



### PFAS Chemicals: What They Are and How to Protect Your Health

### What Are PFAS Chemicals?

Per- and polyfluoroalkyl substances (PFAS) are a family of thousands of different human-made chemicals. PFAS are sometimes called "forever chemicals" because they take a very long time to break down in the environment.

PFAS chemicals have been used since the 1950s to make many industrial and consumer products that are:

- Stain-resistant.
- Water-resistant.
- Non-stick.
- Grease-resistant.
- Chemical and temperature-resistant.

PFAS chemicals were also used in some types of firefighting foams, like aqueous film forming foam (AFFF). These foams are used to put out fuel fires.

Two of the most well-known chemicals in the PFAS family are perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA).

# Why Are PFAS Chemicals a Health Concern?

Some types of PFAS chemicals can build up in our bodies when we're exposed for a long time (months to years). This is a problem, because having higher levels of PFAS chemicals in our bodies could increase our risk for negative health impacts, including:

- Kidney and testicular cancer.
- Lower birthweights for babies.
- Weaker immune system responses to some vaccinations, like tetanus vaccines, making them less effective at preventing infections.
- Higher cholesterol levels.
- Blood pressure problems during pregnancy.

"Forever Chemicals" does not mean "forever in your body!"

When you lower your exposure, PFAS chemicals start to slowly leave your body.

#### **How Am I Exposed To PFAS Chemicals?**

Common ways you can be exposed to PFAS in consumer products and the environment are:

- Drinking water contaminated with PFAS.
- Eating food (like meat, dairy, and vegetables) produced where the land or water are contaminated with PFAS.
- Eating fish or shellfish that lived in water or sediment contaminated with PFAS.
- Accidentally swallowing residue or dust from consumer products that contain PFAS, like stain resistant carpets, some non-stick pans, water repellant sprays, cosmetics, and ski waxes.
- Accidentally swallowing or breathing in dust from soil contaminated with PFAS.

Because PFAS have been used in so many consumer products, almost all people in the United States already have some PFAS in their bodies. However, communities that have PFAS in their water, soil, or food often have higher levels of PFAS in their bodies because they are exposed more often.

### **How Do I Lower My Risk Of Health Impacts?**

The best way to lower your risk of health impacts from PFAS is to lower your exposure. Here are some ways to lower your exposure:

- Switch to an alternative source of water if you have PFAS in your water above health safety levels. Install a water filter certified to lower PFAS levels, or use bottled water.
- Follow PFAS fish advisories if you catch your own fish to eat.
- Switch chickens and other livestock to alternative water if you have PFAS in your water and consume their eggs, milk, or meat.
- Replace common PFAS-containing household items with PFASfree options. Or, use these items less often.
- Follow cleaning recommendations for lowering PFAS in house dust.
- Wash, scrub, and peel home-raised root vegetables raised before eating if you water your garden with PFAS-containing water.
- When gardening or playing with soil, wear gloves or wash your hands when you are done.

For more information, visit www.doh.wa.gov/pfas.

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#### **How Does My Body Get Rid of PFAS?**

When you lower your exposure, PFAS chemicals leave your body in your:

- Urine.
- Feces.
- Menstrual blood.
- Breastmilk. If you have PFAS in your water, switch to alternative water source and continue to breastfeed your baby.

During pregnancy, PFAS in the mother's body can also move into the fetus and placenta. See our advice for breastfeeding at <a href="https://www.doh.wa.gov/pfas.">www.doh.wa.gov/pfas.</a>

# How Long Does It Take PFAS Chemicals To Leave My Body?

When you lower your exposure, PFAS can start leaving your body. Different types of PFAS leave your body at different speeds. How fast PFAS leave the body varies from person to person.

The speed that PFAS leave your body is measured by a "half life." One half life is the amount of time it takes for the PFAS levels in your blood to drop by half.

## Average Half Life for Commonly Found PFAS Chemicals

PFAS Chemical	Average Half Life
PFHxS	5.3 to 15 years
PFDA	4 to 7.1 years
PFOS	3.3 to 4.6 years
PFNA	2.5 to 4.3 years
PFOA	2.3 to 3.9 years
PFBS	35 days
PFHxA	32 days
PFBA	3 days

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