PFAS: Toxic Forever Chemicals

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PFAS- a global problem

- Estimates >12,000 different variations
- "Forever chemicals" =fluorine-carbone bond=don't break down in the environment
- PFOA and PFOS—early versions, "long chain," most widely studied, phased out in U.S but found in imported goods
- Thousands more variations in commerce today

PFAS chemical uses



Exposure routes

- Indoor air and dust: When PFAS are used in products such as stain-proofing for furniture and carpets, or waterproofing for clothing, these items release the chemicals over time into air and dust.¹
- **Drinking water:** Chemical plants, industrial plants, firefighting foam, landfills, and spreading of sludge have led to widespread contamination of drinking water in the U.S.² Today, millions of U.S. residents are served by a drinking water source contaminated with PFAS.³
- Consumer and workplace products: PFAS use in cleaners, building materials, cosmetics, personal care products, and specialty products such as ski wax can lead to direct exposure from product use.⁴
- **Food:** PFAS can build up in crops, fish, and livestock, ultimately contaminating the food we eat. In addition, when PFAS are used in food packaging such as bags, sandwich wrappers, and takeout containers, they can migrate to our food.

Environmental Impacts

- Water contamination
- Soil and crop contamination
- Bioaccumulates and found up through the food chain
- No effective way to clean up or destroy PFAS in the environment



Health impacts

- Kidney and testicular cancers
- Reproductive disorders
- Low birth weight and size
- Liver damage, high cholesterol, links to liver cancer
- Thyroid disruption
- Impaired immunity to vaccines
- Ulcerative colitis

What's happening in CT and what's next?

- Ban on AFFF and PFAS in food packaging
- Take back program for AFFF
- Next steps:
 - Comprehensive bans to "turn off the tap"
 - Monitoring of water sources and at risk sites
 - Public disclosure and remediation