

# **RESPIRATOR FIT-TESTING STRATEGIES DURING COVID-19 RESPONSE**

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# RESPIRATOR FIT-TESTING STRATEGIES

## Lessons Learned from 2009 H1N1 flu pandemic

- PAPRs are great, but N95s are needed too
- Differences between N95s and facemasks
- Maintain the ability to fit-test staff
- Maintain a baseline of high-risk staff fitted for N95s
- Qualitative (Bitrex) fit testing for masses
- Maintain Portacounts for (Quantitative) fit testing

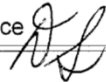
# RESPIRATOR FIT-TESTING STRATEGIES

TO:

Technical Services  
Department of Labor and Industries Division of Occupational Safety and Health

FROM:

Environmental Health and Safety  
University of Washington



SUBJECT: Request to Use a Pump-Powered Nebulizer to Replace the Manual Squeeze Bulb Nebulizer During Qualitative Respirator Fit Testing

The University of Washington (UW) Environmental Health and Safety Department (EH&S) has developed an automated, pump-powered nebulizer system to replace the DeVilbiss Model 40 Medication nebulizer (or equivalent) during qualitative respirator fit testing with Bitrex. In an email sent on September 4, 2009 by Terry Walley, Industrial Hygienist with the Department of Labor and Industries Division of Occupational Safety and

EH&S tested the manual squeeze bulb method and automated pump-powered system, compared the result and determined that the two methods are equivalent. The manual squeeze bulb nebulizer and pump-powered nebulizer generate equivalent average pressures (6.30 psig compared to 6.97 psig) over a similar time duration (0.71 seconds compared to 0.77 seconds) for one bulb squeeze, and consume equivalent volumes



## Ability to fit test multiple people at one time

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# RESPIRATOR FIT-TESTING STRATEGIES

Fast forward to 2020

- Same policies in place, many staff did not maintain annual fit test
- Expired supplies
- Special Pathogens Team (SPAT), have advanced PPE training
- Dust off the equipment!



# RESPIRATOR FIT-TESTING STRATEGIES

Feb/March 2020

- Fit-testing of priority/high risk staff
- In-person specialized donning/doffing training
- Use of expired supplies for fit testing
- Switch from Portacount testing to Bitrex
- Roving fit testers
- OSHA/LNI waivers
- 3 minute fit test?



# RESPIRATOR FIT-TESTING STRATEGIES

April 2020

- ~2000 staff fit tested
- Expanded to nearly all clinical staff
- Reuse of N95s, conservation strategies
- Wind down of fit testing, slowing to mid-May
- Refitting of new respirator available



# RESPIRATOR FIT-TESTING STRATEGIES

And a note on PAPRs –

- Lost inventory
- Expired filters, charged batteries
- Additional doffing procedures
- Reuse of PAPR hoods, centralized cleaning
- Staff preferences





# RESPIRATOR FIT-TESTING STRATEGIES

And the new normal continues!



**Thank you!**

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