

GIRLS, THE ENVIRONMENT, AND BREAST CANCER RISK

A health professional's guide to educating patients
& parents about breast cancer risk reduction



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Increasingly, researchers are focusing on the impact of environmental factors on breast cancer risk. Of particular interest are certain early life exposures that may cause premature menarche. **Early menarche in girls is linked to a higher risk of developing breast cancer as an adult.**

Scientists in the Breast Cancer and the Environment Research Program (BCERP) – which was created through the combined efforts of the National Institute of Environmental Health Sciences and the National Cancer Institute – are in various stages of research associated with determining whether **exposure to certain chemicals and foods may alter the timing of menarche.**

► Endocrine-Disrupting Chemicals

Certain chemicals that mimic or interfere with the function of hormones may alter the timing of menarche in young girls and potentially increase their risk of developing breast cancer in adulthood.

Endocrine-disrupting chemicals (EDCs) may pose the greatest risk during specific time periods throughout the lifespan when female breasts change quickly, such as during gestation, puberty, pregnancy, and lactation.

Some of the EDCs causing concern are ubiquitous in the household and personal care products many people use on a daily basis, leading to widespread chronic, low-dose exposures via inhalation, ingestion, and/or skin contact.

Scientists are paying particular attention to:

Phthalates: Used to make certain plastics more flexible. They are used often in food and beverage containers, toys, detergents, food packaging, and personal care products such as fragrance, nail polish, deodorant, hair care, and body lotion.

Bisphenol A (BPA): A clear plastic chemical with estrogenic effects that is widely used in hard-plastic containers often used for food and beverages and in the material that lines the insides of many canned foods. Animal studies have shown that BPA can be released from plastics in concentrations high enough to change gene expression patterns.

To learn more and download education materials, visit www.info.bcerp.org.

► Lifestyle

Girls who enter menarche early may be at a greater risk for developing breast cancer later in life. Obesity is associated with an earlier onset of menarche.

Maintaining a healthy weight, staying physically active throughout life, and consuming a healthy diet may reduce a person's lifetime risk of developing cancer as an adult.

► Discussion Points for Patients and Parents/Caregivers

Consider suggesting the following recommendations to your patients and their parents or caregivers. As conclusions cannot yet be drawn, scientists and researchers rely heavily on the precautionary principle: in the absence of definitive information, err on the side of caution.

When possible, choose to:

- Use fragrance-free products.
- Use glass containers for cooking, serving, and storing foods and drinks.
- Microwave food in glass containers, not plastic containers or plastic wrap.
- Add fresh or frozen fruits and vegetables to your family's meals, instead of using canned foods.
- Include whole grains and beans, including soy, in your family's diet.
- Eat healthy and be active yourself, and make it something you and your children do together.

When possible, reduce use of:

- Personal care products with the word "phthalate" in the ingredients.
- Plastic food and drink containers and plastic or vinyl toys with the number 3 in the recycling triangle. They contain phthalates.
- Plastic food and drink containers with the number 7 in the recycling triangle. They often contain BPA.
- Foods sold in cans, which may be lined with material made with BPA.
- Foods with high amounts of animal fat (like beef, pork, or chicken fat; butter, cream, or cheese) when you shop, cook, or eat out.

Consider recommending to pregnant and breastfeeding women that they limit their own exposure to phthalates and BPA. These substances may be passed to their developing child in utero or through breast milk.

**The risk of developing breast cancer
may begin early in a girl's life.**

**Talk to your patients and their parents
or caregivers about how they may reduce
some of these risks.**

Visit www.info.bcerp.org

for an in-depth look at the BCERP studies and
for printable education materials

The Breast Cancer and the Environment Research Program (BCERP)
is a network of scientists, physicians, and community partners
studying the effects of environmental exposures that may
affect breast cancer risk later in life.



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