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My father, who died of lung cancer, used to say that as soon as people inhaled their first cigarette, they immediately knew, if they weren’t in denial, that they were harming themselves.

I felt the same way on Tuesday in New York, my eyes itching and my nose burning and the taste in my throat like I’d swallowed a charcoal bonbon. This had to be bad. The sky wasn’t quite the apocalyptic orange of Australia’s [Black Summer](https://www.nytimes.com/2020/02/07/world/australian-bushfires-black-summers.html) or San Francisco’s [Day the Sun Didn’t Rise](https://www.nytimes.com/2019/08/18/us/california-wildfire-day-the-sun-didnt-rise.html), but it had grown confrontationally eerie, enveloping the city in a blanket of toxic smog.

Until now, if people in the green and leafy Northeast looked at arid Western cities covered in smoke from wildfires, they could say, that can’t happen here, thank God. On Tuesday, it did: For a moment, New York’s air quality was worse than it was in Delhi, the infamous pollution capital where average life spans are reduced [more than nine years](https://www.nytimes.com/2020/09/15/world/asia/delhi-smog-health.html) by particulates in the air. By evening, New York had [registered the worst air quality in the world](https://www.nytimes.com/2023/06/08/us/new-york-city-air-quality.html) among major cities. And staying indoors [may not provide perfect protection](https://www.nytimes.com/2023/06/08/us/new-york-city-air-quality.html).

While winds are fickle, and it can be hard to predict where smoke will travel in the days and weeks ahead, there isn’t any reason to think the Canadian fires coughing this smoke up into the atmosphere will be stopping anytime soon.

In Quebec, more than 100 wildfires were characterized as “out of control” by local authorities. Across Canada, 13 times as much land has burned by this date as in recent years, many of which had extreme or unprecedented levels of fire at the time. And we’re still two weeks from summer.

Even before this Tuesday’s surge of smoke, Jeva Lange at Heatmap had calculated that East Coasters had inhaled more wildfire pollution so far this year than most of their counterparts on the West Coast, thanks to a quieter early fire season in California. “The air is compromised from Minneapolis to D.C. to Boston,” The Washington Post’s Capital Weather Gang reported on Tuesday.

A month ago, as off-the-charts wildfires raged in Alberta, I wrote about one of the scariest revelations of new wildfire science: There’s nowhere to escape the smoke. Sixty percent of the pollution from American wildfires is experienced by people living outside the state in which the trees are actually burning.

This phenomenon is harrowingly new: Between 2006 and 2010, according to one recent preprint, there was hardly any place in the West where smoke from other counties contributed as much as 10 percent of local air pollution; between 2016 and 2020, smoke from distant fires was contributing as much as half of local air pollution across huge swaths of the region.

Already, the health impact of American wildfires is larger east of the Rockies than to the west. Across the country, the number of people exposed to what are sometimes called extreme smoke...
has grown 27-fold in just a decade, and exposure to even-more-extreme smoke events has grown 11,000-fold. Since 2000, growing wildfire pollution has reversed significant gains from the Clean Air Act, and over the coming decades, it is poised to become the country’s main source of particulate pollution. In this way, the haunting gray glow of the sky this week was both a throwback to a more contaminated past and a portent of a future clouded more regularly by airborne toxic events such as these.

This is especially distressing because of all we are learning about the poisonous effects of particulate pollution on nearly all measures of health. Globally, all forms of air pollution are responsible for perhaps 10 million deaths each year, and, short of mortality, contribute to respiratory disease and cardiac disease, Alzheimer’s and Parkinson’s, dementia, cancer, mental illness and suicide, miscarriage and premature birth and low birth weight. According to some recent research, of all forms of particulate pollution, wildfire smoke may be the most toxic.

The health effects of pollution far from its origin have not been studied in such detail, but this danger from a distance is changing the way we think about the menace of wildfire and of climate change. If 10 years ago Californians feared fire, more recently they’ve begun to fear smoke — even as every one of the state’s 15 largest recorded fires has taken place in the past two decades. Six of the seven largest have burned since 2020.

Americans elsewhere in the country who have experienced that threat mainly by scrolling in horror through amber Instagrams and dashcam footage of drives through walls of flame are beginning to realize how much farther the threat can travel.

But the smoke pouring in from the north may mark another perspective shift, away from the American West as the fountainhead of wildfire. Ten percent of the world’s forests rise up from Canadian soil, John Vaillant writes in his mesmerizing new — and unfortunately, exquisitely timed — “Fire Weather: A True Story From a Hotter World.” Increasingly, those forests look poised to burn.

Early in the book, a meticulous and meditative account of the changing landscape of Canadian fire, Vaillant describes the Chinchaga fire of 1950 — at approximately four million acres in western Canada, the largest ever recorded in North America. “The fire generated a smoke plume so large it came to be known as the Great Smoke Pall of 1950,” Vaillant writes. “Rising 40,000 feet into the stratosphere, the plume’s enormous umbra lowered average temperatures by several degrees, caused birds to roost at midday, and created weird visual effects as it circled the Northern Hemisphere, including widespread reports of lavender suns and blue moons.” He continues, “the last time such effects had been reported on this scale was following the eruption of Krakatoa in 1883. Carl Sagan was sufficiently impressed by the effects of the Chinchaga fire to wonder if they might resemble those of a nuclear winter.”

Vaillant’s book is not about the Chinchaga fire but the Horse River fire, also known as the Fort McMurray fire, which in 2016 destroyed thousands of homes in the boomtown-center of the Athabasca oil-sand region and forced the largest wildfire evacuation in Canada’s history. Today, for all but the most informed followers of wildfire, it is already nearly forgotten — which is to say, surpassed by subsequent fire horrors and thereby normalized almost into background noise.
That noise is getting louder as we head deeper into what the fire historian Stephen Pyne calls “the pyrocene.”

“Fire isn’t going away,” Vaillant recently told The Guardian. “We’re going to be burning for this entire century.” The Alberta fires had only just begun to rage, but he saw the course of change quite clearly. “This is a global shift. It’s an epochal shift, and we happen to be alive for it.”