# **How to Protect Yourself from Wildfire Smoke**

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Worsening heat and drought, driven in part by climate change, have increased the number, size, and intensity of wildfires in the United States and Canada. Breathing unhealthy air, and especially wildfire smoke can make anyone sick, but some of us are at greater risk then others. Wildfire smoke contains a mixture of air pollutants, with fine particulate matter (PM2.5) being its primary public health threat. Wildfires also contribute to the formation of ground-level ozone. PM2.5 is damaging to human health because it can deeply penetrate lung tissue and even affect the heart and circulatory system.

# Westchester's Air Quality and Canadian Wildfire Events

According to the American Lung Association's 2025 "State of the Air" Report, the Chicago Metropolitan Area has the 15<sup>th</sup> worst level of ozone pollution in the country (ranked 17<sup>th</sup> in 2024) and the 13<sup>th</sup> worst annual PM2.5 level (ranked 22<sup>nd</sup> worst in 2024).

On June 26<sup>th</sup> and 27<sup>th</sup>, 2023 the wildfire smoke from Canadian wildfires found its way to the Chicago Metropolitan area where air quality veered into the red zone of the Air Quality Index (AQI). The air in Westchester became unhealthy for everyone. On June 27<sup>th</sup>, Chicago was deemed to have the "worst air quality in the world" as our air quality veered into the purple zone of the AQI, making it very unhealthy for everyone.

After the 2023 Canadian wildfire event, the National Weather Service and Illinois Environmental Protection Agency, made changes to better inform the public of these events. Air quality alerts should be taken seriously by everyone in affected areas.

## Exposure to Wildfire Smoke and Who is Most Vulnerable to Air Pollution in General

Although a large population can be exposed to smoke during a wildfire event, most healthy adults and children will recover quickly from wildfire smoke exposure. Certain life stages and populations may, however, be at greater risk of experiencing health effects, including people with heart or lung conditions, diabetes, pregnant women, children, teenagers, seniors, and people who are active or work outdoors. Unhealthy air can also place those that have been socially or economically disadvantaged, especially minority populations, at increased health risk.

## **Protect Yourself and Others from Unhealthy Air**

- 1. **Use the Air Quality Index (AQI) to plan outdoor activities** Check the current air quality and forecast at https://www.airnow.gov/airnow-mobile-app
- 2. **Subscribe to EnviroFlash** at <a href="https://www.enviroflash.info/signup.cfm">https://www.enviroflash.info/signup.cfm</a> to get air quality notifications sent directly to you
- **3.** Reduce your daily contributions to air pollution ● Drive less, bike or walk, carpool or use public transportation Use energy efficiently Choose ENERGY STAR certified products For cleaner heat, and air conditioning, upgrade to a heat pump, or

geothermal system •For cleaner appliances, replace your gas appliances with electric or heat pump systems •Keep your vehicle engine tuned, inflate your tires to the recommended pressure, and don't let your engine idle •When refueling, stop when the pump shuts off, avoid spilling fuel and tighten your gas cap. Use low-VOC paint and cleaning products; seal and store them so they can't evaporate. •Don't burn wood outdoors.

## **Protect Yourself and Others from Wildfire Smoke**

- 1. Prepare for Unhealthy, Very Unhealthy, and Hazardous Air Quality Wildfire smoke can make anyone sick, sometimes with immediate and possibly serious health impacts. Check your home to ensure that windows and doors seal, maintain your HVAC system to ensure that it can be set to recirculate and can operate with a MERV-13 filter. Obtain a supply of MERV-13 filters and N—95 or KN-95 masks and a portable high efficiency air filter that does not emit ozone. If your home has a fireplace, make sure you are able to close its damper (or flue). Consider setting up a clean room in your home. Determine where you will stay, if you are unable to adequately keep outside air from entering your home.
- 2. When you must take refuge indoors, avoid activities that increase indoor air pollution

  ●Smoking and vaping ●Using a gas stove ●Frying or broiling food ●Burning candles or incense ●Using aerosolized sprays ●Vacuuming
- **3. If you must be outside** Limit outdoor activities. Set the climate control in your vehicle to recirculate. Wear an N-95 or KN-95 mask.

**Note:** Every spring and fall the Cook County Forest Preserve District (CCFPD) performs prescribed burns throughout the preserves. This activity is needed to effectively manage and restore degraded areas to ecological health. Individuals living closer to prescribed burn areas may experience more smoke exposure, and vulnerable populations may be disproportionately affected. On the airnow.com app, you can access the Fire and Smoke map. Small fires, such as a prescribed burn, appear as very small burnt orange dots on the map, whereas large wildfire incidents appear as large bright red flames. The circles of various colors throughout the map locate EPA monitoring stations and PM2.5 sensors placed by citizens.

For more information contact: <a href="mailto:ewchase@westchester-il.gov">ewchase@westchester-il.gov</a>







# **GREEN FACT OF THE MONTH**

Wildfire smoke is estimated to be about ten times more toxic to us than air pollution from burning of fossil fuels. Depending on what is burning, the smoke can have harmful gases and release fine particulate matter.

https://news.stanford.edu/stories/2025/01/assessing-wildfire-health-risks

#### RECIPE OF THE MONTH

Recipe of the Month

## **Carrot Hot Dogs**

makes 8 servings

## Ingredients

8 medium carrots, peeled and skinny ends trimmed 2 Tbsp. extra-virgin olive oil 1/4 cup low sodium vegetable broth 1/4 cup apple cider vinegar 2 Tbsp. soy sauce 1 tsp. maple syrup 1/2 tsp. garlic powder 1/2 tsp. smoked paprika 1/2 tsp. liquid Smoke 8 hot dog buns Ketchup, for serving

## Instructions

Mustard, for serving

- Add the carrots to a small roasting pan and toss with olive oil. In a small bowl, whisk
  together broth, vinegar, soy sauce, maple syrup, garlic powder, paprika and liquid
  smoke. Pour over carrots and cover pan with foil. Let sit for 30 minutes.
- Preheat oven to 425°. Place the foil-covered baking dish in the oven and roast carrots for 30 minutes. Remove the foil and roast for another 20 minutes, until the carrots are just tender enough to stab with a fork.
- Place carrots in hot dog buns, serve with ketchup and mustard.

Source: www.delish.com

Have a plant-based recipe you'd like to share with the community? Send it to <a href="mailto:GROW@westchester-il.gov">GROW@westchester-il.gov</a> for consideration for future newsletters.