



# Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water

Division of Drinking and Ground Waters - November 2023

## Overview

This fact sheet contains general information on PFAS, including how drinking water contamination occurs, known health effects, and state and federal actions.

## What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many consumer goods to make them waterproof, stain-resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF).

Because PFAS are very long-lasting and are not easily broken down by natural processes, they may remain in the environment for many years. Scientists are still researching how harmful PFAS are to people, so right now they are classified as contaminants of emerging concern.

## How does PFAS get into drinking water?

PFAS often enter drinking water at sites where they are made, used, disposed of, or spilled. PFAS can also be found in the air near manufacturing facilities and can enter rainwater. They can be transported through rainwater run-off and enter bodies of water or seep through the soil and migrate into underground sources of drinking water.

## What are the health effects of PFAS?

Some, but not all, studies in humans with PFAS exposure have shown that certain PFAS may affect:

- Children's growth, learning, and behavior
- A woman's chance of getting pregnant
- The body's natural hormones
- Cholesterol levels
- The immune system
- Risk of certain cancers

Sensitive populations, such as infants and children, pregnant and nursing women, and those who are immunocompromised, may be at higher risk of health effects from PFAS exposure. More information on health effects can be found at [pfas.ohio.gov](https://pfas.ohio.gov).

## Sampling for PFAS

The only way to know for certain how much, if any, PFAS is in your well water is to have it tested. Collecting a water sample for PFAS testing is a complicated procedure and is best performed by a trained professional. A list certified labs that collect and analyze water samples for PFAS can be found at [epa.ohio.gov/static/Portals/28/documents/pfas/PFASSampleCollectionServices.pdf](https://epa.ohio.gov/static/Portals/28/documents/pfas/PFASSampleCollectionServices.pdf).

## Will PFAS make me sick?

**Being exposed to PFAS does not necessarily mean you will have negative health effects.** Whether you get sick from any chemical depends on how much you were exposed to, how long you were exposed, and how often you were exposed. Personal factors, like age, lifestyle, and other illnesses may also determine if a person gets sick from PFAS exposure.

## Current and Existing Actions on PFAS

### What is U.S. EPA doing?

U.S. EPA has released and revised non-enforceable Health Advisories Levels (HALs) for several PFAS. The new interim HALs are:

- PFOA (perfluorooctanoic acid) – 0.0004 parts per trillion (ppt)
- PFOS (perfluorooctanoic sulfonic acid) – 0.02 ppt
- HPFO-DA (GenX) – 10 ppt
- PFBS – 2,000 ppt

While HALs are non-regulatory, they provide technical information to public water systems (PWS) operators and public officials to help protect people from adverse health effects.

On March 14, 2023, U.S. EPA released a PFAS Proposed National Primary Drinking Water Regulation. This rule would establish legally enforceable levels, called maximum contaminant levels (MCLs), for six PFAS in drinking water. This would include PFOA and PFOS as individual contaminants and four additional PFAS (GenX, PFBS, PFHxS, and PFNA) as a mixture. The rule is anticipated to be finalized late 2023 or early 2024. For more information, go to [epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas](https://epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas).

Additionally, as part of the Unregulated Contaminant Monitoring Rule (UCMR), US EPA has been tasked with leading a nationwide effort to monitor PWSs for 29 PFAS and lithium. From 2023 to 2025, 10,311 PWSs will be sampled to determine how much PFAS, if any, is present in our drinking water across the country. Data reporting should be completed in 2026, but the results are released on a quarterly basis at [epa.gov/sdwa/national-contaminant-occurrence-database-ncod](https://epa.gov/sdwa/national-contaminant-occurrence-database-ncod). For more information on the current cycle of the UCMR program, visit [epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule](https://epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule).

### What is Ohio EPA doing?

On Dec. 2, 2019, Ohio EPA and Ohio Department of Health (ODH) released a statewide action plan to analyze the presence of PFAS in Ohio's drinking water. Under the plan, Ohio EPA coordinated testing for close to 1,550 PWSs for six PFAS.

Additionally, Ohio EPA and ODH established PFAS action levels for PFOA and PFOS, GenX, PFBS, PFHxS, and PFNA. Ohio's current action levels are provided in the table below. Note that these action levels are not boundaries between "safe" and "dangerous" levels; rather, these are conservative levels at which no adverse, non-cancer health effects would be anticipated for the most sensitive populations.

Statewide Action Levels for PFAS						
PFAS Compound	PFOA	PFOS	GenX	PFBS	PFHxS	PFNA
<b>Statewide Action Level (ppt)</b>	>70 single or combined with PFOS	>70 single or combined with PFOA	>21	>2,100	>140	>21

The state continues to review the latest science related to PFAS to protect Ohioans. To keep up with the Ohio PFAS Action plan, visit [epa.ohio.gov/monitor-pollution/pollution-issues/pfas-action-plan](https://epa.ohio.gov/monitor-pollution/pollution-issues/pfas-action-plan).