
Bulletin #53, PFAS Effects on Heart Health, March 25, 2022

In 1976: "Central Research Analytical develops an accurate analytical method for determining parts per billion (ppb) quantities of organic fluorine compounds in human blood. Method tested on blood from American Red Cross and value agrees with those in literature."¹

"Since 1999, CDC scientists have measured at least 12 PFAS in blood serum (the clear portion of blood)."²

"We found sufficient evidence that higher levels of PFOS or PFOA in a person's blood can lead to higher blood cholesterol levels. High blood cholesterol is associated with heart disease. PFOS and PFOA, however, appeared only to increase cholesterol levels by a small amount."³

However, in a highly exposed young adult population it was noted:

Results: There were strong positive associations between the In-transformed PFOA, PFOS, and PFHxS and TC, HDL-C, and LDL-C, and between In PFOA and PFHxS and triglycerides. Each In-increase in PFOA was associated with an increase of 1.94 mg/dL (95% CI 1.48-2.41) in TC, with 4.99 mg/dL (CI 4.12-5.86) for PFOS and 2.02 mg/dL (CI 1.45-2.58) for PFHxS."⁴

Conclusions: Investigation of the shape of exposure-response associations using splines showed a positive association with the *largest increases per unit of PFAS in cholesterol levels occurring at the lower range of PFAS concentrations for each compound.* [emphasis added]⁵

1 Environmental Working Group, https://static.ewg.org/reports/2019/pfa-timeline/3M-DuPont-Timeline_sm.pdf

2 Centers for Disease Control and Prevention, Per- and Polyfluorinated Substances (PFAS) Fact Sheet, accessed Feb 27, 2022, https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html

3 Australian National University, The PFAS Health Study: Systemic Literature Review, Martyn Kirk, 2018-04, <https://openresearch-repository.anu.edu.au/handle/1885/241032>

4 National Library of Medicine, Associations between perfluoroalkyl substances and lipid profile in a highly exposed young adult population in the Veneto Region, Christina Canova, December 2020, <https://pubmed.ncbi.nlm.nih.gov/32971418/>

5 *ibid.*

FDSA

FIRE DEPT SERVICE ANNOUNCEMENT



David W. Walters, Driver Engineer for the Dallas Fire Department, serving the citizens of Dallas as a firefighter and paramedic for 20 years.

From David's wife Kristi,

When my boys were little, every night from the time they could talk, they asked me if their daddy was going to be home tomorrow. And I always said, yes. Or maybe, *no, he'll be at work*. And I often wondered if they asked that because they liked daddy more than me. But maybe they were just wondering ... *Is daddy really going to come home tomorrow?*

So, we would tuck into bed and pray for daddy and all the other firefighters out there taking care of us. Because that's where the firefighters are. Always taking care of us.

Years ago when we were still new to this business... I asked a friend, also a fire wife, about some things. I asked her how I'm not supposed to worry and be afraid every time my husband goes to work. And her answer was simple, really.... ***a husband isn't ours to hold on to. He is a gift of this particular moment in life. Shared for the moments we have together, the best way we can. And if that goes away tomorrow, then make sure we did good with what we had.*** Good answer, wise woman.

So, I never really spent a lot of time thinking about the possible dangers of the day. I couldn't. If I did, I'd go crazy with possibility. I did my thing and he did his, and I spent a lifetime telling the boys that daddy would be home tomorrow.

Then we prayed.

David was a proud, 20 year servant of the city of Dallas as a firefighter and paramedic and loved on the people of this city like he did his own family. His death became the benchmark case for approving firefighter underlying heart disease as a Line of Duty Death in Texas.

David was a firefighter, family man and friend.