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FAQ

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Frequently Asked Questions: Considerations for the use of Respiratory Protection for Exposures to the Influenza Virus: Health Care and Laboratory Workers

Local public health authorities should always be consulted for the most recent recommendations regarding the use of personal protective equipment to help reduce exposures to influenza viruses. This document highlights recommendations made by the United States Centers for Disease Control and Prevention (US CDC) and the World Health Organization (WHO). Please make sure to monitor the US CDC and WHO websites for any changes to the guidance.

- CDC: https://www.cdc.gov/flu
- WHO: http://www.who.int/influenza/en/

Respiratory Protection

When selected and used correctly, certified respirators can help reduce the inhalation exposure to viruses that cause influenza.

CDC recommends NIOSH-approved respiratory protection for healthcare personnel who are in close contact with suspected or confirmed influenza patients. N95 particulate filtration or greater is required.

Respirator use must be in accordance with the U.S. Occupational Safety and Health Administration's (OSHA's) Respiratory Protection standard 29 CFR 1910.134, and that staff should be medically cleared, fit tested and trained on respirator use.

There are additional PPE recommendations for airborne precautions for viruses associated with severe disease. These recommendations include a higher level of personal protective equipment for healthcare workers, including expanded use of respirators for all patient care activities. Refer to 3M Technical Data Bulletin #176, July, 2017.

The World Health Organization (WHO) recommends European CE approved particulate respirators, EN149:2001 approved FFP2 or FFP3 disposable respirator or EN143:2000 P2 filters or respirators with higher levels of protection, in countries that accept CE approved respirators to help reduce healthcare worker's exposures to airborne organisms in certain situations such as during aerosol generating procedures on patients with influenza.

It is important to remember that government-approved respirators will help to reduce your exposure but will not eliminate exposure or the risk of contracting disease, illness or infection.

What is a type N95 respirator?

N95 is one of nine classifications for National Institute for Occupational Safety and Health (NIOSH) certified particulate respirators. It indicates that the respirator is for use in non-oil atmospheres and provides at least 95% filtration efficiency.

Can respirators protect you from biological agents such as bacteria or viruses?

A respirator is just one of several preventative measures that can be used to help reduce exposure to airborne bacteria or virus particles. Respirators are designed to reduce exposures of the wearer to airborne hazards. Biological agents, such as bacteria or viruses, are particles and can be filtered by particulate filters with the same efficiency as non-biological particles having the same physical characteristics (size, shape, etc.). However, unlike most industrial particles there are no exposure limits, such as Permissible Exposure Limit (PEL) or Threshold Limit Value (TLV), established for biological agents such as influenza A (H1N1) virus. Therefore, respirators are not a guarantee that the user will not contract an infection. Respirators may help reduce exposures to airborne biological contaminants, but they do not eliminate the risk of exposure, infection, illness, or death. Refer to 3M Technical Data Bulletin #174 – Respiratory Protection for Airborne Exposure to Biohazards.

Can medical facemasks be used to help reduce airborne exposures to biological agents?

Medical, surgical and patient care masks are not designed to protect the wearer from inhaling airborne hazards; therefore, 3M recommends that they not be used for this purpose, or in place of an approved respirator.

What is the difference between a government-certified respirator and a surgical mask?

Respirators are designed to help reduce the wearer's exposure to airborne particles. The primary purpose of a surgical facemask is to help prevent biological particles from being expelled by the wearer from going into the environment. Surgical masks are also designed to be fluid resistant to splash and splatter of blood and other infectious materials. Surgical facemasks are not necessarily designed to seal tightly to the face and therefore the potential of air leakage around the edges exists. Even those masks that appear similar to respirators have not been designed to protect the wearer from airborne hazards or tested to the same level of filtration efficiency; therefore, they should not be considered an equivalent substitute to government-approved respirators.

Are there any medical restrictions for wearing a respirator?

Individuals with a compromised respiratory system, such as asthma or emphysema, or people with a history of heart disease should consult a physician before wearing a respirator. When personal protective equipment, including respirators, is used in a professional environment, its use must comply with applicable workplace standards, regulations and policies. In the United States, workers must receive medical clearance to wear a respirator from a licensed health care professional prior to using the respirator.

What are the limitations of using respirators for potential exposures to the influenza virus?

Respirators are not a guarantee that the user will not contract an influenza virus infection. The following items need to be carefully read and understood.

- Respirators may help reduce exposure to airborne biological contaminants, but they do not eliminate the risk of exposure, infection, illness, or death.
- For greatest effectiveness respirators need to be worn before and during the entire exposure period.
- Respirators may help protect your lungs; however, some biological contaminants may be absorbed through the mucous membranes, eyes or open wounds, and other protective equipment may be required.
- Fit of the respirator to the face is very important. If the respirator does not fit properly, airborne contaminants will penetrate (enter underneath) the facepiece seal.
- 3M respirators, unless specifically noted, are not designed for children.
- Anything that comes between the respirator and face will make the respirator much less effective by interfering with its fit. Men should shave every day that they may use the respirator. Hair, jewelry and clothing should not be between the face and the respirator.
- Training on proper use and limitations, including practice putting the respirator on and wearing it, is required for workers before they use the respirator.
- Individuals with a compromised respiratory system, such as asthma or emphysema, should consult a physician before wearing a respirator. In the United States, workers must receive medical clearance to wear a respirator from a licensed healthcare professional prior to using the respirator.

Each facility or individual should use the best available information to determine appropriate respiratory protection for exposures to the virus.

Are multiple sizes of respirators needed?

Multiple sizes of respirators are not mandatory. Multiple sizes or alternative facepiece designs can provide the individual with additional options for obtaining a good fit and seal. What is important is that the respirator fit the wearer.

How important is fit?

Fit is very important. If a respirator does not seal tightly to the face, airborne hazards can penetrate or enter underneath the facepiece seal and into the breathing zone. It is very important to always follow the donning instructions and do a user seal-check or fit-check before entering the contaminated environment. A good fit can only be obtained if the face is clean-shaven in the area where the respirator seals against the face. Beards, mustaches, and stubble may cause leaks into the respirator. Many medical facemasks, not approved as respirators, do not seal tightly to the face, allowing airborne hazards to enter the breathing zone. Even those medical facemasks that appear to seal tightly to the face have not been designed to protect the wearer from airborne hazards. Therefore, they should not be considered an equivalent substitute for government-approved respirators.

In U.S. workplaces, the Occupational Safety and Health Administration (OSHA) requirements for respiratory protection 29 CFR (1910.134) must be followed, including medical evaluation, training, and fit testing for employees required to use respirators in the workplace. In the U.S., healthcare workers, and other employees that are required to wear respirators must do a fit test before wearing the respirator for the first time. This fit test must be performed before a new make or model of respirator is worn by the employee and repeated a least annually or if any physical change occurs to the wearer that could affect face fit. For U.S. employees required to wear a respirator, a user seal check cannot be used as a substitute for the fit test.

In countries where the OSHA standards do not apply, healthcare workers and other employees required to wear a respirator should follow applicable national workplace standards, regulations and policies concerning use, fit-testing/checking and training. 3M recommends that fit testing and training always be conducted for occupational use of a respirator.

What if I have a beard or stubble and want to wear a respirator?

A tight sealing respirator, one where the sealing surface contacts the face, will not provide an adequate seal when placed over any amount of facial hair. A bearded worker will typically require a powered air-purifying respirator (PAPR) with a hood or helmet.

How do I put on the respirator and check for proper fit?

The *User Instructions* for a 3M respirator contain the proper procedures for putting on the respirator and checking for fit and seal. It is very important to read and follow the donning instructions very carefully and to conduct a fit check or user seal check every time the respirator is put on. The *User Instructions* are provided with the original packaging of the respirator.

Can disposable respirators be shared between people?

Disposable respirators should never be shared.

Can a valved respirator be used for protection from the virus that causes influenza?

A valved respirator is designed to allow for easy exhalation through a one-way exhalation valve. If a person is wearing a respirator to help reduce his or her exposure to airborne viruses, a respirator with an exhalation valve would be acceptable. It would not be acceptable for someone to wear a valved respirator if they have a are suspected/probable/confirmed case of swine flu, as they would be exhaling into the environment.

For other situations where healthcare workers are required to wear a respirator the use of a valved respirator must be in accordance with national guidelines. For example, in some regions of the world such as the U.S. and Canada, it is not acceptable for a healthcare worker to wear a valved respirator in a situation requiring a sterile environment, such as the operating room.

Respirators should not be worn by a person whose respiratory system has been compromised or who may have trouble breathing through a respirator, unless otherwise advised by your personal physician.

Can I clean or wash a disposable respirator?

Under no circumstances should an attempt be made to clean or wash a disposable respirator.

What is the risk of inhaling biological particles that have been collected by the respirator filter?

The risk of inhaling particles that have been collected by the filter is very low, particularly in very clean areas (such as a patient care setting or a home). When particles are collected on a filter they are strongly held to the filter. Breathing through a filter has not been shown to dislodge the particles collected in that filter. However, it is important to understand that proper use of respirators only reduces your exposure to particles and does not prevent the risk of some exposure.

Can particles, such as bacteria or viruses, be reaerosolized from the respirator filter?

When particles are collected on a filter they are strongly held to the filter. Proper and normal use of a respirator has not been shown to reaerosolize the particles collected in that filter. Just because particles may not reaerosolize, does not mean that a respirator can be reused. The recommendations of the local health authority and the facilities infection control practitioner regarding reuse should be followed.

Do 3M disposable respirators contain natural rubber latex?

None of 3M's National Institute for Occupational Safety and Health (NIOSH) approved N95, N100, R95, P95, or P100 disposable respirators contain components made from natural rubber latex. This is stated on each original packaging of these respirators. Many 3M respirators sold outside the U.S. do not contain components made from latex. However, there are some that contain natural rubber latex components and these respirators carry a statement on the primary packaging similar to the following: "This product contains components which contain natural rubber latex which may cause allergic reaction." If you require information on which 3M products contain natural rubber latex components, please contact your local 3M office.

Do any of 3M's disposable respirators contain fiberglass material?

No. All 3M disposable respirators have filter media made from polypropylene and coverings typically made from a combination of polypropylene, polyester.

Eye and Mucus Membrane Protection

For eye and face protection information refer to 3M Technical Data Bulletin #192 - Eye Protection for Infection Control.

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3M PSD products are occupational use only.

In United States of America
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