

PFAS in Private Wells near the Saint-Gobain Site in Merrimack, New Hampshire

Summary - Final Health Consultation

The Agency for Toxic Substances and Disease Registry (ATSDR) has released a report evaluating potential health effects of exposure to per- and polyfluoroalkyl substances (PFAS) in private drinking water wells throughout five towns near the Saint-Gobain Performance Plastics facility in Merrimack, New Hampshire. The New Hampshire Department of Environmental Services (NHDES) and New Hampshire Department of Health and Human Services (NH DHHS) asked ATSDR to do this evaluation. This fact sheet summarizes ATSDR's findings and recommendations. You can find the full report at: <https://wwwn.cdc.gov/TSP/PHA/PHAListing.aspx?StateIndicator=NH>

Key Findings

ATSDR evaluated the potential for harmful health effects from drinking PFAS in well water for over 2,700 private wells in the area. ATSDR considered only drinking exposures, not breathing or skin exposures. Most PFAS do not easily evaporate from water during bathing and showering, and PFAS in water cannot easily pass through the skin. We reached the following conclusions:

Drinking private well water contaminated with PFAS could have increased the risk for harmful health effects for some community members, especially children.

- Most of the private wells evaluated were contaminated with PFAS. ATSDR estimated the amount of PFAS people would take into their bodies by drinking the water (known as the exposure dose) to decide if the exposure could be harmful. The youngest children have the highest estimated doses per body weight because they are so small.

- The estimated doses for small children, and possibly other age groups, in 287 of the wells were at or above doses that could cause harmful noncancer effects, based on effect levels from animal studies. 23 of those wells had estimated doses that could affect all age groups.
- The noncancer effects that would be considered more likely from this exposure include changes in physical development, immune response, or liver function. In addition to noncancer effects, certain PFAS are suspected of causing cancer. ATSDR could not estimate a numerical cancer risk due to current limitations in the science.
- Other possible effects of PFAS exposure suggested by human population studies include increased cholesterol levels, decreased vaccine response in children, changes in liver enzymes, increased risk of high blood pressure or pre-eclampsia in pregnant women, small decreases in infant birth weights, and an increased risk of kidney or testicular cancer.

People who continue to drink contaminated, untreated private well water have an increased risk for harmful health effects.

- Since 2016, local authorities have taken several actions to reduce exposures from contaminated wells, particularly those wells with the highest levels of PFAS. Not all well owners were provided alternate or treated water. Some private wells with levels of PFAS below previous or current regulatory guidelines may remain in use. Some private wells were never tested, and some well owners were offered but declined alternate water.
- Although not all wells have had PFAS detected, testing was limited and PFAS levels could go up and down over time. This, along with the way PFAS moves in groundwater, suggests additional private wells could be affected in the future.



U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry

ATSDR Recommendations and Next Steps

- **Monitor or treat well water.** Private well owners who are still using the wells for drinking should monitor their well water quality and work with local authorities to take appropriate action to remove harmful contaminants, if needed. Residents who use point-of-entry or other treatment systems to remove PFAS from private well water should have the systems maintained and checked periodically to ensure they are working effectively. Regardless of past test results, monitoring and/or treatment should be continued given the likelihood of past exposure, potential PFAS movement in groundwater, and persistence of many PFAS in the human body.
- **Avoid or limit products containing PFAS.** Residents should reduce other potential PFAS exposures by avoiding or limiting the use of products containing PFAS. Examples of products that may contain PFAS include food packaging materials, stain resistant carpets, water resistant clothing, cleaning products, and some cosmetics.
- **Talk to your doctor.** ATSDR recommends that all residents concerned about their exposure discuss their concerns with their health care provider. ATSDR has information for health care providers and the public at <https://www.atsdr.cdc.gov/pfas/resources/index.html>. ATSDR also provides guidance and tools for reducing stress and building resilience in communities during responses to environmental contamination at www.atsdr.cdc.gov/stress.
- **Continue to breastfeed.** ATSDR recommends nursing mothers continue to breastfeed and contact their healthcare providers with specific concerns. ATSDR is available to consult with healthcare providers as needed. To help protect formula-fed infants from potential exposure, caregivers should use pre-mixed formula or reconstitute dry formula with water sources that meet state and federal drinking water guidelines for PFAS.
- **Use ATSDR's clinician guidance.** ATSDR recommends local medical providers use ATSDR's current clinician guidance at <https://www.atsdr.cdc.gov/pfas/resources/info-for-health-professionals.html> as a resource for informing patients and guiding treatment. As science evolves, ATSDR will work with state and local authorities to provide area medical providers with updated information on health effects associated with PFAS exposure and recommendations for patient care.

Upon request, ATSDR is available to do the following:

- Discuss individual results with private well owners
- Work with NHDES and NH DHHS to identify any private wells with PFAS levels that have not been addressed through previous actions
- Answer other public health questions related to the site
- Provide technical assistance in reviewing additional data collected from the site

Site Background and ATSDR Involvement

The Saint-Gobain facility used several PFAS, including perfluorooctanoic acid (PFOA). In 2016, PFOA was found in groundwater near the site. Since then, NHDES has led sampling of public water systems and private wells in five New Hampshire towns surrounding the Saint-Gobain facility: Merrimack, Litchfield, Londonderry, Bedford, and Manchester. After the contamination was identified, local and state authorities began taking several actions. These included treating public water supplies and providing alternate water to some private well owners to reduce exposures to PFAS in drinking water.

Since 2016, ATSDR staff have been working with the state to provide health information to the public regarding PFAS exposure. ATSDR released a draft of the report for public comment in December 2021 and accepted comments through March 1, 2022. In the report, ATSDR evaluated private well data collected between March 2016 and April 2021. NHDES provided the data to ATSDR. The report contains public comments and responses indicating how the evaluation and report were changed in an appendix. ATSDR will release a separate report evaluating data from public water supplies in the area.



Where to Learn More

ATSDR: www.atsdr.cdc.gov

ATSDR PFAS and Your Health:
<https://www.atsdr.cdc.gov/pfas/>

For questions about ATSDR activities at this site, community members can call 1 800 CDC-INFO (1-800-232-4636), request an email response at www.cdc.gov/info, or visit: <https://wwwn.cdc.gov/TSP/PHA/PHAListing.aspx?StateIndicator=NH>