

# Respiratory Protection.

## Applied to helping you breathe easier.

### What is the health threat from wildfires and smoke?

Smoke from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. Many more chemicals can be released when wildfires reach man-made items or structures. Smoke can irritate both your eyes and respiratory system and worsen chronic heart and lung diseases.

### Will a facemask or dust mask protect me from smoke?

For a facepiece or mask to provide protection during a smoke event, it must be able to filter very fine particles (around 0.3 to 0.1 microns, which you cannot see), and it must fit well to provide a tight seal around the wearer's face.

Masks that are "paper", "comfort", "surgical" or "dust" commonly found at hardware stores are designed to trap only very large particles (the ones you can see). They are also not designed to fit well on the wearer's face. These masks will not adequately protect your lungs from smoke. For more information about effective facepieces or masks, visit the [Centre for Disease Control and Prevention](#).



### If a facemask, surgical mask or dust mask will not protect me from smoke, what should I wear?

Air purifying respirators (APR) are certified by NIOSH and classified as either an N, R, or P product with an efficiency of 95, 99 or 100% against these very fine particles. Air purifying respirators such as an N95 respirator or a P100 filter on a reusable facepiece will remove the fine particulate found in wildland fire smoke. However, they will not filter gases such as carbon monoxide. They also do not supply oxygen and will not protect against super-heated gases, a concern for workers who are fighting fires. It is important to note that for tight-fitting respirators to be effective, the user must be clean-shaven in the area where the respirator contacts the face.

Examples of APR's that may help reduce exposures to smoke include: 8210, 8210V, 8110s, 8511, 8214, 9210+, 9211+ These types of respirators will also remove particulate: 6100, 6200, 6300, 6501, 6502, 6503, 7501, 7502, 7503 facepieces with 2091, 2097, 2291 or 2297 filters.



## **Will a wet towel or bandana provide any help?**

Breathing through a warm, wet washcloth or towel **MAY** help relieve the air dryness. However, they will not protect your lungs from smoke or inhaling particles. Wet towels or bandanas have the same shortcomings as “paper” or “dust” masks.

## **Do I need to be fitted or fit-tested to use a respirator?**

Ideally you would be fit tested following the protocol set by CSA (Z94.4). However, this requirement is only enforced by employers whose workers are required to use respirators at their worksites.

## **I have a small face and children. Do you have an air purifying respirator that you would recommend?**

3M manufactures small sized of disposable respirators such as the 8110S, which may work for smaller faces. However, there are no NIOSH-approved respirators for children, and effectiveness cannot be guaranteed.

## **How long will a disposable respirator last?**

It is difficult to predict how long the respirator will last because the airborne concentration of particulate is unknown. However, when it becomes difficult to breathe through it, the respirator should be changed. If a disposable respirator is physically damaged (cut, strap broken, burn hole), it must be replaced immediately.

## **Why do respirators have two straps? Do I need to use both?**

Yes. The respirator was designed to be worn with both straps in place. Wearing only one strap will likely cause the respirator to leak around the user's face.

## **Where can I buy a respirator?**

There are a number of local industrial distributors that stock respirators as well as retail hardware stores. Ask for 3M products for respiratory protection or ensure the product you purchase has a NIOSH logo.

## **What should I wear to reduce eye irritation from smoke?**

Ideally a full-facepiece respirator should be worn to protect your eyes and respiratory system. However, if only a disposable or half-facepiece respirator is available, a sealed goggle like 3M™ Gogglegear Clear Lens with Anti Fog may also be worn to help reduce eye irritation.



## **Where can I get more information?**

Call 3M Canada Safety Centre at 1-800-267-4414 or visit [3M Worker Health & Safety](#), [Public Health Agency of Canada](#), and [Centre for Disease Control](#) and [Prevention Emergency Preparedness and Response](#).

All respirator suggestions contained herein are based on data we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. There is no representation, warranty, guarantee or other obligation of 3M or its employees arising out of these suggestions. 3M shall not be liable for any loss and/or damage, whether direct, indirect, incidental, special or consequential arising out of the sale, use or misuse of 3M Personal Safety products or the user's inability to use such product. No respirator is capable of preventing all airborne contaminants from entering the breathing zone of the wearer. Respirators can help reduce certain airborne contaminant concentrations in the breathing zone to below the applicable Occupational Exposure Limit (OEL) for your jurisdiction. Misuse of respirators may result in overexposure to the contaminant and cause sickness or death. Proper respirator selection, training and use are mandatory in order for the wearer to be properly protected. Use and Selection of respirators must be in accordance with the authority having jurisdiction in your country or province. Use of the Canadian Standards Association (CSA) standard Z94.4 may be used for further guidance in the selection of appropriate respirators or call 3M Technical Service at 1-800-267-4414.