

What are PFAS?

PFAS are a large group of human-made chemicals that have been used in industry and consumer products worldwide since the 1950s. There are hundreds of PFAS, including PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonic acid).

- PFAS do not occur naturally, but are widespread in the environment.
- PFAS are found in people, wildlife and fish all over the world.
- Some PFAS can stay in people's bodies for a long time.
- Some PFAS do not break down easily in the environment.

What do we know about PFAS (Perfluoroalkyl and Polyfluoroalkyl Substances)?

We know that PFAS are everywhere in the environment. Scientists have the most information on PFOA and PFOS, but since the other PFAS are similar, they may have similar effects. PFOA and PFOS do not break down in soil. This means they can stay in the environment and contaminate drinking water sources even though they haven't been used in decades. PFOA and PFOS also don't break down in our bodies. It takes about two to four years for half the PFOA in your body to leave through your urine. It may take longer for other PFAS to leave your body.

How may I be exposed to PFAS?

You may be exposed to PFAS in drinking water, food, indoor dust, some consumer products, and workplaces. Most non-worker exposures occur through drinking contaminated water or eating food that contains PFAS. Although some types of PFAS are no longer used, some products may still contain PFAS:

- food packaging materials
- non-stick cookware
- stain-resistant carpet treatments
- water-resistant clothing
- cleaning products
- paints, varnishes and sealants
- firefighting foam
- cosmetics
- some types of dental floss

How can PFAS affect people's health?

Some scientific studies suggest that certain PFAS may affect different systems in the body. Although more research is needed, some studies in people have shown that certain PFAS may:

- affect growth, learning and behavior of babies and older children
- lower a person's chance of getting pregnant
- interfere with the body's natural hormones
- increase cholesterol levels
- affect the immune system
- increase the risk of cancer

These health effects may be the same for pets. If you are concerned, you can give your pet bottled water or water from a known safe source.

Why are Public Water Systems testing for PFAS?

Act 21 (passed in 2019) requires approximately 650 Public Community and Non-Transient Non-Community water systems to test for PFAS. Initial testing must be done before December 1, 2019 and how often future testing happens will be determined based on the sample results. This testing is being coordinated by the Department of Environmental Conservation (DEC). To learn more about PFAS testing and to find the data when it becomes available, go to: <https://dec.vermont.gov/water/drinking-water/water-quality-monitoring/pfas>

What is the state standard for PFAS in drinking water?

Vermont's standard for the combination of five PFAS (PFOA, PFOS, PFHxS (perfluorohexane sulfonic acid), PFHpA (perfluoroheptanoic acid) and PFNA (perfluorononanoic acid)) is 20 ppt (parts per trillion). That means the sum of the five PFAS levels should not exceed 20 ppt in your drinking water.

Why is EPA's health advisory for PFAS different from Vermont's standard?

EPA's health advisory applies to the sum of PFOA and PFOS. Vermont's standard applies to the sum of five PFAS. In Vermont, the standard of 20 ppt is based on exposure to an infant. EPA's health advisory level of 70 ppt is based on exposure to a lactating woman. Because an infant drinks more water per body weight than an adult woman, the dose to the infant is higher than the dose to the adult woman.

What should I do if PFAS exceed the state standard in my public drinking water?

To minimize your exposure, do not use your water for drinking, food preparation, cooking, brushing teeth, preparing baby formula, washing fruits and vegetables, or any other manner of ingestion. Instead, use bottled water or water from a known safe source. Do not use water containing the five PFAS over 20 ppt to water your garden. The PFAS could be taken up by the vegetables. Do not boil the water. Boiling water will not remove PFAS, and may concentrate them.

Is it OK to shower or bathe if PFAS exceed the state standard?

Normal showering and bathing is not likely to cause significant exposure to PFAS. Studies have shown very limited absorption of PFAS through the skin. Children are more likely to swallow water while playing in the bathtub. Try to limit the amount of water they swallow.

Is it OK to breastfeed if PFAS exceed the state standard?

The Health Department recommends that you continue to breastfeed your baby, as there are many benefits of breastfeeding.

Should I have my blood tested for PFAS?

We know that almost every American has PFAS in their blood. We know from scientific studies that if you drink water containing PFAS, you are likely to have PFAS in your blood at levels that are higher than most Americans. Studies have shown that once the exposure has stopped, the level of PFAS in the body will decrease over time. A blood test can't tell if your exposure to PFAS will cause health problems, or if a condition you have was caused by PFAS.

Should I see a health care professional?

If you are concerned about PFAS in your water, or if you or family members have signs or symptoms that you think are related to PFAS exposure, discuss your concerns with your family's health care professional. The Health Department has information available for health care professionals on our website: www.atsdr.cdc.gov/pfas/docs/pfas_clinician_fact_sheet_508.pdf

If I have my own well, should I test for PFAS?

The Health Department recommends that all private well owners test their drinking water for naturally occurring contaminants, including bacteria, arsenic, and other elements. You can order the recommended testing kits A, C and RA from the Health Department laboratory by calling 1-800-660-9997 or 802-338-4724. You can also order test kits from other certified drinking water laboratories. Use this link to find out more about the areas of concern in Vermont for PFAS contamination, and call DEC to determine if your well is in an area of concern at 802-828-1138.

anrweb.vt.gov/PubDocs/DEC/PFOA/2019%20Statewide%20Sampling%20Plan/6.6.2019%20pfas%20plan.pdf

To find certified laboratories that test for naturally occurring contaminants as well as PFAS, use this map: ahs-vt.maps.arcgis.com/apps/webappviewer/index.html?id=1814e5a1da074c69bf496caf4e24855d

How can I learn more?

For more questions about the health effects of PFAS, call the Health Department at 1-800-439-8550 or visit www.healthvermont.gov/water/pfas.