

# What to Know About PFAS

(Per- and Polyfluoroalkyl Substances)



## Key Facts About PFAS

PFAS are a large group of manmade chemicals that repel oil and water and have been used since the 1940s to make products water-, grease-, and stain-resistant. Because they can exist in high temperatures and harsh conditions, PFAS are very useful for making a variety of products, like non-stick cookware.

Some PFAS take centuries to break down in the environment. This is why they are called “forever chemicals.” Some PFAS break down and form other PFAS. They continue to break down until they become a PFAS that doesn’t break down. PFAS that don’t break down can build up and pollute the environment.

PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanesulfonic acid) are the two most common PFAS in the environment. They were used in many different products for decades and can build up in the human body. Production of PFOA and PFOS was phased out in the United States because of health concerns. These chemicals have been replaced with other PFAS that don’t build up in the human body as much. Newer PFAS are less well studied, and more research is needed.

## PRODUCTS THAT MAY CONTAIN PFAS

-  • non-stick cookware
-  • firefighting foams
-  • stain-resistant products
-  • waterproof clothing
-  • anti-grease food wrappers
-  • cosmetic products (includes shampoo)
-  • paint
-  • dental floss
-  • waxes

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**PFAS can enter the soil, air, and water in our environment from many sources.** These include wastewater and air pollution from PFAS manufacturers and use of PFAS-containing firefighting foam. When PFAS-containing products are thrown away by people, they are burned, composted, or sent to a landfill. As the materials burn or break down, they can enter drinking water or build up in plants and animals, which people eat.





**Exposure** Most exposure comes from eating, drinking, or breathing. PFAS are not easily absorbed through the skin.

People are exposed to PFAS by:

-  Eating food packaged in PFAS-containing material,
-  Eating foods that have built up PFAS over time,
-  Drinking water contaminated by PFAS,
-  Using of a PFAS-containing consumer product, like PFAS-containing lipstick,
-  Accidentally swallowing contaminated soil or dust, or
-  Breathing contaminated air.

**Some people may be exposed to PFAS at work.**

This can include:

-  firefighters who use PFAS-containing foams,
-  people who manufacture textiles and paper,
-  janitors in schools, or
-  people who work in car washes.

## PFAS and Drinking Water

Access to clean drinking water is important for every Rhode Islander. Some drinking water sources may be impacted by PFAS. It's important to know that treatment can lower or remove PFAS in drinking water.

The best action for those who receive drinking water from public water systems is to stay informed by checking [health.ri.gov/data/pfas](https://health.ri.gov/data/pfas) for updates. In 2022, Rhode Island passed a law requiring public water systems to test for and lower PFAS in drinking water to a specific level.

If you have a private well, you should test your drinking water for PFAS, along with other common contaminants. Based on test results, the Center for Drinking Water Quality can help determine the best action.

**Boiling drinking water will not reduce PFAS exposure.** As the water evaporates, the level of PFAS in the remaining water increases.

**Bottled water is not required to be tested for PFAS by the Food and Drug Administration.** Many manufacturers test for it anyway. Contact the manufacturer and ask for the latest PFAS test results before using bottled water to replace drinking water with high PFAS levels..

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Children younger than two years old; people who are breastfeeding, pregnant, may become pregnant; and people with weakened immune systems are particularly at risk.



- An unborn baby (fetus) can be exposed to PFAS through their mother's blood during pregnancy;



- Young children drink more water relative to their body weight than an adult;



- Newborns and young children can be exposed through breast milk. While PFAS can be found in breast milk, nursing mothers should continue to breastfeed. Breastfeeding is good for the health of both infants and mothers. The benefits of breastfeeding outweigh the risk of potential PFAS exposure;



- They spend more time on the floor, where they may be exposed PFAS-containing products, like carpet treatments; and



- Young children are more likely to put items, like toys and play products that may contain PFAS, in their mouths. They are also more likely to accidentally swallow PFAS or dust containing PFAS.

Infants and young children are more likely to be harmed by PFAS because their bodies are still growing. Specifically, the immune system and brain are developing and can be damaged if a child is exposed to PFAS or other harmful substances during this period.

## Health Impacts

Long-term health effects could potentially result from consuming PFAS. PFAS can build up and stay in the body for years. Nearly everyone has a low level of certain PFAS in their blood. The more PFAS you are exposed to, the more PFAS will eventually build up in your body and the greater the risk of health effects developing over time.

While more research is needed, studies have shown certain PFAS cause negative health effects. Exposure to PFAS has been linked with a variety of health effects, including:



- Higher cholesterol levels; lower infant birth weights; weakened immune response; and increased risk of some cancers, including kidney cancers.

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## What to Do

Simple steps can reduce exposure to PFAS:



- Avoid grease-resistant food packaging, such as microwave popcorn bags,



- Avoid stain-resistant carpet and waterproof clothing, and



- Test drinking water from private wells.



- A point-of-use treatment system can be installed in the home to remove PFAS from drinking water.

PFAS exposures can contribute to common health problems, like heart disease and infections. People concerned about possible exposures should focus on well-known steps to reduce those health risks, such as:



- Eating healthy,



- Exercising, and



- Seeing their doctor for regular check-ups.

When possible, avoid purchasing water-, grease-, and stain-resistant products. When these products are thrown away and are burned, composted, or sent to a landfill, PFAS can enter the environment.

Blood testing for PFAS is available, but may not be appropriate for everyone. A blood test cannot show if exposure to PFAS will cause health problems or if a current condition was caused by PFAS. People who are concerned about potential exposure to PFAS can speak with their doctor about blood testing. While there is also no treatment available for people who have been exposed to PFAS, sources of PFAS exposure can be identified and removed.

Rhode Islanders who want more information can contact the RIDOH Environmental Health Risk Assessment Program.

See [health.ri.gov/ehrap](https://health.ri.gov/ehrap).



Visit [www.health.ri.gov/PFAS](https://www.health.ri.gov/PFAS) to learn more.