

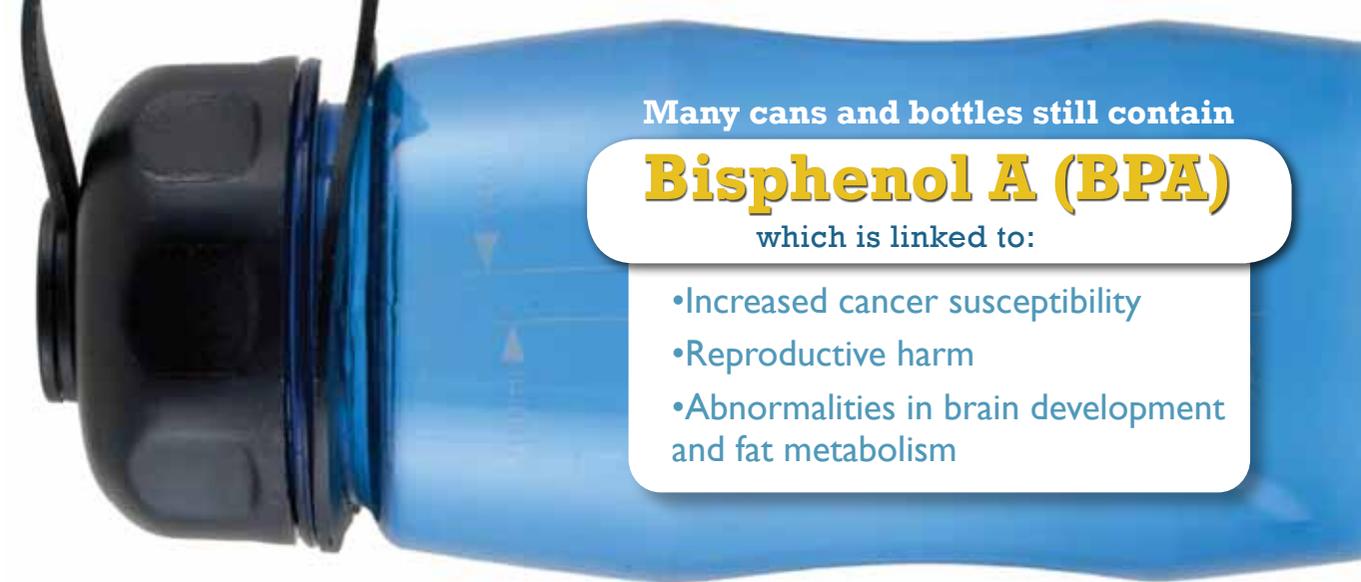
# Avoiding the Dangers of Toxic Exposure

**W**hile global warming has grabbed the headlines over the last few years, another phenomenon, global poisoning, has also been making a name for itself. Its effects are less apocalyptic but more intimate. Instead of wildfires and floods, it's the kind of thing that creeps into dinner conversation about a child's problems at school or hovers over the doctor's visit where life-altering news is delivered.

Its cause is unregulated chemicals.

It comes as a surprise to most people that the US does not have a functioning system to regulate the chemicals we use in our homes and workplaces, but it's true. The law that was supposed to do this, the Toxic Substances Control Act (TSCA), passed in 1976 but never got off the ground. There are roughly 84,000 chemicals in use in the United States, up from 62,000 when TSCA passed. The US Environmental Protection Agency (EPA) has required health information on just 200 of the original chemicals and has restricted only 5.<sup>1</sup>

... Andy Igrejas  
... Safer Chemicals, Healthy Families



Many cans and bottles still contain **Bisphenol A (BPA)** which is linked to:

- Increased cancer susceptibility
- Reproductive harm
- Abnormalities in brain development and fat metabolism

## Body Pollution, Chemical Toxicity

**I**n the mid-90s, scientists began finding that very low doses of some common chemicals were linked to health effects that were also common in the population. The Centers for Disease Control substantially expanded its work in something called “bio-monitoring”—the science of detecting chemicals in human beings. They’ve found that hundreds of chemicals—including those toxic at small doses—are being carried in the blood, tissue or urine of every man, woman and child in the United States.<sup>2</sup> Only a sliver of this work has made its way into the mainstream press, but it’s been enough to grab the public’s attention.

The specter of homes and workplaces awash in unregulated chemicals that get into our bodies has revealed common interests that have been hiding in plain sight all along. Until recently, middle-class professionals may have cared about people in industrial neighborhoods, but they didn’t see themselves as in the same boat. Increasingly, however, they realize that the same chemicals that go into products in some of these neighborhoods come out of products in your living room or office. The flame retardant in your couch gets out of the fabric and into the household dust that you inhale and absorb through your skin,

much the same way that lead gets into your bloodstream from old paint. Suddenly people have found a common way to relate to chemicals across geographic and socio-economic lines. Unfortunately that shared experience is the burden of chronic illness like cancer, infertility and learning disabilities.

## The Environmental Working Group found:

**287** different chemicals in the umbilical cord of newborns

**Of these:**

Photo: courtesy Environmental Working Group

<b>180</b> cause cancer in humans or animals	<b>217</b> are toxic to the brain & nervous system	<b>208</b> cause birth defects or abnormal development in animal tests
---	---	---

**Out of the 84,000 chemicals in use, the US EPA requires health information on just 200 and restricts only 5. Without fail, each of us is exposed to toxic chemicals every day, chemicals that are linked to serious health problems.**

## Choices you can make:



+ **Get informed.** Learn how to avoid exposure to toxic chemicals and understand the potential health effects.



+ **Eat organic food,** not just produce but meat as well.



+ **Know which varieties of fish contain high levels of mercury** and replace them with low mercury varieties.



+ **Replace toxic cleaners,** pesticides and cosmetics with natural, chemical free products.



+ **Shop smart:** Do your research to seek out nontoxic alternatives for everything from electronics, cookware and clothing to furniture, carpeting and home improvement products.



+ **Know your plastics.** Be wary of consuming foods or beverage served in polycarbonate plastics. Never heat or microwave food in plastic of any kind. Seek out BPA-free canned foods, sodas and food storage containers.

The punch line of the recent science trends is more chronic disease, earlier in life. More children are getting cancer, younger.<sup>3</sup> Learning disabilities and especially autism are skyrocketing.<sup>4</sup> Fertility problems are on the rise with younger couples.<sup>5</sup> Male reproductive problems and Parkinson's and Alzheimer's are also on the rise.<sup>6</sup> One of the most significant conclusions from recently published studies is that very low doses of some chemicals, very early in life—childhood and even earlier, during pregnancy—appear to contribute to increased disease much later in life.<sup>7</sup>

### **A New Campaign: The Environmental Health Movement**

**T**he link with health problems that touch most American families is what gives the relatively new environmental health movement its power. Research has shown that Americans are greatly concerned about chronic disease, are quick to associate its persistent rise with chemicals, strongly favor increased government regulation of chemicals and completely distrust the chemical industry.

The environmental health movement has already galvanized consumers around several chemicals, like the hormone-mimicking BPA found in plastics, receipt paper and other products. Wal-Mart and Target made headlines when they dropped baby bottles made with BPA from their shelves.<sup>8</sup> Other companies, however, have gone deeper. Healthcare companies like Kaiser Permanente, Catholic Healthcare West and Premier lead the way with comprehensive policies to weed out toxic chemicals from health facilities and the products used in them. The retailer Staples soon followed, as have several manufacturers including Construction Specialties (building materials) and Steelcase (furniture).<sup>9</sup>

Several states have also worked to fill the void in safeguarding health. Washington State was the first with a

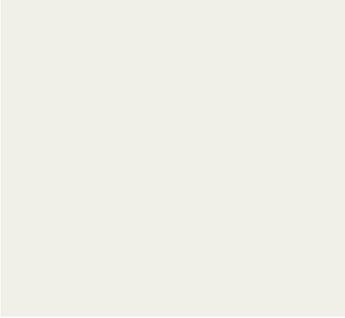
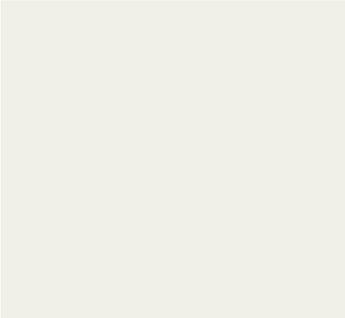
**We should address the legacy of inaction on some of the worst chemicals by naming them and requiring that they be reduced and/or eliminated.**

**The EPA needs explicit authority and a new mandate to ensure chemicals are safe for us and our children.**



Photo courtesy: Pam Adair



Chemical	Exposure	Health Advisory	
Perfluorinated Compounds (PFCs)	Grease-resistant packaging, pizza boxes, popcorn bags, stain resistant products for carpets and upholstery, non-stick cookware, shampoo, dental floss	Human carcinogen, liver and kidney damage, reproductive problems, lower birth weight	
Toxic Flame Retardants (PBDEs)	Consumer electronic plastics, furniture, mattresses, house dust, indoor air	Deficits in learning and memory, altered thyroid levels	
Heavy Metals (Mercury, Arsenic, Lead and Fluoride)	Fluorescent light bulbs, electrical fixtures, medical equipment, dental amalgam fillings, dyes, metals, drinking water	Learning difficulties; reproductive problems; hypothyroidism, brain damage, lung, bone and skin cancer; and a range of other health problems	
Bisphenol A (BPA)	Baby bottles, sippy cups, food and beverage cans, plastic medical devices, adhesives, paints, cash register receipts, dental sealants and tooth coatings	Earlier onset of puberty increased susceptibility to breast and prostate cancer altered brain development; reproductive problems insulin resistance, diabetes heart disease.	
Pesticides	Fruits, vegetables, lawns, gardens, cotton clothing and bedding, bug repellent	Asthma, birth defects, neurological effects, cancer, hormone disruption	

**With smart policy, an informed public along with cooperation between businesses, the healthcare industry and non-profits will go a long way toward protecting families from toxic chemicals.**

program to identify and restrict chemicals that persist in the environment and build up in the food chain (called persistent, bio-accumulative toxins or PBTs). Maine adopted a policy to identify the “worst of the worst” chemicals and restrict their use in products to which children can be exposed. California is now implementing a Green Chemistry Initiative that may have far-reaching implications. Minnesota, Connecticut, New York and Maryland have passed laws restricting individual chemicals.<sup>10</sup>

One of our largest trading partners, the European Union, is now implementing a relatively new policy called REACH, for Registration, Evaluation and Authorization of Chemicals.<sup>11</sup> Chemical makers will have to provide basic health and safety information for their products under the new law and share the information with companies that use the chemicals. The government is also developing a list of chemicals considered “of high concern,” which, once listed, will require authorization before they can be used.

So is all this activity in Europe, several states and some forward-thinking companies enough? No. Most Americans are being exposed to chemicals right now that are having an impact on their health in ways that we are only beginning to understand. While Europe is showing us it can be done, perhaps we can do better,

like back in the days when the United States led the world in protecting public health and set the bar for environmental excellence.

Real reform would restrict the chemicals that are already widely known to be dangerous. It would require the chemical industry to divulge all the health, safety and exposure information it has for chemicals currently on the market—information that is often kept hidden under much-abused loopholes in current law. It would set a new safety standard for chemicals that would protect vulnerable subpopulations and reflect the recent scientific consensus about low doses from certain chemicals and the cumulative effect of multiple exposures.<sup>12</sup>

Most of these ideas were included in legislation introduced in 2011 in the Senate (HR S847). Unfortunately, it has been bottled up under pressure from the American Chemistry Council, the trade association of chemical makers. That leaves plenty of work to implement this vision over the next few years, and plenty of room for this diverse movement—informed by science and committed to reducing the disease burden of our neighbors and loved ones—to grow.

.....

Andy Igrejas is national campaign director of Safer Chemicals, Healthy Families ([www.saferchemicals.org](http://www.saferchemicals.org)). Before SCHF, Igrejas headed the Environmental Health Program at the National Environmental Trust for seven years, and continued in the position when that organization merged with the Pew Charitable Trusts in 2008. In that role, Igrejas helped put chemical policy reform on the national agenda through work on the Kid-Safe Chemical Act. Igrejas also led NET’s work on chemical security, right-to-know, food safety and California initiatives like the successful campaign for the Safe Cosmetics Act. Igrejas is a native of Bloomfield, NJ and now lives in Washington, D.C.

