



NEWS

Air Pollution

Add Topic +

Can face masks protect from wildfire smoke and smog?

[Felicity Warner](#), [Rachel Moskowitz Levin](#) and [Kaleb A. Brown](#) Reviewed

Published 10:36 a.m. ET June 28, 2023

— *Recommendations are independently chosen by Reviewed's editors. Purchases you make through the links below may earn us and our publishing partners a commission.*

If you thought you were free of the Canadian wildfire smoke from earlier this month—or that your city avoided the smoke altogether—you're in for a rude awakening. On Tuesday, several cities across the nation, particularly in the Midwest, awoke to smog and an acrid smell in the air. As of right now, Detroit, Chicago and Minneapolis have the second, third and fourth worst air qualities of major cities in the world, according to the World Air Quality Index. The East Coast hasn't been spared either; New York has experienced smog as well, while Washington, D.C. is currently the tenth city with the worst air quality.

Air Quality Advisory: Canadian wildfires create hazy skies in Akron, Northeast Ohio

If these conditions persist, you may be wondering how to navigate the poor air quality, both now and in the future. As it turns out, the same masks used to ward off COVID-19 are one of your best bets for staying healthy. Here's what you need to know about wearing masks during wildfire season and what else you can do to protect yourself when exposed to smoke and smog.

What are wildfire smoke and smog?

Wildfire smoke is a mixture of gases and fine particles which contain several toxic air pollutants such as benzene and formaldehyde, that are released when wood and other organic materials burn, according to the EPA.

Filippelli says the microscopic fine particulate matter, specifically, is the "most dangerous" component of the smoke. "When you see a lot of air quality warnings, a lot of that is based on how much of that particle matter is in the air." These particles can work their way into your eyes and respiratory system which can lead to irritation like burning eyes and illnesses like bronchitis. The particles are especially irritating for those who have asthma or people who are at risk of heart attacks or heart failure.

Smog is described by the EPA as "a mixture of pollutants made up mostly of ground-level ozone" such as transportation emissions. Ground-level ozone is linked to health problems like diminished lung function and emergency visits for asthma, according to the CDC.

Can disposable face masks or cloth masks provide protection?

Albert Presto, research professor for the Department of Mechanical Engineering at Carnegie Mellon University and a member of the Center for Atmospheric Particle Studies (CAPS), explains that the cloth or disposable face masks that you already own may help to block *some* particulate matter, but it's most likely not enough to rely on as protection for your lungs. As far as blocking out ground-level ozone found in smog, masks aren't much help there, says Presto.

Related: Canada's wildfires are causing poor air quality—here's how to protect yourself and your home

For wildfire smoke protection, Presto says you can think of masks as a "ranked order." Some masks outperform others in terms of efficacy, which may be comparable in the use against particulate matter. As far as masks to avoid completely, the EPA states that you should not rely on dust masks or bandanas as protection against smoke. Similarly, Presto says neck gaiters also offer no protection in this situation.

N95 respirators and KN95 masks are the best options as far as masks go in protecting yourself from inhaling any particulate matter from wildfire smoke.

Shop N95 Respirator Masks at Amazon

More: Protect yourself against wildfire smoke with one of our favorite air purifiers

How to protect yourself from wildfire smoke while outdoors

It's important to note that the best protection from unhealthy air quality levels is reducing the amount of time spent outdoors if possible. The EPA recommends avoiding strenuous activity outdoors, such as mowing the lawn or going for a run, if the air quality is poor.

In the event that the air quality is so poor that local health officials recommend staying inside, it'll be useful to have a supply of food, water and other essentials at home. The EPA recommends stocking up on emergency supplies like canned food, medications, and bottled water. An at-home tool that can help mitigate smoky conditions inside your home is an air cleaner, also known as an air purifier. Air purifiers can significantly reduce exposure to harmful particles found in wildfire smoke inside your home. In addition, they offer some protection from VOCs, allergens and more.

If you have to go outside for some reason, the EPA recommends donning an N95 respirator if you have one. These respirators are also great to have if you encounter other emergency situations, such as cleaning up a flood in your home, when you'll want to avoid inhaling contaminants.

Make sure you monitor your area's air quality index (AQI) to understand the pollution level and potential health hazards that may accompany it. Sign up for public health alerts or warnings in your area so you can stay in the know about any air quality changes.

Shop KN95 masks at Bona Fide Masks

*The product experts at **Reviewed** have all your shopping needs covered. Follow Reviewed on **Facebook, Twitter, Instagram, TikTok** or **Flipboard** for the latest deals, product reviews and more.*

Prices were accurate at the time this article was published but may change over time.