

What are
“forever
chemicals”?

What are PFAS, PFOA and PFOS, the “forever chemicals”?

Per- and Polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that include PFOA, PFOS, and GenX. There are more than 5,000 PFAS compounds and commonly used in consumer products and some manufacturing processes. They all have carbon-fluorine bonds, which are so strong that PFAS don't readily breakdown. Both PFOA and PFOS are now considered contaminants of concern by the US EPA. PFAS will accumulate inside the body and can lead to adverse health effects.



WHERE CAN WE FIND PFAS IN THE ENVIRONMENT?

PFOA and PFOS is found in both groundwater and surface water supplies where the contaminants have taken hold in the environment. Surface water affected by these chemicals is often polluted by soil and air contamination. Groundwater can be directly contaminated by the chemicals used in manufacturing facilities, or by leaching from the soil. Water supplies can also be contaminated by wastewater from warewashing, pots, pans, and utensils made using PFAS chemicals.

EVERYDAY ITEMS THAT CONTAIN PFOS AND PFOA:

- Non-stick cooking tools
- Stain guards in carpets and clothing
- Paint
- Firefighting foam
- Some paper and cardboard goods

RISKS OF PFAS

The biggest challenge with PFAS is that they take a long time to break down. That is why they are also called “Forever Chemicals.” Our primary risks of exposure are through our drinking water, commercial products like non-stick cookware, some foods because they were grown in contaminated soil or water or wrapped in PFAS-laden grease-proof packaging, and certain carpets.

HOW CAN PFAS AFFECT OUR HEALTH?

According to the CDC and EPA, prolonged exposure to these chemicals can have adverse health effects like:

- Growth and development challenges in children, including delayed development, early puberty, and behavioral changes
- Reproduction difficulties, including decreased fertility
- Liver damage
- Cancers, including testicular, kidney, and prostate
- Hormone interference, including thyroid effects

HOW TO SOLVE THESE PROBLEMS TO PROTECT YOUR BUSINESS AND CUSTOMERS

Determine if you live in or near an area that is contaminated by PFAS.

Municipal Water Supply

If you have city water, contact your municipal water supplier and ask if your water is affected. You are entitled to a copy of the “Consumer Confidence Report” that details what contaminants they have found in your water. You can also ask if they are treating the water for PFAS contamination. Some water suppliers have options available to help their customers if they are not treating the water for PFAS. Other sources of information include interactive maps available from the Environmental Working Group and the Water Quality Research Foundation.

Solutions

The available options to treat PFAS contaminated drinking water are

- Granular activated carbons
- Ion exchange resins
- High-pressure membrane systems
- Any combination of the above