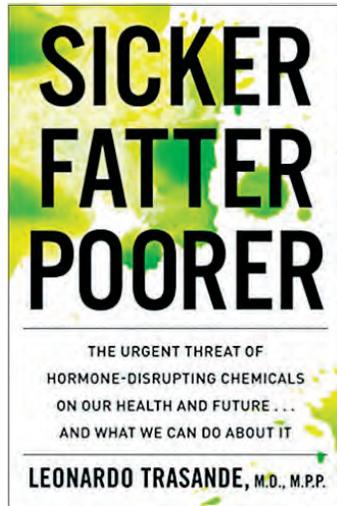


The Time to Eliminate Endocrine-Disrupting Chemicals Is Now



Sicker, Fatter, Poorer
Leonardo Trasande, MD, MPP
Houghton Mifflin Harcourt.
240pp. 2019

The full title of Dr. Trasande's book is *Sicker, Fatter, Poorer: The urgent threat of hormone-disrupting chemicals to our health and future. . . and what we can do about it*. He dedicates the book to the "memory of Rachel Carson, Theo Colborn, and Lou Guillette. Your legacies inspire us all to carry on your work to protect human health and the environment from endocrine-disrupting chemicals." Indeed, this book carries on the spirit of these dedicated scientists and a growing number of others who conduct important research in the field of endocrine disruption, and urge us to action.

While Rachel Carson awakened society to indiscriminate use of "poisons," not "endocrine disruptors," the DDT she wrote about in *Silent Spring* is an endocrine disrupting chemical (EDC), and the reproductive failure of birds that she brought to our attention is an endocrine-disrupting effect. Theo Colborn, PhD brought EDCs into public view by publicizing the work of scientists working on wildlife deformities in the Great Lakes, through her landmark book, *Our Stolen Future*, and through the founding of The Endocrine Disruption Exchange (TEDX). Lou Guillette, PhD connected the dots for many of us with his work on the reproductive biology of alligators in Lake Apopka, Florida. These scientists, as well as others in the field, have expanded on past findings, clarifying the broad impacts of chemicals that interfere with the hormones that regulate every system in our bodies. Both Drs. Colborn and Guillette were awarded Beyond Pesticides' Dragonfly Award in 2006 and 2015, respectively, for their extraordinary efforts, and presented their research at numerous Beyond Pesticides' Forums.

EDCs disrupt hormones that regulate every system in our bodies, causing a host of diseases. These diseases include autism, attention deficit and hyperactivity disorder, food allergies, diabetes, high blood cholesterol, high blood pressure, low sperm counts in men, infertility in women, and cancer, among others. As Dr. Trasande says, "There is also substantial irony in that chemical exposures appear to induce conditions that

then require other chemical exposures (pharmaceuticals) to cure them."

Most recently added to the growing list of endocrine effects caused by chemical exposure are metabolic diseases, including obesity and diabetes. The chemicals causing these effects have been termed "obesogens." Dr. Trasande explains that studies by Bruce Blumberg, PhD and colleagues show how exposure to EDCs triggers epigenetic changes in gene expression, "predisposing the body to produce more fat cells that lead to stubborn weight gain over time." He says, "Carefully designed, peer-reviewed studies have drawn an increasingly convincing link between obesity and type 2 diabetes and prenatal and early childhood exposure to pesticides, bisphenols (such as BPA), and plasticizers, such as phthalates. Other studies have suggested that adults may gain weight or develop diabetes in response to their exposure later in life."

The effects of EDCs are considered "externalities" by economists, meaning that the "free market" does not account for the costs of treating these diseases. Companies that make the chemicals get richer, while those exposed to them get poorer.

After explaining how EDCs are making us "sicker, fatter, and poorer," Dr. Trasande urges action—ranging from making personal choices to limit exposure to EDCs (such as eating organic food and avoiding plastics), leveraging economic power, to effecting policy changes. He says, "[E]very person you discuss EDC's with will have a family member with a chronic disease that may be due to these preventable exposures." *Sicker, Fatter, Poorer* is an important and very readable addition to the literature on EDCs.

(Editor's Note) Faced with the health threats of coronavirus, now is the time to eliminate compounding challenges to our bodies that increase our vulnerabilities to a range of illnesses. The documentation in this book supports us moving forward as a society to transform our approach to toxic chemical dependency in the face of available sustainable practices and products.