

TO: Health care providers in the Bennington and Rutland areas

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PFOA Blood Testing

Background

PFOA, perfluorooctanoic acid or C8, has been found in private drinking water wells in the Bennington/North Bennington area. PFOA is one of many perfluoroalkyl chemicals that are used in products including non-stick cookware, stain-resistant carpets, water-resistant clothing, paper and cardboard food packaging, and fire-fighting foam.

The Health Department conducted eight blood test clinics for eligible individuals whose private drinking water was contaminated with PFOA, or who currently or formerly lived or worked at the former Chemfab site. The Centers for Disease Control and Prevention tested the blood samples for PFOA. No personal identifying information was sent to the CDC.

Blood Test Results

The Health Department just received the test results from CDC. We have mailed individual test results to each of the 477 people who took part in the blood testing clinics. If an individual gave permission, we also mailed a copy of the results letter to the health care provider they specified. A sample letter is attached.

Overall, the blood test results range from 0.3 to 1125.6 micrograms/liter ($\mu\text{g/L}$). The geometric mean for the Bennington/North Bennington investigation is 10.0 $\mu\text{g/L}$. The geometric mean for the U.S. population is 2.1 $\mu\text{g/L}$. In a few months, we will publish a more detailed analysis of the results on our website (see link below). This report will include information from the questionnaire and drinking water test results.

PFOA is found in the blood of most Americans. If an individual's drinking water is contaminated with PFOA, the amount of PFOA in their blood is probably higher than most Americans. The higher the concentration of PFOA in drinking water, the higher the level of PFOA in blood will likely be. Some research has found that blood PFOA levels can be 100 times higher than the level of PFOA in drinking water. For example, if an individual has 2,000 ppt (parts per trillion) in his or her water, the PFOA level in blood might be 200 $\mu\text{g/L}$. The half-life of PFOA is two to four years.

Why is PFOA a possible health concern?

PFOA levels in serum are related to increased serum lipid levels, uric acid levels, and liver enzymes. These changes may or may not be clinically relevant. Providers may consider a thyroid panel, liver panel, lipid panel and a uric acid analysis for patients who have drinking water contaminated with PFOA.

Additional health outcomes are reported in scientific studies of PFOA. These studies do not prove causality of specific health effects due to PFOA exposure, and some outcomes may not be clinically relevant. Screening for these outcomes should be determined on a case-by-case basis.

Studies have correlated PFOA levels in serum with:

- Developmental effects: pregnancy-induced hypertension and decreased birth weight
- Immune effects: decreased antibody titer following vaccination, ulcerative colitis
- Thyroid disease
- Kidney and testicular cancer

If you have a patient that you think is experiencing health effects due to PFOA exposure, please call us at 1-800-439-8550.

For more information –

About PFOA, check the Health Department's website:

<http://healthvermont.gov/enviro/pfoa.aspx>

For detailed summaries of the toxicology and epidemiology studies on PFOA and other perfluoroalkyl chemicals, check the ATSDR Toxicological Profile:

<http://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>

For information on exposure and health studies conducted on a large exposed population, visit the C8 studies:

<http://www.c8sciencepanel.org/>

HAN Message Type Definitions

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service Message: Provides general correspondence from VDH, which is not necessarily considered to be of an emergent nature.