

PERFLUOROOCTANOIC ACID (PFOA) IN DRINKING WATER, HOOSICK FALLS, NEW YORK

SHORT FACT SHEET

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What is PFOA?

PFOA belongs to a group of manufactured chemicals called perfluorinated chemicals (PFCs). PFCs are used to make household and commercial products that resist heat, and repel oil, stains, grease, and water. This includes nonstick cookware, surface coatings for stain-resistant carpets and fabric, and paper and cardboard food packaging. Starting in 2006, major manufacturers have been phasing out the use of PFOA.

How does PFOA get into the environment?

PFOA gets into the environment (air, water, and soil) from industrial facilities or when PFOA-containing consumer products are used or disposed. It can remain in the environment for many years, particularly in water. The highest levels of PFOA in the environment are typically found near industrial facilities that manufacture or use PFOA.

How are people exposed to PFOA?

Food is probably the primary source of PFOA for most people. People can also be exposed to PFOA through water, air, soil, dust, and consumer products. Nursing infants can be exposed through mother's breastmilk. Most people have low levels of PFOA in their blood. PFOA does not break down in the human body and can be present in blood for years after exposure. PFOA blood levels mostly reflect total exposure over many years.

What are the health effects associated with exposure to PFOA?

Studies of people show associations between PFOA exposure and an increased risk for several health effects. This includes associations with effects on the liver, immune system, thyroid gland, cholesterol levels, blood pressure during pregnancy, and kidney and testicular cancer. However, these studies are difficult to interpret because results are not consistent. In addition, the role of other possible factors (for example, exposure to other chemicals) that also could have contributed to the observed health effects was not fully examined.

Studies using animals show that exposure to high levels of PFOA can cause certain health effects (for example, liver effects). However, studies suggest there may be differences in the way PFOA affects animals and humans.

Are there guidelines and standards for PFOA in drinking water?

The U.S. Environmental Protection Agency (US EPA) does not have an enforceable health-based drinking water standard for PFOA. The US EPA has a temporary provisional health advisory level for PFOA of 400 parts per trillion (ppt). A water sample in excess of a health advisory indicates a potential threat to public health and initiates actions to reduce exposure and identify the sources of contamination.

The New York State Department of Health (NYS DOH) has an enforceable drinking water standard (maximum contaminant level) of 50,000 ppt for any chemical (including PFOA) that is classified as an unspecified organic contaminant under state regulations. It only applies to chemicals, such as PFOA, that do not have a standard based on their toxicity data.

What did sampling of the drinking water of Hoosick Falls show?

In the summer of 2015, NYS DOH detected PFOA (at levels ranging from 151 ppt to 662 ppt) in water samples collected from the Village of Hoosick Falls Public Water System. Sampling conducted by the Village of Hoosick Falls in 2014 also found similar PFOA levels. NYS DOH sampling of private wells detected PFOA in four of eight wells tested. The levels of PFOA in wells where it was detected ranged from 14.4 ppt to 194 ppt.

What do these results mean?

The NYS DOH evaluated the risk for health effects from short-term (weeks to months) and long-term (years) exposure to PFOA at the levels detected in drinking water. The estimated exposures to PFOA from the Hoosick Falls drinking water are lower than the estimated exposures that may be associated with health effects in both children and adults. This indicates that health effects are unlikely and we do not expect health effects from normal use of the water.

How can people minimize their exposure to PFOA?

Regardless of the risk for health effects, it is prudent for people to take measures to reduce their exposure to PFOA. To reduce exposure from tap or well water found to contain PFOA people should use bottled water for drinking and food preparation or install water filters. Carbon filtration and reverse osmosis are two technologies that can remove low levels of organic contaminants, such as PFOA, from water. The Minnesota Department of Health tested several point of use water treatment devices and found many to be effective (visit <http://www.health.state.mn.us/divs/eh/hazardous/topics/pfcs/wateranalysis.html>). If a treatment is used, it is important to follow the manufacturer's guidelines for maintenance and operation.

Can PFOA be measured in people?

Laboratory tests can measure PFOA levels in blood. These tests are useful for research but they cannot determine when, where, or for how long a person was exposed to PFOA. Nor can a blood test determine the likelihood of adverse health effects from PFOA exposure. The results can be used to compare a person's PFOA blood level to those found in the general population, or in groups where some people may have unusually high PFOA blood levels.

Where can I get additional information?

- If you have questions about potential health effects, please call 1-518-402-7800 or 1-800-458-1158, send an e-mail to btsa@health.ny.gov, or write New York State Department of Health, Bureau of Toxic Substance Assessment, Corning Tower, Room 1743, Empire State Plaza, Albany, NY 12237.
- If you have questions about the public water supply, please call Lloyd Wilson at 518-402-7650, send an e-mail to bpwsp@health.ny.gov, or write New York State Department of Health, Bureau of Water Supply Protection, Corning Tower, Room 1110, Empire State Plaza, Albany, NY 12237.
- If you have questions about private wells, please call Albert DeMarco at 518-402-7860, send an e-mail to bee@health.ny.gov, or write New York State Department of Health, Bureau of Environmental Exposure Investigation, Corning Tower, Room 1717, Empire State Plaza, Albany, NY 12237.