Wildfires Leave Toxins in Homes. Insurance Companies Can Do More About It

Time

When Lanene and Peter Dente first saw the haze building outside of their home on Dec. 30, 2021, they thought it was a dust storm, which can be common during winters in Boulder, Colo. Then Peter stepped outside, and the smell of smoke slammed into his nostrils.

The retired couple confirmed with the police that a fire was ripping through the area and they needed to evacuate. So they called their son, loaded up the car with a few belongings, and turned back one last time to see flames licking over their back fence.

“I just said to myself ‘Well I can kiss [my home] goodbye,’ because you don’t argue with Mother Nature,” Lanene says. This made the duo all the more shocked when they returned the next day to find almost all the houses in their neighborhood destroyed—except theirs.

“At first, I was happy. I was glad,” Peter says. “I was thinking, ‘Oh good, we can go forward quickly now.’”

Two years later, however, the Dentes have yet to move back in. Even though their house was left untouched by the flames, a silent threat lingered within.

Known as the Marshall Fire, this 2021 inferno was one of the most devastating in Colorado history, burning through an estimated 6,000 acres of Boulder County and around 1,000 homes. Many houses like the Dentes’, however, were left standing—but that doesn’t mean they weren’t severely damaged.

From late January to early February 2022, scientists from the University of Boulder tested eight houses in the region and found elevated concentrations of potentially harmful carcinogens known as toxic polycyclic aromatic hydrocarbons hiding in small particles of dust floating through the air. They were also concerned about toxic particles being absorbed within the walls or furniture throughout the homes. This

class of chemicals occur naturally in coal, crude oil, and gasoline, and can cause harmful effects on the skin, lung function, and immune system for people exposed to high levels for long periods of time, according to a growing body of research.

In the months following the fires, residents in many of Boulder's homes that survived the fire reported skin rashes, headaches, coughing, and a variety of other ailments. The researchers cannot yet establish a link between these health issues and the toxins, but they do know the chemicals' source.However, scientists are still learning about the health risks associated with chemicals left inside homes by urban wildfires—and there is not yet a national standard on acceptable indoor air quality in a home. As a result, many residents in Colorado whose homes were left standing after the fire have been left in limbo by their insurance companies, some of which have denied compensation beyond sending cleaners to their home.

It's not the first or last time this has happened: As climate change accelerates, toxic wildfires in the wildland-urban interface are becoming increasingly common in places like California, Oregon and, most recently, Lahaina, Hawaii. Now, there is a push to make sure insurance companies in these areas help residents rebuild after experiencing smoke damage—whether it is visible or not.

Throughout the U.S., there is a "lack of a standard for acceptable indoor air quality," says Amy Bach, executive director of United Policyholders, a nonprofit that promotes insurance rights for homeowners. This has contributed to frequent disputes between wildfire-impacted households on who should pay for chemical testing, alternative living expenses, or additional steps to tear down and rebuild affected portions of a home. Compounding the problem, there is an "incredible amount of disagreement between professionals over remediation and cleaning techniques," she adds.

In Boulder, for example, most insurance companies hired professional cleaners to remediate standing homes following the Marshall Fire, according to the Boulder Reporting Lab. However, in many homes, these cleaners cannot address the chemicals trapped in porous surfaces such as drywall—and sometimes their methods can actually make the issue worse, says Colleen Reid, a social scientist at the University of Colorado-Boulder who co-authored the wildfire toxin paper following the Marshall Fire. There are some vacuums that will "resuspend" the toxic particles in the dust, and "then you're just breathing them again," she says.

Currently, remediation companies follow cleaning guidelines set by the industry body Institute of Inspection Cleaning and Restoration Certification (IICRC), which does not have standards for wildfire

smoke. However, a new standard—proposed in 2022 by a group of IICRC experts—is now in the final stages of review by an 18-person consensus body affiliated with the IICRC. This standard would establish the methods required to document, evaluate, and restore the cleanliness of structures and items damaged by wildfire smoke.

But in some cases, cleaning may not be enough. The Dentes, for example, hired an independent industrial hygienist outside of their insurance who recommended that their home should "come down to the studs" at a minimum. Their insurance provider, however, is unwilling to pay for a total rebuild, the Dentes say. The company, which the Dentes are still in the middle of a claims process with, did not respond to a request for comment from TIME.

Like the Dentes, the majority of standing home owners are still in the midst of battles with their insurance to push claims through, says Jeri Curry, the executive director of the Marshall Restoring Our Community advocacy group.

"I think it does come to the fact that they're just not getting the assistance that they need or closing out with their insurance," says Curry "They're having to fight, fight, fight for every piece of it."

Since the fire, Colorado's Insurance Commissioner has been outspoken about the need for companies to address claims in standing homes. Several pieces of state legislation have been introduced in the past two years to help all residents rebuild their homes, including a bill geared toward renters that requires landlords to follow best practices for remediation of smoke damage after a wildfire. Another Colorado bill was signed in May 2023 setting up a state grant program to unlock funding for homeowners who make fire-resistant improvements to their homes to prevent future damages.

In Hawaii, it's been five months since the Lahaina fires, and residents are now starting to experience many of the same issues that homeowners in Boulder faced in the aftermath of the Marshall Fire. Wildfire ash collected in Lahaina showed elevated levels of arsenic, lead, antimony, cobalt, and copper, according to the Hawaii Department of Health, and more than 3,500 affected homeowners have filed insurance claims to help recover from smoke and burn damages.

The Marshall Fire occurred in what's known as the wildland-urban interface, the transition zone in which human infrastructure meets with undeveloped wilderness. In these areas, trees and foliage can burn alongside human-made materials such as plastic and car batteries, which can release a cocktail of

chemicals that can be detrimental to human health and ecosystems, according to a 2022 report commissioned by the federal government on wildland-urban interface fires.

Despite the growing risks within wildland-urban interfaces, people continue to flock to them, with some states witnessing a more than 50% population growth in these areas from 1990 to 2020. As the threat of climate-fueled fires increases, however, some insurance companies may pull out altogether if smoke remediation standards get too strict, says Bach.

While it remains to be seen whether governments, insurance companies, and consumers will agree on reasonable standards for indoor air quality in these fire-prone regions, one thing that's clear, says Bach, is that climate change is "throwing a huge monkey wrench into the insurance system as we've known it."