

ISSUE BRIEF: PFAS CONTAMINATED WATER ON MILITARY BASES

The Situation

- Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are man-made chemicals with at least one fully fluorinated carbon atom. PFAS chemicals are found in many products, such as clothing, carpets, fabrics for furniture, adhesives, paper packaging for food, and heat-resistant/non-stick cookware. They are also present in fire-fighting foams (or aqueous film forming foam; AFFF) used by both civilian and military firefighters. They do not break down in the environment and, because they are used in the manufacturing of so many products, are widespread internationally.
- In the 1970s, the Department of Defense (DoD) began using AFFF to fight fuel fires. The release of these chemicals into the environment during training and emergency responses is a major source of PFAS contamination of ground water on military bases. The two most prevalent PFAS chemicals in AFFF are Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS).
- According to DoD data, more than 700 U.S. military sites are known or likely to have discharged PFAS, typically from the use of firefighting foam. (<https://www.ewg.org/interactive-maps/2020-military-pfas-sites/map/>)
- The 2018 National Defense Authorization Act authorized the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR), both agencies of the U.S. Department of Health and Human Services, to conduct exposure assessments in communities known to have had PFAS in their drinking water.
- The ATSDR and the National Institute of Environmental Health Sciences (NIEHS) asked the National Academies of Sciences, Engineering, and Medicine (NASEM) to form an ad hoc committee on PFAS exposure.
- In 2022, the NASEM report *Guidance on PFAS Exposure, Testing, and Clinical Follow-Up* found sufficient evidence of an association with PFAS exposure with decreased antibody response, dyslipidemia and increased risk of kidney cancer.
- NASEM also found limited or suggestive evidence of an association with PFAS exposure with increased risk of breast cancer; liver enzyme alterations; increased risk of pregnancy-induced hypertension; increased risk of testicular cancer; thyroid disease and dysfunction and increased risk of ulcerative colitis.
- In August 2022, a large clinical study found that people with high levels of PFAS in their blood are more likely to develop hepatocellular carcinoma, the most common form of liver cancer. As per the Journal of High Energy Physics (JHEP) 2022 ([10.1016/j.jhepr.2022.100550](https://arxiv.org/abs/2210.10055))
- In *Environmental Health Perspectives* published in July 2023, researchers found that elevated blood levels of perfluorooctanesulfonic acid (PFOS), a specific type of PFAS, was associated with higher risk of developing testicular cancer.

- In 2023, The National Cancer Institute, Working Group on PFAS upgraded Perfluorooctanoic acid (PFOA), the most well-studied PFAS, from a possible human carcinogen to a known human carcinogen. The working group classified perfluorooctanesulfonic acid (PFOS) for the first time in 2023 as a possible human carcinogen.

The Challenge

- Although over 700 PFAS-contaminated military locations have been identified, the Department of Veterans Affairs (VA) does not concede PFAS exposure to those who served at those locations. This requires veterans seeking VA disability claims for illnesses or diseases related to those exposures to prove their individual PFAS exposure. The VA has not recognized the 2022 NASEM report noting diseases associated with PFAS exposure, nor created presumptive diseases for veterans exposed to PFAS.
- In a report delivered to Congress in August 2023, DoD pushed back against health concerns raised by environmental groups and regulators. “DOD is reliant on the critically important chemical and physical properties of PFAS to provide required performance for the technologies and consumable items and articles which enable military readiness and sustainment,” the report said. Further, they wrote: “Losing access to PFAS due to overly broad regulations or severe market contractions would greatly impact national security and DOD’s ability to fulfill its mission.”

The Solution

- In accordance with DAV Resolution No. 066, DAV urges Congress to enact legislation to establish and maintain a registry for eligible individuals who may have been exposed to PFAS to ascertain and monitor the health effects of the exposure of members of the Armed Forces.
- DAV urges VA and Congress to establish a concession of exposure for all veterans who served at military locations with PFAS water contamination. This will remove the burden of veterans having to prove their exposures to PFAS and ease their ability to establish direct service connection.
- The Sergeant First Class Heath Robinson Honoring our Promise to Address Comprehensive Toxics (PACT) Act, signed into law in August 2022 (P.L. 117-168), requires the creation of the Toxic Exposures Research Work Group to study toxic exposures and associated negative health impacts. We urge the Secretary and the Work Group to include PFAS and the most recent studies and reports to create presumptive diseases.
- Finally, if the Work Group fails to address PFAS exposure presumptives, DAV urges Congress to enact legislation establishing presumptive conditions for:
 - decreased antibody response;
 - dyslipidemia;
 - increased risk of kidney cancer;
 - increased risk of breast cancer;
 - liver enzyme alterations;
 - increased risk of pregnancy-induced hypertension;
 - increased risk of testicular cancer;
 - thyroid disease and dysfunction;
 - increased risk of ulcerative colitis; and
 - Liver cancer.