PFAS: The ‘forever chemicals’ in 99% of Americans

Hundreds of everyday products are made with highly toxic fluorinated chemicals called PFAS. They build up in our bodies and never break down in the environment. Very small doses of PFAS have been linked to cancer, reproductive and immune system harm, and other diseases.

For decades, chemical companies covered up evidence of PFAS’ health hazards. Today nearly all Americans, including newborn babies, have PFAS in their blood, and new EPA data indicates that PFAS is widespread in drinking water, supporting an EWG report that more than 200 million people may be drinking PFAS-tainted water. What began as a “miracle of modern chemistry” is now a national crisis.

What Are PFAS?

In 1946, stores began selling nonstick cookware coated with Teflon. Today, the family of fluorinated chemicals that sprang from Teflon includes thousands of nonstick, stain-repellent and waterproof compounds called PFAS, short for per- and poly-fluoroalkyl substances.

PFAS are used in a staggering array of consumer products and commercial applications, including non-stick pans, apparel, cleaning products, cosmetics, and food packaging. They are also used in electronics, firefighting foam, and chemical manufacturing.

Decades of heavy use have resulted in contamination of water, soil, food and the blood of people and animals in the farthest corners of the world. PFAS are incredibly persistent, never breaking down in the environment with many PFAS remaining in our bodies for years.

What are the health risks of PFAS?

Manufacturing of the most notorious PFAS chemicals – PFOA, the Teflon chemical, and PFOS, an ingredient in Scotchgard – was phased out in the U.S. after revelations of their hidden hazards. (They are still permitted in items imported to this country.) Numerous studies link these and closely related PFAS chemicals to harm throughout the body including:

- Testicular, kidney, liver and pancreatic cancer.
- Reproductive problems
- Weakened childhood immunity
- Increased cholesterol
- Thyroid disease
- Low birth weight
- Endocrine disruption
- Weight gain in children and dieting adults

What about newer PFAS?

PFOA, PFOS and the related phased-out compounds are called “long chain” chemicals because they contain eight carbon atoms. Since these chemicals have been phased out of US manufacturing, the EPA
and the Food and Drug Administration have allowed the introduction of scores of “short chain” replacement PFAS, with six carbon atoms or fewer.

Chemical companies claim this short chain structure makes them safer. But manufacturers admit that the short-chain chemical GenX causes cancerous tumors in lab animals.

Studies have shown that other replacement PFAS also cause harm similar to “long chain” PFAS. There is growing agreement among scientists that the entire class of PFAS are hazardous and should be regulated as a class.

California’s Department of Toxic Substances Control has agreed with the class approach and adopted regulations that apply to the entire class of PFAS chemicals.

Learn More:

- Bad Chemistry: Articles by Sharon Lerner
- Map of U.S. PFA Contamination
- Emerging Chemical Risks in Europe
- Per- and Polyfluoroalkyl Substances (PFAS) and Your Health
- Food Packaging Containing Perfluoroalkyl or Polyfluoroalkyl Substances
- Treatments Containing PFAS: New Regulation
- Public Health Goals: PFOA and PFOS in Drinking Water

HR 123 (Reyes) recognizes October as Children’s Environmental Health Month, and in order to raise policymaker awareness of the environmental issues threatening children’s health in California, this document was prepared as part of a legislative briefing co-sponsored by: Children Now; Environmental Working Group; Pesticide Action Network of North America; Families Advocating for Pesticide and Toxic Chemicals Safety; Undaunted K12; Regional Asthma Management & Prevention; American Academy of Pediatrics\California; American Nurses Association, California; Breast Cancer Over Time; Brighter Beginnings; California Nurses for Environmental Health & Justice; California School-Based Health Alliance; Center for Environmental Health; Center on Race, Poverty & the Environment; Central California Environmental Justice Network; Central Coast Alliance United for a Sustainable Economy; Children’s Specialty Care Coalition; Friends Committee on Legislation in California; Los Angeles Trust for Children’s Health; Monterey Bay Central Labor Council; Pesticide Action Network; Physicians for Social Responsibility Los Angeles; Regional Asthma Management & Prevention; Sierra Club, California; and Western Center on Law & Poverty; Re:wild Your Campus; Sonoma County Climate Activist Network (SoCoCAN!)

For more information, contact:
Susan Little / slittle@ewg.org