Attachment 24.

Pease Study
PFAS Results Report
Flesch-Kincaid Readability Score – 8.1
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Pease Study
PFAS Results Report

Dear [NAME/NAME OF PARENT OR GUARDIAN],

Per-and polyfluorinated substances (PFAS) are a group of chemicals used to make products that resist heat, oil, stains, grease, and water. Some PFAS do not break down in the environment. People are mostly exposed through PFAS-contaminated water or food. Exposure may also occur by using products that contain PFAS in the home or at work.

Table 1 shows what we measured in the blood sample [you/your child] provided for the Pease Study on *mm/dd/yyyy*.

We show [your/your child's] result for each chemical compared to the levels that half (50th %) and the top 5% of the people in the U.S. in [your/your child's] age group were exposed to in 2013–2014.[1]

Finding PFAS in a person's blood by itself does not mean that the chemical causes disease. Research, like the Pease Study, will provide more information to see if there are health risks from different PFAS levels in blood.

Some people will not have results for all chemicals. [You/Your child] may not have a result for a chemical test if [your/his/her] level is lower than the lab's limit of detection (<LOD). [You/Your child] may also not have a result if the blood sample did not pass a lab quality control check. If the reason for missing results is known, it will be included with [your/your child's] results.

If you have further questions about the meaning of these chemicals tests results, you may contact us by calling ATSDR at [insert study telephone number]. Below, we list some websites and federal agencies with further information on these chemicals. We also enclose our ATSDR factsheet on Frequently Asked Questions about PFAS.

Sincerely,

Study Investigators.

Where can I find more information?

Centers for Disease Control and Prevention (CDC) Resources:
National Health and Nutrition Examination Survey (NHANES) (https://www.cdc.gov/nchs/nhanes/index.htm)

Agency for Toxic Substances and Disease Registry (ATSDR)
Toxicological Profiles and ToxFAQs (https://www.atsdr.cdc.gov/ToxProfiles/index.asp and https://www.atsdr.cdc.gov/toxfaqs/index.asp)

U.S. Environmental Protection Agency (EPA)
Integrated Risk-Information System (IRIS) (https://www.epa.gov/iris)

[1] From the 2013-2014 National Health and Examination Survey (NHANES).

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Table 1. Your PFAS test results compared to people in your age group

Test Name	Your Result (µg/L)	2013 – 2014 NHANES Reference Range[2] (µg/L)	
Per- and Poly-fluoroalkyl Substances (PFAS)		**Age Group (years):**	**50th to 95th %**
PFOA *- perfluorooctanoic acid‡* CAS No. 335-67-1		3-5: 6-11: 12-19: 20+:	1.80 – 5.58 1.94 – 3.84 1.67 – 3.47 2.07 – 5.60
• ***n-PFOA*** *- linear isomer of PFOA*		3-5: 6-11: 12-19: 20+:	1.72 – 5.32 1.84 – 3.77 1.60 – 3.40 2.00 – 5.40
• ***Sb-PFOA*** *- serum branched isomer of PFOA*		3-5: 6-11: 12-19: 20+:	< LOD – 0.280 < LOD – 0.230 < LOD – 0.200 < LOD – 0.200
PFOS *- perfluorooctane sulfonic acid‡* CAS No. 1763-23-1		3-5: 6-11: 12-19: 20+:	3.41 – 8.82 4.02 – 12.4 3.60 – 9.30 5.60 – 19.5
• ***n-PFOS*** *– linear isomer of PFOS*		3-5: 6-11: 12-19: 20+:	2.11 – 6.19 2.65 – 8.41 2.70 – 7.10 3.70 – 15.1
• ***Sm-PFOS*** *– serum branched isomer of PFOS*		3-5: 6-11: 12-19: 20+:	1.00 – 3.60 1.41 – 4.25 1.00 – 2.30 1.60 – 5.30
PFHxS *- perfluorohexane sulfonic acid* CAS No. 355-46-4		3-5: 6-11: 12-19: 20+:	0.740 – 1.62 0.850 – 4.14 1.10 – 6.30 1.40 – 5.50
PFOSA *- perfluorooctane sulfonamide* CAS No. 754-91-6		3-5: 6-11: 12-19: 20+:	< LOD – 0.110 < LOD - < LOD n/a ‡ n/a ‡
Me-FOSAA *- 2-(N-methyl-perfluorooctane sulfonamido) acetic acid* CAS No. 2355-31-9		3-5: 6-11: 12-19: 20+:	0.110 – 1.02 0.110 – 0.940 0.100 – 0.600 < LOD – 0.600
Et-FOSAA *- 2-(N-ethyl-perfluorooctane sulfonamido) acetic acid* CAS No. 2991-50-6		3-5: 6-11: 12-19: 20+:	< LOD - < LOD < LOD - < LOD n/a ‡ n/a ‡
PFBS *- perfluorobutane sulfonic acid* CAS No. 375-73-5		3-5: 6-11: 12-19: 20+:	< LOD - < LOD < LOD – 0.130 < LOD - < LOD < LOD - < LOD
PFHpA - perfluoroheptanoic acid CAS No. 375-85-9		3-5: 6-11: 12-19: 20+:	< LOD – 0.310 < LOD – 0.170 < LOD – 0.200 < LOD – 0.100

[2] CDC. 2018. 2013-2014 NHANES 50th to 95th percentiles among children 12-19 years and adults 20+ years old from the Fourth National Report on Human Exposure to Environmental Chemicals, Updated Tables, March 2018. Accessed April 13, 2018 at (https://www.cdc.gov/exposurereport/pdf/FourthReport_UpdatedTables_Volume1_Mar2018.pdf).

‡ Not measured after Survey Years 2011-2012. Starting in 2013, CDC began measuring linear and branched isomers of both PFOS and PFOA. PFOS and PFOA were calculated by summing the linear and branched isomers for each participant and applying the appropriate sample weight. Because the 2013-2014 values are a calculated sum, there is no limit of detection (LOD) for PFOS and PFOA.