

Breathe Carefully; The impact of wildfire smoke exposure and strategies for maintaining health.

I'm writing today from Portland, Oregon, my home and the home of our clinic of course, A Woman's Time. As you all know, our forests and several towns and areas are burning dramatically. The worst in our history. Governor Brown had stated several days ago that 900,000 acres had burned in 3 days vs the previous maximum of 300,000 acres a year. Those of us who are not suffering the trauma of lost homes, people, animals or land, are weathering the daunting smoke. The air quality is rated at 446, the worst in the nation and rated hazardous to one's health. The highest rating of severity. We are on day 3 of that rating as of Sunday, September 13, 2020. You can check your air quality at <https://www.airnow.gov>.

Many of our patients are struggling with their mood and their physical health during this time. The anxiety can easily increase let alone panic and fear if you are in a level 3 red zone and evacuate now. Then there is the depression of loss or fear of loss. For all us though, this smoky air is the air we breathe when outside, and eventually inside, if you do not have a proper air filter.

Here is some good background information to get you thinking, from the CDC: Wildfire smoke can harm you in multiple ways. Smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases. This fact sheet tells you how you can protect your health and be safe if you are exposed to wildfire smoke.

What is Wildfire Smoke and Can it Make Me Sick?

Wildfire smoke is a mix of gases and fine particles from burning vegetation, building materials, and other materials. Wildfire smoke can make anyone sick. Even someone who is healthy can get sick if there is enough smoke in the air. Breathing in smoke can have immediate health effects, including:

- Coughing
- Trouble breathing normally
- Stinging eyes
- A scratchy throat
- Runny nose
- Irritated sinuses
- Wheezing and shortness of breath
- Chest pain

- Headaches
- An asthma attack
- Tiredness
- Fast heartbeat

Older adults, pregnant women, children, and people with preexisting respiratory and heart conditions may be more likely to get sick if they breathe in wildfire smoke.

Wildfire Smoke Can Affect High Risk Groups

Eight Tips for Protecting Yourself from Breathing Wildfire Smoke

If possible, limit your exposure to smoke. Here are eight tips to help you protect your health:

1. **Pay attention to local air quality reports and the [US Air Quality Index](#)^{External}** . When a wildfire occurs in your area, watch for news or health warnings about smoke. Pay attention to public health messages and take extra safety measures such as avoiding spending time outdoors.
2. **Pay attention to visibility guides if they are available.** Although not every community measures the amount of particles in the air, some communities in the western United States have guidelines to help people estimate air quality based on how far they can see.
3. **If you are told to stay indoors, stay indoors and keep your indoor air as clean as possible.** Keep windows and doors closed unless it is very hot outside. Run an air conditioner if you have one, but keep the fresh-air intake closed and the filter clean to prevent outdoor smoke from getting inside. Seek shelter elsewhere if you do not have an air conditioner and it is too warm to stay inside with the windows closed.
4. **Use an air filter.** Use a freestanding indoor air filter with particle removal to help protect people with heart disease, asthma or other respiratory conditions and the elderly and children from the effects of wildfire smoke. Follow the manufacturer's instructions on filter replacement and where to place the device.
5. **Do not add to indoor pollution.** When smoke levels are high, do not use anything that burns, such as candles and fireplaces. Do not vacuum, because vacuuming stirs up particles already inside your home. Do not smoke tobacco or other products, because smoking puts even more pollution into the air.

6. **Follow your doctor's advice about medicines and about your respiratory management plan if you have asthma or another lung disease or cardiovascular disease.** Call your doctor if your symptoms worsen.
7. **Do not rely on dust masks for protection.** Paper "comfort" or "dust" masks commonly found at hardware stores trap large particles, such as sawdust. These masks will not protect your lungs from smoke. An "N95" mask, properly worn, will offer some protection. If you decide to keep a mask on hand, see the [Respirator Fact Sheet](#) provided by CDC's National Institute for Occupational Safety and Health.
8. **Avoid smoke exposure during outdoor recreation.** Wildfires and prescribed burns—fires that are set on purpose to manage land—can create smoky conditions. Before you travel to a park or forest, check to see if any wildfires are happening or if any prescribed burns are planned.

And here is some additional advice from us at A Woman's Time:

Wildfire smoke exposure causes oxidative stress and inflammation at least to the lungs if not more. Here are just a few tips for some level of protection:

- 1) Get in the shower and breathe deeply to moisturize the lungs.
- 2) Another simple strategy is to keep a pot of boiling water on the stove (especially if you do not have an air purifier). The steam produced helps the smoke particulates to drop to the ground.
- 2) N-Acetyl-Cysteine (NAC): A dose of 500mg-600 mg twice daily during exposure to smoke. NAC protects against many of the compounds found in wildfire smoke and acts as an antioxidant, anti-inflammatory, a mucolytic (thinning the mucus), and it increases glutathione levels which acts as an antioxidant and detoxifier.
- 3) Sulforaphane is also a potent antioxidant and activates the body's antioxidant and detoxification mechanisms. Sulforaphane has been shown to increase levels of enzymes important in minimizing lung damage from ozone and other air pollutants. The sulforaphane is naturally occurring in broccoli but can also be taken in capsules, maybe 2-4 capsules per day during smoke exposure.
- 4) Also consider good old fashioned vitamin C as critical to immune system health, detoxification and may decrease irritation in the airways. 1,000 mg to 3,000 mg/day

If you are having lingering symptoms or a worsening of a chronic medical condition, please call your physician here at A Woman's Time, or if you have one elsewhere- please contact them.

Consider an IV glutathione and/or IV vitamin C treatment with our IV specialist, Dr. Caitlan Readhead

Consider a Chinese Medicine assessment regarding smoke exposure and impact, resulting in an acupuncture appointment with Dr. Kellie Raydon or Dr. Jennifer Johnson.

We are thinking about you, and wishing you safety, well-being and good health.

Tori Hudson, N.D.
Medical Director at A Woman's Time