

Help your staff get the most out of their N95 respirators with the PORTACOUNT® Respirator Fit Tester

Application Note ITI-102

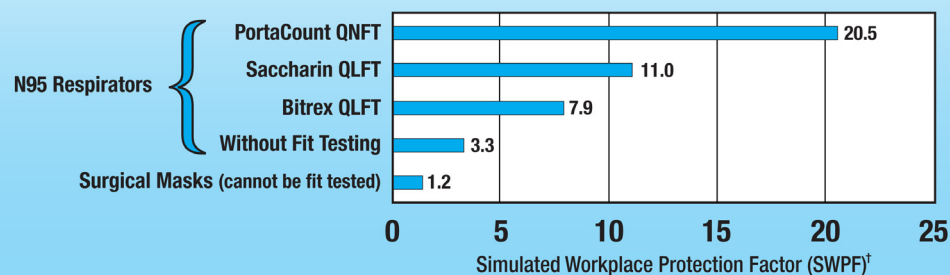
A recent research study* by the U.S. National Institute of Occupational Safety and Health (NIOSH) shows that N95 respirator wearers who were initially fit tested with the PORTACOUNT Universal Fit Test System subsequently achieved much higher protection levels than those who were initially fit tested with the Saccharin or Bitrex method. In fact, the PORTACOUNT method was the only method where 100% of the test subjects were able to exceed the OSHA Assigned Protection Factor (APF) of 10.

Determining the reason for the higher protection levels afforded by quantitative respirator fit testing was not within the scope of the NIOSH study. However, the researchers were very careful to make sure that the type of fit test used to train the individuals and help determine the proper respirator size was the primary variable differentiating the data sets. This study supports the opinion held by many respiratory protection experts: Quantitative respirator fit testing, when incorporated into a complete respiratory protection program, provides a more rigorous training experience than other respirator fit test methods.

The study revealed that N95 respirator wearers who were not fit tested achieved significantly lower protection levels compared to those who were fit tested, regardless of the fit test method. This supports the importance of respiratory protection training that goes hand-in-hand with respirator fit testing. Disposable N95 respirators are not as simple to use as they look.

Surgical masks were also included in the NIOSH study even though they cannot be fit tested. Surgical mask manufacturers have long contended that their product is not designed or marketed as a respiratory protective device. The study results support that contention and make it clear that surgical masks provide virtually no respiratory protection for the wearer.

95th Percentile Protection Levels Provided by N95 Filtering-Facepiece Respirators With and Without Fit Testing, by Fit Test Method Used*



* Duling, M.G., Lawrence, L.B., Slaven, J.E., Coffey, C.C., [HHS/PHS/CDC/NIOSH], **Simulated Workplace Protection Factors for Half-Facepiece Respiratory Protective Devices**. *Journal of Occupational and Environmental Hygiene*, Vol. 4, No. 6, pp. 420-431, June, 2007.

† SWPF is the protection provided by a respirator, measured during a laboratory simulation of a workplace environment. A SWPF of 10 means that the air inside the respirator was 10 times cleaner than the air outside. The OSHA Assigned Protection Factor (APF) for N95 filtering-facepiece respirators is 10.

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