

**Rutgers Pilot Study of Perfluorochemical Compounds in Paulsboro, New Jersey Residents  
 PRELIMINARY EXECUTIVE SUMMARY - September 13, 2017**

**OVERALL SUMMARY:**

There were high levels of PFNA in the water. The water is now filtered.

Our study found:

- Higher levels of PFNA in the blood of study participants compared with people throughout the U.S.
- A weak association between reporting high cholesterol level and higher levels of PFNA in blood.

**Who are we?**

- We are researchers from the Rutgers Environmental and Occupational Health Sciences Institute.
- We are also part of the Center for Environmental Exposures and Disease (CEED).

**What are perfluorochemical compounds (PFC)?**

- PFC are man-made chemicals.
- They are resistant to heat, repel water and oil.
- PFC are found in many household products like carpeting and furniture upholstery.
- PFC are used in many industries including car and airplane manufacturing.

**Why did we conduct this study?**

- In 2009, a PFC called perfluorononanoic acid (PFNA) was discovered in the Paulsboro public water supply.
- PFNA and other PFCs concern scientists because:
  - They spread easily in our environment.
  - They stay the human body for many years.
  - High blood levels of some PFCs have been associated with some health effects.

**PFNA in Paulsboro water**

- The New Jersey Department of Environmental Protection (NJDEP) recommends levels of no more than 0.01 part per billion (ppb) in drinking water.
  - PFNA levels in some Paulsboro water samples were 10 times higher.
- Since April 2014, Paulsboro’s city water has been filtered to take out PFC from water homes and businesses.

**What are the study results?**

*Who was in the study?*

- To be in the study people had to have gotten a blood test for PFC as part of a lawsuit.
  - 196 people enrolled in the study.

*What did we find out about PFNA in people’s blood?*

- PFNA was found in all our study participants.
- PFNA levels were about 4 times higher in our study participants than in the general U.S. population.
  - The higher PFNA levels were expected because it was in the drinking water.

*What did we find out about PFNA and health?*

- 116 study participants completed an online survey about their drinking water habits, jobs, and health conditions.
  - Health conditions we asked about included cancer, heart disease, high cholesterol, thyroid disease, and immune system disorders like ulcerative colitis.
- Overall, the study did not find any strong associations between PFNA levels in blood and any of the above-mentioned health conditions.
- The study did find a suggestion that participants who said a doctor had diagnosed them with high cholesterol, on average, had higher levels of PFNA in their blood.
  - We cannot say whether or not PFNA causes high cholesterol.
  - Cholesterol levels can be affected by many things we could not measure, for example, what people eat and genetics.
- We would like to do further studies to learn more about potential health effects.

## Recommendations

Paulsboro's community water supply is now filtered to remove perfluorochemical compounds (PFC), including perfluorononanoic acid (PFNA). The Paulsboro water supply is monitored for PFC by the NJ Department of Environmental Protection.

- We will give a copy of our findings to local government officials as well as the state and local health departments.
- We recommend you keep a copy of your PFC blood result for your records.
- If you have a health care provider, give him or her a copy of your PFC blood result for your medical record.
  - We have sent area health care providers information about interpreting PFC levels with their patients.
  - One place this information can be found is at:  
[https://www.atsdr.cdc.gov/pfc/docs/pfas\\_clinician\\_fact\\_sheet\\_508.pdf](https://www.atsdr.cdc.gov/pfc/docs/pfas_clinician_fact_sheet_508.pdf)
- Screening tests for blood cholesterol are generally recommended for adult men and women at different ages, depending on individual risk levels. Consult with your health care provider about testing your blood cholesterol level.
- Because PFC are slowly excreted from the body, we expect that levels of PFNA among Paulsboro residents will decrease over time.
  - How quickly PFNA is excreted is not known
  - We do not know when levels of PFNA in the blood of Paulsboro residents will return to levels similar to the general population, but it will most likely take at least several years.
- Consider joining a study being conducted by Rutgers to better understand how long PFNA stays in the body. To find out about joining the study, please contact Dr. Cliff Weisel by phone (848-445-2073) or email ([weisel@eohsi.rutgers.edu](mailto:weisel@eohsi.rutgers.edu)) and ask about the PFC study.

## Resources

Cholesterol screening:

CAMcare is one local primary care office that provides cholesterol screening. 1315 North Delaware Street, Paulsboro, NJ, 08066 (856) 583-2400.

## New Jersey Department of Environmental Protection (NJDEP)

Division of Water Supply –

PFOA website: <http://www.state.nj.us/dep/watersupply/pfoa.htm>

Questions about the water filtration and monitoring: 609-292-5550

[watersupply@dep.nj.gov](mailto:watersupply@dep.nj.gov)

## New Jersey Department of Health (NJDOH)

Information on drinking water and health:

<http://www.nj.gov/health/ceohs/sanitation-safety/drinking-water-publichealth/index.shtml>

For a detailed report, please visit <http://eohsi.rutgers.edu/news-and-events/community-outreach>