

Powerful evidence from experimental, body burden and ecological research indicates that there is a connection between chemicals and breast cancer. While we pursue the research that will lead to even more definitive answers, we can and should reduce our exposure to substances we believe cause cancer.

Why we believe there is a link between the environment and breast cancer:

- **70% of the 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 are present in only 30% of breast cancer cases.¹

- **Non-industrialized countries have lower breast cancer rates than industrialized countries.** Breast cancer rates are highest in North America and northern Europe and lowest in Asia and Africa.²
- **People who move to industrialized countries from countries with low rates develop the breast cancer rates of the industrialized country.** For example, Japan has a lower rate of breast cancer than the United States. Japanese women who move to the United States have increased breast cancer rates (and their daughters even more so) that approach those of U.S.-born women.³

What we know:

- **Estrogen stimulates breast cell growth.** Excess amounts of estrogen are thought to contribute to breast cancer risk. Some chemicals, such as the pesticide dieldrin, organochlorines, and certain plastics additives, act like estrogen in the body.⁴
- **Production and use of harmful chemicals are on the rise.** Of an estimated 85,000 synthetic chemicals in commercial use today, more than 90% have never been tested for their effects on human health.⁵ Meanwhile, production of these chemicals is rising at least 3.3% per year.⁶ Use of carcino-

genic pesticides in California rose 127% between 1991 and 1998.⁷

- **Ionizing radiation is a proven cause of breast cancer.** The effect of exposures to low levels of radiation can build up in the body and do harm. This does not mean that you should never get another x-ray, but you should be mindful of your exposure to radiation.

What needs to be done:

- **Take a “better safe than sorry” approach.** We, as a society and as individuals, must adopt a precautionary principle approach to public health—acting to reduce our exposure to known and suspected carcinogens now based on the weight of evidence indicating that they are harmful to our health.
- **Companies must be made accountable for the products they make.** Rather than waiting until a product is proven to be harmful, companies that produce (and profit from) chemicals should be required to prove that they are safe before they can market them.
- **Research into environmental links to diseases should be a priority.** In order to stop cancer where it starts, we need to spend as much time and money researching causes as we spend looking for cures.

Notes:

1 US General Accounting Office, “Breast Cancer 1971-1991: Prevention, Treatment & Research,” GAO/PEMD-92-12, 1991.

2 Horn-Ross PL and Kelsey JL, “Breast Cancer: Magnitude of the Problem and Descriptive Epidemiology,” *Epidemiologic Reviews*, 15:7-16 (1993). Pisani, P., “Breast Cancer: Geographic Variations and Risk Factors,” *Journal of Environmental Pathology, Toxicology and Oncology*, 11:313-316 (1992).

3 Stanford JL, Herrinton LJ, Schwartz SM, Weiss NS, “Breast Cancer Incidence in Asian Migrants to the United States and Their Descendants,” *Epidemiology*, 6(2):181-3 (1995 Mar).

4 National Academy Press, *Hormonally Active Agents in the Environment*, ISBN-0309-06419-8, 1999.

5 Bennett M, Davis BJ, *The Identification of Mammary Carcinogens in Rodent Bioassays. Environmental and Molecular Mutagenesis*. In press, 2002.

6 Steingraber, S., *Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment*, p. 281, New York: Vintage Books, 1998.

7 Kegley, Susan, Ph.D., "Hooked on Poison: Pesticide Use in California, 1991-1998," *Californians for Pesticide Reform*, 1999.

Glossary:

Cancer: a term for diseases in which abnormal cells divide without control.

Ionizing radiation: radiation that changes molecules when it passes through them, creating electrically charged particles (ions). Ionizing radiation is found in x-rays and nuclear waste.

What You Can Do:

Avoid exposures to toxins. If you can afford it, buy organic food. Use non-toxic cleaning and pest-control products. Learn more at <http://www.bcaction.org/Pages/GetInformed/NonToxicHome.html>. Chemicals in plastics are more likely to seep out when plastics get hot, so don't use plastic containers to microwave food. Stay away from unnecessary x-rays.

Get informed! Read *Living Downstream* by Sandra Steingraber, *Silent Spring* by Rachel Carson. Subscribe to BCA's newsletter, *Rachel's Environment & Health News*, and the *Green Guide* (contact information is below).

Get active! Push for more research into environmental links to cancer, and better regulation of the toxins we know or suspect are doing harm. Join BCA or the other environmental organizations listed below.

Cancer Organizations

Charlotte Maxwell Complementary Clinic

(free therapies for low-income women with cancer)

510-601-7660; www.charlottemaxwell.org

Women's Cancer Resource Center, Berkeley

510-420-7900; www.wcrc.org

Environmental Health and Justice Organizations

Californians for Pesticide Reform

415-981-3939; www.igc.org/cpr

Center for Environmental Health

510-594-9864; www.cehca.org

Communities for a Better Environment

510-302-0430; www.cbecal.org

Environmental Research Foundation

(publishers of Rachel's Environment & Health Weekly)

888-2RACHEL; www.rachel.org

Greenaction

415-252-0822; www.greenaction.org

Health Care Without Harm

703-237-2249; www.noharm.org

Natural Resources Defense Council (NRDC)

212-727-2700; www.nrdc.org

Silent Spring Institute

(Research)

617-332-4288; www.silentspring.org

[Updated October 2004]

Breast Cancer Action

55 New Montgomery Street
Suite 323
San Francisco, CA 94105

877-2STOPBC

877-278-6722

415-243-9301

415-243-3996 Fax

Email: info@bcaction.org

www.bcaction.org