



PFOS, PFOA and other PFAS Questions and Answers

What are PFOS, PFOA and PFAS?

PFOS and PFOA belong to a family of chemicals referred to as per- and polyfluoroalkyl substances or PFAS for short. PFOS (perfluorooctanesulfonic acid) and PFOA (perfluorooctanoic acid) are two chemicals in this family that were made in the largest amounts in the United States. Some other chemicals in this family that have been found in Maine soils and water are:

- PFHpA (perfluoroheptanoic acid)
- PFNA (perfluorononanoic acid)
- PFDA (perfluorodecanoic acid)
- PFHxS (perfluorohexanesulfonic acid)

PFOS and PFOA were used for a long time in many household and industrial products. These chemicals were used to make products to repel water and resist stains and grease. PFOS and PFOA were used to make carpet, fabric, clothing, food packaging, pots and pans, and personal care products. They were also a key ingredient in some fire-fighting foams. Most companies have stopped using these two chemicals but some other PFAS are still in use.

PFOS, PFOA, and other PFAS can be found in our environment. Sometimes they are found at higher levels in soils and groundwater near airfields that used fire-fighting foam, factories that used these chemicals, or in areas with a history of land-spreading of waste materials containing PFAS. This means that some water sources including private wells may contain these chemicals.

Is there PFAS in your well water?

Testing for PFAS in private wells is usually only performed when there is reason to think there could be water contamination. Testing for these chemicals in water is expensive and only done by a few laboratories that are located outside of Maine. Some Maine laboratories are providing a service of shipping water samples to out-of-state laboratories for PFAS testing.

Understanding Well Water Test Results for PFAS

Laboratory test results will usually be reported using units of nanograms of chemical per liter of water and these units will often be abbreviated as ng/L. Some test results may be reported as parts per trillion, abbreviated as ppt, which means the same thing as ng/L. Results for each individual PFAS will be shown separately. There may be results for over 20 different PFAS on the laboratory report.

Contact one of our toxicologists if you need help understanding your test results at 866-292-3474 (toll-free in Maine), 207-287-4311, or Maine Relay 711.

How much is too much PFAS in well water?

In June 2021, the Maine Legislature established a new interim State drinking water standard of 20 ng/L for the combined sum of six different PFAS: PFOA, PFOS, PFHpA, PFNA, PFDA, and PFHxS. If your water has more than 20 ng/L for the sum of these six PFAS, it does not necessarily mean you will have health problems. It does mean that you should take action to reduce the amount of the contaminated water you are drinking.

What are the health effects of PFAS?

Scientists are still learning about the possible health effects from drinking water with PFAS in it. Most people have low amounts of these chemicals in their blood because they were used for several decades in many household and industrial products. Drinking water with PFAS can result in higher levels of these chemicals in the blood.

According to the U.S. Agency for Toxic Substances and Disease Registry, some, but not all, studies in people who have higher PFOS or PFOA levels in the blood have shown that these chemicals may:

- increase the risk of kidney and testicular cancer;
- increase cholesterol levels;
- increase the risk of high blood pressure or pre-eclampsia in pregnant women;
- lower infant birth weights; however, the decrease in birth weight is small and may not affect the infant's health;
- decrease how well the body responds to vaccinations;
- cause changes in liver enzyme levels.

Contact one of our toxicologists if you are concerned about PFAS and your health at 866-292-3474 (toll-free in Maine), 207-287-4311, or Maine Relay 711.

What do you do if you have too much PFAS in your water?

What you do depends on how much PFAS is in your water, how much water you use, and who is using the water. To reduce the amount of PFAS you take in, you can switch to bottled water for drinking, and making drinks such as coffee, tea, juice, and infant formula. Use of PFAS containing water for cooking on a short-term basis, or use of water for bathing or watering your garden is unlikely to be a concern unless your water levels of these chemicals are very high.

