



November 2007

Disposable Respirator Q&A – Use of Disposable Respirators for Cleanup Activities Following a Wildfire: Information for the General Public.

What is the difference between a disposable respirator and a “dust mask”?

By outward appearance there may not seem to be much difference between a disposable respirator and a dust mask, but the similarities stop there. Unlike a dust mask, respirators are certified by the US government to ensure that they meet specified minimum filtration requirements as well as specific manufacturing quality levels. Disposable respirators are often referred to as “N95s” because this is their classification by the US Government. The National Institute for Occupational Safety and Health (NIOSH) is the agency that tests and approves respirators. A respirator that has NIOSH approval will say so on the packaging.

Many dust masks or medical facemasks, which are not approved as respirators, do not seal tightly to the face allowing airborne hazards to enter the breathing zone. Even those 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.

Sometimes when documents say to use a “dust mask” what they really mean is a disposable respirator. If you are trying to reduce the number of particles that reach your lungs, you should use a NIOSH approved respirator. If the product is not approved by NIOSH, you should not use it to help protect your lungs from dust.

Can N95 respirators filter particles that are really small like smoke, soot and ash?

Yes. Particulate filters employ multiple mechanisms that are effective at filtering a range of particles that include those so small you cannot see them. In fact, as part of their certification process, NIOSH tests particulate respirators against submicron particles in the size ranges of smoke, soot and ash.

What should I do to become familiar with the respirator and how to use it?

It’s important to familiarize yourself with the respirator *User Instructions* and to practice putting on the respirator in a clean area before you start working in the contaminated area.

Who should not wear respirators?

If you have pre-existing lung disease such as asthma or emphysema, underlying heart disease such as heart failure or other health conditions, you may have difficulty breathing through some respirators and should consult your healthcare provider (doctor) before use.

People with facial hair in the area where the respirator touches the face should not wear N95 or other NIOSH respirators requiring a snug fit to the face unless they shave those areas of their face.

Can children wear respirators?

3M disposable respirators are designed for adult faces and not for children. Very young children, or children with very small faces, may not be able to achieve a good fit. In addition, children may not be able to follow the fit instructions or to keep the respirator on their face during the entire time they are in a contaminated area. Children under three should not wear a respirator or mask as it may be a suffocation or choking risk. Contact your local health authority if you have questions about children's health.

What is a type N95 respirator?

N95 is one of nine classifications for National Institute for Occupational Safety and Health (NIOSH) certified particulate respirators. N95 rated filters have a filtration efficiency of at least 95% against solid and liquid particles that do not contain oil.

Does 95% efficient mean that 5% of the particles get through my respirator filter?

Respirators are designed to help reduce, not eliminate, exposures to airborne hazards. N95 rated respirators have a filtration efficiency of at least 95% against solid and liquid particles that do not contain oil when tested using the NIOSH criteria. However, the efficiency of the filter material alone does not determine the overall reduction in airborne hazards provided by a respirator. The other determinant in reducing exposure is fit. If a respirator does not seal properly to the face, airborne hazards can penetrate or enter underneath the face piece seal and into the breathing zone.

To gain the maximum benefit from the respirator (e.g. achieve the greatest reduction in exposure), follow the instructions on how to put on the respirator, do the user seal check (fit check) and make sure you are clean shaven and that no clothing or jewelry gets between the respirator and your skin. There are other factors that may reduce respirator performance such as poor maintenance, failure to follow manufacturer's instructions, and failure to wear the respirator during the entire exposure period. It is important to remember putting the respirator on correctly means more of the air you breathe goes through the respirator filter.

What if I'm using an N95 respirator and I am not at work and not part of an occupational respirator program? Will the respirator still work?

Yes. N95 Respirators can help reduce the number of airborne particles you breathe. Because you are not receiving formal training or a fit test, you may not receive the full benefit of the respirator. However, studies have shown that people can still receive a reduction in exposure if they follow the instructions on how to put on the respirator and do the user seal check (fit check) and make sure that they are clean shaven and that no clothing or jewelry gets between the respirator and your skin. It is important to remember that respirators cannot eliminate the breathing in of all particles in the air and cannot eliminate the possibility of becoming sick.

Standards regulating respirator training for the general public have not been established. For your respirator to help reduce the number of particles you breathe, you must read and follow the

User Instructions that come with each respirator. Additional information about how to put on disposable respirators are available on 3M's website www.mmm.com/wildfires.

N95 Respirators can help reduce the number of particles you breathe. However, they will not prevent entry of particles through your skin, eyes, or other parts of your body.

If you experience dizziness, irritation or other distress while wearing this respirator, go to a clean, safe area, and remove your respirator. Consult your healthcare provider (doctor) to determine whether or not you should continue use of the respirator.

Will N95 respirators get rid of the odors from wildfires?

N95 respirators are particulate respirators and will filter out particles such as dust, soot and ash. Some N95 disposable respirators are available with a charcoal layer that will provide relief against low levels of odors (referred to as "nuisance" odors) from soot, ash or mold and mildew.

For higher concentration levels of gases and vapors or for areas with low oxygen different types of respirators should be used. Contact your local department of health and hire a professional to deal with these types of situations as they can be very dangerous.

What type of respirator should I use if I am cleaning up an area with asbestos, lead, a large area of mold, or another hazardous material?

Homeowners should call a contractor and contact their local health authority if you they a situation involving hazardous materials. Employers should follow the Occupational Safety and Health Administration's (OSHA's) regulations and consult a respirator manufacturer for assistance.

How important is the fit of the respirator?

Fit is very important. If a respirator does not seal properly to your 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. Remember, the better the fit means more of the air you breathe goes through the filter.

A good fit can only be obtained if the face is clean-shaven in the area where the respirator seals against the face. Beards, long mustaches, and stubble may cause leaks into the respirator.

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. 3M also has fitting instructions for half-facepiece respirators available on their website www.mmm.com/wildfires.

How is a user seal check/fit check performed on a disposable respirator?

Filtering facepiece respirator without a valve: To perform a user seal check on a 3M non-valved, cup shaped disposable respirator:

- Completely cover the outside of the respirator with both hands.

- Do not push the respirator against your face.
- With your hands in place on the surface of the respirator, exhale, or breath out sharply.
- If you feel air blowing on your face or eyes, the respirator needs to be adjusted. To adjust, repeat the user instructions on how to put on the respirator.
- When the respirator is a good fit, you will not feel any air blowing on your face or eyes.
- If you can't get a good fit, try a different model respirator.

Filtering facepiece respirator with a valve: To perform a user seal check on a 3M valved, cup shaped disposable respirator:

- Completely cover the outside of the respirator with both hands.
- Do not push the respirator against your face.
- With your hands in place on the surface of the respirator, inhale, or breathe in sharply. The respirator should collapse slightly.
- If air leaks between the face and the face seal of the respirator, the respirator needs to be adjusted. To adjust, repeat the user instructions on how to put on the respirator.
- When the respirator is a good fit, you will not feel any air leaking between the face and the face seal.
- If you can't get a good fit, try a different model respirator.

What if the respirator does not fit me?

If, during the user seal check (fit check), you notice air leakage around the edges of the respirator you should readjust the respirator. And conduct another user seal check.

If you still notice air leakage, you should remove the respirator (in a clean area only). Review the instructions, if necessary, to make sure that you are putting it on correctly. Inspect the respirator to make sure that there is no damage to the respirator. You must be clean-shaven. Be sure that there is no hair, clothing or jewelry between your skin and the edge of the respirator. Put the respirator on again, according to the manufacturer's directions. Do a user seal check (fit check).

If you still cannot achieve a proper seal, do not use the respirator. You may need to obtain a different size, make or model respirator.

Can disposable respirators be shared between people?

Disposable respirators should never be shared.