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## CPSC SEEKS COMMENT ON HAZARDS OF PFAS IN CONSUMER PRODUCTS AND POTENTIAL SOLUTIONS

One of my top priorities as Commissioner is increasing CPSC’s attention to chronic health hazards from consumer products—things in our homes that we interact with every day that silently poison our families. CPSC recently published a contracted report on PFAS, a broad class of chemicals commonly used in consumer products, from rugs and children’s clothing to toilet paper. PFAS are often called “forever chemicals” because they are tough to break down, and they are constantly building up around us and inside our bodies. In the report, CPSC’s contractor reaches several conclusions about PFAS that serve as a call to action:

- **Some PFAS cause cancer:** EPA has concluded that two PFAS—PFOA and PFOS—likely cause human cancers, and there is suggestive evidence that other PFAS, known as GenX chemicals, cause human cancers.<sup>1</sup>
- **The whole class of PFAS endangers human health:** As a whole, according to the report’s synthesis of recent evidence reviews conducted by the U.S. Environmental Protection Agency (EPA), the National Academies of Sciences, Engineering, and Medicine (NASEM), the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), and the European Food Safety Authority (EFSA), “the class is broadly associated with adverse effects in the immune system, disturbances in lipid metabolism, adverse effects in the liver, thyroid hormone disruption, and developmental and reproductive toxicity.”<sup>2</sup>
- **Many researchers believe PFAS should be regulated as a single class of chemicals:** “[T]he traditional paradigm of evaluating and regulating chemicals on an individual basis is not tenable for the thousands of chemicals in this class (from the perspective of resources, time, and the urgency posed by possibly prolonging exposures and health risks).”<sup>3</sup>

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<sup>1</sup> RTI Int’l, *Characterizing PFAS Chemistries, Sources, Uses, and Regulatory Trends in U.S. and International Markets* 4-89 (2023).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.* at 4-82–83.

- “[T]he persistence of PFAS remains a concern across the class and many PFAS are expected to share similar target systems and health endpoints due to similar fundamental chemical properties.”<sup>4</sup>
- **PFAS should be completely phased out:** “There is still much that we don’t know about the long-term effects of PFAS on people, however what we do know shows that PFAS should be completely phased out.”<sup>5</sup>

I urge scientists and researchers, as well as all members of the public, to help CPSC find a comprehensive solution to the hazards posed by PFAS in consumer products. How can we detect hazardous levels of PFAS in consumer products? Which consumer products pose the highest risks? What can CPSC do to best protect consumers?

The report and supporting materials can be found [here](#). Submit comments [here](#).

Relevant highlights from the report are available below:

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<sup>4</sup> *Id.* at 4-82.

<sup>5</sup> *Id.* at 4-89.

## Highlights of the Report: “*Characterizing PFAS Chemistries, Sources, Uses, and Regulatory Trends in U.S. and International Markets*” (RTI International, June 2023)

### PFAS are used in many consumer products

16,229 distinct PFAS have been identified, and 863 of those have reported detections or uses in consumer products. Common consumer products with PFAS include: apparel, rugs, children’s products, containers and packaging, furniture, décor, nonstick cookware, paper (including toilet paper), and cleaning solutions. ES-2.

Functionally, PFAS are used to reduce friction, repel grease, provide nonstick properties, resist stains, and provide waterproofing. Emerging substitutes for PFAS in these applications include: silicones and siloxanes, anionic surfactants, nonionic surfactants, branched polymers, and hydrocarbons/other organics, graphene, and ceramics. 4-64–65.

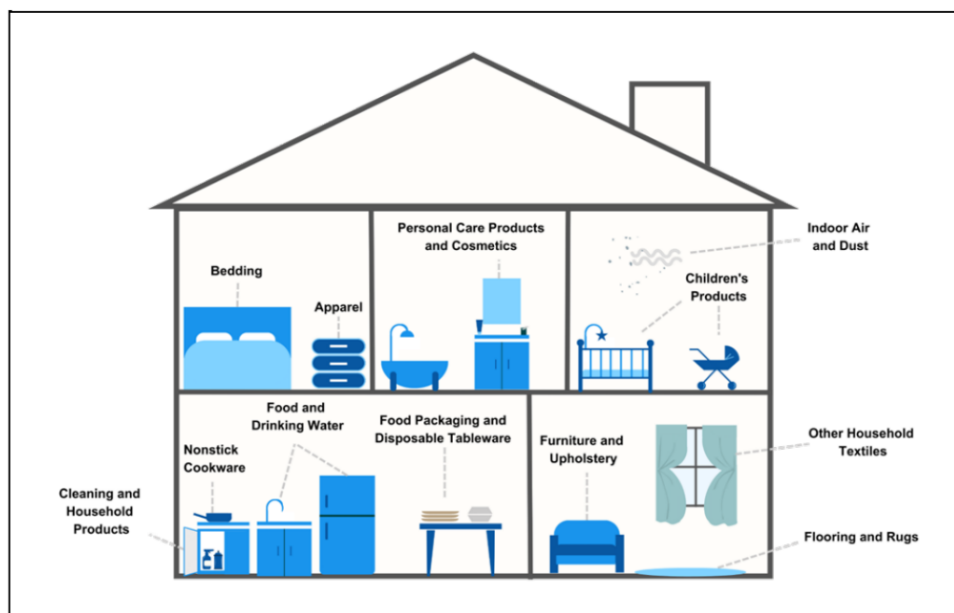
### Consumers are exposed to PFAS from consumer products

Consumers are exposed to PFAS from consumer products in many ways, including breathing indoor or outdoor air, skin contact, and drinking water that has contacted PFAS-containing products. 1-1.

Children are particularly at risk—an EFSA study found that “toddlers and young children had twofold higher PFAS exposure than adults.” 4-71. “Children also engage in more activities that can increase PFAS exposure, such as crawling on carpets and floors and hand-to-mouth activities.” *Id.*

“[T]he persistence of PFAS remains a concern across the class and many PFAS are expected to share similar target systems and health endpoints due to similar fundamental chemical properties.” 4-82. “[M]any researchers and decision-makers are exploring class-based approaches . . . . [T]he traditional paradigm of evaluating and regulating chemicals on an individual basis is not tenable for the thousands of chemicals in this class (from the perspective of resources, time, and the urgency posed by possibly prolonging exposures and health risks).” 4-82–83.

Figure 4-24. Summary of Common PFAS Exposure Sources Related to Consumer Products



## PFAS exposure is tied to numerous negative health outcomes—regulation is required

**Cancer:** EPA has concluded that PFOA and PFOS are “likely to be carcinogenic to humans.” 4-89. There is “suggestive evidence” that GenX chemicals (HFPO-DA) are carcinogenic to humans. *Id.*

**Other adverse impacts:** As a whole, “the class is broadly associated with adverse effects in the immune system, disturbances in lipid metabolism, adverse effects in the liver, thyroid hormone disruption, and developmental and reproductive toxicity.” *Id.*

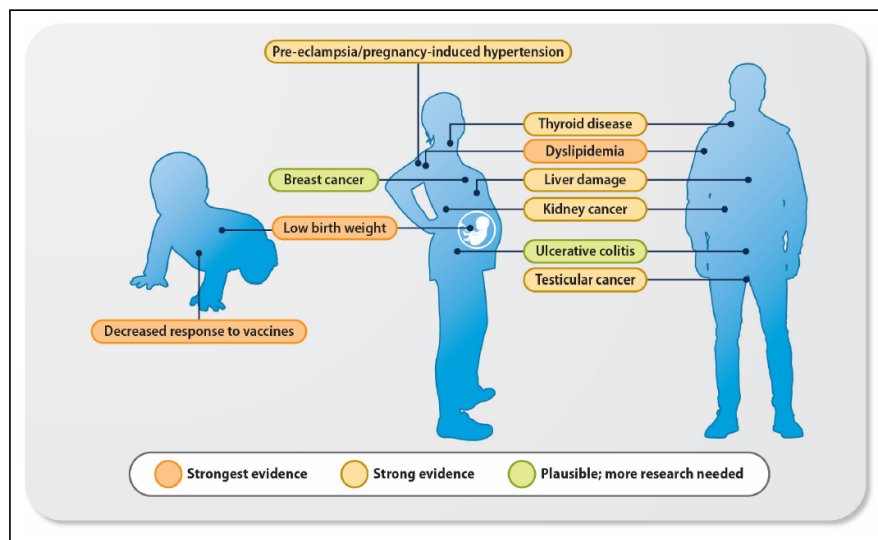
EPA, NASEM, ATSDR, and EFSA have all recently conducted class-based evidence reviews. 4-90. These “[h]ighly authoritative sources have concluded there is sufficient evidence to establish a relationship between PFAS and the following major systems:

- Immunotoxicity, including decreased antibody response to vaccines (EFSA, ATSDR, NASEM, EPA);
- Cardiometabolic toxicity, including dyslipidemia and increased total cholesterol (EFSA, ATSDR, NASEM, EPA); and
- Developmental toxicity, including fetal and/or infant growth outcomes (EFSA, ATSDR, NASEM).” 4-90.

**Dose-response:** ATSDR and EPA “have developed dose-response assessments for PFAS with strong weights-of-evidence, including PFOS, PFOA, PFHxS, PFNA, PFBS, and GenX.” 4-94.

**Takeaway:** “There is still much that we don’t know about the long-term effects of PFAS on people, however what we do know shows that PFAS should be completely phased out.” 4-89. “There is a consensus among industry peers that PFAS has significant negative impacts on human health.” *Id.* “[A]dditional regulations are necessary to protect human health and the environment, provide consumers with products that are safe for use, and ensure that industry and product manufacturers have clear requirements so that they can appropriately substitute PFAS with safer alternatives that meet performance standards.” 7-1.

Figure 4-26. Summary of Key Human Health Outcomes Recognized or Suspected to be Associated with PFAS Exposure



**Notes:** **Strongest evidence:** Multiple authoritative bodies have concluded there is an association between at least one PFAS chemical and this health outcome. **Strong evidence:** an authoritative body has concluded there is an association between at least one PFAS chemical and this outcome, or multiple authoritative bodies have identified there is suggestive evidence for an association. **Plausible; more research needed:** evidence for an association between a PFAS chemical and this outcome is common in the primary literature, and/or authoritative bodies have identified this as a health outcome for further research. The primary authoritative sources used for this figure—and summarized in the following sections—are several U.S. EPA documents, Agency for Toxic Substances and Disease Registry’s (ATSDR’s) 2021 Toxicological Profile on PFAS, EFSA’s 2020 Panel on Contaminants in the Food Chain Report, the National Academies of Science, Engineering and Medicine’s (NASEM’s) 2022 Guidance document, the National Toxicology Program’s (NTP’s) Monograph on Immunotoxicity for PFOA and PFOS, and IARC’s Monograph including PFOA. See **Appendix D**, Tier 1 Evidence Results for more details.