



Safe Environments.
Healthy Workers.



JOB AID

**TRAIN THE
FIT TESTER
FOR
RESPIRATORY
PROTECTION**

Distance Learning



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Healthy Workers.

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Equipment for Fit-Testing

Ensure you have the following equipment and materials to be able to properly conduct a fit-test:

- 1. Qualitative fit-testing kit - bitter (Bitrex™) and/or sweet (Saccharin). **NB:** the challenge agents (solutions) need to be of the same type - e.g. bitter sensitivity solution with bitter fit-test solution; or sweet sensitivity solution with sweet fit-test solution.
The kit includes:
 - ✓ Sensitivity solution
 - ✓ Fit-test solution
 - ✓ Nebulizer #1 (sensitivity)
 - ✓ Nebulizer #2 (fit-test)
 - ✓ Hood; and possibly a collar assembly
 - ✓ Insert, wire

- 2. At least 2 unused NIOSH-approved disposable N95 respirators per participant. Should be the same make/model and sizes as will be supplied and available at your workplace.

- 3. Nitrile gloves.

- 4. Disinfecting wipes.
To be used for cleaning the fit-testing hood and nebulizers.

- 5. Alcohol-based hand rub (ABHR).
Should be at least 70% alcohol.

- 6. Participant Workbook.
Download from the resources tab in the eLearning module.





Fit-Testing Procedure

Follow these 10 steps to conduct an effective fit-test:

- 1. Introduce the fit-testing procedure to the user
- 2. Instruct user about respirator
- 3. Determine a respirator that appear to fit best
- 4. Train wearer to don and remove respirator
- 5. Perform a user seal check
- 6. Complete a comfort and fit assessment
- 7. Conduct sensitivity screening (for QLFT)
- 8. Conduct fit-test
- 9. Verify comfort
- 10. Record results



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Pre-Fit-Test Questionnaire for the User to Answer

1. Have you filled out your health surveillance/screening form?
2. Have you eaten, smoked, chewed gum or drank (exception plain water) within the last 15 minutes?
3. Do you have any known allergies to Bitrex© (denatonium benzoate) or artificial sweeteners such as Saccharin?
4. Did you bring any glasses or personal protective equipment (PPE) with you today?



Comfort and Pre-Fit Assessment

After respirator selection, the fit tester will assess comfort and appropriateness of fit through **observation** that the following conditions and criteria have been met.

Check for:

- 1. Proper placement of the chin.
- 2. Proper fit and position of the facepiece on the nose.
- 3. Strap tension and positioning.
- 4. Full contact of the sealing surface to the face.
- 5. Any interferences with face-to-facepiece seal.
- 6. Stability to stay in position during movement (*including talking*) or contact with other integrating PPE or accessories.
- 7. Successful user seal check.
- 8. Wait 5 minutes. Sufficient time (*waiting period of at least 5 minutes*) must be allowed to check comfort in relation to the seal.

After the 5-minute waiting period, the wearer should perform the following movements (for 3-5 secs. each):

- ✓ Nod head up and down
- ✓ Tilt head with left ear touching left shoulder, and then alternate with right ear touching right shoulder
- ✓ Turn head from one side to the other
- ✓ Shake head vigorously
- ✓ Perform facial expressions – open and close mouth as if speaking, move jaw from left to right, up and down, smile and frown
- 9. Comfort assessment scoring by respirator user (*see rating values*) and repeated successful seal check.
- 10. Demonstration of respirator user's ability to conduct facepiece pre-use inspection, donning, doffing and user seal checks without assistance. Next step is the sensitivity test and the fit-test.



Comfort Assessment Scoring

Ask the wearer to rate the respirator for comfort and fit from 0 to 3:

Rating	Level of Comfort
0	No Issue
1	Discomfort that can be ignored
2	Some discomfort but able to function
3	Unacceptable - unbearable

A score of 0 or 1 shall result in the user being deemed ready for fit-testing.

A score of 2 should prompt the fit tester to initiate a new re-donning or repositioning or to use an alternative respirator option.

A score of 3 shall result in rejection of the respirator worn. If the appropriate facepiece for the application cannot be found, a protective alternative shall be made available within the scope of the RPP. A small percentage of users will not be able to use any tight-fitting facepiece.



Sensitivity Test / Threshold Screening

- 1. Have the individual place the hood and collar assembly over his/her head while not wearing a respirator.
- 2. Ask the individual to open his/her mouth slightly and explain this position must be maintained throughout the test. Tell the individual to breathe through their mouth. Ask the individual to inform you when they are able to taste the solution.
- 3. Squeeze up to **10 sprays** of the sensitivity solution [reminder: use the sensitivity test solution nebulizer #1 (red)] into the hood.
- 4. If the individual can taste the solution, indicate that the **sensitivity threshold is 10**. (If the individual reports tasting the solution at any time during this step, the threshold should still be noted as 10.)
- 5. If the individual is unable to taste the solution after 10 squirts, squeeze **another 10 sprays**.
- 6. If the individual detects the solution, mark **20 as the sensitivity threshold**. (If the individual reports tasting the solution at any time during this step, the threshold should still be noted as 20.)
- 7. If there is no detection, squeeze **another 10 sprays**.
- 8. If the individual detects the solution, mark **30 as the sensitivity threshold**. (If the individual reports tasting the solution at any time during this step, the threshold should still be noted as 30.)
- 9. If there is no detection of the solution, the fit-test cannot proceed. Another solution should be used following a short break (*period of time it takes for any residual solution to leave the wearer's mouth*).

Refer to pg 51 of the Participant Workbook for more details.

Fit-Test Exercises

Reminder to use the fit-test solution nebulizer #2 (black). Each exercise should be done for at least 30 seconds:

1. **NORMAL BREATHING**

Number of sprays = threshold found in sensitivity screening

2. **DEEP BREATHING**

Number of sprays = HALF the threshold found in sensitivity screening

3. **TURN HEAD SIDE TO SIDE**

Number of sprays = HALF the threshold found in sensitivity screening

4. **NOD HEAD UP AND DOWN**

Number of sprays = HALF the threshold found in sensitivity screening

5. **TALKING**

Number of sprays = HALF the threshold found in sensitivity screening

6. **BENDING OVER**

Number of sprays = HALF the threshold found in sensitivity screening

7. **NORMAL BREATHING**

Number of sprays = HALF the threshold found in sensitivity screening

Threshold = _____ sprays

Half Threshold = _____ sprays

Final step (*if the individual is unable to taste the test agent throughout the fit-test*):

- Before removing the hood, ask the individual to perform hand hygiene, reach underneath the hood, pull the respirator away from their chin and detect the test agent. Detecting it will give the individual confidence in the test and their respiratory protection.

Acceptable comfort validation question to ask the user:

“Does this specific respirator provide you an acceptable comfort level for the scope of your work?” Yes or No.

If **No**, a protective alternative shall be made available within the scope of the RPP.

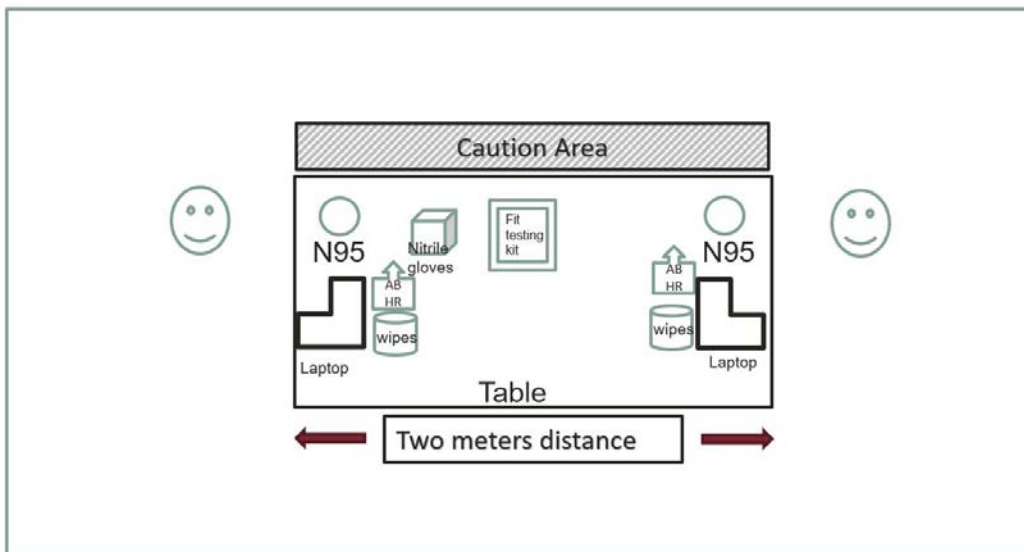
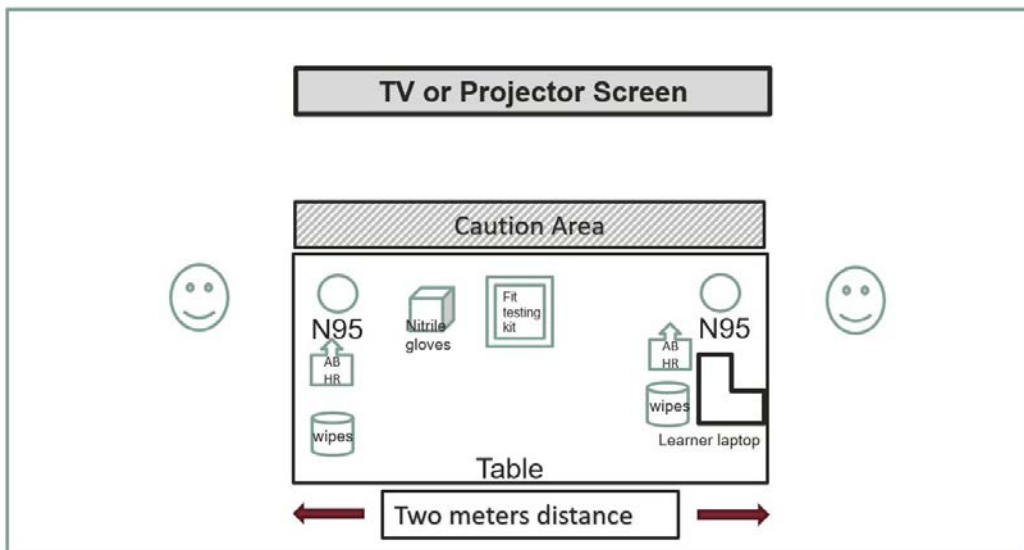
Refer to pgs 52-54 of the Participant Workbook for more details.



Room Set-Up / COVID Considerations

Room arrangement must accommodate that the:

- ✓ Fit tester (learner) and partner are separated by a distance of 2 meters
 - ✓ Fit tester (learner) and partner can be separated by a table (one on either end if 2 meters or more distance in between)
 - ✓ Tape on floor ('X') or signs on walls so fit tester (learner) and partner know their assigned place
- Access to sink in close proximity
 - Training or boardroom with mechanical ventilation





Key Points to Remember

- ✓ Practice fit-testing to improve your skills
- ✓ Refer to the eLearning for other resources including the Participant Workbook and key links (COVID Considerations During Qualitative Fit-Testing, Public Health Ontario)
- ✓ View [Breathe Safe video](#)
- ✓ View [Fit-Testing video](#)
- ✓ Review manufacturer's user instructions for the N95 respirators that are supplied and available at your workplace
- ✓ Conduct facepiece pre-use inspection
- ✓ Clean and disinfect fit testing equipment. The outer surface of the nebulizer must be disinfected between each fit test and after the fit testing session using a disinfectant from the Health Canada List of Hard Surface Disinfectants for COVID-19. Discard the solutions and rinse the nebulizer with water, shake to dry and refill at least each morning and afternoon or every four hours according to the fit test kit user instructions. Clean the nebulizer with soap and water and return equipment to the box at the end of the fit testing session.
- ✓ Demonstrate proper donning, doffing and user seal check in accordance with manufacturer's user instructions
- ✓ Practice the comfort assessment, sensitivity test and fit-test multiple times on a partner to reinforce and master your skills