



PFOA and PFOS in Private Well Water Questions and Answers

What are PFOA and PFOS?

PFOA and PFOS belong to a family of chemicals referred to as perfluoroalkyl substances or PFAS for short. PFOA is the short name for the chemical perfluorooctanoic acid. PFOS is the short name for perfluorooctanesulfonic acid.

PFOA and PFOS 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. PFOA and PFOS were used to make carpet, fabric, clothing, food packaging, pots and pans, and personal care products. They were also used in some factories and in fire-fighting foams. Major uses of these chemicals are being phased out.

Almost everyone has some PFOA or PFOS in their bodies because these chemicals were in so many consumer products. We also find low levels of PFOA and PFOS in our environment, and sometimes higher levels near airfields or factories that used the chemicals or land with a history of land spreading of waste materials containing PFOA and/or PFOS. This means that some water sources may contain PFOA and PFOS.

Is there PFOA or PFOS in your well water?

Federal or state agencies may have been testing water for PFOA and PFOS in wells near your home. Testing for PFOA and PFOS is usually only done when there is reason to think that there has been a release to the environment. Testing for these chemicals in well water is expensive and only done by a few labs that are located outside of Maine.

If you are concerned about whether these chemicals are in your well water, contact one of our toxicologists to discuss whether testing your well water makes sense. 866-292-3474 (toll-free in Maine), 207-287-4311, or Maine Relay 711.

Understanding Test Results for PFOA and PFOS

Test results will have a number followed by the letters ng/L or ppt. The letters ng/L mean nanograms per liter and ppt means parts per trillion. These are units of measurement, like grams of sugar per ounce of soda. You only need to pay attention to the numbers and whether they are above the number set by federal guidelines.

Your water test results may also include results for other chemicals in the PFAS family. 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 PFOA and PFOS in well water?

Under federal guidelines developed by the U.S. Environmental Protection Agency, well water has too much PFOA or PFOS if there is more than 70 parts per trillion (also referred to as 70 nanograms per liter, or ng/L) of both chemicals combined, or of just one of them. If your water has more than 70 parts per trillion, it does not necessarily mean you will have health problems. It does mean that you should take action to reduce the amount of PFOA and PFOS you take in.

PFOA, PFOS and Health

Scientists are still learning about the possible health effects from drinking water with PFOA and PFOS in it. Most people have some amount of these chemicals in their blood because they were used for several decades in many household and industrial products. Drinking water with PFOA or PFOS in it 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 PFOA or PFOS levels in the blood have shown that these chemicals may:

- increase cholesterol levels;
- decrease how well the body responds to vaccines;
- increase the risk of thyroid disease;
- 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.

You may wonder if drinking water with PFOA or PFOS in it can cause cancer. This is a good question, but one that is hard to answer. People exposed to high levels of these chemicals may have increased risk of kidney cancer or testicular cancer. However, not all studies of cancer have reported these findings and may not have looked at other known cancer risk factors like smoking.

Contact one of our toxicologists if you are concerned about PFOA or PFOS 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 PFOA or PFOS in your water?

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

The State of New Hampshire has performed testing of PFOA and PFOS in several bottled water products. To see these test results, visit their PFAS website at: <https://www4.des.state.nh.us/nh-pfas-investigation/>.

