

# PFAS

## TOP 10 FACTS



1. PFAS refer to per- and poly-fluoroalkyl substances, a class of manmade chemicals used in firefighting, stain resistance, water repellants, and other industrial applications since the 1940s.
2. PFAS contamination can be found in landfills receiving waste since the 1950s and in the land and groundwater surrounding facilities using aqueous film forming foams (AFFF), like airports, defense facilities, or fire-fighting training center, or other legacy industrial sites.
3. Studies have estimated 95 percent of the U.S. population has been exposed to PFAS and have measurable concentrations in their blood.
4. Human exposure can occur through ingestion, direct contact, inhalation, and occupational contact.
5. PFOA and PFOS are linked to a number of health effects, including: liver damage; kidney damage; increased cholesterol levels; pregnancy-induced hypertension; certain types of cancer; increased risk of thyroid disease; increased risk of decreased fertility; increased risk of asthma diagnosis; decreased response to vaccines.
6. No maximum contaminant level (MCL) has been established at the federal level. However, U.S. EPA issued a lifetime "health advisory level" (HAL) of a combined 70 parts per trillion for PFOA and PFOS in 2016, equal to approximately one grain of salt in 1000 gallons of water.
7. Based on U.S. EPA sampling of water supply systems, up to 15 million people live in areas where PFAS concentrations are above the HAL.
8. Several states have adopted their own exposure limits for PFAS, with more expecting to do so in the near future.
9. NGWA encourages routine water testing for a range of contaminants in wells and well systems. If PFAS is detected in your area, testing for those contaminants should also be considered.
10. EPA announced the development of a four-part action plan to combat PFAS in May 2018 and released the plan in February 2019. The implementation of the plan is ongoing.

*NGWA and its members developed a comprehensive guidance document titled "Groundwater and PFAS: State of Knowledge and Practice" in late 2017. A 12-month effort by 36 volunteers spending 1100 hours, this eight-part reference document contains information on human impacts, risk communication, remediation, and treatment of PFAS, among other topics. For more information, please visit [www.ngwa.org/pfas](http://www.ngwa.org/pfas)*