



Breathe Easy: Creating a Safer Workplace Through Respiratory Protection

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History of Respiratory Protection



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Learning Objectives

After this presentation, participants will be able to:

- Describe the purpose of a respiratory protection program.
- Determine who needs to use an N95 respirator.
- Perform a qualitative fit test of an N95 respirator per the OSHA Respiratory Protection Standard.
- Recognize challenges that might arise when conducting a qualitative fit test.

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What is a Respiratory Protection Program(RPP)

A respiratory protection program, as defined by OSHA 29 CFR 1910.134, is a written plan designed to protect employees from respiratory hazards by outlining a company's practices for selecting, using, and maintaining respirators.

- **Key goal:** Protect employees from airborne contaminants.
- **Required for:** Hospitals, long-term care facilities, outpatient clinics, urgent care centers, etc.

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Types of Respirators



N95 filtering facepiece respirators



PAPRs (Powered Air-Purifying Respirators)



KN95s



Surgical masks



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Performing Fit Testing

Purpose: Ensures a proper seal for protection.

- Must be done:
 - Annually
 - When a new model/size is used
 - With significant weight change, surgery, or scarring



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Medical Evaluations

Purpose: Ensure employees are medically fit to wear a respirator safety before use.

- Required by OSHA.
- Employee responses are confidential.
- Conducted by a Licensed Healthcare Professional (PLHCP).
- A follow-up medical examination is required if certain questions are answered "yes" on the questionnaire, or the initial examination warrants it.

Part A. Section 1 (Identification) The following information must be provided by every employee who has been selected to use any type of respirator (under any conditions):

1. Your name
2. Your title
3. Your height (in inches/cm)
4. Your weight (in lbs./kg)
5. Your gender
6. Your age
7. Your job title

8. All persons wearing a respirator must be inspected by the health care professional who conducts this evaluation to ensure proper fit and use.

9. Has your employer had you have to contact the health care professional who will conduct this evaluation within the last 12 months?

10. Check the type of respirator you will use (you can check more than one category):

a. _____, N, R, or P (Disposable respirator (filter mask, non-cartridge type only))

b. _____ (Canister type) (Reusable, full- or half-facepiece type, powered or non-powered, tight-fitting (including escape))

11. Have you worn a respirator (under any conditions) _____ if yes, what brand?

Part A. Section 2 (Identification) Questions 1 through 8 below must be answered by every employee who has been selected to use any type of respirator (under any conditions):

	YES	NO
1. Do you currently smoke tobacco, or have you smoked tobacco in the last month?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have you ever had any of the following conditions?	<input type="checkbox"/>	<input type="checkbox"/>
a. Rhinitis	<input type="checkbox"/>	<input type="checkbox"/>
b. Allergic nose (hay fever)	<input type="checkbox"/>	<input type="checkbox"/>
c. Allergic reactions that interfere with your breathing	<input type="checkbox"/>	<input type="checkbox"/>
d. Chronic sinusitis (that is present or present)	<input type="checkbox"/>	<input type="checkbox"/>
e. Trouble breathing (shortness of breath)	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you ever had any of the following pulmonary or lung problems?	<input type="checkbox"/>	<input type="checkbox"/>
a. Asthma	<input type="checkbox"/>	<input type="checkbox"/>
b. Emphysema	<input type="checkbox"/>	<input type="checkbox"/>

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Qualitative vs Quantitative Testing

Qualitative

Pass/fail based on taste/smell



Quantitative

Measured numerically using equipment



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Fit Testing-Preparation

- Have employee complete a Medical Evaluation.
- Ensure employee has not had anything to eat or drink within 30 minutes.
- Gather equipment
 - Hood
 - Nebulizer
 - Solutions (Bitrex or saccharin)
 - N95 respirator
 - Timer
 - Disinfecting wipes & ABHS



Fit Testing-Squeeze Chart

# of squeezes in Part 1	# of squeezes for initial dose	# of replenishing squeezes every 30 secs
1-10	10	5
11-20	20	10
21-30	30	15

- If more than 30 squeezes are required with the bitter solution, change to the sweet solution.
- This will be your dosing for the solution as the participants works through 7 exercises.

Fit Testing-Two Part Test

Part One

Sensitivity Test

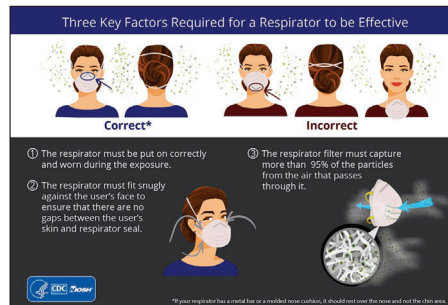
- No respirator.
- Determine how much bitter solution is needed to taste.
 - If nothing tasted within 30 puffs, try sweet solution.

Part Two

Fit Test

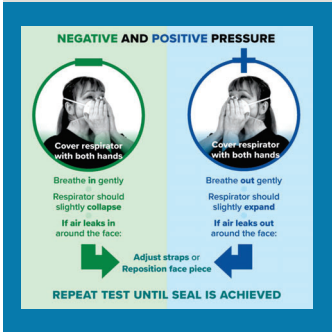
- Respirator donned.
- Dosing will depend on sensitivity test (see fit testing squeeze chart).

Fit Testing- Donning the N95 Respirator



- Each respirator is different.
- Avoid crossing straps.
- Mold the nose piece.

Fit Testing-Respirator Seal Check



Quick test a user performs **every time** they wear a respirator to confirm there are no leaks between the respirator and their face.

- Feel around edges of respirator, breathe in and out, should not feel air going around respirator.

Fit Testing- Pass or Fail

Pass

Completes all exercise without tasting/smelling the solution.



Fail

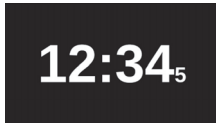
Stop test if fails during exercises.

- Rinse mouth/face, refit the same type of respirator.
- If failed second time, consider a different respirator.

Fit Testing- Seven Exercises

Place hood on the participant and then perform the seven exercises for one minute each:

- Breathe normal
- Breathe deep
- Head side-to-side
- Head up & down
- Talking
- Bend over at waist
- Breathe normal



Documentation & Recordkeeping

Qualitative Fit Test Form		
Employee Name:	Test Date:	Facility:
Work Shift:	Respirator:	
Was fit test required annually?		
Has the employee completed a medical evaluation by a licensed health care professional?		YES NO
Does the employee wear glasses?		
Does the employee have facial hair?		
Does the employee have dentures?		
Respirator Make & Model:		
Testing Media:		
	Pass	Fail
Head Check (Performance)		
Head (Disturbance Normal Breathing) (30 seconds)		
Head (Disturbance Deep Breathing) (30 seconds)		
Head (Turning Side to Side) (30 seconds)		
Head (Moving Up & Down) (30 seconds)		
Talking (Disturbance Passage) (30 seconds)		
Bending Over at Angle (Pass) (30 seconds)		
Head (Disturbance Normal Breathing) (30 seconds)		
Employing Co. Test Result:		
Based on observations provided on this form, certify that the employee named on this form can wear the respiratory protective equipment listed above.		
Signature of Person Administering Test:	Date:	

Complete fit test documentation should include:

- Respirator make & model
- Test date
- Results
- Testers signature

*If at any time the participant tastes/smells the solution stop test.

