

What is in wildfire smoke?

Smoke from wildfires generally contains large amounts of fine particulate matter (PM), and gases such as carbon monoxide and carbon dioxide. Depending on the type of material burned the smoke may also contain nitrogen oxides, sulfur oxides, volatile organic compounds (VOCs) and other compounds such as polycyclic aromatic hydrocarbons. Ozone gas may also be formed when nitrogen oxides react with the VOCs in the presence of sunlight. Concentration of smoke and its various components are highest closest to the fire. Depending on wind conditions and temperature inversions, the smoke may hang in the air for extended periods of time.

Health effects of wildfire smoke

Breathing smoke typically causes irritation of eyes, nose and throat. These symptoms are usually short lived in healthy individuals and are resolved when the smoke clears. However, individuals with pre-existing medical conditions may experience worsened symptoms.

Air Quality Guidelines

Given the complex and variable nature of the wildfire smoke, Occupational Exposure Limits for exposure to wildfire smoke have not been established. Ambient air quality guidelines are used by Alberta Environment to monitor outside air quality and assign an Air Quality Health index (AQHI) on a scale of 1 – 10. The lower the number, the lower the risk. Visit this page to see the recent AQHI for your community <http://www.environment.alberta.ca/apps/aqhi/aqhi.aspx>

Since the actively burning wildfire is further away and air quality conditions in the area have improved, the potential for respiratory irritation is minimal; therefore P100 respirators are no longer required. The following respirators are now recommended:

Respirator	Photo	When to wear it
<p>N95 Disposable filtering face piece respirator</p>		<ul style="list-style-type: none"> – If you experience irritation from wildfire smoke, ash or soot – As per usual practice while providing direct patient care to those with confirmed or suspected airborne communicable diseases

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<p>P100 Disposable filtering face piece respirator</p>		<p>Conducting work that may result in airborne ash and/or soot. (e.g. grounds workers)</p>
<p>Re-usable half face respirator with a combination organic vapor/multigas /P100 cartridges</p>		<p>-Inspecting areas that have been burned or if in direct contact with ash (e.g. Environment & Public Health Inspector work).</p>

A disposable filtering face piece respirator provides the same level of protection as a re-usable half face respirator with equivalently- labeled filters. In other words, P100 disposable respirator provides the same level of protection as a re-usable half face respirator with P100 filters.

All types of respirators must be properly fitted and worn correctly to be effective.

Do I have to complete an incident report in MySafetyNet for smoke exposure?

AHS has verified that individual incident reports do not need to be completed in MySafetyNet as AHS is keeping a comprehensive record of all workers who participated in the hospital evacuation and who are involved in the recovery effort. Should an illness present itself in the future that is related to smoke exposure, this record is all that would be needed to support a WCB claim. Acute illness/injury should be reported into MySafetyNet immediately.

