

# This map IDs cancer-causing chemical sites in your neighborhood

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Credit: Alyssa Stone/Northeastern University

Just how toxic is your community?

No, this isn't about contentious school committee meetings or surly

neighbors. Neighborhoods across the country are contaminated with long-lasting, cancer-causing toxins called per- and polyfluoroalkyl substances or PFAS, and researchers at Northeastern recently unveiled an interactive, online map that identifies areas with high levels of the chemicals.

"We really hope that by putting all of this information together in one easy-to-use place that it can be a resource that is helpful to residents, advocates, and environmental health leaders," says Phil Brown, university distinguished professor of sociology and health sciences and director of the Social Science Environmental Health Research Institute.

The invisible, tasteless chemicals accumulate in the blood when ingested through water, food, and air. Exposure to harmful levels of PFAS can lead to decreased fertility, developmental delays in children, and prostate, kidney, or testicular cancer.

PFAS are used in common items such as waterproof jackets, stain-proof food-storage containers, skillets, and carpets. They're also in firefighting foam, dental floss, and the grease-proof coating used on fast-food containers.

The new map goes beyond the 1,781 known locations in the U.S. with PFAS contamination and includes 57,806 suspected PFAS hotspots, including [military bases](#) and firefighter training grounds where firefighting foam is often used. For example, a West Virginia family lost at least 100 cows in 2000 after the DuPont chemical company began using a nearby area as a private landfill.

"One of the biggest challenges with understanding the PFAS contamination issue today is that there has not been widespread, systematic testing of everyone's drinking water or areas where we know PFAS occurs. So there are huge gaps in our understanding of where

PFAS contamination is around the country and around the world," says Alissa Cordero, co-director of Northeastern's PFAS Project Lab.

"That's why our layering of progressive contamination sources is very useful. Even if we haven't done testing in an area, we can show areas where there might be past contamination based on the types of facilities or sites that are nearby," says Cordero.

While pretty much everyone has some level of PFAS in their blood, the U.S. Environmental Protection Agency announced in 2016 that drinking water should contain only 70 nanograms of PFAS per liter before it becomes dangerous to drink. The public drinking water in Massachusetts generally has 20 nanograms per liter, for example.

The map also includes an extensive list of PFAS advocacy groups across the nation, as well as potential resources for those concerned about advocating against PFAS in their community, says Ricky Salvatore, lead research assistant at the lab.

"PFAS data can be hard to find and isn't always presented in a format that is useful for impacted residents or decision-makers," says Salvatore. "We want this map to combine many different types of information in a user-friendly format."

**More information:** Map: [pfasproject.com/pfas-sites-and-community-resources/](https://pfasproject.com/pfas-sites-and-community-resources/)

Provided by Northeastern University

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