

Health Effects of PFAS



Per- and polyfluoroalkyl substances (PFAS) are a complex group of manmade chemicals that repel water and oil. They are used in many grease-, stain-, and water-resistant consumer products. PFAS can take years to break down in the environment. This is why they are known as “forever chemicals.”

People can be exposed to PFAS by eating food, drinking water, accidentally swallowing dust, or breathing air polluted with PFAS. People who work with PFAS, including firefighters and paper or textiles manufacturers, may be exposed to higher amounts of PFAS.

When people are exposed, PFAS can build up in the body. Nearly everyone has a small amount of PFAS in their blood. After research showed the older, “long-chain” PFAS could build up in the body and cause health problems, they were largely phased out and replaced by newer, “short-chain” PFAS. “Short-chain” PFAS don’t build up in the body as well but still take years to break down in the environment.

Long-term health effects could potentially result from consuming PFAS. The more PFAS you are exposed, the more PFAS will eventually build up in your body and the greater the risk of health effects developing over time. Infants and young children with developing immune systems; people who are breastfeeding, pregnant, or who may become pregnant; and people with weakened immune systems are particularly at risk.

Health Effects in Adults

PFAS may:

- Raise cholesterol levels
- Suppress the immune system
- Cause problems with thyroid hormones
- Damage the liver
- Increased risk of some cancers, including kidney cancer.



Health Effects During Pregnancy

PFAS may:

- Increase blood pressure or risk of pre-eclampsia (a serious blood pressure condition) during pregnancy
- Reduce growth and development of an unborn child (fetus), with potential long-term health effects



Health Effects for Infants and Children

PFAS may:

- Disrupt immune system development
- Cause issues with growth and metabolism (how the body changes food into energy)



While breastmilk can expose infants and newborns to PFAS, the health benefits of breastfeeding for children are greater than the risks of health effects from possible PFAS exposure.

People who are willing and able to breastfeed infants should continue to do so.



What should I do?

If you have your own private well and are concerned about PFAS, you can get your water tested or contact the RIDOH Private Wells Program. If you receive public water, you can find PFAS testing results and more information at health.ri.gov/data/pfas. You can consider a point-of-use treatment system [certified by NSF](#) to remove PFAS from drinking water in their home. You can also try to avoid products that are treated to provide oil, water, and stain resistance, such as microwave popcorn bags, stain-resistant carpets, waterproof clothing, and waxes.

People concerned about possible exposures can speak to a doctor about their concerns. They can also take well-known steps to reduce common health risks, such as:

- Eating healthy,
- Exercising,
- Seeing their doctor for regular check-ups, and
- Following nutritional advice and attending prenatal visits during pregnancy.

A blood test cannot show if exposure to PFAS will cause health problems or if a current condition was caused by PFAS. Commonly performed blood tests for cholesterol levels and immune function can indicate potential future health problems, while PFAS levels cannot. People who are concerned about potential exposure to PFAS can speak with their healthcare provider about blood testing.

Rhode Islanders concerned about exposure to PFAS who want more information can contact the RIDOH Environmental Health Risk Assessment Program at health.ri.gov/ehrap.

To learn more, visit health.ri.gov/PFAS