

## 8 Things You Need to Know When Exposed to Wildfire Smoke Protecting Yourself in the Work & Home Environments

Smoke from large scale forest fires can be pervasive over wide areas, affecting both your place of work and your personal residence. Aside from the haze, limited visibility, and odor, exposure to this smoke can lead to potential health effects. Keeping updated of both fire and smoke patterns is key, however there are some issues to be aware of so as to better protect your health and those around you.

While the smoke from forest fires is clearly visible in impacted areas, the microscopic smoke particles can travel hundreds of miles and can affect human health in areas far from the actual fire. Smoke is composed of both very tiny particles and combustion by-products. These smoke particles are extremely small in size and can stay airborne for days—exposure to smoke particles can irritate your eyes, nose, and throat or lead to more significant health effects (chest tightness, wheezing, etc.), which may require medical attention.

Smoke air quality measurements are usually given as a “PM2.5,” which defines levels of these microscopic smoke particles using a scale from 0 to 500:

Air Quality	Value/Range	Notes
Good	0 - 50	No concerns for anyone
Moderate	51 - 100	Very minor concerns, if any
Unhealthy for Sensitive Groups (USG)	101 - 150	Limit exposure/exertion for older adults, small children, persons with heart/lung issues
Unhealthy	151 - 200	Limit exposure for all people, minimize outdoor activities, no outdoor exercising
Hazardous	301 - 500	Stay indoors, monitor symptoms for at-risk individuals

Some people (sensitive groups) have more significant responses to smoke exposure and may be at a heightened health risk. This includes:

- Individuals with lung and/or heart diseases
- Young children
- Pregnant women
- Older persons with limited lung capacity
- Persons with allergies

Individuals with a heightened risk to smoke exposure should be checked on periodically so as to not have an emergency situation.

**Some key steps to take that may decrease your risk from wildfire smoke:**

1. Watch/listen to local news reports and check local air quality reports. Stay informed of weather/wind pattern predictions. Stay informed to changing conditions. Check out your local air quality conditions at [www.airnow.gov](http://www.airnow.gov) (U.S).
2. Keep your indoor air (office building or residence) as clean as possible. Keep all doors and windows closed. Limit the opening/closing of doors. If the air quality is causing health effects (symptoms) run the air conditioner. If possible close the outside air intakes (commercial building HVAC systems). Ensure the system air filters are in place and monitor carbon dioxide levels if capable. At home, replace the home air filter with one having a minimum MERV rating of 8 if possible. If driving, use your air-conditioner and the re-circulate function.
3. Eliminate and prevent any activities that can generate additional particles within the building. Do not burn candles, fireplaces, or gas stoves. These activities can increase indoor pollution. Do not use vacuums to clean up settled smoke particles—use a wet wipe method. If at home, prevent any type of smoking as this adds even more pollution into the air.
4. Chose a different day/time for cardiovascular exercising. Physical exertion increases both heart and breathing rates resulting in greater particle exposure. This can pose additional challenges on your body and lead to aggravating symptoms.
5. If in a sensitive group, follow the advice of your doctor or other healthcare provider—ensure any needed medication/respiratory equipment is available. Consider evacuating if you are having trouble breathing. Call your doctor for advice if your symptoms worsen. Contact wearers may benefit from removing their lenses and using glasses.
6. Do not distribute dust masks or surgical masks to employees for respiratory protection. Masks available at hardware/convenience stores are only designed to capture much larger particles and cannot filter out the microscopic smoke particles. Use of these dust masks can lead to a sense of 'false security' and lead to greater exposure. Avoid use/purchase of a 'true' respirator as misuse of this equipment can pose other health risks. Similarly, bandanas and/or scarfs (either wet or dry) do not provide effective protection from smoke particles.
7. Evacuate from the path of wildfires. Listen to the news to learn about current evacuation orders. Follow the instructions of local officials about when and where to evacuate. Take only essential items with you. Follow designated evacuation routes—others may be blocked—and plan for heavy traffic.
8. Use of portable/personal air cleaners in the office or residential setting may be beneficial – ensure the unit has a filter (preferably HEPA). DO NOT use other types of air purifiers that generate ozone or are electrostatic precipitators or ionize the air.

**CONTACT YOUR LOCAL HUB** for additional risk management resources and advisement.

For even more information, visit

[www.hubinternational.com](http://www.hubinternational.com)

