



Drinking Water Health Advisories for PFAS Fact Sheet for Communities

On June 15, 2022, EPA released four drinking water health advisories for per- and polyfluoroalkyl substances (PFAS). In releasing these drinking water health advisories, EPA is acting in accordance with its mission and responsibility to protect public health and keep communities informed when new science becomes available. EPA is committed to partnering with states, Tribes, territories, and water utilities, and the agency's new health advisories represent a key input that can be used to inform actions to address PFAS in drinking water, including water quality monitoring, changing sources of drinking water or modifying treatment to reduce exposure to these substances. EPA also announced that it is inviting states and territories to apply for \$1 billion – the first of \$5 billion in Bipartisan Infrastructure Law grant funding – to address PFAS and other emerging contaminants in drinking water, specifically in small or disadvantaged communities.

What are PFAS?

PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s. There are thousands of different PFAS, some of which have been more widely used and studied than others. One common concern is that PFAS generally break down very slowly, meaning that concentrations can accumulate in people, animals, and the environment over time.

Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) are two of the most widely used and studied chemicals in the PFAS group. PFOA and PFOS have been replaced in the United States with other PFAS in recent years. In chemical and product manufacturing, GenX chemicals are considered a replacement for PFOA, and perfluorobutane sulfonate (PFBS) is considered a replacement for PFOS.

What Is a Health Advisory?

Drinking water health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to states agencies and other public health officials on health effects, analytical methods, and treatment technologies associated with drinking water contamination.

EPA's lifetime health advisories identify levels to protect all people, including sensitive populations and life stages, from adverse health effects resulting from exposure throughout their lives to these PFAS in drinking water. The health advisory levels were calculated to offer a margin of protection against adverse health effects. EPA's lifetime health advisories also take into account other potential sources of exposure to these PFAS beyond drinking water (for example, food, air, consumer products, etc.), which provides an additional layer of protection.

What Is the Basis for EPA's New Health Advisories?

The interim updated health advisories for PFOA and PFOS are based on human studies in populations exposed to these chemicals. Human studies have found associations between PFOA and/or PFOS exposure and effects on the immune system, the cardiovascular system, human development (e.g., decreased birth weight), and cancer. The final health advisories for GenX chemicals and PFBS are based on animal studies following oral exposure to these chemicals. GenX chemicals have been linked to health effects on the liver, the kidney, the immune system, and developmental effects, as well as cancer. PFBS has been linked to health effects on the thyroid, reproductive system, development, and kidney.

Why is EPA Issuing Interim Updated Health Advisories for PFOA and PFOS?

Consistent with EPA's mission and responsibility to protect public health and keep communities informed when new science becomes available, EPA is issuing interim updated health advisories for PFOA and PFOS in light of new scientific information on these chemicals' health effects. These interim health advisories will be in place until EPA's forthcoming PFAS National Primary Drinking Water Regulation is in effect.

What are the Health Advisory Levels?

- Interim updated Health Advisory for PFOA = 0.004 parts per trillion (ppt)
- Interim updated Health Advisory for PFOS = 0.02 ppt
- Final Health Advisory for GenX chemicals = 10 ppt
- Final Health Advisory for PFBS = 2,000 ppt

What Does this Mean for Communities?

The agency recognizes that these new health advisories may raise many questions. EPA encourages people who are concerned to learn about PFAS, including actions that may already be underway and opportunities to reduce exposure. EPA has created [answers to a list of important questions](#) related to this announcement to help members of the public learn more.

If you are concerned about PFAS in your drinking water, EPA recommends you contact your local water utility to learn more about your drinking water and to see whether they have monitoring data for PFAS or can provide any specific recommendations for your community. EPA recommends that public water systems that find PFOA or PFOS in their drinking water take steps to inform customers, undertake additional sampling to assess the level, scope, and source of contamination, and examine steps to limit exposure.

In many communities, public health officials have taken steps to reduce exposure to PFAS in drinking water. Current science indicates that **lower levels of PFAS exposure present less risk**, so those efforts help protect public health.

Drinking water systems have reduced exposure to PFAS by closing contaminated wells, changing the rates of blending of water sources, or installing technologies that remove PFAS from the water (such as granular activated carbon or reverse osmosis).

If you are **concerned about PFAS in your drinking water**:

- Learn about testing and actions your water system may have taken, or request testing.
- If you have a home drinking water well, ensure you are protecting and maintaining it: <https://www.epa.gov/ground-water-and-drinking-water>
- Consider any resources and recommendations from your state: <https://www.epa.gov/pfas/us-state-resources-about-pfas>
- Review EPA's Meaningful and Achievable Steps You Can Take to Reduce Your Risk: <https://www.epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk>
- Review EPA's questions and answers about these drinking water health advisories: <https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-and-pfos>
- Follow EPA's progress in developing a PFAS National Drinking Water Regulation: <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>
- Learn about EPA funding through the Bipartisan Infrastructure Law to reduce PFAS in water: <https://www.epa.gov/dwcapacity/wiin-grant-emerging-contaminants>
- Learn more about PFAS and review the agency's PFAS Strategic Roadmap: <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>

* List of Acronyms: Per- and poly-fluoroalkyl substances (PFAS); Perfluorooctanoic Acid (PFOA); Perfluorooctane Sulfonic Acid (PFOS); Perfluorobutane Sulfonic Acid and its Potassium Salt (PFBS); Hexafluoropropylene Oxide (HFPO) Dimer Acid and its Ammonium Salt (GenX Chemicals)