



Safe Environments.
Healthy Workers.

Respiratory Protection Programs

Top 10 Lessons Learned

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Who We Are

ESTABLISHED IN

200

**NON-PROFIT
ASSOCIATION**



**FUNDED
PARTNER**

**OF THE
Ministry
of Labour**

WE PROVIDE
OCCUPATIONAL
HEALTH



& SAFETY

**Training
Resources
Consulting**

WE WORK WITH

1.67+
MILLION WORKERS

10,000+
ORGANIZATIONS

ONTARIO'S PUBLIC &
BROADER PUBLIC SECTORS:

**Education
Healthcare
Emergency Services
Government
First Nations**



PSHSA Services

PSHSA offers the following services:

- Qualitative Fit Testing
- Train the Fit Tester (TTFT) Sessions (classroom, virtual)
- RPP Development & Support
- Sample RPP





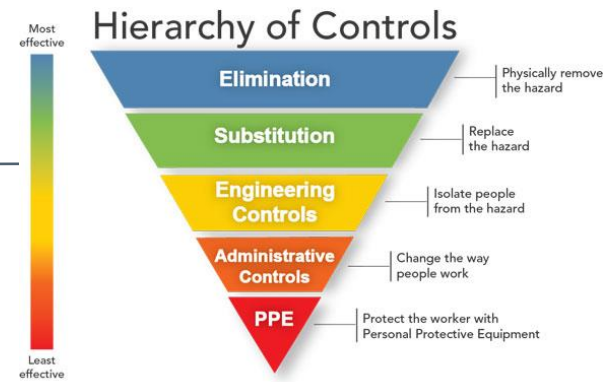
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Lesson Learned #1:

Respirators are a last line of defense!



Application



CDC, 2022

Respirators are only applicable in the following situations:

- When engineering & administrative controls are not practical or not adequate
- During the institution of effective engineering & administrative controls
- Non routine work operations, such as maintenance & repair activities, where controls are not sufficient; &
- Emergencies



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Lesson Learned #2:

SM commitment & a written RPP must be established



Respiratory Protection Programs

Program components include:

1. Roles & Responsibilities
2. Hazard & Risk Assessment
3. Respirator Selection
4. Health Surveillance
5. Training
6. Fit Testing
7. Use of Respirators
8. Care of Respirators
9. Program Evaluation
10. Records



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Lesson Learned #3:

Exposure assessments are basic to the proper use of respiratory protective equipment



Exposure Assessments

- The process of estimating or measuring the magnitude, frequency & duration of exposure to an agent, along with the # & characteristics of the population exposed





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Lesson Learned #4:

Selection of the proper respirator should be performed by a qualified person



Respirator Selection

There are two major classifications of respirators:

- Air-Purifying Respirators
- Atmosphere-Supplying respirators

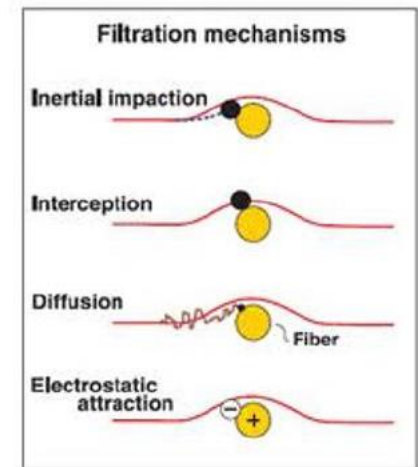
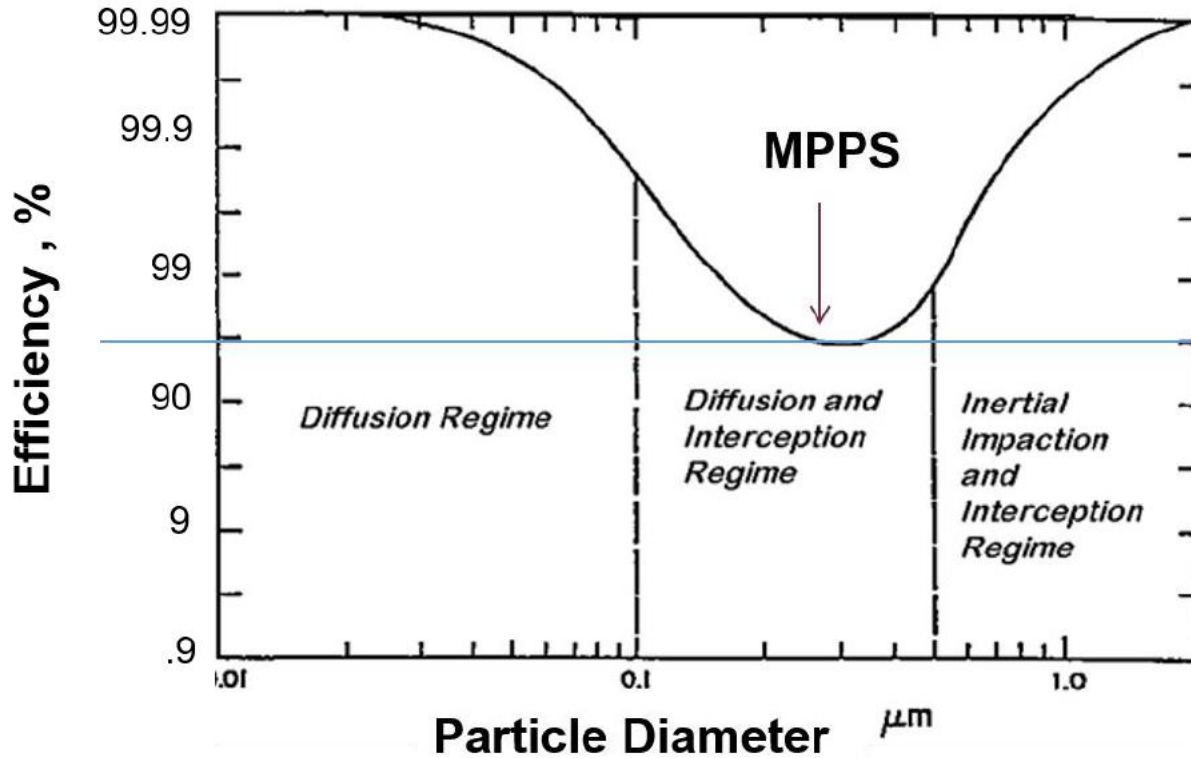


Air-Purifying Respirators

Non-Powered Air-Purifying Respirators

- Relies on breathing action of user
- Negative pressure is created
- Considered “tight-fitting”





Source: NIOSH



Air-Purifying Respirators

Powered Air-Purifying Respirators (PAPRs)

- Battery-operated with a fan / blower
- Considered “Loose-fitting”
- Do not require to be fit tested
- Positive pressure is created
- Increases comfort





Surgical Masks

Surgical Mask Are Not Respirators!

- Provide protection against contamination of the nose & mouth from contact with contaminated hands & from disease spread by large droplets
- Not NIOSH-approved N95 respirators, or approved equivalent





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Lesson Learned #5:

A health assessment must be completed prior to the use of respirators



Health Assessment

“The health assessment is necessary to identify medical conditions that may place an employee, required to use a respirator, at risk of medical consequences”

Public Services Health & Safety Association (PSHSA)





Health Assessment

- Completed prior to fit testing & respirator use
- Ideally addressed in routine pre-placement orientation process
- Determines physiological or psychological conditions that may preclude respirator selected
- Medical evaluation must be completed by a health care professional & may need to be repeated
- Must be in writing & kept confidential



Appendix F: Disposable Particulate Respirators Health Screening (non-disclosure) Form

This is a sample health screening tool for disposable particulate respirators. This form can be used when

Confidential health information should NOT be disclosed. Based on the information on this form, one can determine if further health assessment or medical evaluation is required.

Employers should amend this sample form to meet the specific needs of their organization and workforce. Results can be reported on the *Report of Health Assessment for Respirator Use* found in Appendix G.

Name:
Department:
Job:
Phone:
Have you worn an N95 respirator before?
If yes, please describe any difficulties you had while using the respirator:
Will you be wearing eye glasses or personal protective equipment with the respirator?
If yes, please describe:
Is there any reason you cannot wear a tight-fitting respirator that seals directly to the skin on your face? (e.g. skin conditions)
Do you have a latex allergy, latex sensitivity, allergy to artificial sweetener or any other allergy that you feel may be of concern?



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Lesson Learned #6:

Tight-fitting respirators need to be sized correctly & fit tested



Fit Testing

What

Evaluates the seal between the respirator's face-piece & their face. It's required for all tight-fitting respirators

Why

To verify a user's ability to obtain a proper seal & comfortable fit

Who

Trained fit-tester, competent in the applicable fit test methods



Fit Testing

When

Must be done **after** employee has completed a health assessment & **prior** to initial use of respirator.
Repeated at least every 2 years

How

Qualitative: Fit-testing using Saccharin Solution & Bitter Aerosol Protocols

Quantitative: Particle-Counting Instrument Protocol





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Lesson Learned #7:

Employers are responsible to ensure that workers know how to properly use their PPE



Use of Respirators

- Users must be able to effectively don & doff their PPE
- Must be able to complete a user seal check
- Respirators must be free of **interferences**





How to Don & Test a Particulate N95 Respirator



1. Don Mask



2. Adjust Straps



3. Fit Nose Clamp



4. Conduct Seal Check

Can you spot the mistakes in donning technique?



How to Remove (Doff) a Particulate N95 Respirator:



1. Grasp Lower Strap



2. Remove Lower Strap



3. Remove Upper Strap



4. Discard Without Touching Respirator



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Lesson Learned #8:

Respirators must be properly cared for so that they remain in good condition & retain their original effectiveness



Respirators must be...

- Cleaned & sanitized according to manufacturer's instructions
- Inspected before & after each use
- Stored in a manner that will protect against any potential hazard that could have a detrimental effect
- Replaced when they become damaged, soiled, unhygienic; or based on the change-out schedule
- Disposed of after use with infectious bioaerosols, as directed by the manufacturer (exception, inert dusts)

Note: Some manufacturers provide expiry dates



Care of Non-Disposable Respirators

- Non-disposable respirators must be properly cleaned, inspected, maintained & stored
- More complicated protective devices
- Cartridges, canisters and filters require proper selection & a change-out schedule (e.g., max use, ESLI, breathing resistance)
- Cleaning, sanitizing & storing practices have to be established
- Inspection of parts is more involved
- Maintenance can only be done by a qualified person according to manufacturers' guidelines
- Records of inspection & maintenance must be kept



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Lesson Learned #9:

Training on respirators must be comprehensive & complete



Respirator Training

- Complete before or in conjunction with fit testing
- Written instructions must be provided to workers
- Worker training on the care and practical use of respirators, limitations and maintenance
- Specific requirements and training competencies for fit testers (e.g., Train the Fit-Tester Training from PSHSA)
- Documentation of records must be maintained





Respirator Training

- Matrices and checklists are encouraged to assist with evaluating training competencies
- Role-specific training
- Designed to address hazard-specific risks (e.g., infectious agents, chemicals)
- Provided by a qualified person(s), who can coordinate and practically apply requirements
- Reviewed annually and on an ongoing basis



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Lesson Learned #10:

RPP must be evaluated to verify compliance
& appropriate records must be kept of all
RPP activities



RPP Evaluation

Annual program review should include:

- Changes in legislation, standards and guidelines
- Policy, procedure and work instruction review
- Proper selection, use and care of respirators
- Records review and results of fit testing
- Demonstration of competencies and effective training
- Results of supervisors' audits
- Concerns raised by respirator user
- Incidents, injuries or illnesses attributed to respirator use
- Results of health evaluations



Record Keeping

Appropriate records must be kept of all RPP activities

Keep records of...

- Hazard assessment
- Respirator selection process
- Health assessment
- Fit testing
- Training
- Proper care & maintenance
- Evaluations

This allow for:

- Applying consistency
- Addressing concerns
- Taking remedial actions
- Demonstrating due diligence



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Questions?



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