



**Public Health**  
Prevent. Promote. Protect.

**Bismarck-Burleigh Public Health**

# Fit Testing

## *Quantitative Procedures and Checklist*

1. Use the equipment provided to spread the salt tablet infused water into the room.
2. Connect the respirator to be used to the PortaCount machine tubes.
3. Have the test subject don the respirator and perform a user seal check per the instructions provided on the respirator package.
4. Have subject wear any applicable safety equipment that may be worn during actual respirator use that could interfere with respirator fit.
5. To maintain an adequate concentration of aerosol during this test, continue to utilize the equipment spreading the salt-infused water throughout the room.
6. Ask the individual receiving respirator fit testing to perform the following test exercises for 60 seconds each:

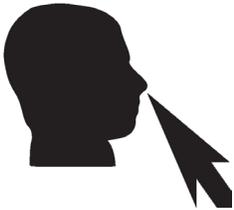
- (A) **A. Normal breathing** - In a normal standing position, the subject shall breathe at a normal rate and depth.
- (B) **B. Deep breathing** - In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
- (C) **C. Turning head side to side** - Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.
- (D) **D. Moving head up and down** - Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e. when looking toward the ceiling).
- (E) **E. Talking** - The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.
- (F) **F. Bending Over** - The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place may be substituted for this exercise.
- (G) **G. Normal breathing** - Same as exercise A.

7. The test is terminated at any time if the subject fails a second portion of the test, because this indicates an inadequate fit. Wait 15 minutes and perform the sensitivity test again.
8. Repeat the fit test after redonning and readjusting the respirator. A second failure may indicate that a different size or model respirator is needed.
9. If the entire test is completed without the equipment detecting the bitter taste of the aerosol, the test is successful and respirator fit has been demonstrated.
10. Periodically, check the nebulizer to make sure that it is not clogged. If clogging is found, clean the nebulizer and retest.

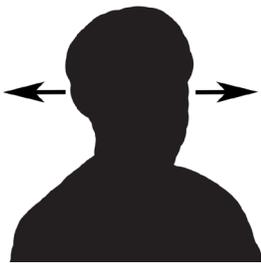
# Fit Testing Steps



**A. Normal breathing** - In a normal standing position, the subject shall breathe normally in both depth and rate.



**B. Deep breathing** - In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.



**C. Turning head side to side** - Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.



**D. Moving head up and down** - Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e. when looking toward the ceiling).



**E. Talking** - The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.



**F. Bending over** - The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place may be substituted for this exercise.



**G. Normal breathing** - Same as exercise A.

# Rainbow Passage

*Please read this passage out loud for one minute. If you complete the passage and there is still time remaining, go back to the beginning and continue to read out loud.*

**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.**