

PFAS AND YOUR HEALTH

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of manmade chemicals. They have been used in many consumer and household products since the 1940s, including cookware, food packaging, and stain repellants, as well as some firefighting foams used at airports and military installations. PFAS are sometimes called “forever chemicals” because they do not easily break down and can stay in the environment for long periods of time.

How can I be exposed to PFAS?

Humans are exposed to PFAS through a wide variety of pathways, and most people in the U.S. have detectable amounts of one or more specific PFAS in their blood. The most common sources of human exposure to PFAS include:

- Drinking water, especially in areas where the water source is near where PFAS have been used or disposed such as landfills and airfields.
- Surfaces treated with PFAS-containing stain and waterproofing protectants such as carpets, furniture, or clothing. PFAS are ingested through the mouth or from breathing in dust.
- Foods that may contain PFAS when they come from areas with contamination include fish, game meat, dairy products, and produce.
- Food that is packaged in materials that contain PFAS such as fast food wrappers or microwave popcorn bags.
- Industrial exposure to workers and firefighters who make or use PFAS-containing products.

What health risks are associated with PFAS?

More research is needed, and so far only a few of the thousands of PFAS have been studied for their health effects. Studies suggest that exposure to different types of PFAS, over many years, may cause different types of health effects, including:

- Reduced fertility
- Hypertension during pregnancy
- Lower infant birth weight
- Decreased vaccine response in children
- Increased cholesterol levels
- Impacts to thyroid, liver, and neurological health
- Increased risk of kidney or testicular cancer

How much exposure is considered safe?

The scientific evidence on safe levels of exposure continues to evolve. In 2016 the Environmental Protection Agency (EPA) established a lifetime health advisory level for drinking water of 70 parts per trillion for two of the most common PFAS, Perfluorooctanoic acid (PFOA) and Perfluorooctane sulfonate (PFOS), individually or combined. EPA states that this health advisory is calculated “to provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water.” The Montana Department of Environmental Quality has established water quality standards for groundwater at this EPA Health Advisory level.

What is being done in Montana?

In June 2020 DEQ and the Department of Public Health and Human Services (DPHHS), along with Montana Fish Wildlife & Parks, the Montana Department of Agriculture, and Lewis & Clark Public Health adopted the Montana PFAS Action Plan. DEQ is gathering information on potential PFAS impacts in the state through sampling of public water supplies, ground water, surface water, and sediments.

Where can I find additional information?

Montana Department of Environmental Quality:
deq.mt.gov/cleanupandrec/programs/pfas

Environmental Protection Agency:
www.epa.gov/pfas

Agency for Toxic Substances and Disease Registry:
www.atsdr.cdc.gov/pfas

