

## Pregnancy and Breast Cancer Risk

### Introduction

Every woman's hormone levels change throughout her life for a variety of reasons, and hormone changes can lead to changes in the breasts. Hormone changes that occur during pregnancy may influence a woman's chances of developing breast cancer later in life. Research continues to help us understand reproductive events and breast cancer risk. The National Cancer Institute (NCI) is currently funding research that may lead to discoveries that identify ways to mimic pregnancy's protective effects and translate them into effective prevention strategies.

### Pregnancy-Related Factors that Protect Against Breast Cancer

Some factors associated with pregnancy are known to reduce a woman's chance of developing breast cancer later in life:

- The younger a woman has her first child, the lower her risk of developing breast cancer during her lifetime.
- A woman who has her first child after the age of 35 has approximately twice the risk of developing breast cancer as a woman who has a child before age 20.
- A woman who has her first child around age 30 has approximately the same lifetime risk of developing breast cancer as a woman who has never given birth.
- Having more than one child decreases a woman's chances of developing breast cancer. In particular, having more than one child at a younger age decreases a woman's chances of developing breast cancer during her lifetime.
- Although not fully understood, research suggests that pre-eclampsia, a pathologic condition that sometimes develops during pregnancy, is associated with a decrease in breast cancer risk in the offspring, and there is some evidence of a protective effect for the mother.
- After pregnancy, breastfeeding for a long period of time (for example, a year or longer) further reduces breast cancer risk by a small amount.

### Pregnancy-Related Factors that Increase Breast Cancer Risk

Some factors associated with pregnancy are known to increase a woman's chances of developing breast cancer:

- After a woman gives birth, her risk of breast cancer is temporarily increased. This temporary increase lasts only for a few years.
- A woman who during pregnancy took DES (diethylstilbesterol), a synthetic form of estrogen that was used between the early 1940s and 1971, has a slightly higher risk of developing breast cancer. (So far, research does not show an increased breast cancer risk for their female offspring who were exposed to DES before birth. Those women are sometimes referred to as "DES daughters.")

### Other Breast Cancer Risk Factors Not Related to Pregnancy

At present, other factors known to increase a woman's chance of developing breast cancer include age (a woman's chances of getting breast cancer increase as she gets older), a family history of breast cancer in a first degree relative (mother, sister, or daughter), an early age at first menstrual period (before age 12), a late age at menopause (after age 55), use of menopausal hormone replacement drugs, and certain breast conditions.



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Obesity is also a risk factor for breast cancer in postmenopausal women. More information about these and other breast cancer risk factors is found in NCI's publication *What You Need To Know About™ Breast Cancer*.

### **Misunderstandings About Breast Cancer Risk Factors**

There are a number of misconceptions about what can cause breast cancer. These include, but are not limited to, using deodorants or antiperspirants, wearing an underwire bra, having a miscarriage or induced abortion, or bumping or bruising breast tissue. However, none of these factors has been shown to increase a woman's risk of breast cancer. In addition, cancer is not contagious; no one can "catch" cancer from another person.

### **Preventing Breast Cancer**

There are some things women can do to reduce their breast cancer risk.

Because some studies suggest that the more alcoholic beverages a woman drinks the greater her risk of breast cancer, it is important to limit alcohol intake. Maintaining a healthy body weight is important because being overweight increases risk of postmenopausal breast cancer. New evidence suggests that being physically active may also reduce risk. Physical activity that is sustained throughout lifetime or, at a minimum, performed after menopause, may be particularly beneficial in reducing breast cancer risk. Eating a diet high in fruits and vegetables, and energy and fat intake balanced to energy expended in exercise are useful approaches to avoiding weight gain in adult life.

### **Detecting Breast Cancer**

A woman can be an active participant in improving her chances for early detection of breast cancer. NCI recommends that, beginning in their 40s, women have a mammogram every year or two. Women who have a higher than average risk of breast cancer (for example, women with a family history of breast cancer) should seek expert medical advice about whether they should be screened before age 40, and how frequently they should be screened.

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### **Related NCI materials and Web pages:**

- National Cancer Institute Fact Sheet 3.75, *Abortion, Miscarriage, and Breast Cancer Risk* (<http://www.cancer.gov/cancertopics/factsheet/Risk/abortion-miscarriage>)
- *What You Need To Know About™ Breast Cancer* (<http://www.cancer.gov/cancerinfo/wyntk/breast>)
- General Information About Breast Cancer ([http://www.cancer.gov/cancer\\_information/cancer\\_type/breast/](http://www.cancer.gov/cancer_information/cancer_type/breast/))
- Summary Report: Early Reproductive Events and Breast Cancer Workshop (<http://www.cancer.gov/cancerinfo/ere-workshop-report>)

### **How can we help?**

We offer comprehensive research-based information for patients and their families, health professionals, cancer researchers, advocates, and the public.

- **Call** NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237)
- **Visit** us at <http://www.cancer.gov> or <http://www.cancer.gov/espanol>
- **Chat** using LiveHelp, NCI's instant messaging service, at <http://www.cancer.gov/livehelp>
- **E-mail** us at [cancergovstaff@mail.nih.gov](mailto:cancergovstaff@mail.nih.gov)
- **Order** publications at <http://www.cancer.gov/publications> or by calling 1-800-4-CANCER
- **Get help** with quitting smoking at 1-877-44U-QUIT (1-877-448-7848)

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