

Frequently Asked Questions

1. Why is wildfire smoke exposure bad for you?

When wildfires are present, particulate matter is emitted into the air. Particulate matter that is very small, about 2.5 microns in size or smaller, can enter the respiratory tract and cause health concerns. Exposure to particulate matter can contribute to several health conditions. The health conditions can be as minor as eye and respiratory tract irritation to more serious, systemic health impacts (Stone, 2019).

<https://www.epa.gov/air-research/research-health-effects-air-pollution> and <https://www.epa.gov/pm-pollution/how-smoke-fires-can-affect-your-health#:~:text=The%20biggest%20health%20threat%20from,even%20linked%20to%20prematu re%20death.>

2. Can I afford to protect myself?

Some things will have a small cost, while other things will not cost at all.

Low/No Cost Options:

- Checking the air quality
- Limiting outdoor activity
- Designate a clean air space in your home
- Do not add to air pollutants (burning candles, vacuuming etc.).
- Keep doors and windows closed
- DIY filter and box fan air purifier

Cost Options:

- Purchase a HEPA Air Purifier
- Use an air conditioner with a MERV 13 or better filter
- N95 mask
- Updating HVAC system to a MERV 13 or better filtration system

3. When does the action go into effect?

Action will go into effect based on the Action Plan Guide to be used during smoke events (Table 2). For more information on how to protect yourself or others, please follow the guidelines below. <https://dphhs.mt.gov/assets/publichealth/Asthma/Wildfire%20Smoke/AirQualityActivityGuidelinesGuidelines.pdf>

4. How does the Air Quality Index (AQI) work?

Think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern. For example, an AQI value of 50 or below represents good air quality, while an AQI value over 300 represents hazardous air quality.

AQI values at or below 100 are generally thought of as satisfactory. When AQI values are above 100, air quality is unhealthy: at first for certain sensitive groups of people, then for everyone as AQI values get higher.

The AQI is divided into six categories. Each category corresponds to a different level of health concern. Each category also has a specific color. The color makes it easy for people to quickly determine whether air quality is reaching unhealthy levels in their communities.

5. What is an “Action Day?”

Action days are usually called when the AQI gets into the unhealthy ranges. Different air pollution control agencies call them at different levels. In some places, action days are called when the AQI is forecast to be Unhealthy for Sensitive Groups, or Code Orange. In this case, the groups that are sensitive to the pollutant should reduce exposure by reducing prolonged or heavy exertion outdoors. For ozone this includes: children and adults who are active outdoors, and people with lung disease, such as asthma. For particle pollution this includes: people with heart or lung disease, older adults and children. Occasionally, an action day is declared when the AQI is Moderate, or Code Yellow, if the levels are expected to approach Code Orange levels.

In many places, action days are called when the AQI is forecast to be Unhealthy, or Code Red. In this case, everyone should reduce exposure to air pollution, but especially the members of the sensitive group for the particular pollutant.

6. What can I do during wildfire smoke events to reduce my exposure to smoke while indoors?

When wildfires create smoky conditions, there are things you can do, indoors and out, to reduce your family's exposure to smoke. Reducing exposure to smoke is important for everyone's health — especially children, older adults, and people with heart or lung disease.

You can take these actions in your home to reduce your smoke exposure:

- Keep windows and doors closed.
- Use fans and air conditioning to stay cool. If you cannot stay cool, seek shelter elsewhere.
- Reduce the smoke that enters your home.
 - If you have an HVAC system with a fresh air intake, set the system to recirculate mode, or close the outdoor intake damper.
 - If you have an evaporative cooler, avoid using it unless there is a heat emergency because it can result in more smoke being brought inside. If you must use the evaporative cooler, take advantage of times when outdoor air quality improves, even temporarily, to open windows and air out the house.

- If you have a window air conditioner, close the outdoor air damper. If you cannot close the damper, do not use the window air conditioner. Make sure that the seal between the air conditioner and the window is as tight as possible.
- If you have a portable air conditioner with a single hose, typically vented out of a window, do not use it in smoky conditions because it can result in more smoke being brought inside. If you have a portable air conditioner with two hoses, make sure that the seal between the window vent kit and the window is as tight as possible.
- [Use a portable air cleaner or high-efficiency filter](#) to remove fine particles from the air.
 - If you use a portable air cleaner, run it as often as possible on the highest fan speed.
 - If you cannot get a portable air cleaner, you may choose to use a DIY air cleaner as a temporary alternative. Run it as often as possible. See the box above for [Tips – If You Choose to Use a DIY Air Cleaner](#).
 - If you have an HVAC system with a high-efficiency filter installed, run the system’s fan as often as possible to remove particles while the air quality is poor.
- Avoid activities that create more [fine particles indoors](#), including:
 - Smoking cigarettes.
 - Using gas, propane or wood-burning stoves and furnaces.
 - Spraying aerosol products.
 - Frying or broiling food.
 - Burning candles or incense.
 - Vacuuming, unless you use a vacuum with a HEPA filter.
- Avoid strenuous activity during smoky times to reduce how much smoke you inhale.
- [Create a clean room](#)
- Have a supply of [N95 respirators](#)
- Air out your home by opening windows or the fresh air intake on your HVAC system when the air quality improves, even temporarily.

7. What data and products are available during wildfire smoke events?

- [Fire and Smoke Map \(Fire.AirNow.gov\)](#)
- [Smoke outlooks from incident-specific sources \(potentially\)](#)
- State, Local and Tribal sites
 - [MT DEQ Wildfire Smoke Updates](#)
(<https://svc.mt.gov/deq/todaysair/smokemostrecentupdate.aspx>)
 - Butte-Silver Bow Health Department Montana Wildfire Smoke Information
(<https://co.silverbow.mt.us/3239/Montana-Wildfire-Smoke-Information>)
- [Private sites \(such as PurpleAir.com\)](#)
- Other products and sites may be available, but could be based on models or other data (satellite)
 - [NOAA forecast](#)
 - [NOAA smoke visualization map](#)
- [How to Create a Clean Air Room at Home](#)
- [Indoor Air Filtration at Home](#)

8. What type of mask do you recommend for protecting against wildfire smoke?

Tight-fitting “particulate” respirators are designed to capture or filter out particles from contaminated air before the user can breathe them in. A disposable N95 or P100 respirator, has two straps and a facepiece made entirely of filtering material. Respirators must be certified by NIOSH, and the words “NIOSH” and either “N95” or “P100” will be printed on the facepiece by the manufacturer. You should select a size and model that fits over the nose and under the chin and seals tightly to the face. Any leakage around the face seal causes unfiltered air to enter and be inhaled by the wearer, reducing or eliminating the ability of the respirator to provide protection. A good seal is not possible if the user has a beard or other excess.