



Qualitative Fit Testing

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Occupational Health Consultants





Online Program

❖ If you are having audio issues, you can

- call in on your phone
 - Phone Number: +1 312-626-6799
 - Webinar ID: 972 5904 9893
 - Passcode: 5367440
- Use the live transcript (closed captions)

❖ Slides available as a PDF

- Link in the chat
- slh.wisc.edu/occupational/wiscon/workplace-covid-19-consulting/



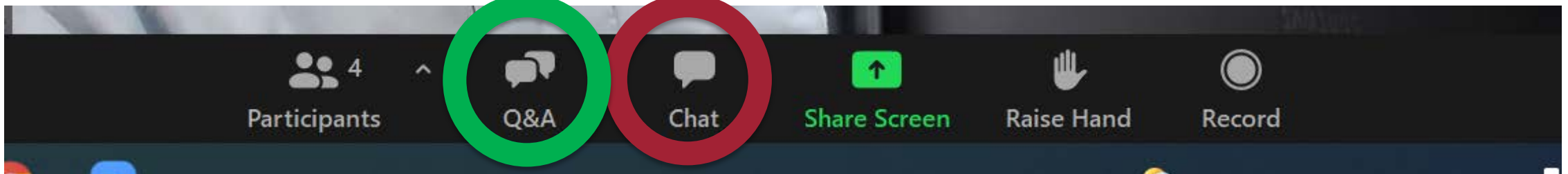
Online Program

❖ Place questions in the zoom Q&A section, not chat

Q&A



CHAT





Online Program

- ❖ Complete quiz and you can get a letter/certificate of attendance.
 - 22 Questions
 - Link to quiz will be available at the end of the program
 - Case sensitive password will be provided at end of the program
- ❖ Keep answering quiz **until you get the answer correct** to go to the next question



Introduction

Kelli



Background of Respiratory Protection Program

- ❖ Conduct a workplace risk assessment to determine necessity of RPP 1910.134
- ❖ Components of RPP include:
 - ❖ Written Program
 - ❖ Respirator Selection
 - ❖ Medical Evaluations
 - ❖ Fit Testing
 - ❖ Proper Use of Respirator
 - ❖ Respirator Maintenance
 - ❖ Employee training
 - ❖ Program Evaluation



POLL QUESTION 1

❖ Do you have a written respiratory protection program for your employees?

- Yes
- No



Respiratory Protection Based on Risk Assessment

❖ Hazard Exceeds Levels.

- COVID Risk Assessment – Working with Known/Suspect COVID-19
- **FULL respiratory protection program (1910.134)**

❖ Hazard Below Levels (No COVID-19), Voluntary Use.

- Filtering facepiece respirator
 - 1910.134(c)(2)(ii)
- All other respirators
 - 1910.134(c)(2)





Respiratory Protection Program

- ❖ Administered by trained program administrator
- ❖ Provide at no cost:
 - ❖ Respirators
 - ❖ Training
 - ❖ Medical evaluations
- ❖ Written program with worksite specific procedures
- ❖ Copies of program must be kept by the employer
- ❖ Other records to be maintained:
 - ❖ Medical evaluations
 - ❖ Fit test records




Program Resources

- ❖ To watch our training videos visit: <http://www.slh.wisc.edu/ppe-decon-uv-c/respiratory-protection-program-requirements-covid/>
- ❖ Fit test checklist with written respiratory protection plan template: <https://uwmadison.app.box.com/file/754699201950?s=nt1uh234b9p4q6mv76kykysds0dyb6zd>
- ❖ Online list of medical evaluation providers: <https://uwmadison.app.box.com/file/756650575212?s=l2sws9brzrfbm5wrrzp3or2h1p8pnm3f>



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4 PPE Decon UV-C

[Respiratory Protection Program Requirements – COVID](#)
[PPE DECON – RPP Program Requirements \(Aug 2020\)](#)
[PPE Decon – Safe Conservation Webinar \(June 2020\)](#)
[PPE-Decon – UVC-Users](#)
[PPE-Decon – UVC-General](#)
[PPE Decon – Nebraska](#)
[PPE Decon – ETC Toaster](#)
[PPE Decon – Cellulose Fibers](#)

Respiratory Protection Program Requirements for COVID-19

- This is an online, webpage, training program which details the OSHA requirements for a respiratory protection program.
- The intended audience for this training is the person(s) responsible for administering a workplace respiratory protection program. This training content is neither intended nor appropriate for use as required employee training for workplace respirator users.
- The scope of this training is limited and specific to the use of filtering facepiece N95 respirators for protecting employees from COVID-19 infection in the workplace. Each section has an outline, videos to provide the content, and resource links.
- Users of this training can either start at the beginning, or jump to the specific area if interest. Later modules may rely on information provided by earlier modules.
- Resource links are provided as a convenience and not as an endorsement. The use of product images is only an example, and not an endorsement.

All Wisconsin businesses are eligible to receive **free** and **confidential** professional consultation assistance with implementation of their respiratory protection program and other workplace safety and health issues by contacting the **WSLH's WisCon On-Site Safety and Health Consultation Program** or the **COVID-19 Consulting Group**.



Log in to Box to save this file in your Recents and return to it at any time.

1 **Pre-Fit Test Checklist**

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Pre-Fit Test Checklist

☐ A Program Administrator has been designated.

- For a description of the Program Administrator's duties see [Appendix A](#) of this document.

☐ A written respiratory protection program (RPP) has been developed.

- A respiratory protection program template is available in [Appendix B](#) of this document.

☐ Respirator Selection

- Respiratory hazards in your workplace have been identified and evaluated. (See [Section 2: Selection](#), of the RPP template)
- Respirators are NIOSH-certified or listed in the [FDA's Emergency Use Authorization for Certain Non-NIOSH-Approved Filtering Face-Piece Respirators](#).
- A sufficient number of respirator sizes and models are provided for selection purposes.
- For more information on respirator selection watch the training videos provided here: [LINK](#)

☐ Employees have been medically evaluated for respirator use.

- A physician or other licensed healthcare professional (PLHCP) has been identified to perform the medical evaluations.
- (provider/service), will provide the medical evaluations.
- 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.
- As a resource a list of online medical evaluation services is available here: [LINK](#).
- For more information on medical evaluations watch the training video provided here: [LINK](#)

☐ Employee training has been completed



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**WisCon Consultation Program
COVID-19 Consulting Group**
2810 Walton Commons Lane
Madison, WI 53178
Phone: (608) 226-5246
covidconsulting@slh.wisc.edu

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<http://www.slh.wisc.edu/wiscon>

Online providers of respirator medical evaluations

The following is a list of providers that can perform online respirator medical evaluations. This is not an endorsement of any one provider. There may be providers that can perform this service that are not included on this list. This list is not a statement of quality or confidence in the services provided. Additions to this list are welcome, please send requests to covidconsulting@slh.wisc.edu.

3M

https://www.3m.com/3M/en_US/safety-centers-of-expertise-us/respiratory-protection/respirator-medical-evaluations/

Examinetics

<https://www.examinetics.com/our-services/respirator-fit-clearance/>

Dawson Compliance

<https://www.respclearance.com/>



POLL QUESTION 2

❖ How are you conducting medical evaluations for respirator use?

- An in-house medical professional.
- A local clinic.
- An online provider.
- We are not doing medical evaluations.



Medical Evaluations Overview

- ❖ Medical evaluations are required prior to fit-testing or use of a respirator
- ❖ Medical evaluations must be free for employees
- ❖ The respirator is used to protect employees' health and safety
- ❖ Not everyone is able to wear a respirator



Medical Evaluation

- ❖ Performed by a physician or other licensed healthcare professional (LHCP)
- ❖ Must consider employees health, specific job, respirator type, and working conditions
- ❖ Questions from Appendix C of the OSHA RPP standard must be answered
- ❖ Online evaluations can be used (cost associated)



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Making the Medical Determination

- ❖ Starts by reviewing questionnaire by LHCP
- ❖ May require a follow-up medical exam
- ❖ In some cases can require additional tests
- ❖ Employer must ensure follow-up exam or testing is done during normal working hours or at a time convenient to the employee



The Recommendation

- ❖ The healthcare professional will make a written recommendation
- ❖ This will focus on three things:
 - ❖ 1) How an employee is medically able to wear a respirator
With or without restrictions
 - ❖ 2) If an employee needs follow-up evaluations
 - ❖ 3) A statement that the healthcare professional has provided the employee a copy of their written recommendation
- ❖ The written recommendation cannot include any confidential medical information about the employee



When to be Medically Reevaluated

- ❖ Workers experience adverse health symptoms
- ❖ Have a change in health condition:
 - ❖ Become diagnosed with a heart condition, lung disease, significant changes to weight, or claustrophobia
- ❖ A medical professional, supervisor, or respirator program administrator deem it necessary
- ❖ A change in workplace conditions occur



Source: [Videoplasty.com](https://www.videoplasty.com), [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/), via Wikimedia Commons



Reminders

- ❖ When respirators are **required** by employers, **medical evaluations are required**
- ❖ Medical evaluations must be provided at **no cost** to the employee
- ❖ Questions from **Appendix C** of the RPP standard must be answered in the medical evaluation
- ❖ Medical evaluations must be done **before** fit testing can occur



POLL QUESTION 3

❖ When respirators are required for work, when is a medical evaluation required?

- Anytime
- Before fit testing
- It's not required.



Fit Testing

Robert



OSHA Requirements Qualitative Fit Testing

- ❖ Respirator protection program
 - Fit test before use





Purpose

- ❖ Train:
 - Program administrators
 - Fit test administrators

- ❖ Qualitative fit test:
 - Bitrex – Bitter tasting
 - Saccharin – Sweet tasting

- ❖ Valid for any particulate respirator
 - N95s



POLL QUESTION 4

❖ Qualitative fit testing depends on ...

- Taste
- Sight
- Instrument Readings

Planning for the Fit Test

- ❖ No eating, drinking, smoking or chewing gum 15 minutes prior to test
- ❖ Clean shaven
- ❖ Medically cleared



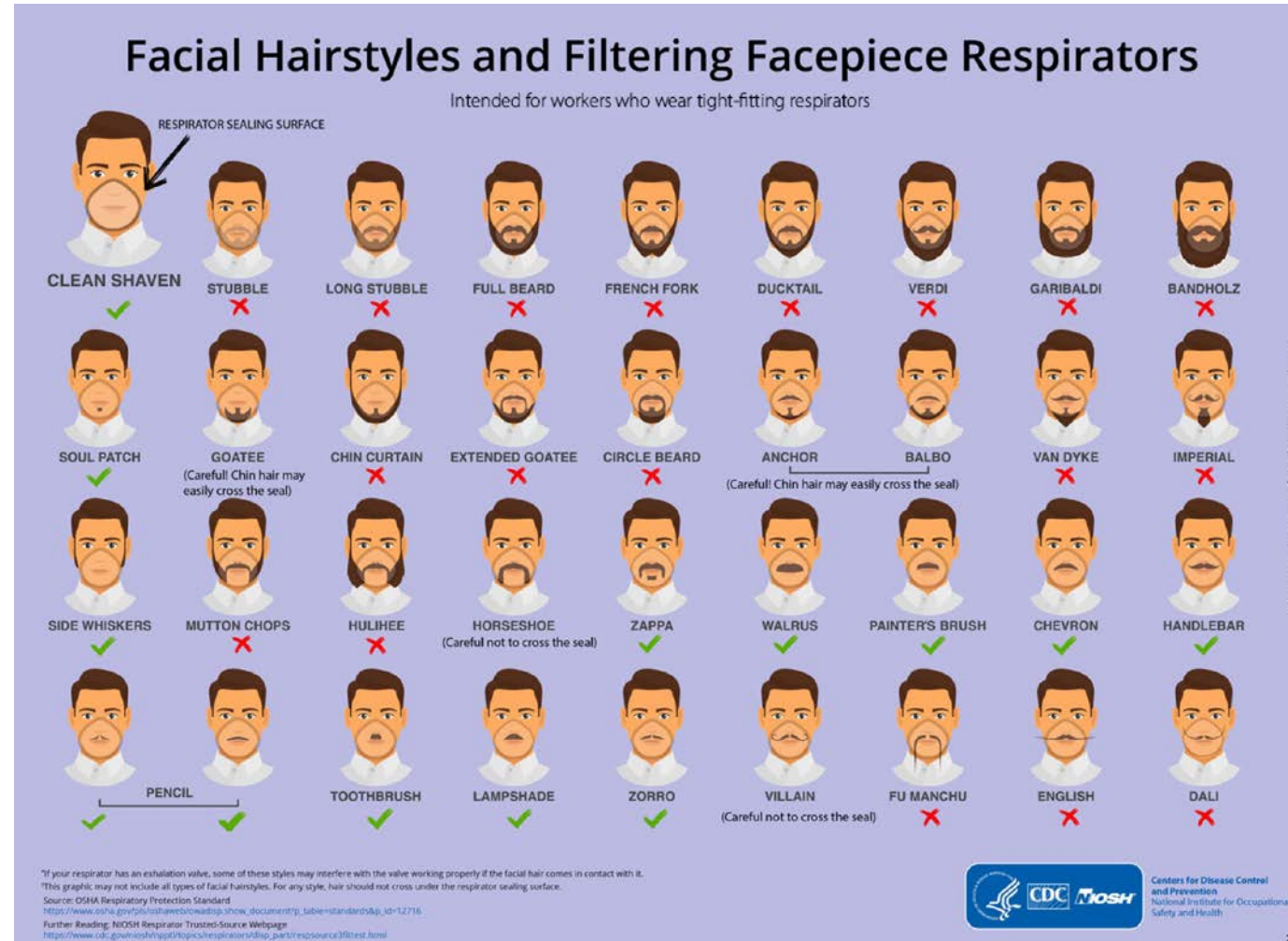
Respirator Sealing Surface

- ❖ Tight seal is required to protect user
- ❖ Ensure the following doesn't interfere:
 - Facial hair
 - Facial scars
 - Jewelry
 - Glasses or goggles
 - Other PPE





Facial Hair



<https://www.cdc.gov/niosh/npptl/pdfs/facialhairwmask11282017-508.pdf>

Differences for Fit Testing

- Consider:
 - The group you are working with
 - Barriers to fit testing
 - Cultural & religious differences



Respirator Selection

- ❖ Pick the most acceptable respirator
 - Provide sufficient # of models/sizes
 - Minimum of two sizes
- ❖ Don the most comfortable mask
 - Wear for several minutes to assess
- ❖ Assess for comfort
- ❖ Assess for fit





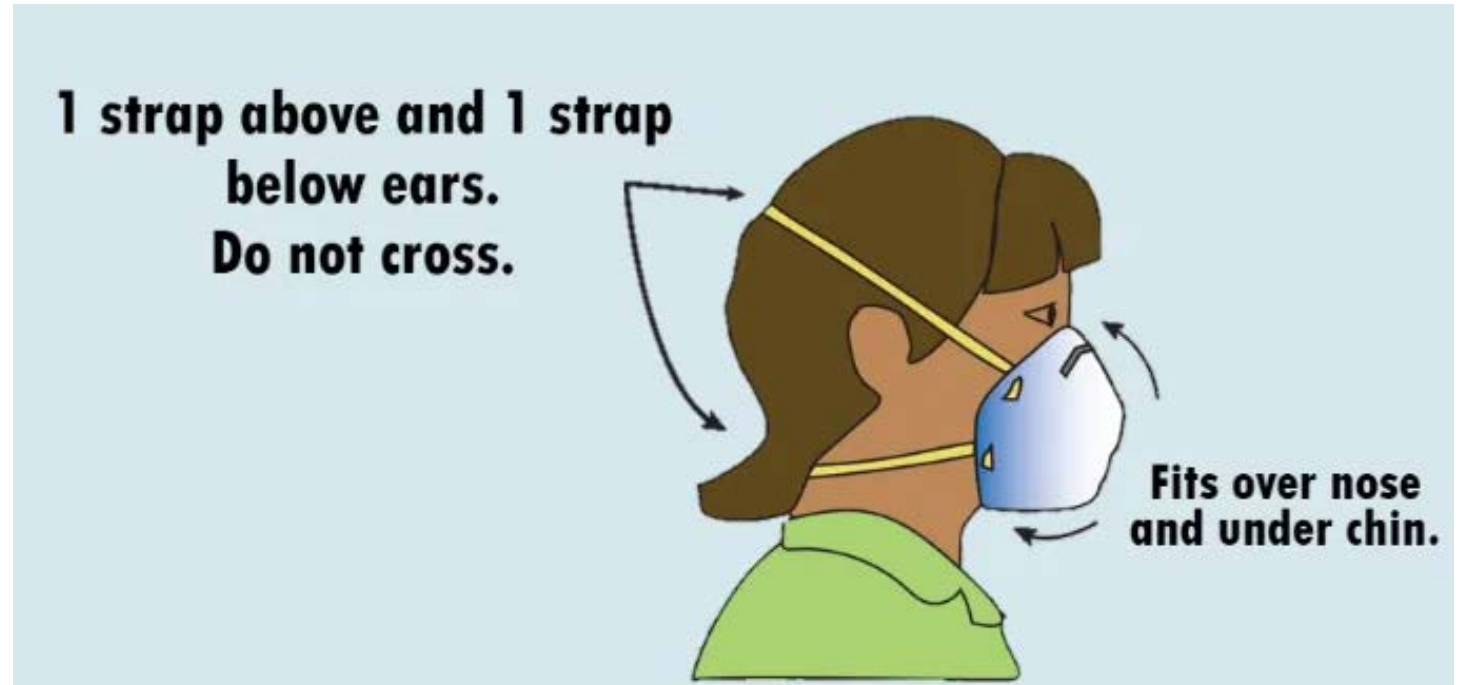
Assessment of Comfort

- ❖ Review the following points
 - Position of mask on nose
 - Room for eye protection
 - Room to talk
 - Position of mask on face and cheeks

Adequacy of Fit

❖ Criteria to determine fit:

- Chin properly placed
- Fit across nose bridge
- Adequate strap tension





POLL QUESTION 5

❖ You can perform a fit test if a person has facial hair (a beard)?

- True
- False



DEMONSTRATION OF FIT OF RESPIRATOR



Too Small





Too Large





Adequate Fit





Fit Test Kit



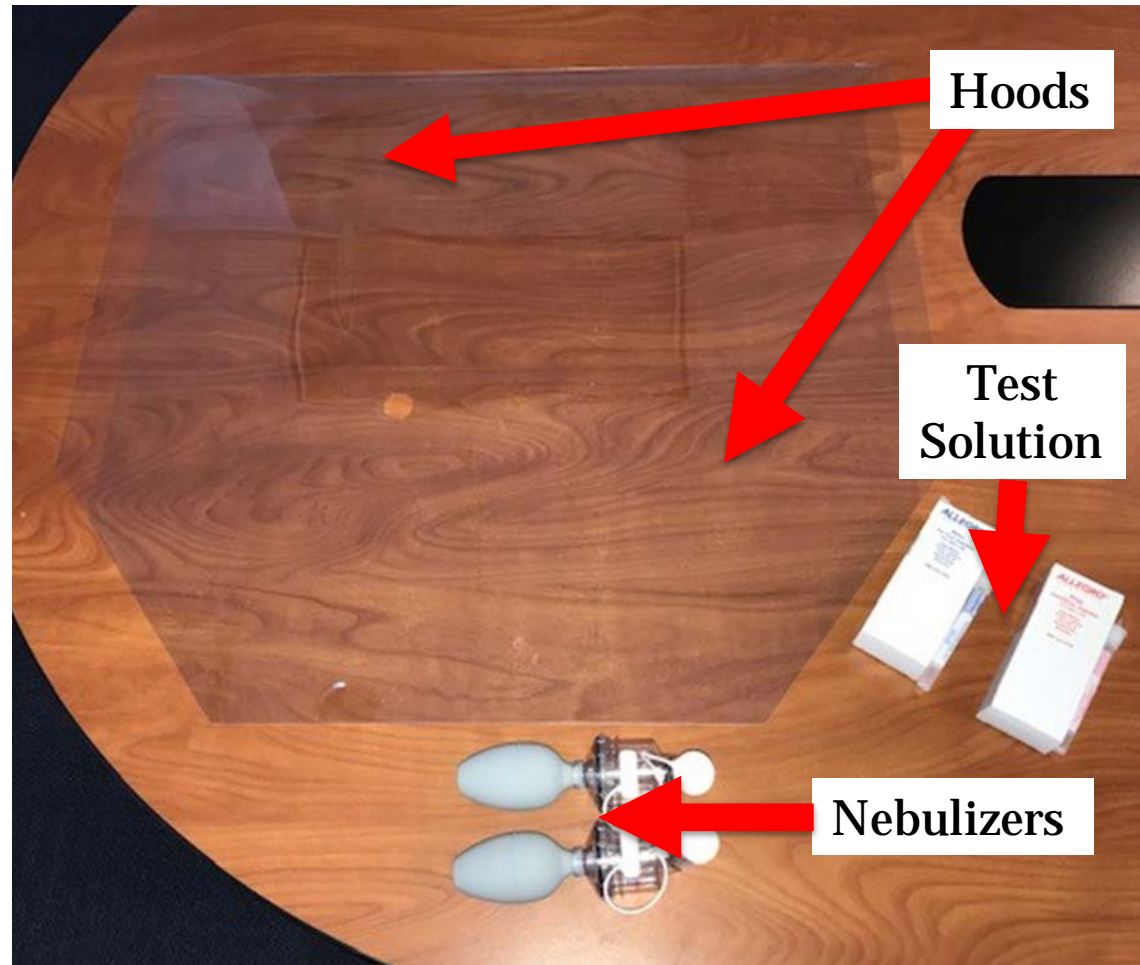
Hoods

Test Solution

Nebulizers



Fit Test Kit





POLL QUESTION

❖ Have you already requested or received a fit test kit?

- Yes
- No

Nebulizer Preparation

- Assemble and label the nebulizers
- Check insert
- Fill with ~1 mL of solution
- Test nebulizers
 - Squeeze with your whole hand



Nebulizer Troubleshooting

❖ If nebulizer does not produce aerosol cloud

- Ensure that the plugs are removed
- Make sure insert is present
- Disassemble and wash with warm water
- Use wire tool to clean insert



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Pre Fit Test

- ❖ Explain Procedure
- ❖ Verify any medical conditions

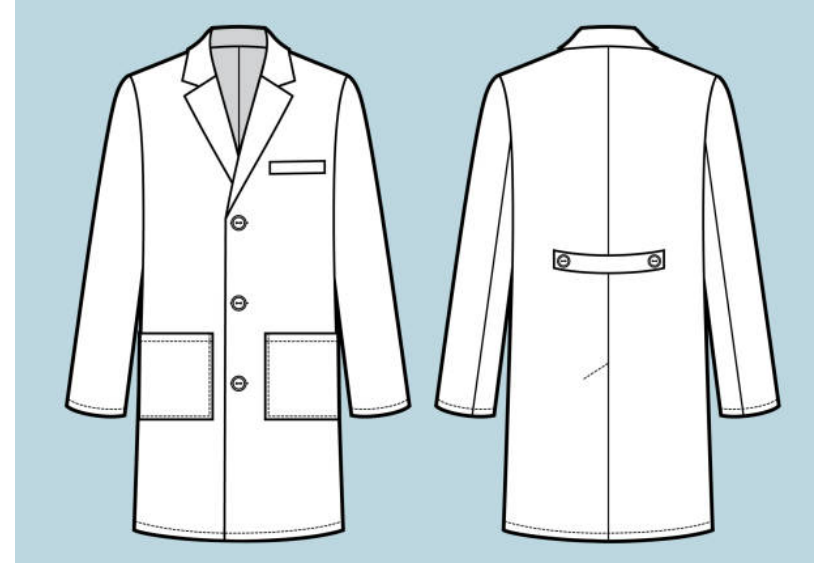


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Fit Test Facilitator

- Consider wearing an N95
- A procedural gown or Lab Coat
- Gloves





Sensitivity Screening Demonstration

Sensitivity Screening

❖ After sensitivity test:

- Wait to clear flavor
- Water can help



Fit Test Procedure

- ❖ Don Respirator
 - Perform a user seal check
- ❖ Don the test hood





Demonstration of proper donning and doffing & user seal check



Fit Test Procedure

- ❖ After initial aerosol, start test
- ❖ Renew every 30 seconds per chart

Sensitivity Test	1 - 10	11 - 20	21 – 30
Sensitivity Rating	10	20	30
Initial Pumps	10	20	30
Every 30 Seconds	5	10	15



Fit Test Procedure

Step 1: Normal Breathing

Add additional solution every 30 seconds



Fit Test Procedure

Step 2: Deep Breathing

Add additional solution every 30 seconds



Fit Test Procedure

Step 3: Head Side-to-Side

Add additional solution every 30 seconds



Fit Test Procedure

Step 4: Head up and down

Add additional solution every 30 seconds



Fit Test Procedure

Step 5: Talking out loud (Rainbow Passage)

Add additional solution every 30 seconds



Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.



Fit Test Procedure

Step 6: Bend at the waist
or Jog in place

Add additional solution every 30 seconds



Fit Test Procedure

Step 7: Normal breathing

Add additional solution every 30 seconds

FINAL TEST



Fit Test Procedure

❖ Pass

- Test agent not tasted

❖ Fail

- Test agent tasted during exercises



Test Failure Options

❖ Re-don and re-adjust facepiece

❖ Try different:

- Model
- Size
- Type





Documentation of Fit Test

- ❖ Date
- ❖ Name of tester
- ❖ Name of person being fitted
- ❖ Type of fittest
- ❖ Make model style and size
- ❖ Results
- ❖ Comment



Cleaning

- ❖ Clean test hood
 - Disinfect or
 - Dispose

- ❖ Clean nebulizers
 - Disinfect Nozzle
 - Wash at end of day



Summary and Resources



Summary / Quiz Questions

- ❖ Respiratory protection is needed if working with known or suspect COVID-19 individuals
- ❖ The person administering the respiratory protection program needs to have training and be knowledgeable on the respiratory protection standard.
- ❖ The medical evaluation needs to be completed prior to fit testing.
- ❖ The medical evaluation can be provided by:
 - Online medical evaluation provider
 - Occupational Health Clinic
 - Licensed healthcare professional



Summary / Quiz Questions

- ❖ The medical evaluation questionnaire comes from Appendix C of OSHA standard 1910.134
- ❖ Employees need to be medically reevaluated based on physician recommendation or medical evaluation expiration (traditionally every 1 to 2 years).
- ❖ Fit testing needs to occur prior to wearing a respirator
- ❖ Qualitative fit testing relies on sense of taste using either Bitrex or saccharin



Summary / Quiz Questions

- ❖ Prior to fit testing a person shouldn't
 - ❖ Eat, Drink, Smoke, or Chew gum
- ❖ Things that can effect the respirator sealing surface include:
 - ❖ Facial hair, facial scars, jewelry, glasses/ googles, and other PPE
- ❖ The minimum number of respirator models and sizes needed for fit testing is two.
- ❖ Facial hair can impact fit testing. The CDC offers a handout on what is or isn't appropriate.
 - ❖ Example: Men with a full beard can't be fit tested.



Summary / Quiz Questions

- ❖ During respirator selection comfort and fit are assessed
- ❖ If the sensitivity solution is not tasted during the sensitivity screening another fit testing method is needed
- ❖ During the fit test is the fit testing solution is tasted then the person who is being fit tested fails the test and needs to:
 - ❖ Redon & adjust the respirator (try again)
 - ❖ Try a new model/ size/ type (try again)
 - ❖ Try quantitative fit testing (use different fit testing method)
 - ❖ Wear a PAPR (use a method of PPE that doesn't require fit testing)



Summary / Quiz Questions

- ❖ If the individual doesn't taste the fit test solution during the fit test they pass the fit test and the fit test administrator documents this by recording:
 - ❖ Name of tester, name of person being fitted, type of fit test used, the make/ model/ size of respirator, result, date, and any other notes or comments.



Summary/ Quiz Questions

■ Sensitivity Screening

Sensitivity 10 (1-10)	Sensitivity 20 (11-20)	Sensitivity 30 (21-30)
10 squeezes to start test	20 squeezes to start test	30 squeezes to start test
5 squeezes every 30 seconds during test	10 squeezes every 30 seconds during test	15 squeezes every 30 seconds during test

■ Fit Test Procedures

- Normal Breathing
 - Deep Breathing
 - Move Head Side to Side
 - Move Up & Down
 - Talking (Rainbow Passage)
 - Bend at waist or Jog in Place
 - Normal Breathing
-
- Each exercise is 1 minute long



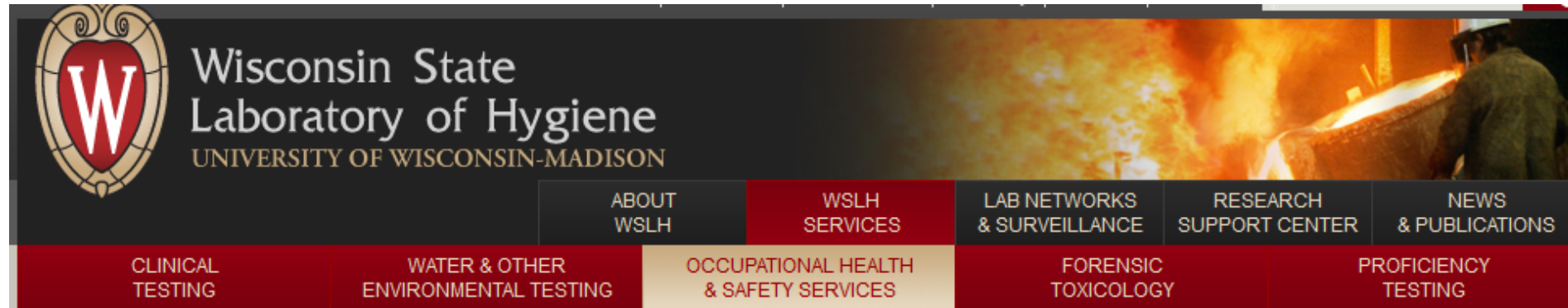
Request a Fit Testing Kit

- Email covidconsulting@slh.wisc.edu
- Include:
 - Name of Organization
 - Name of Person receiving (Attn: Jane Doe)
 - Address
 - Can't be P.O. Box
 - Phone Number



WisCon

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Onsite Safety & Health Consultation in Wisconsin

>>Consultation Services Request Form<<



Monthly Newsletter

- ❖ See past issues on our website
- ❖ Subscribe with Link in Chat



WisCon Words of Wisdom

Volume 1 | Issue 9 | December 1, 2021

WI COVID-19 by the Numbers

Total Positive Cases	875,393
Total Deaths	9,019
Total Individuals Hospitalized	46,274

[DHS's Wisconsin Summary Data](#)

Numbers Updated 11/30/2021

WI COVID-19 Vaccine Distribution by the Number of Doses

Total Administered	7,666,450
Johnson & Johnson	309,545
Moderna	2,974,671
Pfizer	4,388,234

Check out the [latest data about Wisconsin's progress!](#)

Upcoming Webinar Topics

COVID-19 Update	12/6
Temporary Electrical Wiring	12/13
How to Record Injuries and Illnesses on the OSHA 300 log	12/20
No Webinar This Week	12/27

Sign up [here](#) for weekly webinar reminders! Click [here](#) to view previous webinars!

COVID-19 Vaccination, Testing, and Face Coverings ETS

The [Vaccination, Testing, and Face Coverings ETS](#) is NOT currently in effect. The ETS was stayed by the 5th Circuit Court on Nov. 6th, 2021 and the ETS is facing a legal battle in the 6th Circuit Court after multiple cases were consolidated. If the ETS is upheld by the courts, it is important to be prepared to implement it when required by law, which may not leave a lot of time to prepare. Here are the basics of the ETS. .


The ETS applies to all business, regardless of industry, that have 100 or more employees corporate- or firm-wide. There are exceptions for employees who work in healthcare and fall under the previous ETS, exclusively outdoors, alone, or from home. The original dates of compliance are January 4th 2022 for the entire program including vaccination or weekly testing. December 6th 2021 is when the majority of the program was set to be implemented. Contact the [COVID Consulting Team](#) with questions.

Requirements:

- Develop, implement, and enforce a mandatory [COVID-19 vaccination policy](#) OR a [policy allowing for vaccination or weekly COVID-19 testing](#),
- Determine the vaccination status of each employee and maintain records,
- Provide paid time to receive each dose and to recover from side effects,
- [Test non-vaccinated employees for COVID-19 at least weekly](#),
- Require employees to inform you of COVID-19 positive status,
- Immediately remove any employee with COVID-19,
- Ensure that each employee who is not fully vaccinated wears a face covering,
- Train employees in a language and at a literacy level the employee understands,
- Report work-related COVID-19 fatalities to OSHA within 8 hour and hospitalizations within 24 hours, and
- Make records available to OSHA, employees, and their representatives.

Spotlight Corner— Ann Jurkowski

Ann Jurkowski is a field consultant providing both COVID-19 and OSHA consultation services. She has been with the program for over a year and has prior experience in both public and private sectors. Ann has a B.S. in Biology, a Masters of Public Health, and a J.D. emphasized on Environmental Law. She is also a Certified Industrial Hygienist. In her spare time, Ann enjoys being on her hobby farm with her cows, ponies, poultry and lovable guard dogs, Ivy and Bailey.





Weekly Video Webinar





Attendance Quiz and Certificate

- Quiz Link:

<https://forms.gle/KGNFMyPWn9kZJck18>

- Password for Quiz is:

WSLH

- Keep selecting answers until you select the correct answer
 - Certificates will be sent out on Friday

Contact Information

COVID-19 Consultation Team
Wisconsin State Laboratory of Hygiene

Email: covidconsulting@slh.wisc.edu

Phone: 608-226-5246

Onsite Safety & Health Consultation Program



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Questions?



Downloaded free clipart on 4/8/2015 from
<http://www.clipartpanda.com/categories/animated-question-mark-for-powerpoint>