

PFAS: Polyfluoroalkyl Substances: “Forever Chemicals” and their potential impact on children

As a brief review, PFAS (Polyfluoroalkyl substances) have been nicknamed “forever chemicals” because their unique chemistry makes them particularly persistent under typical environmental conditions. These “forever chemicals” break down very slowly, often building up in people, animals, and the environment. These PFAS substances have been around and in use since the 1940’s and while very useful, their toxicity is now becoming better understood.

According to the Agency for Toxic Substances and Disease Registry (ATSDR), PFAS can harm our heart, liver, reproductive, renal systems and cause certain cancers. There is some evidence that they can increase cholesterol levels and increase blood pressure in pregnant women, leading to birth defects and dangerous conditions such as pre-eclampsia (A condition in pregnancy characterized by high blood pressure, sometimes with fluid retention and proteinuria.). PFAS can change liver enzymes and decrease the vaccine response in children. The EPA has identified over 9,100 PFAS substances and they can be present in our water, soil, air, and food as well as in materials found in our homes or workplaces, including drinking water, fire extinguisher foam, manufacturing or chemical production facilities that produce or use PFAS substances, food packaging, household products, dust, personal care products, furniture and biosolids.

How does PFAS affect children?

Children drink more water, eat more food, and breathe more air per pound of body weight than adults, which can increase their exposure to PFAS. Young children crawl on floors and put things in their mouths which leads to a higher risk of exposure to PFAS in carpets, household dust, toys, and cleaning products. Because children are still developing, they may be more sensitive to the harmful effects of chemicals such as PFAS.

Breast milk from mothers with PFAS in their blood and formula made with water containing PFAS can expose infants to PFAS, and it may also be possible for children to be exposed in utero during pregnancy. Scientists continue to do research in this area. Based on current science, the benefits of breast feeding appear to outweigh the risks for infants exposed to PFAS in breast milk. To weigh the risks and benefits, mothers should contact their doctors.

While more research is needed to quantify PFAS exposures from clothing and other children’s products, it is worth asking why these chemicals are added to these products in the first place. The truth is that children are messy, and buying white clothing or using light carpeting in heavily trafficked rooms is just not practical.

Summarized from the following link: <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas>, January 24, 2024

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