

Pollution from Canada's wildfires was similar to breathing secondhand smoke indoors, study shows

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The Canadian wildfires this summer exposed people to secondhand smoke at levels not seen since smoking was banned indoors in 2006,

according to preliminary findings from Rutgers University researchers.

Since the worst of the pollution from June 6 to 8, Philadelphia and other East Coast cities have continued to experience periodic dips in air quality. Parts of Philadelphia were under a "code orange" alert at least two days this week, again due to [wildfire](#) smoke. (A "code orange" indicates that the air outside may be unhealthy for the elderly, children, and those with preexisting health conditions.)

The researchers in the [ongoing study](#) sought to understand the fires' impact on air quality in the Northeast United States and give insight to how this pollution could affect people's health, as such fires become more common with climate change, according to a statement Tuesday.

"The wildfires in Canada gave us a sobering demonstration of the climate change impacts on air quality," Memo Cedeño Laurent, an assistant professor at the Rutgers School of Public Health who is working on the study, said in the statement.

The average levels of pollution measured in New Jersey and New York on the afternoon of June 7 reached nearly 10 times the maximum level that federal standards say is safe for people to consume over 24 hours. New York City was the world's most polluted city that day.

Researchers found that this was similar to the level of [secondhand smoke](#) in bars before the passing of a 2006 New Jersey law that banned smoking in almost all public spaces. Pennsylvania passed a similar law in 2008 following nationwide recognition that secondhand smoke causes lung cancer, heart disease, and other conditions.

Philadelphia residents began feeling the consequences soon after the smoke arrived, with people experiencing discomfort, reporting a smoky odor, and contending with the cancelation or postponement of outdoor

events due to the [poor air quality](#). Emergency room visits did not surge as feared, but experts are still concerned about longer-term effects.

Wildfires are a leading pollution-related cause of hospitalization. A 2021 study discovered that the rise in hospitalizations due to wildfire smoke in Southern California far outpaced those caused by other sources of pollution.

In the next several months, the researchers said they will look more closely at chemicals that made up the smoke to study how exactly they can make people sick, as well as how they can contribute to [climate change](#). The particles from the wildfire smoke can cool and warm the atmosphere, similar to the effects of greenhouse gases such as carbon dioxide.

The number of wildfires is increasing across North America. This year's wildfires marked a significantly earlier start to Canada's fire season. This year's fires have burned more than 2 million acres to date, an area of land equivalent to the size of Kentucky and double the average burned in previous years.

A 2023 national report also found that New Jersey and Southeastern Pennsylvania were gaining more dry, hot, and windy days that can contribute to wildfires. New Jersey has already experienced multiple wildfires in the past few months after another early start to its fire season.

On days with poor [air quality](#), experts recommend staying indoors when possible and wearing an appropriate mask—one that can filter out the [small particles](#) in wildfire smoke, like an N95. Buying an air purifier can also help, as well as inspecting home air filtration systems for those at greater risk.

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