

PFAS Progress Newsletter — June 2021



Welcome to the third edition of PFAS Progress! The Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) is encouraged by the millions of people who are taking protective action by seeking the COVID-19 vaccine for their themselves and their loved ones. Continued commitment to CDC's COVID-19 guidelines will enable more of us to return to some sense of normalcy. CDC and ATSDR remain committed to protecting public health.

After briefly pausing our PFAS activities due to the COVID-19 pandemic, we restarted our Pease Study recruitment efforts in October 2020 in Portsmouth, New Hampshire. Staff and study participants have been put in place and are following [CDC guidelines](#) to protect others against the spread of COVID-19 such as ensuring that those who are not fully vaccinated follow safety measures such as social distancing and wearing masks. Find out where you can be vaccinated [here](#).

In this edition, you will find updates about important PFAS work and emerging research. We encourage you to share this regular newsletter so that others can sign up for [PFAS Progress](#). We value your input and suggestions about our newsletter and encourage you to [take a look](#) at our website for more information.

We hope you enjoy this edition!

Activities Updates

Exposure Assessments (EAs)

CDC/ATSDR released the individual and community-level results for the PFAS exposure assessment (EA) sites located in Moose Creek, Fairbanks North Star Borough, Alaska; El Paso County, Colorado; and Orange County, New York. People who participated in the EAs provided blood and urine samples to CDC/ATSDR for analysis. The laboratory tested participants' blood for seven different PFAS and compared these levels to those found in the U.S. population. Three of the seven PFAS (PFHxS, PFOS, and PFOA) were detected above national averages in these three communities. ATSDR has now released individual results and summary information for all EA sites. A total of approximately 2,000 people representing over 1,000 households participated across all EA sites. ATSDR greatly appreciates the participation of the exposure assessment communities which are helping us learn about PFAS exposure.

ATSDR is evaluating the biological, environmental, and questionnaire data to better understand exposure in each community. ATSDR will write a report with the findings for each site and one final report combining findings from all sites. ATSDR will also host public information sessions to present the findings to the communities.

To learn more, visit the [PFAS EA website](#).

Pease Private Well Health Consultation — Public Comment Version

The following public health consultation was shared for public comment in April 2020: "[Evaluation of Per- and Polyfluoroalkyl Substances \(PFAS\) Detected in Private Residential Drinking Water Wells located within 1 Mile of the Pease Tradeport](#)." The public comment period closed on July 30, 2020. Please see the following information and updates:

- Before the end of the public comment period, ATSDR conducted a virtual meeting with the Town of Newington, where the community was invited to participate.
- ATSDR received comments from residents, stakeholders and interested parties and environmental health scientists at ATSDR are working to address each comment.
- All comments received will be incorporated into the final Pease Private Well Health Consultation report and included in an appendix.
- ATSDR is working with the Town of Newington to identify past owners of properties with contaminated private wells to inform them of ATSDR's findings and to help if needed.
- The final report is expected to be released in Fall 2021.

Pease Study

On October 15, 2020, ATSDR Associate Director Dr. Chris Reh visited the Pease Study office in Portsmouth, New Hampshire to share with the community that the call center reopened to restart the study. Dr. Reh shared with local news media outlets the importance of the study, the urgent need to increase community participation, and the new office safety measures put in place to protect staff and participants from COVID-19.

Since the call center reopened, staff have contacted people to reschedule appointments that were cancelled because of the COVID-19 pandemic. The call center staff continue to schedule new appointments for eligible participants.

The goal of the Pease Study is to learn how PFAS may affect the health of adults and children who drank water contaminated with PFAS at the Pease Tradeport. The study is actively recruiting participants for their study on the health effects from PFAS exposure.

Pease Study Video

We are pleased to share a new CDC/ATSDR Pease Study video! [The Pease Study is Our Study](#) is an animated video showing how easy it is for adults and children to go through the Pease Study process.

To learn more, visit CDC/ATSDR's Pease Study [webpage](#).

Multi-site Health Study

The Multi-site Study (MSS) protocol received OMB approval in late 2020. Multi-site Study partners indicate plans to initiate site field work in Summer/Fall 2021 following state and local COVID-19 guidelines.

MSS Study Partner Work Groups: ATSDR staff and study partners have formed multiple work groups and are collaborating with each other to coordinate study methods. Examples include pharmacokinetic modeling, historical reconstruction of local groundwater resources and distribution of drinking water, community engagement, and data collection, management, and analysis.

The MSS seeks to enroll at least 2,100 children and 7,000 adults across all study sites.

More information on the MSS, study partners, and study locations is available on CDC/ATSDR's [PFAS website](#).

Other CDC and ATSDR Activities

PFAS and Viral Infections Study

CDC and ATSDR are also planning a survey-based study of the effect of PFAS in blood on susceptibility to viral infection, including but not limited to COVID-19. ATSDR will recruit participants from the existing PFAS Exposure Assessment and Pease Study cohorts who have existing PFAS blood measurements and who have given prior consent for additional contact from NCEH/ATSDR. Participants will complete a series of surveys, conducted in multiple rounds, over a period of one calendar year. No additional blood samples will be collected. ATSDR is currently finalizing the draft protocol for this study and preparing to initiate external peer review. ATSDR published a 60-day Federal Register notice on 4/05/2021

study and preparing to initiate external peer review. NIOSH published a 60-day Federal Register notice on 4/05/2021 about the proposed data collection. The public comment period closed on 6/05/2021. To learn more, visit <https://www.federalregister.gov/documents/2021/04/05/2021-06882/proposed-data-collection-submitted-for-public-comment-and-recommendations>.

PFAS Environmental Sampling (Supplemental Exposure Investigation (EI) at Select PFAS Exposure Assessment Sites)

CDC and ATSDR are collaborating with the U.S. Environmental Protection Agency (EPA) to learn more about PFAS exposures from non-drinking water sources. This work will follow up on ATSDR's prior PFAS Exposure Assessment work. A small subset of the ten communities that already participated in ATSDR's PFAS Exposure Assessment will be selected for this further environmental evaluation. This exposure investigation will collect environmental samples to evaluate levels of PFAS in the indoor and outdoor environment that may contribute to elevated levels of PFAS in blood. Samples of indoor and outdoor air, indoor dust, soil, indoor surface wipes, and locally grown produce will be collected and tested for PFAS. In addition, participants will be asked to wear a silicone wristband which will be used to measure and evaluate personal exposure to PFAS. A questionnaire will be administered to better evaluate potential water and non-water sources of PFAS exposure. The protocol is under development.

NIOSH Firefighter Textile Study

In October 2020, the National Institute for Occupational Safety and Health (NIOSH), part of CDC, began a research project to assess the presence of PFAS in the textiles (cloth and materials) of firefighter protective gear. Research will focus on determining possible exposures to firefighters from water repellents applied to the gear. Water repellent is a crucial component of the garments; it prevents water saturation, decreasing weight and risk of steam burns. In 2014, the coating formulations were changed to eliminate long-chained PFAS; however, toxicology studies on the replacement compounds have not been completed. Also, studies on chemical transformation of the new compounds when exposed to water and high temperatures are lacking.

NIOSH will first test new, outer shell textiles and liners to find out the concentrations of PFAS in them. Next, the gear will be laundered and retested to assess PFAS concentrations after repeated washings. Lastly, NIOSH will test the gear to determine how much PFAS leaches from the outer textiles into water and into the inner gear layers.

After completing these experiments, NIOSH will gather recently worn, used firefighter gear and test it to determine PFAS concentrations to better understand whether firefighters experience additional PFAS exposures from fire events.

NIOSH expects the work will take three years to complete. Information will be provided to the National Fire Protection Association to inform future standards to reduce firefighter exposure to PFAS.

NASEM Committee Kicks Off First Meeting to Discuss Guidance on PFAS Testing and Health Outcomes

In early February 2021, the National Academies of Science, Engineering, and Medicine (NASEM) convened the first of several meetings with a committee of experts to discuss guidance for health care providers on PFAS testing and health outcomes. Several townhall meetings have been held to gather feedback from community members. The recorded webcasts can be accessed [here](#) (see Past Events). The effort is sponsored by the Agency for Toxic Substances and Disease Registry and the National Toxicology Program. To learn more, visit <https://www.nationalacademies.org/our-work/guidance-on-pfas-testing-and-health-outcomes>.

Public Health Corner

PFAS Exposure and Kidney Cancer

Researchers at the National Cancer Institute recently published evidence that perfluorooctanoic acid (PFOA) exposure is associated with increased risk of renal cell carcinoma, the most common form of kidney cancer. These findings substantially add to the evidence that PFOA is a renal carcinogen and support previous studies suggesting an association between PFOA exposure and kidney cancer. CDC collaborated with the National Cancer Institute on this study and analyzed the samples for PFAS at the CDC laboratory. To learn more, read the [full article](#) in the *Journal of the National Cancer Institute*.

“Early Release” Per- and Polyfluorinated Substances (PFAS) Tables, NHANES 2011–2018

CDC routinely updates summary measurements for its National Health and Nutrition Examination Survey (NHANES) biomonitoring data in [Updated Tables](#) to the National Report on Human Exposure to Environmental Chemicals (National Report).

CDC is providing these per- and polyfluorinated substances (PFAS) serum measurements as a standalone resource in advance of the next scheduled National Report update to aid federal, state, and local public health agencies, and others, currently investigating PFAS.

These tables present biomonitoring data gathered in up to four cycles of CDC’s NHANES: survey years 2011-12, 2013-14, 2015-16, 2017-18. The NHANES survey is designed to provide nationally representative information for the general U.S. population.

The measurement of an environmental chemical in a person’s blood is an assessment of exposure; it does not by itself mean that the chemical causes disease or an adverse effect. Research studies, separate from these data, are required to determine which blood concentrations are safe and which ones could be associated with disease or an adverse effect.

New Resources

PEHSU Delivers National Webinar for Clinicians on PFAS

ATSDR partner organization the [Pediatric Environmental Health Specialty Units](#) (PEHSU) delivered a national webinar in January 2021 titled *Per-and Polyfluoroalkyl Substances (PFAS): What Clinicians Need to Know*. The webinar covered the following:

- definitions of per- and polyfluoroalkyl substances (PFAS),
- list of exposure pathways,
- description of potential health effects,
- explanation of strategies for patient assessment and medical management,
- discussion of how to best address patient concerns,
- identification of special issues regarding children and PFAS, and
- identification of resources available to health care providers.

The webinar is archived in the [PEHSU National Classroom](#). Free continuing education credits are available on-demand for watching.

Community Stress and PFAS Contamination

ATSDR staff and the Gretchen Swanson Center for Nutrition, University of Arizona, coauthored an article reporting results from key informant interviews with community members and state health department staff on psychosocial stress related to PFAS contamination. To access the article, see link below:

Calloway, E.E.; Chiappone, A.L.; Schmitt, H.J.; Sullivan, D.; Gerhardstein, B.; Tucker, P.G.; Rayman, J.; Yaroch, A.L. [Exploring Community Psychosocial Stress Related to Per- and Poly-Fluoroalkyl Substances \(PFAS\) Contamination: Lessons Learned from a Qualitative Study](#). *Int. J. Environ. Res. Public Health* 2020, 17, 8706.

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