

DEQ-OHA Fact Sheet on PFAS

Understanding Per- and Polyfluorinated Substances (PFAS) in Oregon

The Oregon Department of Environmental Quality (DEQ) and the Oregon Health Authority (OHA) are collaborating to address per- and polyfluoroalkyl substances (PFAS) as emerging chemicals of concern. The agencies are developing and sharing information with the public about how these chemicals may pose risks to human health and the environment in Oregon.

What are PFAS?

PFAS are a group of more than 4,000 chemicals that manufacturers have used since the 1940s for a wide range of consumer and industrial products. These chemicals provide grease- and water-resistant properties in many everyday products.



PFAS are used to make non-stick coating in cookware.

How are people exposed to PFAS?

Potential exposure to high levels of PFAS in contaminated drinking water is a primary concern. Human exposures to high levels of PFAS have been documented in states that are home to manufacturers of PFAS chemicals and large military bases where extensive firefighting training occurs.

Other potential exposure paths include eating food packaged in materials that contain PFAS; using consumer products such as non-stick cookware, stain resistant carpeting and water-repellent clothing; eating fish caught in PFAS-contaminated waters; and inhaling PFAS-contaminated dust.

PFAS have also entered the environment from past and current industrial discharges, sites using or storing firefighting foam, and in wastes from homes and businesses.

According to [a report](#) from the Agency for Toxic Substances and Disease Registry (ATSDR), most people in the United States have been exposed to PFAS and have measurable levels of PFAS in their blood. When manufacturers voluntarily phased out two of the older PFAS chemicals in the United States (PFOS in 2002 and most PFOA by 2015), levels of those chemicals in the population dropped significantly.

Why are PFAS a concern?

Although they have beneficial uses, some of these chemicals are associated with serious health risks. In addition, they do not break down easily, which means that they stay around in the environment.

What are human health risks from PFAS?

Health effect information comes from studies of certain PFAS chemicals where there were: 1) occupational exposures to high levels of PFAS; 2) people living near industrial facilities where PFAS were produced; and 3) people exposed to contaminated drinking water. Additional information about health effects comes from studies of animals. The research suggests that exposure to high levels of these PFAS may:

- Affect growth, learning and behavior of infants and children.
- Reduce a woman's chance of getting pregnant.
- Interfere with the body's hormones.
- Increase cholesterol levels.
- Affect the immune system.
- Increase the risk of cancer.

Much of what is known about health effects is based on studies of some older PFAS which have been more widely researched than PFOS and PFOA and are newer generations of PFAS. More research is needed to help scientists fully understand how PFAS may affect human health.



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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



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Helping people and communities achieve optimum physical, mental and social well-being through partnerships, prevention and access to quality, affordable health care.

How are PFAS regulated in Oregon and the U.S.?

There are no federal drinking water standards for PFAS, and they have not been formally regulated by federal agencies that control hazardous pollutants in water, land or air.

In February 2019, the U.S. Environmental Protection Agency (EPA) issued a [PFAS Action Plan](#) that outlines steps the federal government is taking to address PFAS and protect public health, including possible regulations.

EPA and ATSDR recently developed levels of concern for certain PFAS chemicals. These levels are amounts of contaminants in drinking water above which there may be harm to health, based on a review of research studies. Agencies use these levels to decide whether to issue a drinking water health advisory. Some federal and state agencies may use these levels as triggers to evaluate the significance of groundwater contamination and possible cleanup actions.

In Oregon, DEQ and OHA are tracking information from other states and evaluating the proposed federal actions to determine how they may support Oregon's needs. DEQ is also pursuing pollution prevention opportunities that do not require regulatory authority.

Some states have developed regulatory standards for PFAS in drinking water. A few states have also developed other types of environmental standards or restrictions for PFAS, such as surface water limits and product restrictions.

What do we know about PFAS in Oregon's environment?

Between 2013 and 2015, all larger public drinking water systems and several smaller systems in Oregon were required to monitor for six PFAS chemicals under the EPA's Unregulated Contaminant Monitoring Program. None of the Oregon public water systems had detectable levels of the chemicals using the most sensitive standardized testing methods available at the time.

However, there are several sites in Oregon where PFAS have been found in groundwater, soil, surface water and stormwater. Contamination at these sites is related to firefighting foam.

Landowners are voluntarily assessing the contaminated sites with DEQ oversight and consultation as part of voluntary investigations of historical firefighting foam use and storage areas. The purpose is to determine potential environmental impacts from fire foam storage and use. Public water suppliers may also voluntarily test for PFAS.

DEQ and OHA will make results of additional studies available when they are final.



PFAS are used to make firefighting foam.

DEQ and OHA are committed to better understanding the risks associated with PFAS to address human and environmental impacts in Oregon.

How to learn more about PFAS

[Visit DEQ's website](#) to learn more about PFAS, how it gets into the environment, what we currently know, and what DEQ and its federal, state and local agency partners are doing to address it.

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.