

Personal Protective Equipment

Importance of Respirator Fit

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Tight-fitting respirators must seal to the wearer's face in order to provide expected protection. Respirator fit is important because it involves several major issues:

- Seal
- Compatibility
- Stability

The Respirator's Seal

A good fit means the respirator will seal to your skin. A respirator can only work when air passes through the filter. Air will take the path of least resistance, so if the seal isn't there, the air will go around rather than through the respirator – and therefore lessen the protection.

Compatibility with other PPE

Safety glasses, hearing protection, face shields, hard hats and coveralls can all vie with a respirator for real estate on a person's face, head or body. For instance, if a half face respirator doesn't fit well (especially if it's too large), it can overlap with glasses. The more that happens, the more fogging can potentially occur on glasses, and the more likely it is that they'll interfere with the respirator's seal.

To catch these problems before they happen on the job, OSHA requires any PPE that could interfere with the respirator's seal to be worn during the fit test.

Respirator Stability

The better a respirator fits, the more stable it's likely to be on the wearer's face. Fit testing determines the respirator's ability to retain its seal when the worker is in motion. That's why test subjects are told to go through several exercises as part of testing. A respirator that shifts during movement may not be able to retain its seal.

Tips on Fit

5 tips on fit for half-facepiece respirators

Eyes



If a respirator is too tall on the face, the orbital cavity or eye sockets can cause a gap in the seal of the respirator.

Facial Hair



Even small amounts of facial hair can interfere with the seal of the respirator to the face.

Face



Without proper fit, common facial movements such as talking, smiling, frowning, or grimacing may break the face seal of the respirator.

Nose



To maintain a seal, the respirator has to mold to the contours of your nose, one of the most prominent facial features.

For more information on disposable respirators from 3M, visit [MSCDirect.com](https://www.mscdirect.com).

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