Maine Chapter

INCORPORATED IN MAINE

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN

Executive Committee

President
Brian Youth, MD, FAAP

Vice President
Anne Coates, MD, FAAP

Treasurer
Jeffrey Stone, DO, FAAP

Secretary
Genevieve Whiting, MD, FAAP

Immediate Past President
Laura Blaisdell, MD, MPH, FAAP

Board of Directors

Mahmuda Ahmed, MD, FAAP
Joseph Anderson, DO, FAAP
Rebecca Brakeley, MD, FAAP
Amy Buczkowski, MD, FAAP
Melissa Burch, MD, FAAP
Adrienne Carmack, MD, FAAP
Gabriel Civiello, MD, FAAP
Alyssa Goodwin, MD, FAAP
Allison Grover, MD*
Deborah Q. Hagler, MD, MPH, FAAP
Dan Hale, MD, FAAP
Jennifer Jewell, MD, MS, FAAP
Stephanie Joy, MD, FAAP
Emily Keller, MD, FAAP
Alton Kremer, MD, PhD, FAAP
Michele LaBotz, MD, FAAP
Lawrence Losey, MD, FAAP
Sophia Martens**
Christopher Motyl, DO, FAAP
Valerie O'Hara, DO, FAAP
Calvin Schaffer, MD*
Andrea Tracy, MD, FAAP
Lara Walsh, MD, FAAP
Afnan Yahya**
Margaret Zamboni, DO, FAAP

*Resident Board Representatives
**Medical Student Representatives

Staff

Dee Kerry, BS
Executive Director

Emily Belanger, RN, BSN
Education & Membership Manager

Madeleine DesFosses, BA
Public Health & Advocacy Manager

Tiffany Harrington, MBA
Development Director

30 Association Drive, Box 190
Manchester, ME 04351
office: 207-622-3374

Testimony of Abby Fleisch, MD, MPH

In Support of LD493 (An Act Concerning Testing for and Disclosure of PFAS Contamination of Residential Drinking Water Wells), LD500 (An Act to Ensure Access to Safe Drinking Water from Household Wells in Rural Areas by Expanding Testing), and LD1326 (An Act to Protect Drinking Water in Maine by establishing a PFAS Maximum Contaminant Level)

April 22, 2025

Good afternoon Senator Ingwersen, Representative Meyer, and members of the Committee on Health and Human Services. My name is Abby Fleisch –I am a pediatrician and PFAS researcher and am speaking today on behalf of the Maine Chapter of the American Academy of Pediatrics. I live and practice in Portland, Maine, and I currently lead or co-lead 4 large grants from the National Institutes of Health to study the health impact of PFAS exposure. I also care for children in my clinic who have been exposed to high levels of PFAS.

I am here to testify in support of LD 493, LD500, and LD1326. LD493 and LD500 are bills that would expand access to PFAS water testing, and LD1326 would establish a long-term health- protective level for specific PFAS in drinking water in the state of Maine to be consistent with the national standards set by the EPA based on the best available science and research into the health impacts of PFAS.

During this testimony, I want to tell you more about PFAS-related *health effects* and how *knowing the concentration of PFAS in drinking water is important* to guide exposure reduction and long-term medical monitoring of Mainers exposed to PFAS.

Health Effects of PFAS Exposure

My own research has been largely focused on the impact of PFAS on obesity and bone health. In my research, we have used data from the Diabetes Prevention Program—a large study of about 1000 adults across the US who were followed over 15 years. Adults with higher PFAS levels at the beginning of the study had greater **weight gain,[1] risk of diabetes,[2] and risk of high cholesterol.** [3]

I also study health effects of PFAS exposures in the Project Viva study of 1000 mother/child pairs followed for over 20 years. Mothers in Project Viva with higher PFAS concentrations during pregnancy had infants with **lower birth weight.**[4] Children in Project Viva with higher PFAS concentrations had **adverse fat distribution and lower bone mineral density across adolescence.**[5,6]

Other researchers have consistently found higher PFAS concentrations to be associated with higher cholesterol, increased risk for kidney cancer, decreased antibody response to vaccines, and lower birth weight.[7,8]

Importance of knowing the concentration of PFAS in drinking water

Drinking water is a major source of exposure to PFAS. If Mainers know their drinking water has elevated levels of PFAS, they can:

1) Filter their water to reduce their exposure
2) Seek medical care which will include PFAS blood testing based on evidence-based guidance from the National Academies of Sciences[8]. This is important because if blood levels are elevated, the guidelines recommend extra testing for medical conditions including high cholesterol and kidney cancer. Also, the medication cholestyramine can be used to decrease PFAS body burden in individuals with high concentrations in their blood.

Summary

I am in support of LD493, LD500, and LD1326 because research suggests that exposures to PFAS have potential to impact human health, and knowing the PFAS concentration in drinking water is critical to ensure appropriate exposure reduction and medical monitoring of exposed individuals.

---

1. Cardenas A, Hauser R, Gold DR, Kleinman KP, Hivert M-F, **Fleisch AF**, Lin PD, Calafat AM, Webster TF, Horton ES, Oken E. Association of perfluoroalkyl and polyfluoroalkyl substances with adiposity. JAMA Netw Open 2018; 1(4):e181493.

2. Cardenas A, Hivert MF, Gold DR, Hauser R, Kleinman KP, Lin PD, **Fleisch AF**, Calafat AM, Ye X, Webster TF, Horton ES, Oken E. Associations of Perfluoroalkyl and Polyfluoroalkyl Substances With Incident Diabetes and Microvascular Disease. Diabetes Care. 2019; 42(9):1824-1832.

3. Lin Pi-I D, Cardenas A, Hauser R, Gold DR, Kleinman KP, Hivert M-F, **Fleisch AF**, Calafat AM, Webster TF, Horton ES, Oken E. Per- and polyfluoroalkyl substances and blood lipid levels in pre-diabetic adults—longitudinal analysis of the diabetes prevention program outcomes study. Environ Int 2019; 129: 343-353.

4. Sagiv SK, Rifas-Shiman SL, **Fleisch AF**, Webster TF, Calafat AM, Ye X, Gillman MW, Oken E. Pregnancy pharmacokinetics do not confound associations of early pregnancy perfluoroalkyl substance concentrations with fetal and infant growth in Project Viva. Am J Epidemiology 2018; 187(4):793-802. PMCID: 5884712.

5. Janis J, Rifas-Shiman S, Seshasayee S, Sagiv S, Calafat A, Rosen C, Oken E, **Fleisch AF**. Plasma concentrations of per- and polyfluoroalkyl substances and body composition from mid-childhood to early adolescence. Journal of Clinical Endocrinology and Metabolism. 2021; 106(9):e3760-e3770.

6. Cluett R, Seshasayee SM, Rokoff LB, Rifas-Shiman SL, Ye X, Calafat AM, Gold DR, Coull B, Gordon CM, Rosen CJ, Oken E, Sagiv SK, **Fleisch AF**. Per- and Polyfluoroalkyl Substance Plasma Concentrations and Bone Mineral Density in Mid-Childhood: A Cross-Sectional Study (Project Viva, USA). Environ Health Perspect 2019; 127(8):87006.

7. US Department of Health and Human Services; Agency for Toxic Substances and Disease Registry. Toxicological Profile for Perfluoroalkyls. Published online May 2021. Accessed 4/2025.

8. National Academies of Sciences, Engineering, and Medicine. Guidance on PFAS Exposure, Testing, and Clinical Follow-Up [Internet]. Washington, DC: The National Academies Press; 2022. Accessed 4/2025.