from the hood or headtop.

Although the hood or headtop is loose-fitting, there is a face or neck seal.



Respirator Selection

Need for Personal Protective Equipment (PPE)

PPE to Perform the Job

(Hazard-based Risk Assessment)

Dust	Falling objects
Mist	Trips
Fume	Falls
Gasses	Work at height
Vapor	Confined spaces
Hand hazards	Electrical hazards
Flying objects	Biological Hazards

PPE for Prevention

(If no other PPE required in workplace)

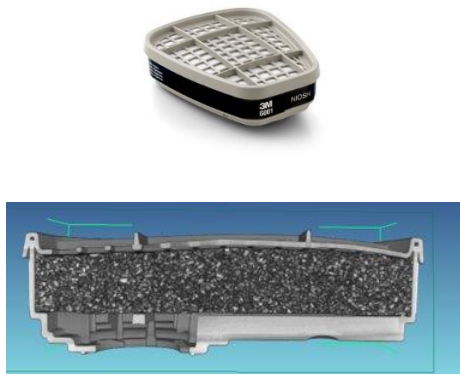
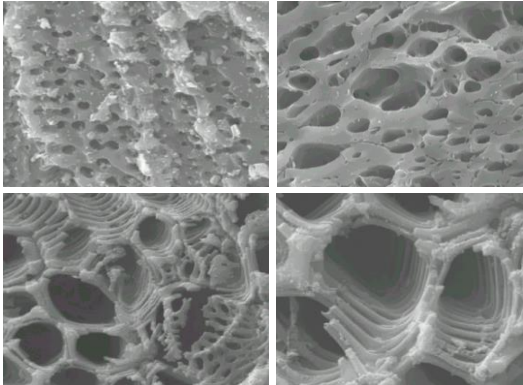
Face masks
Respirators
Gloves

Respiratory Hazards – Types

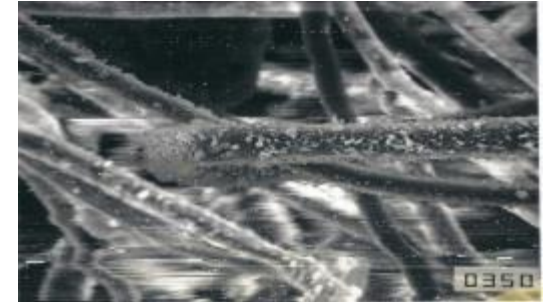
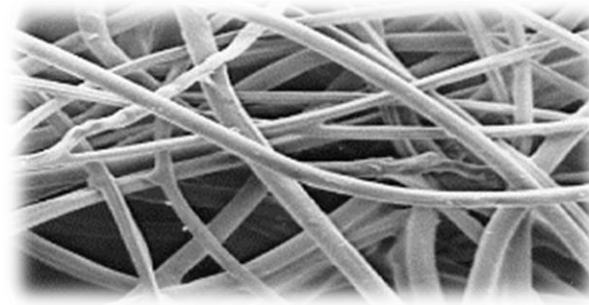
- Oxygen Deficiency (Air)



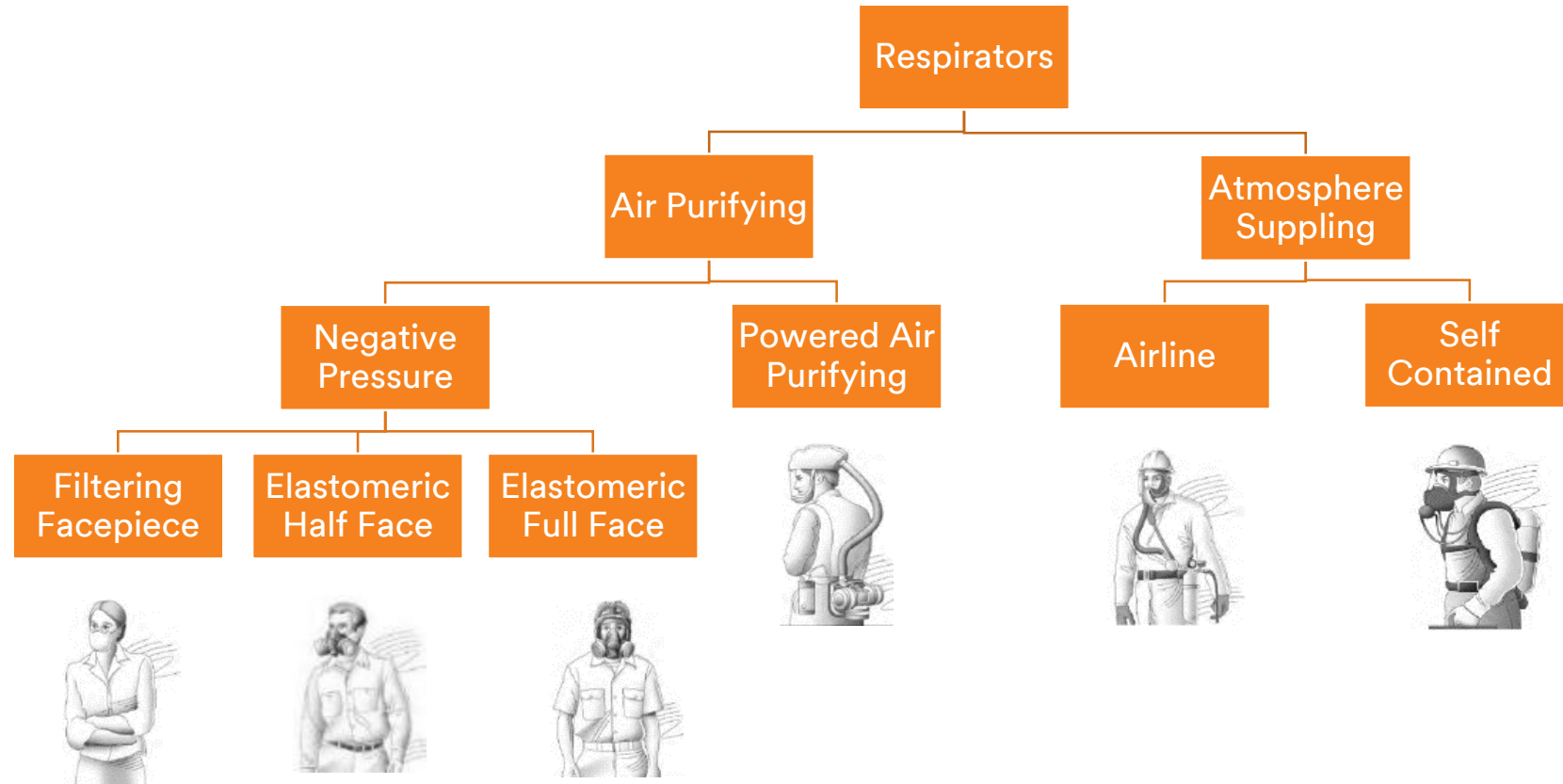
- Gaseous (Cartridge)
 - Gases/Vapors



- Particulates (Filter)
 - Dusts, Mists, Fumes
 - Fibers, Micro-organisms



Respirators – many options for various applications.



Does not include all
respirator types or styles

Types of Respirators

Require fit testing

Tight-Fitting

Half Facepiece



Disposable



Reusable

Full Facepiece



Loose-Fitting



Helmet



Hood

US OSHA Assigned Protection Factors



* For hoods and helmets the employer must have evidence provided by the respirator mfg. that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1000.

Air Purifying Filters

Negative Pressure



PAPR



NIOSH Filter Categories (42 CFR Part 84)			
Minimum Filter Efficiency	Resistance to Oil		
	N (No Oil)	R (Oil Resistant)	P (Oil Proof)
95%	N95	R95	P95
99%	N99	R99	P99
100% (99.97%)	N100	R100	P100*



HEPA only

* For Powered Air Purifying Respirators (PAPRS) there is only one filter class, HE (high Efficiency)



Optimizing Use of Respirators

Optimizing supply of filtering facepiece respirators

Control of Hazard

- Hierarchy of controls

Qualitative Vs Quantitative fit test

- Conserve facepieces

Alternative types / classes of certified RPE

- Selection of reusable respirators

Service life extensions of RPE

- Methods to extend use

Decontamination

RPE approved to other standards

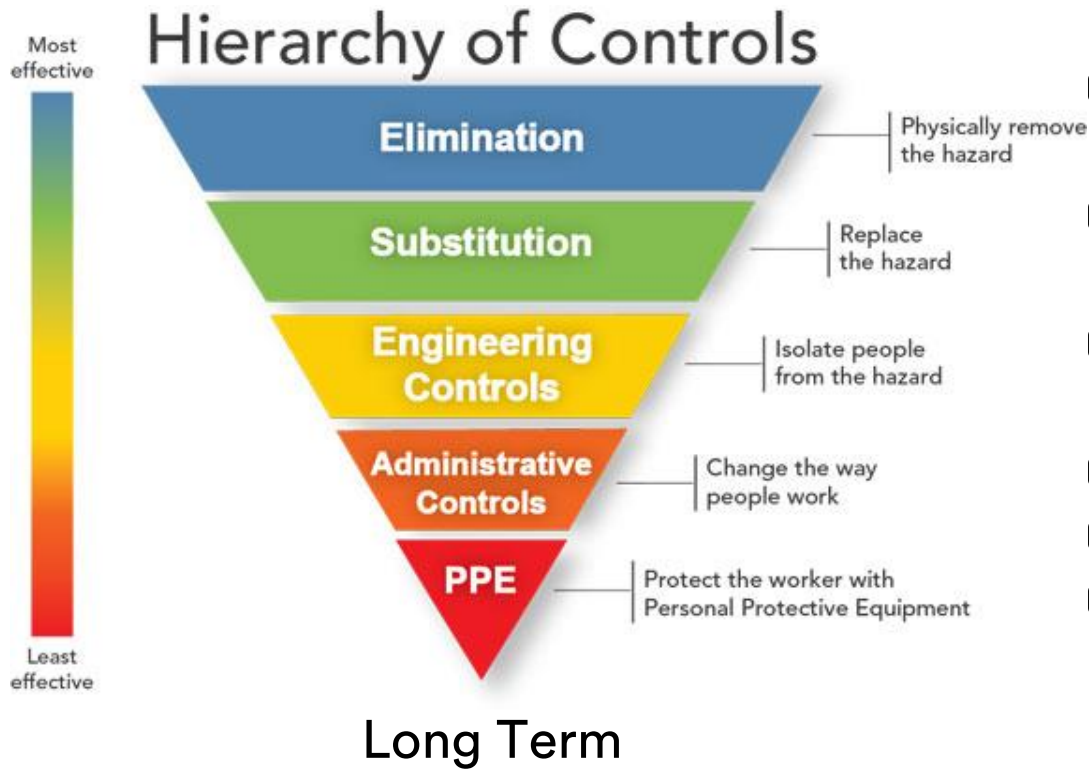
- Consider counterfeit
- FEMA possible resource

Adapted from : CDC - Interim Guidance for Conserving and Extending Filtering Facepiece Respirator Supply in Non-Healthcare Sectors
<https://www.cdc.gov/coronavirus/2019-ncov/community/conserving-respirator-supply.html>

Control of Hazard

Control of Hazard

- Short term – Implement immediate feasible engineering and administrative controls
- Long term – Eliminate or substitute hazards and implement engineering controls where possible



- ✓ Shifting work to ventilated hoods , Bio safety cabinets etc
- ✓ Temporary change in process : Wet methods instead of Dry
- ✓ Reschedule non essential work which may require RPE
- ✓ Adjust schedules to reduce amount of RPE needed
- ✓ Limiting the number of workers to minimum
- ✓ Prioritize RPE use

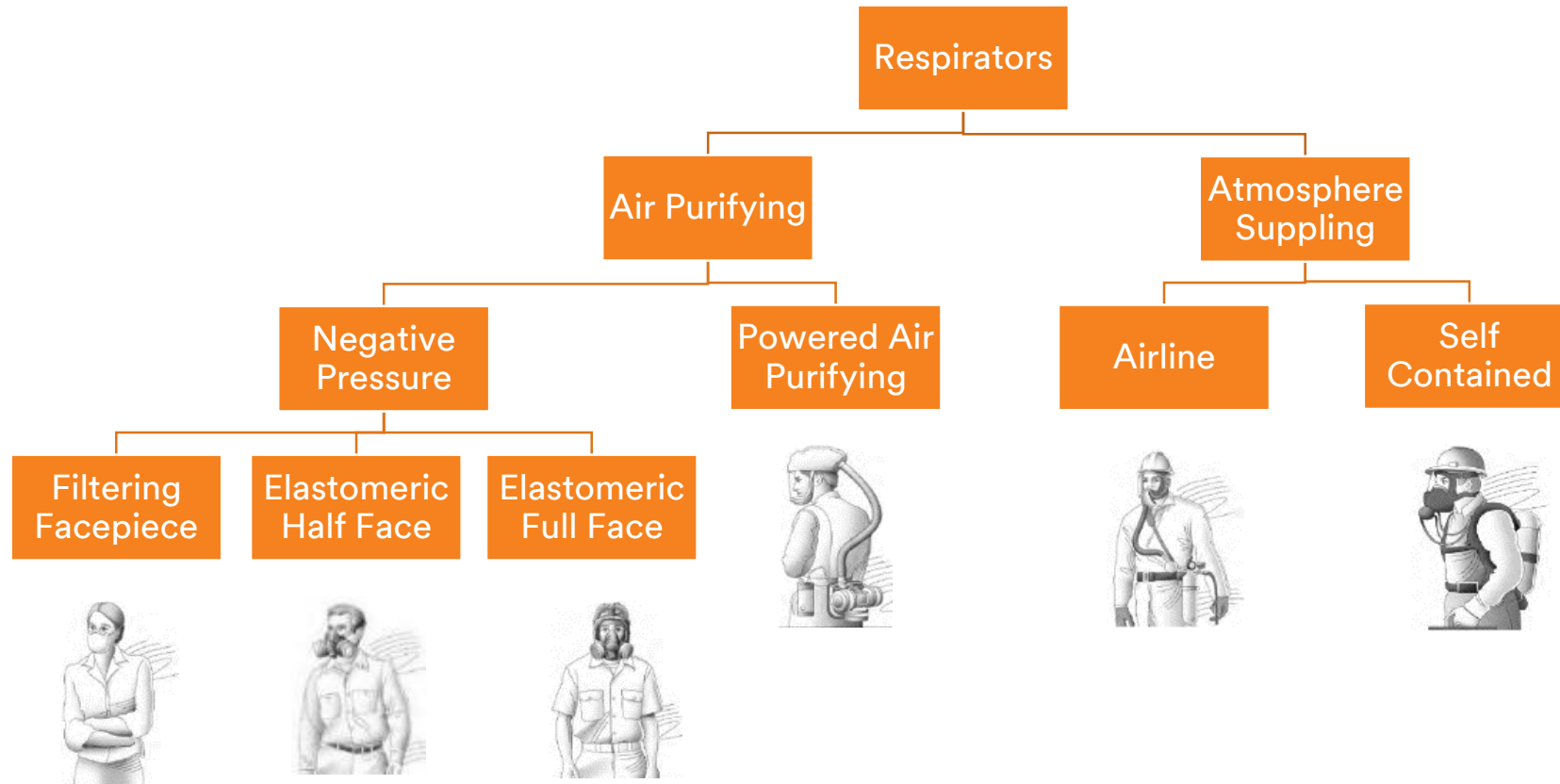
Fit Testing

Qualitative Vs Quantitative fit test



Alternatives

Alternative types / classes of certified RPE



Continued...

Alternative types / classes of certified RPE

Examples of respirator types that may be available when availability of surgical N95 respirators is limited include:

		
Non-surgical filtering facepiece respirators	Reusable (elastomeric) respirators	Powered air-purifying respirators (PAPRs)

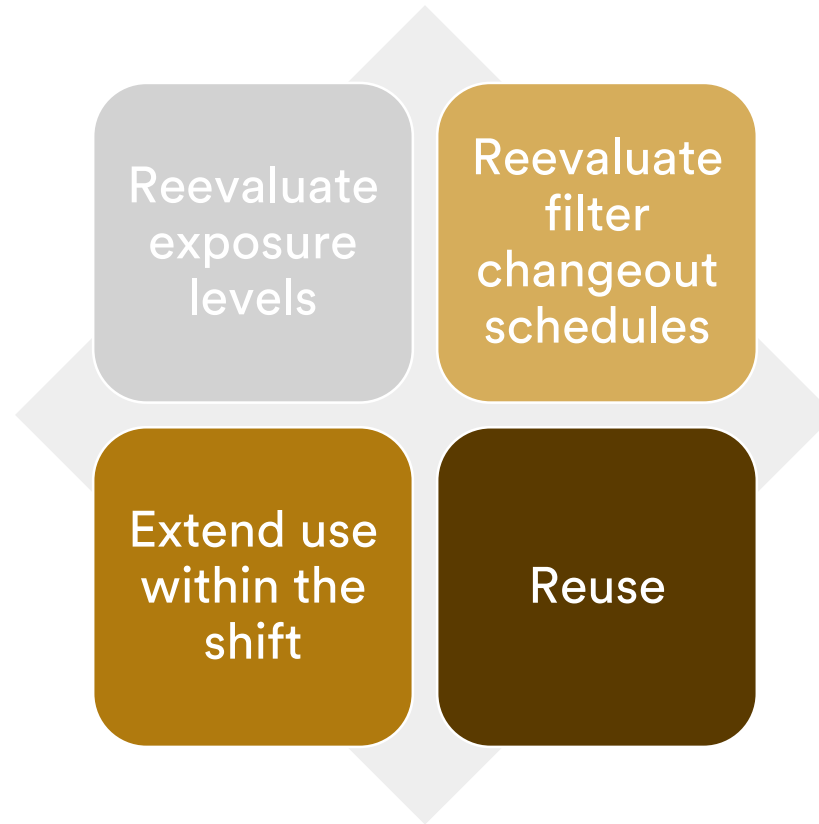
Attributes, Potential Advantages and Potential Limitations of each are described in our technical bulletin:

<https://multimedia.3m.com/mws/media/1803705O/possible-alternatives-to-surgical-filtering-facepiece-respirators-healthcare.pdf>



Service Life Extension of RPE

Service life extensions of RPE



Can I decontaminate N95s?

Service life extensions of RPE

<https://multimedia.3m.com/mws/media/1824869O/decontamination-methods-for-3m-n95-respirators-technical-bulletin.pdf>

Decontamination must

- Be effective against the agent
- Not damage filtration
- Not affect fit
- Be safe for the wearer

Decontamination Methods for 3M Filtering Facepiece Respirators such as N95 Respirators

Background

NOTE: Please revisit this document often for frequent updates.

During this public health emergency of the COVID-19 pandemic outbreak, many healthcare institutions are experiencing shortages of filtering facepiece respirators such as N95 respirators. The U.S. Center for Disease Control and Prevention (CDC) has issued [Strategies for Optimizing the Supply of N95 Respirators](#). In this document the CDC recommends conventional capacity strategies, contingency capacity strategies (during expected shortages) and crisis strategies (during known shortages). Contingency and crisis strategies include use of N95s past their shelf life, extended use of N95s, use of other types of respirators, use of respirators from other countries, and re-use of respirators, ahead of decontamination of respirators.

The CDC discusses reuse and extended use of N95s as a Crisis strategy at [Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings](#) and has published guidelines on [Decontamination and Reuse of Filtering Facepiece Respirators](#). CDC says research indicates the virus survives for up to 72 hours on a variety of surfaces. Therefore, CDC is recommending a wait and reuse approach before consideration of other decontamination approaches.

Key excerpt from [CDC guidelines](#): "The healthcare worker will wear one respirator each day and store it in a breathable paper bag at the end of each shift. The order of FFR use should be repeated with a minimum of five days between each FFR use. This will result in each worker requiring a minimum of five FFRs, providing that they put on, take off, care for them, and store them properly each day. Healthcare workers should treat the FFRs as though they are still contaminated and follow the precautions outlined in our reuse recommendations. If supplies are even more constrained and five respirators are not available for each worker who needs them, FFR decontamination may be necessary."

OSHA has published an [enforcement memorandum](#) indicating that during the COVID-19 pandemic, U.S. employers may consider using certain decontaminating methods in their procedures for reusing N95s. This dispensation stands only if employers have exhausted many other options – such as the strategies recommended by the CDC – to reduce the need for respiratory protection and/or manage the use of respirators to try to ensure adequate supply. OSHA emphasizes that employers should look to respirator manufacturers for guidance regarding which decontamination methods are compatible with specific respirator models.

Evaluating Decontamination Methods for Filtering Facepiece Respirators

Per the CDC guidelines, a number of sterilization companies are assessing decontamination processes for N95 filtering facepiece respirators (FFRs). The U.S. Food and Drug Administration (FDA) is evaluating granting [Emergency Use Authorizations \(EUAs\)](#) for such decontamination systems during the COVID-19 outbreak. Issued EUAs for Personal Protective Equipment with regards to COVID-19 will be available on the FDA website: [Personal Protective Equipment EUAs](#)

3M is collaborating with several sterilization companies and institutions that are investigating ways for hospitals to safely decontaminate 3M's N95 FFRs in line with the [CDC guidance on Decontamination and Reuse of Filtering Facepiece](#)

CDC – Crisis capacity strategy

Decontamination and reuse of filtering facepiece respirators

- Only employed as a crisis capacity strategy
- CDC and NIOSH do not recommend decontamination and reuse of FFRs

SARS-COV-2 can
survive up to

72

hours on a variety of
surfaces

One mitigation strategy



Decontamination of Reusable (elastomeric) & PAPRs



See local/national guidance
See manufacturer's instructions



PPE needed?

<https://multimedia.3m.com/mws/media/1793959O/cleaning-and-disinfecting-3m-reusable-respirators-following-potential-exposure-to-coronaviruses.pdf>

<https://multimedia.3m.com/mws/media/1793956O/cleaning-and-disinfecting-3m-paprs-following-potential-exposure-to-coronaviruses.pdf>

Decontamination of Filters and Cartridges

Image				
Name	Disc Filters	Pre-Filter Pads	7093/7093C/603X	6092X/609X Cartridges
Wipe outside surface as indicated in disinfecting product user instructions with damp cloth and disinfecting solution				

Image					
Name	603	501	Pre-Filter Pad	603/501/Pre-filter Assembly	501/Pre-filter pad/cartridge Assembly
Cleaning Method	Wipe, spray or soak	Wipe, spray or soak		Wipe outside surfaces as indicated in disinfecting product user instructions with damp cloth and disinfecting solution. Do not allow disinfecting solution to reach the pre-filter.	

Possible Facepiece disinfection methods:

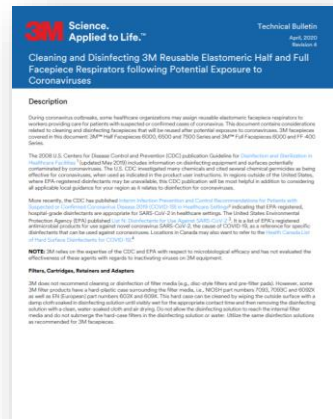
Sodium hypochlorite solution (at a free chlorine concentration of 5,000 ppm) with 1-minute contact time.

70% Isopropanol solution with 1-minute contact time **Note:** Soaking in IPA solution resulted in degradation of inhalation valves after ~ 20 cycles, for some 3M facepieces. Pay close attention to this area during inspection, for all facepieces.

* Read the complete bulletin

[Cleaning and Disinfecting 3M Reusable Elastomeric Half and Full Facepiece Respirators following Potential Exposure to Coronaviruses](#)

Video



Other Country Approved Respirators

RPE approved to other standards

Different Standards adoption for RPE

- ★ N95 (United States)
- ★ FFP2 (Europe)
- ★ KN95 (China)
- ★ P2 (Australia/New Zealand)
- ★ Korea 1st class (Korea)
- ★ DS2 (Japan)

Comparison of global Filtering facepiece respirator classes -
Technical bulletin:

<https://multimedia.3m.com/mws/media/1791500O/comparison-ffp2-kn95-n95-filtering-facepiece-respirator-classes-tb.pdf>

3M Personal Safety Division

Based on this comparison, it is reasonable to consider China KN95, AS/NZ P2, Korea 1st Class, and Japan DS FFRs as "equivalent" to US NIOSH N95 and European FFP2 respirators, for filtering non-oil-based particles such as those resulting from wildfires, PM 2.5 air pollution, volcanic eruptions, or bioaerosols (e.g. viruses). However, prior to selecting a respirator, users should consult their local respiratory protection regulations and requirements or check with their local public health authorities for selection guidance.

Certification/ Class (Standard)	N95 (NIOSH-42C FR84)	FFP2 (EN 149-2001)	KN95 (GB2626-20 06)	P2 (AS/NZ 1716:2012)	Korea 1 st Class (KMOEL - 2017-64)	DS (Japan JMWLW- Notification 214, 2018)
Filter performance – (must be ≥ X% efficient)	≥ 95%	≥ 94%	≥ 95%	≥ 94%	≥ 94%	≥ 95%
Test agent	NaCl	NaCl and paraffin oil	NaCl	NaCl	NaCl and paraffin oil	NaCl
Flow rate	85 L/min	95 L/min	85 L/min	95 L/min	95 L/min	85 L/min
Total inward leakage (TIL)* – tested on human subjects each performing exercises	N/A	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (arithmetic mean)	≤ 8% leakage (individual and arithmetic mean)	≤ 8% leakage (arithmetic mean)	Inward Leakage measured and included in User Instructions
Inhalation resistance – max pressure drop	≤ 343 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min) ≤ 500 Pa (clogging)	≤ 350 Pa	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (at 30 L/min) ≤ 240 Pa (at 95 L/min)	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	Varied – see above	85 L/min	Varied – see above	Varied – see above	40 L/min
Exhalation resistance – max pressure drop	≤ 245 Pa	≤ 300 Pa	≤ 250 Pa	≤ 120 Pa	≤ 300 Pa	≤ 70 Pa (w/valve) ≤ 50 Pa (no valve)
Flow rate	85 L/min	160 L/min	85 L/min	85 L/min	160 L/min	40 L/min
Exhalation valve leakage requirement	Leak rate ≤ 30 mL/min	N/A	Depressuriza- tion to 0 Pa ≥ 20 sec	Leak rate ≤ 30 mL/min	visual inspection after 300 L/min for 30 sec	Depressuriza- tion to 0 Pa ≥ 15 sec
Force applied	~245 Pa	N/A	~1180 Pa	~250 Pa	N/A	~1,470 Pa
CO ₂ clearance requirement	N/A	≤ 1%	≤ 1%	≤ 1%	≤ 1%	≤ 1%

*Japan JMWLW-Notification 214 requires an Inward Leakage test rather than a TIL test.

Resource for 3M respirators imported by FEMA

3M.com/airlift

- Product Comparison Tables
- User Instructions
- Training Videos
- Donning Posters
- Frequently Asked Questions
- Technical Support Helpline

3M Respirators in International Packaging Made Available in US during COVID-19

3M is continuing to address the COVID-19 pandemic with many tactics to help protect those responding to the outbreak, including healthcare workers and first responders. In early April, 3M reached agreement with the U.S. government on a plan that, with the Trump Administration's assistance, will enable FEMA to import 168.3 million respirators into the United States over a 3-month period starting in April, from our plants in Asia.

Read this if you have received 3M respirators in international packaging

The Food and Drug Administration requires this information be made available to everyone who has received these respirators.

[Key Reference Information](#)

Jump to:

[Counterfeit Concerns](#) | [Product Comparison Charts](#) | [Frequently Asked Questions](#)

Protection in Any Language

Protection comes in a lot of languages, but in any language, when you choose 3M, you can be sure it was made to help protect you.

[WATCH VIDEO](#)

How can I tell if this is authentic/genuine 3M product?

Did you receive the product directly from FEMA or from FEMA via a State Authority? Was your organization required to pay for the product?

No entity other than FEMA is directly acquiring these models from 3M and distributing them in the United States.

The Federal Emergency Management Agency (FEMA) is importing the following models of 3M respirators from Asia: 9010, 9010CN, 9132, 9542, 9542V, 9552, 9552, 9552V, 9541, 9541V, 9501, 9501V, 9501V, 9501V, 9501V, 9501V, 9501V, and 9501V. These products will be distributed by FEMA, free of charge, to the entities they determine need them the most. If the respirator is one of the model numbers above and has been distributed for free and can be traced to a FEMA source of supply, it is more likely to be an authentic product.

Report Fraud

[DOWNLOAD BULLETIN \(PDF, 122.39 KB\)](#)

[REPORT PRODUCT FRAUD](#)

Product Comparisons

The US Centers for Disease Control and Prevention (CDC) has determined certain approvals from other countries are similar to the N95 because they have similar levels of filtration and assigned protection factors of 10. KN95 is one of the approvals that the CDC has determined is similar to the National Institute for Occupational Safety and Health (NIOSH) N95.

Although KN95 respirators have an assigned protection factor of 10 in China, they are not considered similar to N95 because the filter efficiency is at least 90%, rather than at least 95%.

[DOWNLOAD TECHNICAL BULLETIN \(PDF, 1.6 MB\)](#)



Unvalved KN95



Valved KN95



Cup Shaped

How to know if this product Fake or Counterfeit?

3M recommends purchasing 3M respirators from 3M authorized distributors or dealers, which will increase the likelihood that you will receive authentic 3M products.

3M does not recommend purchasing respirators from unknown sellers on multi-party internet e-commerce platforms.

Here are some tips to help avoid counterfeit products:



3M respirators will be sold in 3M packaging, with model-specific user instructions accompanying the product.

3M respirators should not be sold individually, or without packaging (including user instructions).

3M has strict quality standards, and therefore products that have missing straps, strange odors, blocked valves, misspelled words, etc. are likely not authentic 3M respirators



Other Wear Considerations

FAQs for Work Places

<https://multimedia.3m.com/mws/media/1792539O/respiratory-protection-faq-workplace.pdf>

Key Questions:

- Can FFRs be re-used?
- Is there a time limit to wearing an FFR?
- Can FFRs be shared?



Introduction

This is a general document that is not specific to any particular airborne contaminant, including viruses and bacteria.

During public health events – such as wildfires, times of high air pollution, airborne-transmissible disease outbreaks, etc. – employers may need to provide respiratory protection to workers who usually do not require respiratory protection. Examples include workers whose jobs keep them outdoors during air pollution events, or workers with prolonged or frequent exposure to large groups of people during disease outbreak events.

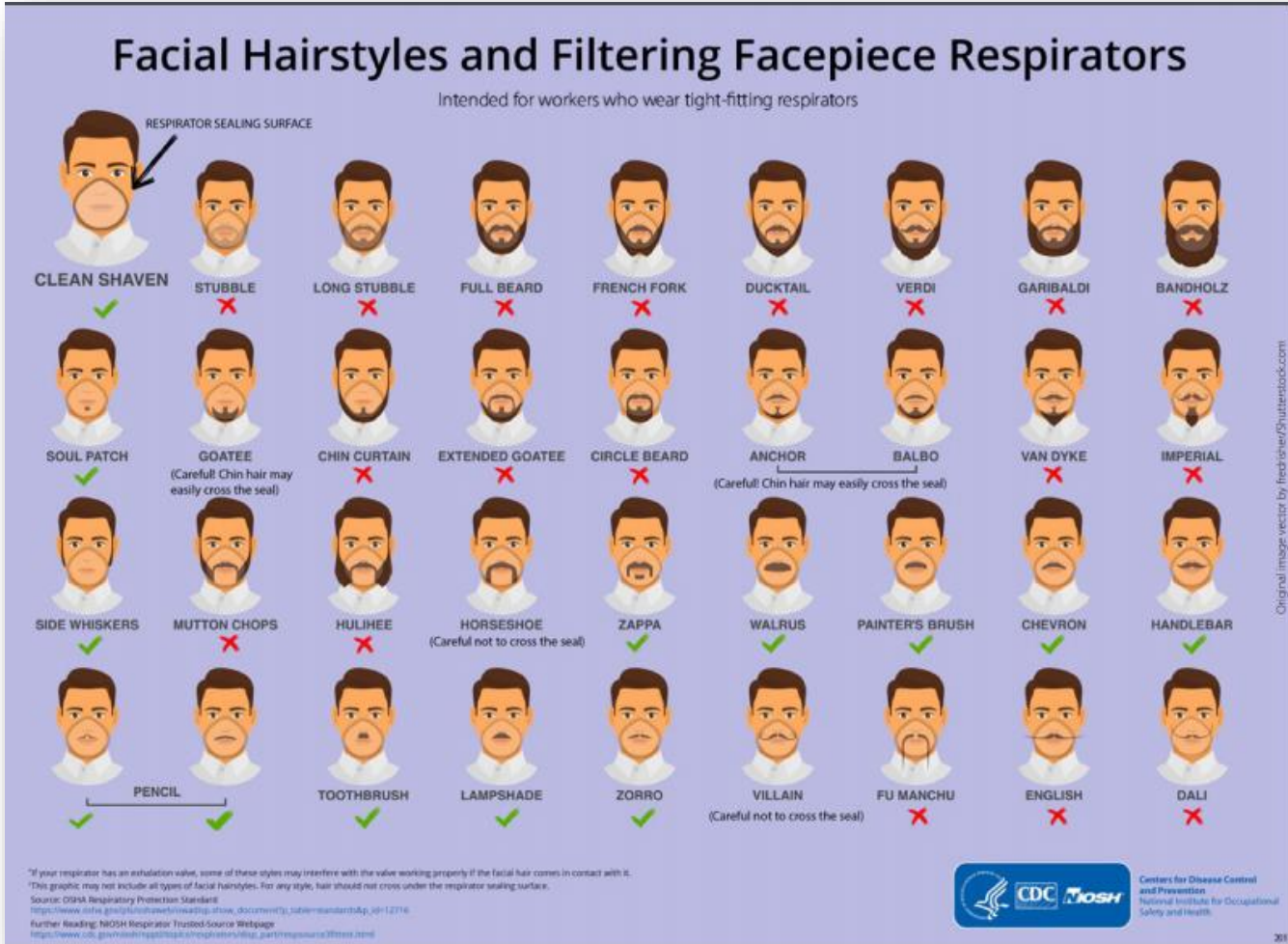
When respiratory protection is recommended for workers and the public, the recommendations focus on government approved respirators such as "N95, FFP2 or equivalent." When used correctly, respirators can help reduce wearers' exposures to airborne particulate hazards such as dusts, mists and fumes – including particles so small that they can't be seen. Respirators contain filter material and are designed to form a seal with the wearer's face, so that air passes through the filter (instead of around the edges) before it is inhaled. A common choice is a disposable filtering facepiece respirator (FFR), such as those shown below.



No matter how well a respirator seals to the face and how efficient the filter media is, wearers should expect a small amount of leakage inside any respirators. No respirator will eliminate exposures entirely. Please read the questions and answers below to give you a better understanding of how respirators work. If you have additional questions about the use of 3M respirators, please consult our website or your local 3M office. The following are generalized responses to some frequently asked questions, to help provide clarity around the following topics:

- 1) [Respirators vs. Masks](#)
- 2) [Types of Respirators](#)
- 3) [How Respirators Work](#)
- 4) [How to Use Respirators](#)
- 5) [Comfort Considerations](#)
- 6) [Aesthetic Considerations](#)

What about people with Facial hair?



- Facial hair can impair the sealing of the respirator
- “Clean shave policy” for all tight fitting respirators
- Contact your EHS / HSE to understand more
- Contact 3M to know more about fit testing of respirators
- Follow local regulatory guidelines

<https://www.cdc.gov/niosh/npptl/pdfs/FacialHairWmask11282017-508.pdf>

Thank You