Flame retardants are just about everywhere. Manufacturers put them in sofas, curtains, carpet foam, TVs, laptops, and other electronics. The problem is they don’t stay put, they are toxic, and they may not even protect us that well from fires.

These flame-fighting chemicals, called polybrominated diphenyl ethers, detach from their intended products and eventually wind up in household dust -- and our bodies. The substances have been detected in about 97 percent of Americans. Worse yet, they are showing up the bodies of children, where these chemicals may do the most harm.

A new study out of North Carolina found PBDEs in one out of every 83 toddlers examined. The research, which is published in *Environmental Health Perspectives*, also discovered more PBDEs within children from low-income households. Black and Latino toddlers had on average twice the chemical load as white children. Of course, that flame retardants are present in kids' bodies is no surprise. After all, 80 percent of products for babies and children contain them, but the news is still troubling.

Previous research has linked flame retardants to cancer and neurological issues, and a study
out of the **Columbia Center for Children’s Environmental Health** suggests pre-natal exposure to PBDEs can harm fetal brain development, sapping IQ points from children who had been exposed while in the womb.

Adding insult to injury, the **Chicago Tribune** recently detailed how the chemical industry created a phony consumer protection group to stoke fears of home fires. Its hope was to distract the public and lawmakers from the mounting evidence that flame retardants posed health risks. And it worked. The deceptive campaigns were very effective at boosting sales and stalling tougher regulations. The *Tribune’s* 4-part investigative report also questioned whether these chemicals even work as promised.

So while flame retardants are supposedly protecting us from fires, what’s protecting us from them? Not the government and not the law that is supposed to.

Health activists are fuming over the government’s failure to reform the 36-year-old **Toxic Substances Control Act**, which should keep the public safe from dangerous chemicals found in commercial products but doesn’t. Tens of thousands of chemicals are currently on the market (and in our homes) without any health or safety data. Instead of companies having to prove a product is safe, the public must prove it is unsafe. And even if information emerges that does show a substance is harmful, preventing the chemical’s continued use is still near impossible. For instance, the flame retardant chlorinated Tris. Toxicity concerns led to its ban from children’s pajamas in the 1970s. Even so, today’s manufacturers routinely add Tris to strollers, highchairs, rockers, diaper-changing pads, and other baby products.

Daniel Rosenberg, director of NRDC’s toxic chemicals reform project, sees a pattern. "The industry’s history," he writes, "is a virtually uninterrupted tale of defending dangerous chemicals as ‘safe.’" Companies manufacture evidence in support, while they hide any evidence to the contrary. Meanwhile, they are willing to spend or say anything to weaken or prevent their regulation.

Rosenberg continues: "The list of toxic substances that illustrate this history is long: lead, asbestos, vinyl chloride, arsenic, dioxin, formaldehyde, styrene, hex-chrome, TCE, PCE, PFOA, PCBS, PBDEs, perchlorate, phthalates. That's just a starter list."

So why not regulate the chemical industry as we do the pharmaceutical industry? “We don't think it's strange to ask for the safety information of a drug before it's prescribed,” said Tracey Woodruff, a reproductive health expert at the University of California, San Francisco, to the **Huffington Post**. The same scrutiny should apply to toxic chemicals that products may expose us to.

Woodruff, Rosenberg, and a broad-ranging coalition of health and environmental organizations are urging Congress to retire the 1976 Toxic Substances Control Act and replace it with the proposed **Safe Chemicals Act**, which currently awaits a Senate vote. The swap would essentially shift the burden of proof from the public to industry. Instead of assuming a chemical is safe until proven toxic, the government would require companies to prove it’s safe -- and do so before any products containing it hit the shelves.

The problem, of course, extends to older household products that contain PBDEs. After all, you may not want to replace all of your belongings anytime soon. But you can take steps to reduce
or eliminate your exposure to some of the problem chemicals in your homes, offices, and vehicles by doing the following:

**Inspect foam items:** Replace anything with a ripped cover or foam that is misshapen or breaking down. If you cannot replace these items, try to keep the covers intact. Beware of older items like car seats and mattress pads, where the foam is not completely encased in a protective fabric.

**Use a vacuum fitted with a HEPA filter:** These vacuums are more efficient at trapping small particles and will likely remove more contaminants and other allergens from your home. HEPA-filter air cleaners may also reduce particle-bound contaminants in your house.

**Do not re-upholster foam furniture:** Even items without PBDEs can contain poorly studied fire retardants with potentially harmful side-effects.

**Be careful when removing old carpet:** Carpet padding may contain PBDEs. Keep your work area isolated from the rest of your home, and clean up with a HEPA-filter vacuum and mop to remove as many of the small particles as possible.

**Keep clean:** Regularly damp mop floors and damp dust furniture, and wash hands frequently, especially before eating.

**Car care:** Vacuum and wipe down your car's interior regularly.

**Shop wise:** When purchasing new products, ask the manufacturers what type of fire retardants they use. Avoid products with brominated fire retardants, and opt for less-flammable fabrics and materials, such as leather, wool, jute, and cotton. Be aware that natural cotton and "natural" or latex foam are flammable and require a fire retardant method that may contain toxic fire retardants. Choose manufacturers that pledge not to use PBDEs, such as those listed in "Electronics Without Brominated Flame Retardants and PVC - a Market Overview."

*Image: Arlen*