



**ORCHWA**  
Oregon Community Health Workers Association

## Smoke Exposure Resource Guide

Our goal is to provide statewide resources, and a foundation of knowledge about smoke exposure and risks that will help CHWs serve their communities. This guide may change and grow as we learn more about the long term impacts of smoke exposure and the ways it overlaps with COVID-19. If you have any questions, concerns, or suggestions please contact us: [info@orchwa.org](mailto:info@orchwa.org).

### Air quality tracking and resources

- <http://www.oregonSmoke.blogspot.com>
- <http://www.aqicn.org/map/oregon/>
- <https://data.statesmanjournal.com/fires/>
- <https://www.airnow.gov/>

### Oregon Health Authority wildfire resources

Comprehensive and contains resources in multiple languages

- [https://content.govdelivery.com/attachments/ORDHS/2020/09/14/file\\_attachments/1546210/Oregon%20Wildfire%20Resources%20for%20CBOs\\_09-14-20.pdf](https://content.govdelivery.com/attachments/ORDHS/2020/09/14/file_attachments/1546210/Oregon%20Wildfire%20Resources%20for%20CBOs_09-14-20.pdf)

### Wildfire alerts and resources

- <http://www.wildfire.oregon.gov/>
- <http://www.epa.gov/smoke-ready-toolbox-wildfires/>
- <http://www.oregoncounties.org/oregon-wildfire-resources/>
- <https://www.tripcheck.com/>
- <https://www.opb.org/article/2020/09/17/wildfires-oregon-news-updates/>

### Mutual aid funds

These are community run projects in which people take responsibility for caring for one another. There are many listed in the resource below, but you may need to search for or help create one in other areas across the state.

<https://itsgoingdown.org/mutual-aid-fire-relief/>

**Search terms to use:** Your city or county + wildfire + mutual aid or community aid

Small community drives and resource sharing are also great tools for getting through this hard time. If ORCHWA can support your efforts in any way, please let us know.

## Basic information about smoke exposure

Wildfire smoke is a complex mixture of air pollutants that are harmful to human health. It affects everyone, but especially those with preexisting conditions like lung disease, asthma, COPD (Chronic obstructive pulmonary disease), and heart conditions. The elderly, pregnant women, children under 18, and people with more exposure from working outdoors or being homeless are also at higher risk. These groups should be monitored even once the air starts to clear.

The smoke itself is an issue, but so are the particles in the air. The smallest ones (known as PM 2.5) are too small for the body to filter them out. They can get lodged in people's lungs, or even get into the bloodstream. This increases the risk of cardiac arrhythmias, asthma attacks, and heart attacks.

### **PM 2.5/Particulate Matter Pollution**

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

COVID-19 also impacts the lungs and the heart, so the overlap between these two issues creates a high risk for long term impacts. The immune system can be taxed by both conditions as well. This makes people more vulnerable to bacterial and viral infections. It's important to bolster immune systems and avoid strain on the heart and lungs.

Social distancing and masks are still crucial, but the masks that can protect against COVID are not always enough to filter smoke. Respirators with filters you can change or N95, P95, or K95 masks are best. These can be expensive or hard to find, so another option is to add more layers of filters in a cloth mask or double up on masks. Cotton t-shirt material is a good choice for filters. You can also cut a wide band of nylon from a pair of tights to wear over the mask to make sure it has a tight seal to your face.

### **5 Ways to Make a No-Sew Face Mask with Household Materials**

<https://sarahmaker.com/how-to-make-a-no-sew-face-mask-with-at-home-materials/>

## Smoke exposure symptoms

<p>Common symptoms:</p> <ul style="list-style-type: none"><li>● headache</li><li>● tiredness</li><li>● coughing,</li><li>● stinging eyes</li><li>● scratchy throat</li><li>● irritated sinuses</li><li>● trouble breathing normally</li></ul>	<p>Alarming symptoms - contact a medical professional:</p> <ul style="list-style-type: none"><li>● asthma attack</li><li>● wheezing</li><li>● shortness of breath</li><li>● fast heartbeat</li><li>● chest pain</li><li>● mental confusion</li></ul>	<p>Emergency symptoms- contact 911:</p> <ul style="list-style-type: none"><li>● major difficulty breathing</li><li>● significant heart pain</li><li>● a blue tint to lips or nails</li><li>● losing consciousness</li></ul>
---	--	---

## Limiting smoke exposure

Staying inside a well sealed building is the best way to avoid smoke exposure, but that is not an option for many people. Wearing a mask will help, and so will taking off smoky clothing when you return home. Be sure to bag them up until they can be cleaned. The skin is a giant organ that can absorb toxins as well so try to shower when you return home. Hair can hold a lot of smoke, so either wash it, or cover it when leaving the house.

There are some things you can do to help seal up a home against smoke, or filter the smoke that is getting in. Air purifiers are best, but can be very hard to find or expensive. You can make an air filter using a box fan and furnace filters (see link below). or a wet cloth. If using a wet cloth, be careful about electricity. Use the finest weave cloth you can, and change it as it gets dirty. Attach it firmly to the fan and make sure the air is moving through it. Keep a close eye on it and move it around as needed.

### ***Box Fan Filter: A DIY Users Guide from the Colville Tribes Air Quality Program***

<https://youtu.be/ukyF2xm8cws>

Check for gaps around windows and under outside doors and seal them up as best as you can. You can use plastic garbage bags and tape for the windows, and rolled up towels under the doors. Remove window AC units or seal them off as well. Avoid using your exhaust fans, keep dryer doors closed, and close off any rooms not being used. It's best to avoid vacuuming and sweeping so you don't raise dust.

## Self care and immune support

Drink lots of water, more than you usually do. Be sure you are tracking any safety warnings about the water in your area and filter or boil it if needed. Drinking herbal tea with honey can also soothe your throat, but avoid caffeine as it can increase your anxiety.

Complex B and C vitamins, elderberry, turmeric, and other anti-inflammatory supplements will help your body process toxins and support your immune system. Vitamin D is also great for immune systems, mental health, and body pain. Fish oil or flax seeds will help support your heart and are good for joint pain. Be sure to check on the safe levels for all supplements and ask a medical professional about drug interactions.

### ***US FDA Chart for Vitamin and Mineral Intake***

[https://www.accessdata.fda.gov/scripts/interactivenutritionfactslabel/assets/InteractiveNFL\\_Vitamins&MineralsChart\\_March2020.pdf](https://www.accessdata.fda.gov/scripts/interactivenutritionfactslabel/assets/InteractiveNFL_Vitamins&MineralsChart_March2020.pdf)

Stay informed about safety warnings but take breaks from social media and news. Be as gentle as you can with yourself and those around you. Anxiety, fear, trauma and sorrow can be part of this experience too. Try to avoid exertion on your lungs, but do gentle stretches or movements if you can. Look for simple, soothing ways to spend the time and reach out for help if you need it.

**Some of this content was sourced from various articles and resources, including:**

- Oregon Health Authority Wildfire Resources Guide  
[https://content.govdelivery.com/attachments/ORDHS/2020/09/14/file\\_attachments/1546210/Oregon%20Wildfire%20Resources%20for%20CBOs\\_09-14-20.pdf](https://content.govdelivery.com/attachments/ORDHS/2020/09/14/file_attachments/1546210/Oregon%20Wildfire%20Resources%20for%20CBOs_09-14-20.pdf)
- Wildfire Smoke and COVID-19: Frequently Asked Questions and Resources for Air Resource Advisors and Other Environmental Health Professionals  
<https://www.cdc.gov/coronavirus/2019-ncov/php/smoke-faq.html>
- “How to stay safe in a smoky pandemic: Your questions answered, and science explained”  
<https://www.opb.org/article/2020/09/14/how-to-stay-safe-wildfires-pandemic-oregon-air-quality-masks>
- “Oregon’s air quality is so far beyond ‘hazardous’ that no one knows what it means for health”  
<https://grist.org/climate/oregons-air-quality-is-so-far-beyond-hazardous-that-no-one-knows-what-it-means-for-health/>