

ISSUE BRIEF: PFAS CONTAMINATED WATER ON MILITARY BASES

The Situation

- The acronym “PFAS” relates to perfluoroalkyl and polyfluoroalkyl substances that 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, they 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.
- In 2018, the DoD examined 524 installations for two of the most prevalent PFAS chemicals in AFFF, perfluorooctane sulfonate, or PFOS, and perfluorooctanoic acid, or PFOA, and found 401 locations with some level of contamination. Twenty-four of those locations had drinking water contamination at levels higher than the Environmental Protection Agency's lifetime health advisory of 70 parts per trillion.
- In September 2019, the Environmental Working Group revealed that 90 more current and former Army and Army National Guard installations had levels of ground or drinking water contamination than previously indicated.
- In March 2020, DoD released new data showing that more than 600 military sites have been contaminated with PFAS, far more than previously disclosed.

The Challenge

- According to the Agency for Toxic Substances and Disease Registry (ASTDR), some studies in humans suggest that certain PFAS may be associated with:
 - Fertility issues and pregnancy-induced hypertension/preeclampsia
 - Increased cholesterol
 - Changes in the immune system
 - Increased risk of certain cancers (e.g., testicular and kidney cancer)
 - Changes in fetal and child development
 - Liver damage
 - Increased risk of thyroid disease
 - Increased risk of asthma
- Although some studies have reported these possible health outcomes, the overall scientific and medical evidence is currently inconclusive.

The Solution

- Congress must 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.
- Congress should enact legislation requiring DOD to contract with the National Academies of Science, Medicine and Engineering to provide a study on the long-term health effects of PFAS exposure.