



## Overview

Over half of the women diagnosed with breast cancer in the United States have no known risk factors. With family history accounting for only around 10 percent of breast cancer diagnoses, a large and growing body of research indicates that toxic chemicals may increase our risk of developing the disease. In 2010, the President's Cancer Panel reported that "the true burden of environmentally induced cancer has been grossly underestimated [and] . . . the American people—even before they are born—are bombarded continually with myriad combinations of these dangerous exposures."

Individual solutions like "shopping wisely" and "choosing healthy" are insufficient to stem the driving environmental causes of the breast cancer epidemic. Only large-scale systemic change can address the root causes of breast cancer. We work to address these root causes by eliminating the involuntary exposures to hazardous and toxic chemicals present in our daily lives that put people at increased risk of breast cancer. Our work is guided by the precautionary approach to public health and true primary prevention of breast cancer.

Breast cancer is not one disease. Breast cancer is a complex group of diseases that occurs in an environmentally complex world. We are exposed to multiple chemicals and radiation sources in the course of our daily lives.

There are tremendous gaps that still exist in our understanding about what causes breast cancer. Breast cancer is the most common form of cancer in women, except for skin cancer. It is the second leading cause of cancer death in women, second only to lung cancer. The American Cancer Society predicts that in 2011, 232,620 women will be diagnosed with breast cancer. Despite better treatments and increased access for many women, 40,000 women still die from the disease each year. A woman is diagnosed with breast cancer every two minutes. In the 1960s, a woman's lifetime risk for breast cancer was 1 in 20. Today it is 1 in 8.

Breast Cancer Action is committed to reducing our involuntary exposures to toxins in the environment that are linked with breast cancer. We do this important work because we are

far from understanding the causes and risk factors of breast cancer, despite the billions of dollars and many decades spent on breast cancer research.

## Environmental Links to Breast Cancer

A growing body of evidence from experimental, body burden and ecological research indicates that there is a connection between environmental factors and breast cancer. There are over 85,000 synthetic chemicals on the market today, from preservatives in our lipstick to flame retardants in our sofas, from plasticizers in our water bottles to pesticides on our fruits and vegetables.

The U.S. government has no adequate chemical regulation policy, which allows companies to manufacture and use chemicals without ever establishing their safety in humans. As the use of chemicals has risen in the U.S. and other industrialized countries, so have rates of breast and other cancers.

Key facts about the environment and breast cancer:

- Seventy percent of people with breast cancer have none of the known risk factors. The so-called known risk factors, like late menopause, having children late in life, and family history of cancer are present in only 30 percent of breast cancer cases.
- Non-industrialized countries have lower breast cancer rates than industrialized countries. People who move to industrialized countries from countries with low rates develop the same breast cancer rates of the industrialized country.
- Estrogen is a hormone closely linked with the development of breast cancer. Numerous synthetic chemicals, called “xenoestrogens,” act like estrogen in our bodies, including common weed killers and pesticides, plastic additives or by-products, ingredients in spray paints and paint removers, and polyvinyl chloride (PVC), used extensively in the manufacture of food packaging, medical products, appliances, cars, toys, credit cards, and rainwear.

In April 2010 the President’s Cancer Panel declared: “The Panel was particularly concerned to find that the true burden of environmentally induced cancer has been grossly underestimated [and] ... the American people—even before they are born—are bombarded continually with myriad combinations of these dangerous exposures.”

They urged the President “to use the power of [his] office to remove the carcinogens and other toxins from our food, water, and air that needlessly increase health care costs, cripple our Nation’s productivity, and devastate American lives.”

# Social Injustices Lead to Unequal Exposures

Just as environmental factors been largely ignored as possible risk factors for breast cancer, so have the complex issues of social inequities – political, economic and racial injustices. The extent and type of toxins we're exposed to often depends on where we live and work. Poorer communities — both urban and rural — shoulder an unequal share of the burden of exposure to toxic materials.

The social determinants of breast cancer likely contribute significantly to the development and mortality of the disease, and these involuntary factors are shown to be of greater impact on women of color and low-income women, since these populations are at greater risk for exposure to toxins and social injustice-related stresses.

Low-income women are also less likely to have access to healthy foods and quality healthcare. Compelling research and simple intuition tells us that true reduction of both breast cancer incidence and death from the disease requires a better understanding of how the complex tangle of the environmental and social factors, genetics and personal behavior results in different outcomes for different ethnic and economic groups.

Working to prevent breast cancer through lifestyle choices ignores the hard fact that we don't all share equal access to the same "lifestyle choices." When we focus on the benefits of individual diet and exercise, we lose sight of the social justice issues that limits access to affordable healthy food and regular exercise for many in our society. We strongly feel the best approaches are a combination of individual AND societal changes so that EVERYONE has the option of limiting their risk of getting breast cancer.

## How can we use the precautionary principle to protect our health?

The precautionary principle is the common sense idea that "an ounce of prevention is worth a pound of cure."

The main components of the precautionary principle are:

- Acting now, even before definitive scientific proof of harm, to reduce and eliminate practices that we suspect do harm to human health or the environment because lack of evidence does not equal lack of harm.

- Seeking out alternatives to activities that pose a threat to human health or the environment.
- Shifting the burden of proof so that the companies that make and profit from products and activities must prove that they are safe, rather than the current situation where the public is required to prove that something is harmful before it's stopped.
- Using an open, informed and democratic process that involves affected communities in decisions being made about their health and their environment.

The U.S. government has no adequate chemical regulation policy; therefore, companies are allowed to manufacture and use chemicals without ever establishing their safety. When government does step in to regulate chemicals, it uses a “risk management” model that asks, “How much harm is allowable?” The precautionary principle instead asks, “How little harm is possible?” We can use the precautionary principle to reduce and eliminate our exposure to chemicals we know or suspect cause harm.

As we push for more and better data, we continue to demand that lawmakers and industry abide by the precautionary principle by acting now, on the basis of the weight of the evidence that already exists, to reduce and eliminate our exposure to chemicals we know or suspect cause breast cancer and other chronic diseases.

Such a principle was used in policy changes regarding the dangers of smoking, even though the precise mechanism of cancer causation has never been scientifically explained.

The precautionary principle of public health, which Breast Cancer Action advocates, calls for us to act based on the weight of the available evidence because waiting for “absolute proof” is killing us. In the absence of scientific consensus we need to adopt the highest standards: when in doubt, leave it out!

## Policy Solutions

The challenge of breast cancer in an environmentally complex world requires innovative and collaborative approaches in addressing this issue politically and scientifically. Breast Cancer Action is committed to reducing all of our exposure to environmental factors associated with breast cancers and other cancers, and will work with other organizations similarly committed.

BCAction supports the reduction and ultimate elimination of exposure to identified environmental carcinogens, and advocates for legislation, regulation, research, and education necessary to accomplish this goal.

All of this, these core principles, points to one clear need: systemic change. This means putting people before profits, whether it is drug development for patients or employing the precautionary principle. This means removing the burden of prevention from the individual and placing it squarely where it belongs: on our society and regulatory systems.

We can't "run" away from breast cancer, no matter how much we exercise, no matter how many pink ribbon miles we walk. We need policies that protect all of us, regardless of our lifestyles or our ability to make the "right" purchases. No matter how much organic we eat, how quick we are to rid our kitchens of plastic, how much effort we put into safe cosmetics, we can't just opt out of the toxins that come to us through our daily environment: through our water pipes and air, through the coatings on our store receipts and parking meter slips, and through our office environments and off-gassing carpets and paint, whatever natural products we've chosen in our own homes. With more than 85,000 synthetic chemicals in use, this is not something we can change by individual choice; this is a matter of regulatory change.

**For more information, please see our [Factsheet on Breast Cancer and The Environment](#).**

**View our webinars on this issue:**

- [Toxic Cosmetics: Whats in Your Personal Care Products and What You Can Do About It](#)
- [New Report on Breast Cancer and the Environment: A Briefing for Advocates](#)
- [Protecting Our Health and Environment: Uniting to Change U.S. Chemical Policy](#)
- [Toxic Cosmetics Part 2: Demanding Stronger Regulation](#)
- [The Ecology of Breast Cancer with Ted Schettler, MD, MPH](#)

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