



## Breast Cancer and Environment – Peer Education Tool Kit

*Zero Breast Cancer – Adolescent Education Project*

### Lesson Plan: Breast Cancer and Environment

#### Activity #4: Breast Cancer Preventive Actions and Health Tips

##### Objectives:

- To increase teen knowledge of modifiable factors associated with breast cancer risk
- To identify actions to reduce personal and environmental risks for breast cancer
- To learn about breast cancer detection and health resources relevant to teens and adults

##### Materials/Preparation

- Review Breast Cancer Messages (*Top Twelve Topics, and Message Background*)
- Review information from Lesson Vocabulary, Fact Sheet, and/or Teen Brochure
- Peer Leader can prepare script to present important information for models and examples
- Breast Cancer Facts, Risk Factors, & Health Tips (make copies on light green paper)
- Resource Packets: Options:
  - a) order bookmarks of cancer/breast cancer info and health tips for participants, or
  - b) make copies of Teen Brochure: *What Should I Know About Breast Cancer?*

##### Instructional Charts, Posters, and Models:

- **Chart – One in Eight Lifetime Risk of Breast Cancer** (a chart can be made with 100 ping-pong balls, marbles, or similar objects. 12 of the 100 items are one color; 88 are another color)
- **Puzzle of Breast Cancer Risks** – use enlarged puzzle graphic from Teen Brochure
- **Breast Anatomy:** Simple Drawing (or use *Anatomy & Physiology of the Breast – WRS*)
- **Breast Cancer Examples** (3-D breast model); tumor beads; mini-breast teaching models
- (Sources: CONCERN Mini-Breast –TM; *Tumors and Diseases of the Breast* poster – Childbirth Graphics)
- **Environmental Exposure Examples:** Clear plastic bottles; plastic food containers; one cosmetic containing “phthalates,” a picture of charred meat; a cigarette, a sweater in a dry cleaning bag (examples can be made from “Ten Suggestions to Reduce Your Exposures”)
- **Healthy Nutrition Poster** (*Catch a Rainbow Every Day*) or basket of colorful fruits/vegetables
- **Physical Activity Poster** (*I am...Exercise makes me feel good* /Health Edco.) or make a poster

**Lesson Activity Time:** 15 minutes

##### Activity – Topic Demonstration Presentation Guide for Peer Educators

“We’re going to show you some examples of what can increase breast cancer risk and what you can do to stay healthy and avoid specific exposures that may be a threat to your health.”



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#### **Risk:**

Explain the 1:8 lifetime risk of breast cancer - using poster or (ping pong ball) chart

“This chart shows that for every 100 women, 12 have a risk for developing breast cancer. That risk rises for women as they grow older. This does not mean that 1 in 8 women will actually develop breast cancer”

#### ✓ **Puzzle of Breast Cancer Risk Factors**

Peer Leader can use the Teen Brochure or Puzzle Poster. “Since we don’t know the causes, we think of breast cancer as having known and suspected risk factors. Genetic mutations or mistakes that are inherited and family history are known factors that increase risk. Lifestyle factors that can make a difference are physical activity, nutrition, avoiding alcohol and tobacco. Environmental factors include everything around you like air, land, water, or chemicals in products we use at home or work. Here are some examples of some of the chemical of concern to scientists and what you can do to avoid them. These chemicals are suspected of disrupting hormone levels in the body:”

**Environmental Exposures:** Show Examples of Phthalates in cosmetics; Bisphenol-A in plastics bottles; PAH in charred food (Peer leader may distribute Ten Suggestions to Reduce Exposure to Suspect Chemicals)

- 1) Bisphenol-A used to make plastic containers pliable avoid storing water in heated plastics - microwave food in glass, not plastic containers,
- 2) Phthalates and fragrance in cosmetics - minimize their use, look for phthalate-free alternatives
- 3) PAH’s in charred grilled food - avoid eating this, cut off the charred parts on grilled foods
- 4) Second hand smoke exposure - avoid all second hand smoke, ask smokers to quit or go outside

**Healthy nutrition** Review posters, charts or examples of colorful foods to include in a healthy diet

Sample Script – Foods that Protect against Cancer

“Foods that are healthy and help to maintain a normal weight for our body type are plant-based, high in fiber, low in fat, and limit simple sugars like white bread and cookies. This type of diet can strengthen the immune system and help fight cancer and disease at the cellular level. It also can give you more energy. Scientists don’t know exactly what diet prevents breast cancer, but eating whole, healthy foods may help. These include Omega-3 fats in nuts and cold-water fish like salmon; whole grain foods like oatmeal or bran, 5-9 serving of fresh fruits and vegetables most days, and avoiding trans- fats in convenience foods. An environmental exposure to avoid with foods is to rinse all produce to minimize pesticide residue.

- #### ✓ Ask participants for examples of healthy nutrition, what’s easy and hard about it, what they can do.

**Breast Cancer Early Detection Examples:** Peer Leader shows, walks around with and invites students to examine the: 3-D breast model, tumor beads & chart, and mini-breast models. Peer leader shows the

“mammogram disc” and demonstrate how to locate the lump and tumor example embedded in the mini-breast model. Participants can look at 3-D model and pass around tumor beads and mini-breast models.

Sample Script – What is meant by early detection of breast cancer, using Mini Breast Model

“While we are moving through the room, please look at you (blue) Vocabulary and (green) Facts Sheets. “These are examples of what a breast lump or tumor looks or feels like inside the breast. Not all of these lumps are cancer. This gives you an idea of what women look for in breast self-exams and what doctors check to diagnose breast cancer. If you hold the mini-breast up to the light you can see a small disc. This is an example of what can be seen on a mammogram, but is too small to feel in an exam. With a flat hand and your middle three fingers, you can gently press down on the mini breast model and locate a lump.”



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*Your Vocabulary List has several terms that describe the topic of breast cancer. We are focusing on prevention and risk reduction today, but its important to know what breast cancer looks like, how it is detected, and how to do breast self-exams and get regular health check-ups to catch breast cancer early.”*

**Wrap-up: Take Home Resources for Breast Cancer Information – listed in Teen Brochure**

<i>Marin Cancer Institute (at Marin General Hospital)</i>	<i>Kaiser Permanente Medical Center</i>
<i>UCSF – Comprehensive Cancer Center (San Francisco)</i>	<i>The American Cancer Society</i>
<i>Planned Parenthood &amp; Huckleberry Teen Clinic</i>	<i>Susan G. Komen Foundation</i>
<i>Tina Action Program (San Geronimo Valley)</i>	<i>The Avon Foundation</i>
<i>To Celebrate Life Breast Cancer Foundation</i>	<i>Zero Breast Cancer</i>

*Web-sites:*

- Zero Breast Cancer (community-based research to find the causes of breast cancer))*
- Marin County Health Department (Marin Women’s Study and county-based research)*
- Northern California Cancer Center (Bay Area statistics, information on all cancers)*
- National Cancer Institute (research and information – all cancers)*
- National Institute of Environmental Health Sciences (cancer, genes and environment)*
- Cornell University -Breast Cancer & Environment (fact sheets –chemical carcinogens)*
- Safe Cosmetics Campaign (Environmental Working Group – suspect chemical database)*