

AIHA[®] FACT SHEET

RESPIRATORY PROTECTION FOR REDUCING DISEASE TRANSMISSION: INFORMATION FOR THE GENERAL PUBLIC

“Facemasks” are sometimes used in an attempt to prevent the spread of airborne diseases such as influenza (the “flu”). This fact sheet presents information about the different types of “facemasks,” and their uses and limitations.

CAN “FACEMASKS” PREVENT DISEASE?

Infectious diseases such as influenza (the “flu”) can be spread by several methods, including:

- Airborne droplets or sprays,
- Hand to mouth/nose/eye contact,
- Direct surface contact, or
- Combinations of these methods.

Because recent evidence suggests that inhalation of microscopic airborne particles may also transmit some diseases, it has been suggested that “masks” might reduce disease transmission.

WHAT TYPES OF “MASKS” ARE AVAILABLE?

Two general types are available:

- Surgical masks (SM)
- Disposable N95 filtering facepiece respirators (FFR)

Some N95 FFR have been cleared by the Food and Drug Administration (FDA) for use by the general public in public health medical emergencies. However, no study has shown that a FFR or a SM alone will effectively reduce disease transmission when worn by people in the general public who may come into contact with sick people.

Current recommendations for the use of FFR or SM are based on what is known about how these devices perform in the workplace.

Surgical Masks (SM)

A surgical mask can:

- Protect patients from bacteria and other particles exhaled by health care workers.
- Protect health care workers from contact with sprays or splashes that may contain infectious organisms.



SM **ARE NOT** designed to reduce the inhalation of small airborne particles that may contain infectious organisms.

DO NOT expect a SM to protect you from inhaling infectious organisms.

Disposable N95 Filtering Facepiece Respirators (FFR)



N95 FFR **ARE** designed and tested to filter small particles from the air.

This can reduce the number of infectious particles you inhale and **MIGHT** reduce your chance of infection.

PROPER FIT IS CRITICAL FOR PROTECTION

N95 FFR are designed to seal against your face to help reduce the amount of infectious particles that can enter your nose or mouth. When N95 FFR are used in a workplace, particle concentrations inside the FFR are typically at least 10 times lower than particle concentrations in the workplace air **IF** the respirator fits the wearer. Workers receiving this level of protection have been trained in proper use of the FFR and have passed an individual “fit-test.”

Unfortunately, there may be little benefit from wearing an N95 FFR that has not been fit-tested on the wearer. Effective fit-tests may be difficult to obtain for members of the general public. Contact the organizations listed at the end of this fact sheet for more information about fit-testing and infectious aerosols.

N95 FFR CAN ONLY PROTECT WHEN WORN

The benefit of using any respirator, including a properly fitting N95 FFR, is quickly lost if it is not worn at **ALL** times the hazard is present. Most of the benefit of wearing a respirator is lost unless it is worn at least 90% of the time.

Infectious aerosols are invisible, so there is no indication when they are present. Also, some sick people may produce particles that can infect others before they show any symptoms themselves. Therefore, it is very easy to receive a significant exposure without knowing.

Even taking the respirator off to talk or eat in an area where infectious particles are present might allow enough exposure to cause infection.

The only way to avoid this problem is to properly wear the respirator at **ALL** times the infectious aerosol **MIGHT** be in the air.

All of the respirator manufacturer's instructions for putting on and wearing the FFR must be followed.

RESPIRATORS ALONE WILL NOT PREVENT DISEASE TRANSMISSION

Some diseases may be transmitted via small aerosols that N95 FFR can filter out. However, droplets or sprays, hand to mouth/nose/eye contact, and direct surface contact may also cause infection.

ALL routes of exposure must be avoided to the greatest extent possible to reduce your chance of getting sick.

While wearing a properly fit N95 FFR can reduce inhalation exposures, *frequent hand washing with soap and water can help minimize transmission through other exposure routes.*

An annual seasonal flu vaccination is the best way to reduce the chances that you will get seasonal flu.

KEY FACTS ON RESPIRATOR EFFECTIVENESS

- A respirator that is not worn will not provide protection.
- Wearing a respirator the wrong way will result in very ineffective protection.
- Wearing a respirator that fits properly all of the time provides the most effective protection.
- The protection a respirator provides is quickly lost when not worn at ALL times.

FOR MORE INFORMATION CONTACT:

- American Industrial Hygiene Association: www.aiha.org
- Centers for Disease Control and Prevention: www.cdc.gov/flu/protect/preventing.htm
- National Personal Protective Technology Laboratory: www.cdc.gov/niosh/npptl
- Occupational Safety and Health Administration: www.osha.gov

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