

# PFAS: The Forever Chemicals

## What are PFAS?

PFAS are a class of chemicals that are used to make products grease proof, waterproof and stain resistant. PFAS chemicals have been dubbed “forever chemicals” because they and their breakdown products are extremely persistent, lasting thousands of years or more. Unfortunately, they are also linked to a wide array of serious health problems.

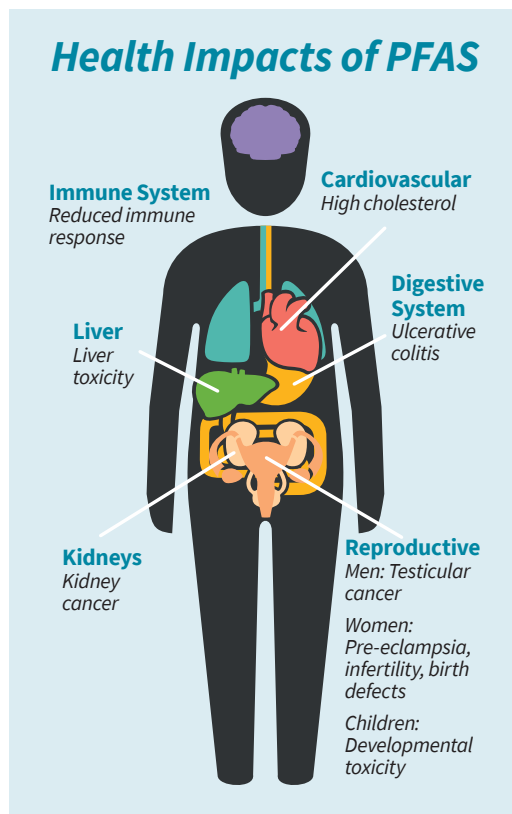
## What are the health effects?

Small amounts of PFAS in the body can cause many serious health problems. Certain PFAS are linked to cancer, including kidney, liver and testicular cancers. In addition, PFAS exposure may increase the risk of high cholesterol (which triggers heart attacks), reproductive toxicity (linked to birth defects and infertility), developmental toxicity (linked to lower IQ) and for pregnant women, preeclampsia, which includes high blood pressure and is linked to kidney disease.

## How does contamination occur and how are we exposed?

**Drinking Water:** We are exposed to PFAS through multiple sources. For some people, the main source of contamination is through drinking water. Drinking water can become contaminated with PFAS by fire fighting foam which is used at military bases, firefighting training centers and airports to put out fuel driven fires and in training exercises. The foam seeps into the ground, eventually contaminating the water. Chemical companies and large manufacturers of products that are marked as stain proof, grease proof, water resistant etc. too often discard toxic waste containing PFAS directly into nearby rivers. Landfills can also leach PFAS because the chemicals that are in products end up in the trash.

PFAS are mostly unregulated by the federal government and very few water utilities currently have the technology to filter out any PFAS chemicals once they enter the drinking water supply. In Massachusetts, only six PFAS chemicals, out of thousands, are beginning to be monitored and regulated (as of early 2020).



**Food:** The second main source of contamination is through our food and cookware. PFAS chemicals were first introduced through the Teflon™ brand fluoropolymer coating, added to pots and pans to make them nonstick. Overheating Teflon™ coated pans can release PFAS into the air. Similar chemicals can be found in microwave popcorn bags, pizza boxes and paper takeout containers, including some compostables. These chemicals are then transferred to the food we eat, especially if the food is hot or high in fat.



**Fabric:** Lastly, PFAS chemicals are added to clothing to make them waterproof and stain resistant, such as rain coats and umbrellas. It is also often put on furniture, carpeting or other textiles at home or in the office and is used in some carpet cleaners and floor wax.



## ***What can be done to stop PFAS exposure?***

- **Stop using PFAS:** Manufacturers should stop making and using PFAS chemicals. Businesses should investigate the materials and products they use to determine if they contain PFAS. They are not always necessary, and for many uses, there are safer alternatives available.
- **Right to Know:** Consumers and residents need to know which factories are making and using PFAS, what products contain PFAS and what water supplies are contaminated.

## ***Tips for consumers***

- Avoid stain, water and oil repellent products.
- Use cast iron or stainless steel instead of Teflon coated cookware.
- Avoid takeout food packaging or take food out of packaging as quickly as possible.
- Bring your own reusable containers to buffets, salad bars and restaurants for leftover.
- Ask your water supplier to test for PFAS.

FOR MORE INFORMATION:

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*This fact sheet was developed under a grant from the Toxic Use Reduction Institution at UMass Lowell.*