



## Breast Cancer and Environment – Peer Education Tool Kit

*Zero Breast Cancer – Adolescent Education Project*

### Lesson Plan: Breast Cancer and Environment

#### Activity #5: Breast Cancer Facts or Factors, Myths or Gray Areas

##### Objectives:

- To increase teen knowledge about breast cancer and environmental risks
- To learn about known and suspected factors associated with breast cancer
- To identify breast cancer facts, myths and gray areas relevant to teens and adults

##### Materials/Preparation:

- View video Q & A section: *Teens Talk About Breast Cancer* (Adelphi University)
- Alternate option: View *Breast Cancer, Genes, and Environment* power point-slide show
- Review Breast Cancer Messages for Teens (*Top Twelve Topics, and Message Background*)
- Participants May Refer to Lesson Vocabulary, Fact Sheet, and/or Teen Brochure

**Lesson Activity Time:** 10 – 15 minutes

##### Activity\*:

Peer leaders should be familiar with the video or slides, messages, and handouts before leading this activity. Fact, Myth & Gray Area can be used at the beginning of the lesson, adding words or questions to the categories as the lesson proceeds, or it can be used as a review activity. Leader determines correct category.

- ✓ List 3 Headings on blackboard or butcher paper: Fact/Factor; Myth; and Gray Area
- ✓ Choose students from the class (1 – 2 per category; or 6 total) to add words under each list
- ✓ Ask students to think about the information from the video and to refer to their handouts:
  - a) Top Twelve Topics
  - b) Vocabulary
  - c) Brochure or Fact Sheet
- ✓ Leader: “So let’s list what we know about breast cancer – is it a Fact, Myth or Gray Area?”
- ✓ Ask students, “What Do You Think? What Else Do We Know? What Have You Heard?”
- ✓ Leader’s Option: Read out Statements (below) and ask students to decide if they are a Fact or Factor, Myth or a Gray Area, and why they think it belongs in that category
- ✓ Feedback: Lead a discussion about what students know *now* that they didn’t know before

#### Examples of Breast Cancer Fact and Factors, Myths and Gray Areas

(Peer leader can read out the statements in parenthesis after the applicable category is chosen).

##### **FACT Examples:** (*Information Established in Science and Research*)

- *Breast Cancer risk increases as women get older, especially after age 50*
- *(Most breast cancer incidence is related to aging, and hormones present in a woman’s body).*
- *Early age of first menstrual period, and later age for menopause increases lifetime exposure to a woman’s own estrogen (these are breast cancer risk factors that we cannot control).*



## **Breast Cancer and Environment – Peer Education Tool Kit**

### *Zero Breast Cancer – Adolescent Education Project*

- *Giving birth after age 30, or not giving birth, are risk factors associated with breast cancer*
- *Some types of breast changes – abnormal growths in breast tissue - can be pre-cancerous*
- *Ionizing radiation (high doses to the chest area, earlier in life) is a known cause for breast cancer (Exposures at this level are rare. Also it's not the same as the sun's ultraviolet radiation).*
- *If your mother or sister had breast cancer, your risk is higher than the average woman (know your family history, get check-ups, review family history with your doctor or nurse).*
- *Genetic (inherited) traits account for a small percentage of breast cancers (5 – 10%). (genetic factors significantly elevate risk; there are medical interventions to reduce this risk)*
- *There are other factors related to breast cancer risk that we can control: (exercise, alcohol use, exposure to inhaled smoke or secondhand smoke, excessive weight gain as adults).*
- *Healthy habits (nutrition, exercise, not smoking, limiting alcohol) can make a difference to reduce or “modify” an individual’s cancer risk, and supporting good health overall*
- *Early detection helps to catch breast cancer early- this helps to improve survival rates (most women start to get regular breast exams at age 20 and mammograms at age 40).*
- *Exposures in the environment can trigger genetic changes in cells that may progress to cancer*

#### **MYTH Examples: (Information or a Belief that is Not Based on Evidence)**

- *Bumping or bruising of the breasts (i.e. accidents, sports injuries) can lead to breast cancer*
- *Breast implants increase breast cancer risk (it may be harder to detect with implants).*
- *Underarm deodorant (antiperspirant) causes breast cancer (the concern is with antiperspirant chemicals being absorbed near the breast area).*
- *Sleeping with a bra or wearing an under-wire bra can increase risk for breast cancer (some people think the issue is restricting circulation, or the metal in the under wire).*
- *Breast cancer does not occur in young women (it can affect women ages 20 -30's – but it's much less common).*
- *Abortion, or terminating a pregnancy can increase the risk for breast cancer (some internet sites carry this message; this topic has been studied – no evidence).*
- *It's not possible for men to develop breast cancer (it is extremely rare, but nearly 1% of all breast cancer cases do affect men).*

#### **GRAY AREA (Suspected Factors for further Research)**

- *Certain chemicals may interfere with the body's natural hormones that, in turn, can play a role in how breast cancer develops. Some chemicals may disrupt hormone functions in cells. (learn more about chemical agents and breast cancer – minimize use or exposure when possible).*
- *Some of the suspected chemicals are present in pesticides, solvents, flame-retardants, and plastics. Scientists are studying how these chemicals affect genes to decide which pose the greatest threat. (Your Fact sheet and resource packet have tips, web sites & sources for more information).*
- *Some teen girls may be more susceptible to exposures that may cause changes in breast cells during puberty. (This is a stage when girls may be more susceptible to factors in their environment, when the breast cells are growing rapidly and specializing for future reproduction and breastfeeding).*



**Breast Cancer and Environment – Peer Education Tool Kit**  
*Zero Breast Cancer – Adolescent Education Project*

- *If you had breast cancer as a young adult woman, you won't be able to have children later (Chemotherapy may affect fertility but there are medical options. Every person's cancer is unique.)*
- *Stress and the body is a question as to how and when cancer occurs, and how people recover. (People have an interest in this area; researchers are studying how stress may relate to cancer).*