

# WOMENS HEALTH & ENVIRONMENT NEWS

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## Our “Body Burden” of Chemicals A Call to Action

By Teresa Heinz Kerry

Reporter Douglas Fischer of *The Oakland Tribune* had no idea what road he would be taking when in 2004 he began his research on what was to become a prize winning special report entitled “A Body’s Burden: Our Chemical Legacy.”

He certainly couldn’t have anticipated that the newspaper series would lead to his later becoming the principal author of an expert article in the

peer-reviewed journal *Environmental Health Perspectives*.

Fischer’s groundbreaking series found that the hair, blood, and urine of two San Francisco Bay area children contained concentrations of a pervasive flame retardant\* at levels higher than those known to cause reproductive and brain damage in rats. Surprisingly, the concentrations were much higher in the 18-month-old

boy and his five-year old sister than in their parents.

Fischer’s newspaper spent \$17,000 on laboratory tests and on an independent scientific verification of an elaborate testing protocol to document these alarming concentrations.

“We are all, in a sense, subjects of an experiment, with no way to buy your way out, eat your way out, or exercise your

way out,” Fischer wrote in the series. “We are guinea pigs when it comes to the unknown long-term threat these chemicals pose in our bodies and, in particular, our children.”

“Our ability to detect these compounds, invisible even five years ago, has outstripped our ability to interpret the results,” he reported, cautioning nonetheless against excessive worry.

“But if it was your two-year-old, would you want to know?”

The winner of accolades and prizes from his professional journalism peers, Fischer in this series provided us the proverbial warning shot across the bow concerning chemicals in our bodies. But I fear we may not be listening closely enough.

Fischer’s eye-opening reporting was by no means the only call to action when it comes to the chemicals we

carry in our bodies in the past calendar year. Veteran prize-winning environmental journalist Marla Cone, of the *Los Angeles Times*, caught the attention of many with her award-winning book *Silent Snow*:

Later this year, the Centers for Disease Control and Prevention (CDC) is expected to publish its long-awaited *Fourth National Report on Human Exposure to Environmental Chemicals*. Looking at some bio-monitoring exposure data for some 200-plus environmental chemicals for the civilian, non-institutionalized U.S. population, that report will provide invaluable new insights to help us better understand exposures to and potential risks from these chemicals.

.... We can look forward to the release of that new report and how it can better inform our own and our societal responses to the reality of our “chemical body burdens.”

.... But what we need not do is wait for its release before we commit to acting individually and collectively. Instead, we can go beyond the limits of linear thinking about just “this” or “that” chemical, and recognize that problems, like solutions, seldom exist in isolation.

*The Slow Poisoning of the Arctic*. Cone’s work shows that it is not merely city dwellers or those living near major metropolitan areas who face these daunting chemical body burdens.

“The Arctic is the last place on Earth I expected to find the world’s most severe toxic contamination,” she wrote. Few stories over her 19-year environmental reporting career “have astonished me and intrigued me as much as the discovery of a toxic legacy haunting the Arctic,” a phenomenon she now sadly labels the “Arctic Paradox.”

“How could the Arctic, seemingly untouched by contemporary ills, so innocent, so primitive, so natural, be home to the most contaminated people on the planet?” she wondered. Cone added that she herself had grown up “oblivious to such concerns” in her childhood home on the shores of Lake Michigan, “in one of the

nation’s most toxic hot spots at the dawn of the environmental movement.”

Her story is a truly riveting example of just how pervasive and lurking – yet how seemingly invisible – these toxic burdens have become in our own “normal” bodies and those of our family members.

But again I ask: Are we hearing? And are we listening and understanding? And then acting on those understandings?

One more example, this one from *National Geographic*, also from 2006.

“I’m a writer engaged in a journey of chemical self-discovery,” David Ewing Duncan wrote in “The Pollution Within.” He had himself tested for 320 chemicals “I might have picked up from food, drink, the air I breathe, and the products that touch my skin – my own secret stash of compounds acquired by

merely living.” The *National Geographic* funded his \$15,000 worth of tests to “learn what substances build up in a typical American over a life time, and where they might come from.”

“I hope you are not nervous, but this concentration is very high,” a Stockholm toxicologist told him after reviewing the tests results, again referring specifically to the PBDE fire retardants Fischer had highlighted in *The Oakland Tribune* article.

Overall, Duncan’s blood test results “read like a chemical diary from 40 years ago,” he wrote, with traces of several banned and restricted chemicals (DDT and its breakdown product DDE), termite-killers chlordane and heptachlor, and lots more.

Curious about his newly discovered body-borne “inventory of household chemicals,” Duncan turned the test results over to his internist. That physician “admits that he too knows little about these chemicals, other than lead and mercury. But he confirms that I am healthy, as far as he can tell. He tells me not to worry.”

What about the cumulative impacts of that chemical soup combination? Duncan reported that a Centers for Disease Control and Prevention (CDC) expert advised him that the combination “might have additive effects, or they might be antagonistic, or they may do nothing. We don’t know.”

He also quoted the chair of the California Senate Health Committee, Deborah Ortiz, as cautioning that “the key is knowing more about these substances, so we are not blind-sided by unexpected

hazards.” “We benefit from these chemicals,” Ortiz told Duncan, “but there are consequences, and we need to understand these consequences much better than we do now.”

But before we can understand, we need to hear – and we need to clearly *listen to* – the precautionary tales our scientific community is telling us about both the knowns and the unknowns involving what we have come casually to accept as our “chemical body burden.” My concern here is that what we don’t know in fact CAN hurt us. Just as we human beings must increasingly recognize that we are all internalized into the total environment, we need to understand too that the environment itself is internalized, for good and for bad, in us as humans.

**We can learn important lessons here. Some echo points I have touched on in the past, others I hope to address more thoroughly through these essays over the next several months.**

**What we as individuals do matters, and it matters a lot.** I’m a strong believer in the importance of practical actions we each can take. And I believe too that we must not allow the pursuit of perfection to impede our commitment to progress.

We must appreciate that **our actions may forever be based on incomplete knowledge** of all there is to know about the potential effects of the thousands of potential chemical contaminants, and the thousands of various chemical

combinations to which our bodies are unwilling hosts. Gertrude Stein cautioned us that “Everybody gets so much information all day long that they lose their common sense.” That’s even more true today, and it’s critical that we retain our common sense and good judgment

Having said that, we must also appreciate that the so-called “command-and-control” era has peaked, perhaps even run its course. We simply no longer have the time or resources to expend on programs that in the end might do more to fatten lawyers’ wallets than they do to reduce our own toxic exposures and risks.

In that context, our next era of sound environmentalism must be based, like other good public policy efforts, on **increased collaboration** among a growing cadre of informed and enlightened interests. It clearly must be **based also on prevention and not just after-the-exposure remedial efforts** to control potentially harmful exposures.

A recent *Business Week* cover story tells us that we are “closer than you think” to a world in which “socially responsible and eco-friendly practices actually boost a company’s bottom line.” Those same practices will **boost an entire society’s bottom line**, not only from a financial but also from an overall perspective. In this sense, we as a society should move not from the “cradle-to-grave” philosophy that became popular in the 1990s, but rather to a “cradle-to-cradle” approach that can lead to an infinite product life-cycle of ongoing use and usefulness.

We must realize not only that we citizens have a “right to know” but also that our governmental leaders have a profound responsibility to tell us more about the chemicals that pervade our society. Here, **we must be careful consumers**, with a healthy skepticism of what both government and manufacturers tell us. With our right to know comes our responsibility to understand.

We must appreciate that the fundamental principle of criminal law – that the accused is innocent until proven guilty – does not translate well to our marketplace, where chemicals in our environment are too often assumed innocent until they have been proven to cause harm. We must keep in mind here, as they say, that **the absence of evidence of harm is not evidence of an absence of harm**. This reality calls for broadening our practical application of the precautionary principle as it is being found increasingly throughout the European Union: the burden of demonstrating the safety and efficacy of chemicals should lie with the manufacturer, not on us as citizens having to prove that those chemicals *do* cause harms.

Remember too that we cannot here speak of these potential harms as they apply only to a single chemical in isolation. Asking the human health effects one chemical at a time simply misunderstands a critical point: We must also **understand the cumulative effects**, what scientists call the synergistic effects of all of them in combination – the “chemical soup” to which we are unknowingly exposed throughout our lives.

We can look back on a long list of government inactions

for which no single political party can be held solely responsible

There are things too that manufacturers of chemicals – and consumers of chemicals, including you and I - must do better, and it all begins with our better informing ourselves. Recall here “Pogo’s” admonition that “We have met the enemy, and it is us.”

Collaboration, again, is a key. There is much we can do together. But we dare not wait or procrastinate before also taking constructive individual actions to manage our own, and our families’, adverse chemical exposures.

Those exposures, we’ve now come to learn, come from countless sources, some nearby, familiar and innocent: our furniture, furniture finishes, cosmetics, food products, household cleaners, solvents, water repellants, outerwear and sportswear, cooking utensils and practices, baby supplies...the list goes on seemingly endlessly.

In so many big and so many small ways, working collaboratively and individually, we can better take control of our own exposures while our societal institutions – government, academic, corporate, and nonprofit – come together to help us do the same.

We’re all in this chemical mix - the good, the bad, and the ugly - together. And we all can take responsibility for helping better manage it. What we simply can NOT do is stand by until all the facts are in before beginning to curb the practices that, without our knowledge or intent, have been contributing to our chemical body burdens.

I’ll have more to say on this and other issues I see as pressing environmental priorities in coming months. I’ll welcome your thoughts and reactions – You can contact me to share your views through [teresa@heinzoffice.org](mailto:teresa@heinzoffice.org)



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\* Polybrominated diphenyl ethers, or PBDEs, used in products ranging from TV cases to carpets and foam cushions. Also, in the five-year-old, dibutyl phthalate, a plasticizer commonly used in nail polish and cosmetics.