



# Health

# Reducing exposure to chemicals and pollution



**“Every American deserves a strong national law that will protect us from hazardous chemicals.”**

**Dr. Sarah Vogel**  
*VP Health*

When Sarah Vogel first learned that hazardous chemicals were showing up in human breast milk, she realized that hundreds of toxic substances—many not in existence 50 years ago—were now being passed down from one generation to the next. “That’s when I understood the full meaning of the phrase ‘pollution is personal,’” says Vogel, now EDF’s VP for health.

Today our bodies bear evidence of toxic emissions from coal-fired power plants and diesel trucks, along with hundreds of hazardous chemicals that have slipped through our flimsy chemical safety net.

EDF foresees a healthier, more sustainable future, one in which air and water are cleaner and food and consumer goods safer. In 2015, we made significant progress toward that future. We used science, the courts, partnerships, activism and the political process to advance our goals.

After two decades of work by EDF and our allies, the U.S. Senate passed sweeping bipartisan legislation that promises to fix our broken chemical safety system by setting strong, health-based standards against which all chemicals will be assessed. Now EDF will work with members of both parties to ensure that the strongest possible bill gets through the House-Senate negotiations and arrives on the president's desk.

Harmful substances that can cause poor health and disease are with us at every stage of our lives. They're found in the food we eat, the products we buy and the air we breathe.

For that reason, every EDF program works on improving the health of people, their communities and the natural systems on which human health depends.



## Safeguarding human health



Congress is closer than ever to reforming the Toxic Substances Control Act and establishing a law that will finally work to protect Americans from hazardous chemicals.

EDF's partnership with Walmart to remove potentially dangerous chemicals from the products on its shelves triggered changes by other retailers and product manufacturers.

In 2015, we went to court to defend the EPA Mercury and Air Toxics Standards, which slash deadly mercury and other pollutants from coal-fired power plants.

The EDF-backed citizens group Moms Clean Air Force helped advance protections against air pollution and toxic chemicals.

## Rethinking the supply chain

Since 2009, EDF has worked with Walmart to **replace hazardous chemicals** in everyday products on its shelves. In response, suppliers have reformulated many products to replace chemicals of concern with safer substitutes, and Walmart is publishing all the ingredients of its private label products.

Note: EDF accepts no funding from Walmart or any other corporate partners, or from their corporate foundations. We do accept funding from private foundations and individuals.





FLAME RETARDANTS

Triphenyl phosphate

PESTICIDES

N, N-diethyl-m-toluamide

PLASTICIZERS

Diisobutyl phthalate

Diethyl phthalate

Bis(2-ethylhexyl) phthalate

4-Chlorophenyl isocyanate

CHEMICALS IN  
PERSONAL CARE PRODUCTS

Benzophenone

Triclosan

Butylated hydroxyanisole

COMBUSTION BY-PRODUCTS

1-Methylnaphthalene

2,6-Dimethylnaphthalene

Naphthalene

Phenanthrene

FRAGRANCES

Galaxolide

## Lifting the veil on chemical exposure

Just what chemicals are we exposed to in everyday life? No one knows. But EDF is helping to answer that question with new wristband technology that can detect **more than 1,400 chemicals**. We enlisted volunteers to wear the wristbands, and the results are eye-opening. They show that hazardous chemicals are pervasive in our daily environment. That's why the need to act on chemicals is urgent.

One wearer of a wristband came into contact with all these chemicals during a single week. Analysis did not determine level of exposure or if chemicals were absorbed into the body.

# A relentless voice for safer chemicals



EDF scientist Dr. Richard Denison is a leading force for Congressional action on chemical safety.

The long fight to reform America's obsolete chemical safety law has reached critical mass. First passed in 1976—the year Apple sold its first computer—the Toxic Substances Control Act (TSCA) has proved so woefully inadequate that EPA hasn't been able to control even known human carcinogens like formaldehyde. In almost 40 years, TSCA has required testing of only about 3% of the 85,000 chemicals available for use.

Nearly two decades ago, EDF began a long quest for fundamental reform. In 1997, we published *Toxic Ignorance*, a seminal report which revealed that even the most common chemicals lacked basic health data. Since then, we've worked with EPA, states, and health, labor, business and consumer groups to push TSCA reform.

From the beginning, EDF's Dr. Richard Denison was at the center of this process. He worked with all parties, overcoming resistance



**A legacy of TSCA:** Most couches in the U.S. contain at least one potentially hazardous flame-retardant chemical.

# 10 trillion

Pounds of chemicals produced per year in the United States

# 24

Number of years since EPA last tried (and failed) to regulate a chemical under TSCA (asbestos)

from industry opponents. Denison’s regular blog posts on [edf.org](http://edf.org), explaining the scientific and political implications of the debate, became a must-read for all players. And when a chemical spill in 2014 near Charleston, WV, left 300,000 people without drinking water, Denison served as a key resource for beleaguered residents looking for answers.

In 2015, bipartisan legislation, the Frank R. Lautenberg Chemical Safety Act, offered the first serious revision of TSCA ever. When it came before the Senate, we helped strengthen it. Denison worked closely with cosponsors Senator Tom Udall (D-NM) and Senator David Vitter

(R-LA), providing expert advice as they made hundreds of improvements to fix flaws and broaden support. Our lobbying arm, EDF Action, kept open the lines of communication between Republicans and Democrats.

A filibuster-proof 60 senators have signed on to the Lautenberg bill, creating the potential for a huge bipartisan win—a rarity in today’s politics. The support ranges from liberal Democrats like Ed Markey (D-MA) to conservative Republicans like Jim Inhofe (R-OK).

“The public has waited long enough,” said Denison. “The Lautenberg Act deserves to become law as soon as possible.”

Tanya Brown (*left*) joined Moms Clean Air Force because her ten-year-old daughter Sanaa (*center*) suffers from asthma. "I've finally started connecting the dots between the health of the environment and the health of my family," says Brown, who was invited on stage when President Obama unveiled the Clean Power Plan.



## Elected officials, listen to your mothers

No one is more committed to her child's health than a mother. Moms Clean Air Force is an EDF-backed community of more than **570,000 parents united** against air pollution and climate change. Visiting the White House, governors' mansions and legislators nationwide, this clean air constituency is a clear and consistent voice holding elected officials accountable.





Exposure to mercury through eating contaminated fish can lead to severe neurological problems.



## EDF goes to court to defend mercury rule

EDF has long fought to limit toxic mercury from power plants, culminating in a strong 2011 EPA rule that will safeguard the health of children. Most power plants now comply with the mercury rule, but opponents went to court, and **EDF stepped in to fight for the rule.** In 2015, the U.S. Supreme Court directed EPA to re-evaluate the costs of the rule, which EPA will soon address.

# Environmental justice for low-income communities

Too often, the right to breathe clean air has been denied to low-income communities and communities of color. People living near the nation's ports, truck routes and industrial facilities are disproportionately exposed to dangerous air pollution.

“People who live in pollution hot spots face an increased health risk from smog and fine particles and toxics like benzene and mercury,” says Dr. Elena Craft, an EDF toxicologist who works with these communities. Smog is a particular problem, contributing to heart and lung diseases and worsening asthma.

Refineries are a big contributor to smog and air toxics, but federal rules on refinery pollution are weak. Thanks in part to EDF's advocacy, EPA in 2015 announced stronger rules for regulating toxic air emissions from refineries. Then, after a lawsuit filed by EDF and others, EPA tightened

the national air quality standard for ozone, the main cause of smog.

Cars and trucks are the largest source of smog-forming pollutants. EDF is helping slash such pollution from trucks for the 18 million mostly low-income people who live near America's ports. At the port of Houston, one of the nation's busiest, we helped develop a low-interest loan and grant program that helps the port's truckers replace older, polluting trucks with new models. In 2015, EPA expanded the program.

Nationwide, big freight trucks are getting a makeover, too: Proposed new standards, which EDF and our allies helped secure, will make heavy trucks almost 25% more efficient. Improved engine standards mean less smog—and that means Americans with lung ailments can breathe a little easier.





EDF helped activists such as Houston's Yudith Nieto acquire air samplers that for the first time provide a more accurate picture of what they're breathing. "At the end of the day, there has to be hope," says Nieto, "hope that our voices will be heard."

"Dr. Elena Craft and EDF have helped us build partnerships that can be a model for other ports around the country," says EPA Administrator Gina McCarthy (*right*), with Craft in Houston.

## A RIPPLE EFFECT: STEPHANIE BARKO



As a young child in Houston in the 1960s, Stephanie Barko ran behind trucks that were spraying DDT, as many children did before the pesticide was banned.

"We've come a long way since then," says Barko, "but chemicals are still everywhere. It's an outrage that we have so little regulation."

Barko trusts EDF to fight for reform of the nation's weak and outdated chemical safety law and to help retailers move toward selling safer products. That's one reason she has included EDF in her estate plans.

A literary publicist, Barko calls on authors and bloggers she knows to fight pollution through Moms Clean Air Force, an EDF-backed campaign. "It's amazing the ripple effect one person's action can have," she says.

---

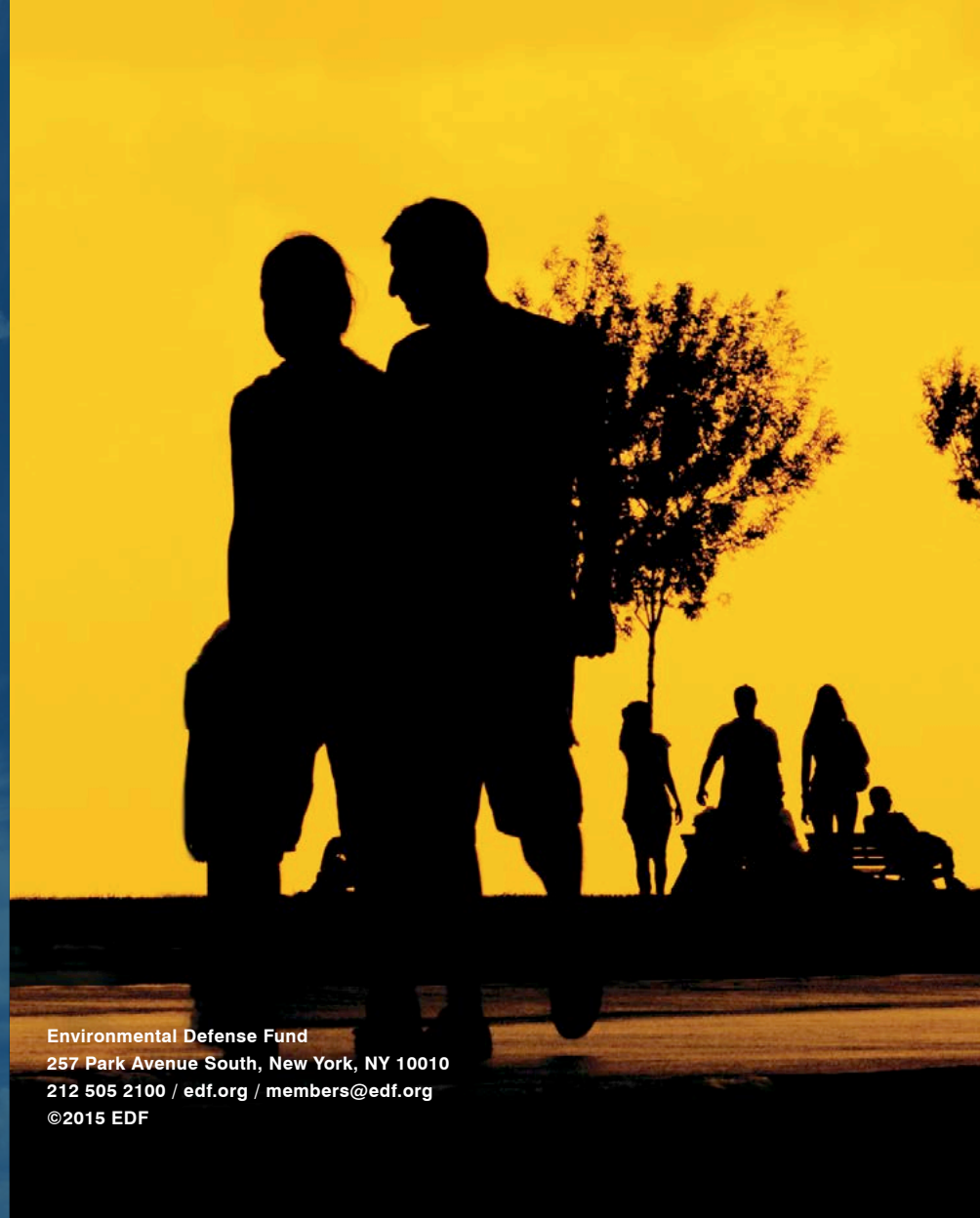
**"EDF understands that working with  
retailers is a critical part of the solution  
to get dangerous chemicals off shelves."**

**Stephanie Barko**

“I attribute a lot  
of our progress to  
Environmental  
Defense Fund. This  
is an organization  
that likes results.”

**Senator Tom Udall (D-NM)**

*From remarks at a press conference  
announcing the 60th cosponsor of the  
Frank R. Lautenberg Chemical Safety Act*



Environmental Defense Fund  
257 Park Avenue South, New York, NY 10010  
212 505 2100 / [edf.org](http://edf.org) / [members@edf.org](mailto:members@edf.org)  
©2015 EDF