



PFAS Forever Chemicals

What They Are & Why They
Matter to Brevard County

*Protecting water, health, and
community trust*



What are PFAS?

- PFAS = Per- and polyfluoroalkyl substances
- Over 12,000 identified compounds globally
- Carbon-fluorine bond is **one of the strongest bonds in chemistry**
- That bond is why PFAS:
 - Resist heat and breakdown
 - Persist in groundwater
 - Accumulate in human blood and organs
- PFAS are not naturally occurring



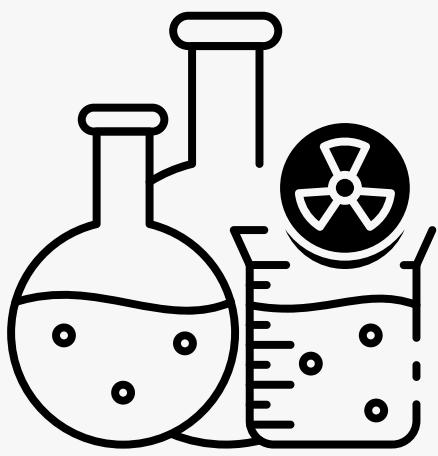
Where Do PFAS Enter Drinking Water?

- **Firefighting foams** used nationwide for decades
- **Industrial** and advanced manufacturing processes
- **Wastewater** and landfill runoff
- **Everyday products** washing into the environment

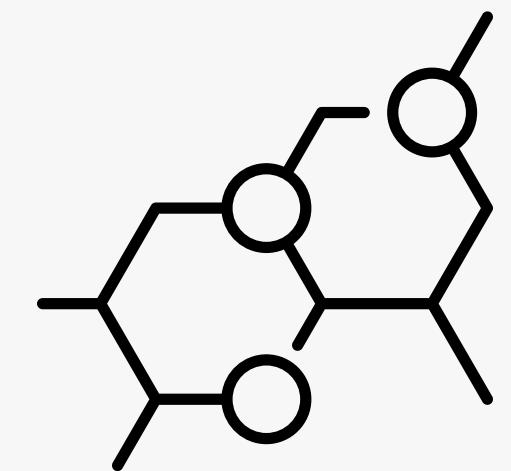




Why PFAS Is Not “Just Another Chemical”



Most chemicals degrade or leave the body



PFAS persist and accumulate over time



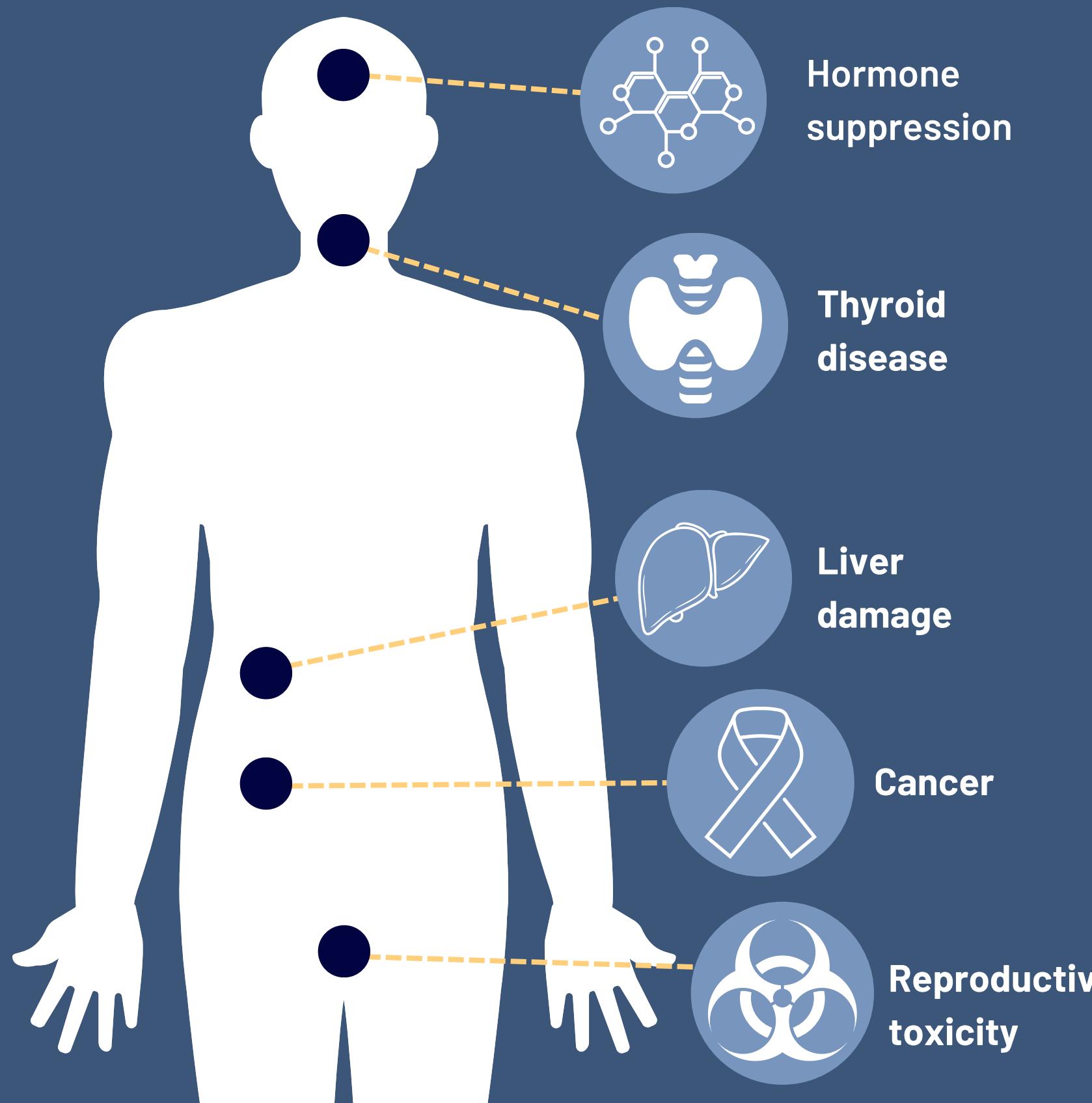
Even small exposures contribute to total body burden



Drinking water creates continuous exposure



Studies show an association between PFAS exposure and adverse health effects, such as:



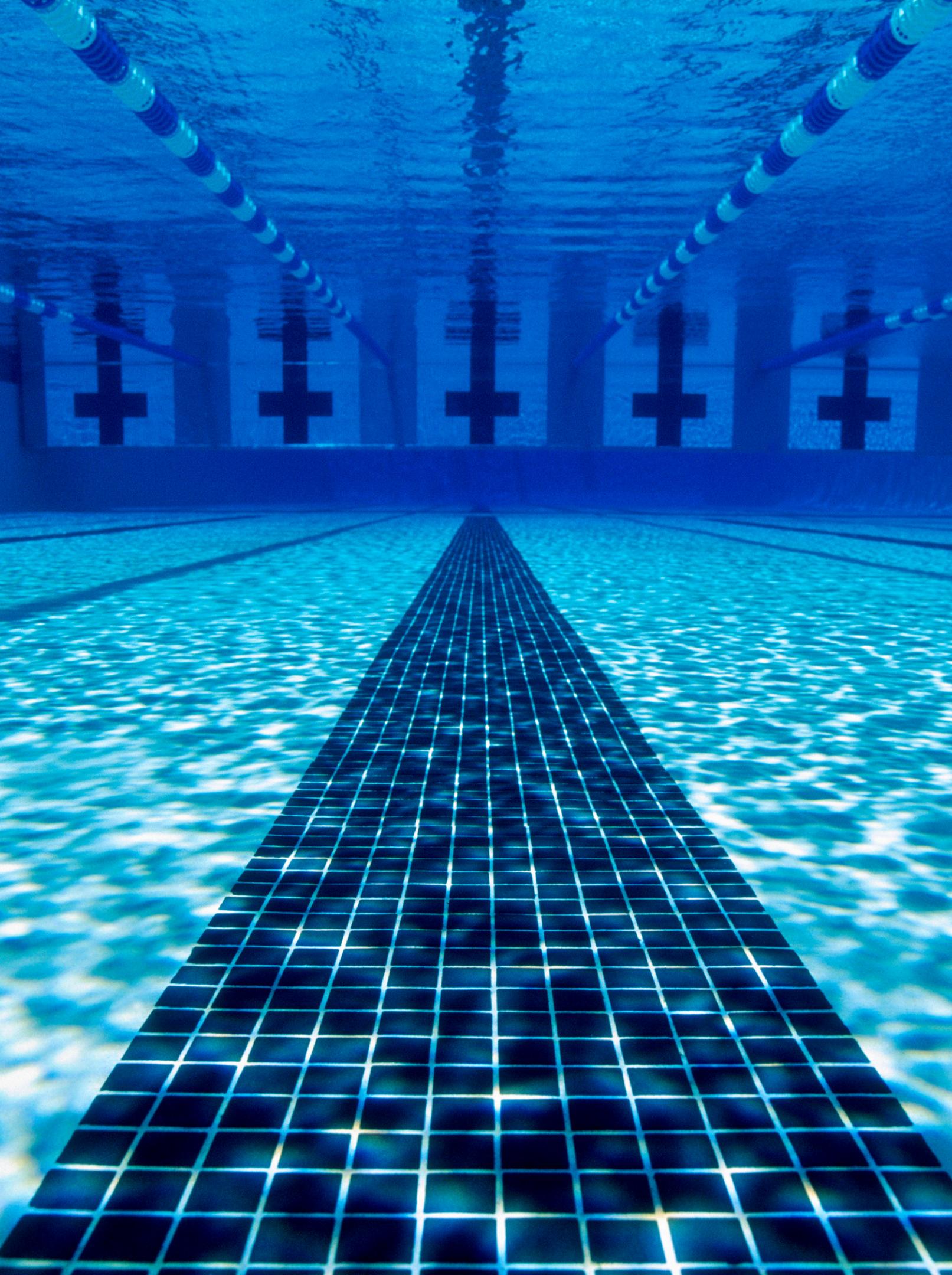
What the Science Shows

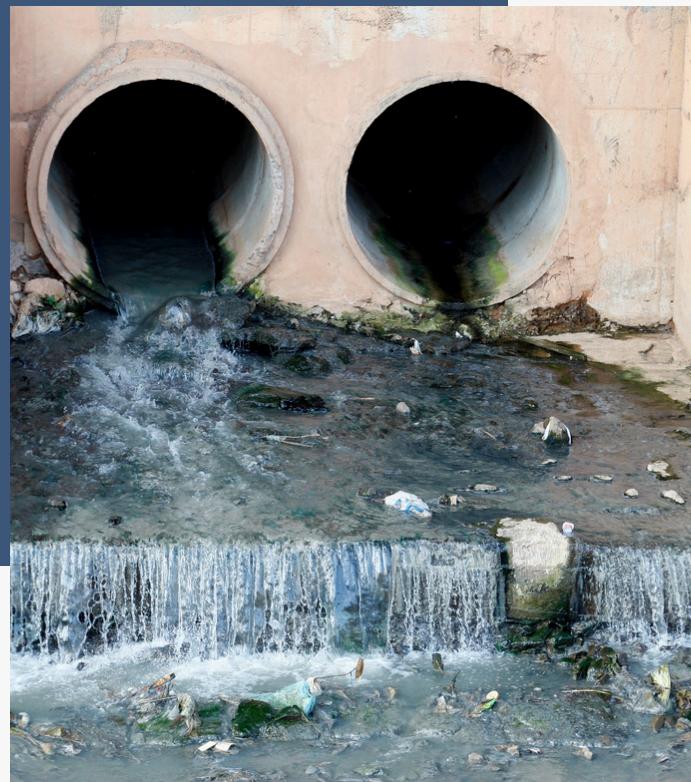
- Linked to kidney and testicular cancers
- Thyroid disease
- Immune system suppression
- Elevated cholesterol
- **Pregnancy impacts:** low birth weight, developmental effects



Understanding the Numbers

- Parts per trillion = drops in an Olympic-size pool
- PFAS cause harm at levels too small to taste or see
- **Risk comes from years of exposure, not a single glass**
- Standards exist because science shows harm at these levels





Why Brevard County Should Care

- Brevard County relies on groundwater sources
- Population growth increases water demand
- Long-term planning reduces future costs
- Water quality affects public trust

What Communities Are Doing



- Test and disclose
- Plan long-term infrastructure solutions
- Communicate clearly with residents
- Avoid costly emergency reactions later

Thank you!

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