



PATIENT SERVICES | Breast Cancer Q & A

Provided by National Breast Cancer Awareness Month  
Cancer/Breast Cancer



**Q: What is cancer?**

**A:**

Cancer is a disease that occurs when cells become abnormal and divide without control or order. Each organ in the body is made up of various kinds of cells. Cells normally divide in an orderly way to produce more cells only when they are needed. This process helps keep the body healthy. If cells divide when new cells are not needed, they form too much tissue. This extra tissue, called a tumor, can be benign or malignant.

- **Benign tumors are not cancer.**

Eighty percent of all breast tumors are benign. They can usually be removed, and, in most cases, they don't come back. Most important, the cells in benign tumors do not invade other tissues and do not spread to other parts of the body. Benign breast tumors are not life-threatening.

- **Malignant tumors are cancer.**

The cancer cells grow and divide out of control, invading and damaging nearby tissues and organs. Cancer cells can also break away from the original tumor and enter the bloodstream or lymphatic system. This is how breast cancer spreads and forms secondary tumors in other parts of the body. This spread of cancer is called metastasis.

**Q: What is breast cancer?**

**A:**

Breast cancer is cancer that forms in tissues of the breast, usually the ducts (tubes that carry milk to the nipple) and lobules (glands that make milk). It occurs in both men and women, although male breast cancer is rare.

**Q: How many new cases of breast cancer are estimated in the United States in 2007?**

**A:**

New cases of breast cancer in the United States are estimated to be 178,480 (female); 2,030 (male). Of these an estimated 40,460 (female) and 450 (male) will die from the disease. (National Cancer Institute figures)

**Q: How common is breast cancer in the United States?**

**A:** Breast cancer is the most common cancer in women, aside from skin cancer.

**Q: What is advanced breast cancer?**

**A:**

Breast cancer is considered advanced when it has spread from its original site to distant areas of the body. Physicians will look at a number of factors to determine the stage of breast cancer, including tumor size, lymph node involvement, and whether the cancer has spread to other areas of the body. Once the stage of the disease is determined, there are two different ways advanced breast cancer can be classified: locally advanced or metastatic.

**Q: What is locally advanced breast cancer?**

**A:**

The term locally advanced breast cancer indicates that the cancer is large (greater than 2 inches) or may have spread to other nearby tissue, such as underarm lymph nodes. Locally advanced breast cancer is considered Stage III, and if it is operable, it is referred to as Stage IIIA.

**Q: What is metastatic breast cancer?**

**A:**

The term metastatic breast cancer indicates that the cancer has spread from the breast to other parts of the body such as bone, lung, liver, or brain.

**Treatments for Breast Cancer**

**Q: What are the treatments for breast cancer?**

**A:**

The basic treatment choices for breast cancer are surgery, radiation, chemotherapy, and hormonal therapy, which may or may not be included in the treatment regimen, depending on hormonal involvement in the growth of the tumor. Local treatments such as breast surgery and radiation therapy are focused on the breast itself to remove or destroy the cancer cells confined to the breast. Systemic treatment such as chemotherapy aims to destroy the cancer cells that may have spread throughout the body.

Newer experimental treatments include biologically targeted therapies which currently, are only available through clinical trials. A patient and his/her physician will choose the treatment that is right for him/her, based on the location and extent of the cancer, patient's age and preferences, and the risks and benefits of each treatment.

- **Surgery**  
may be performed to remove the cancerous tumor, and may also be performed to allow for diagnostic testing of tumor tissue.
- **Radiation therapy**  
uses penetrating beams of high-energy waves or streams of particles to kill and hinder the growth of cancer cells. In metastatic disease, radiation is most commonly used to treat symptoms in breast cancer that has spread to the bone
- **Chemotherapy**  
may be used if it is believed the breast cancer will not respond to hormonal treatment. Chemotherapy is the use of drugs that target and destroy rapidly dividing cells, including cancer cells. It is frequently used in metastatic breast cancer and used in locally advanced breast cancer to shrink the tumor and make it operable
- **Hormonal therapy**  
can be used to slow the growth, spread, and recurrence of breast cancer. If the cancer is found to be of the type that may be sensitive to estrogen, hormonal treatment may be able to keep estrogen from helping the cancer cells to grow and divide. The presence of estrogen receptors (a message-carrying protein that may stimulate tumor growth) in the cancerous tumor is the best way to predict a woman's response to hormonal treatment.
- **Biologically targeted therapy**  
covers a range of new options that are to be added to the family of cancer treatments. These therapies target specific features of cancer cells to fight cancer. Since these therapies are specific, they are intended to have less effect on normal cells, which may reduce the chance of possible side effects, like those caused by current cancer treatments. Types of treatment include monoclonal antibodies, which bind to proteins on the cancer cell surface to slow down cancer cell growth; angiogenesis inhibitors, which are intended to prevent the growth of new blood vessels and so cut off the supply of oxygen and nutrients to cancer cells; and signal transduction inhibitors, which block the signals inside the cancer cell that promote the cells to divide and, in turn, cause the cancer to grow.

Most of these approaches are still experimental and would likely be offered only as part of a clinical trial.

**Risk Factors for Breast Cancer**

**Q: What are the breast cancer "risk factors"?**

**A:**

To predict when and in whom breast cancer will occur, scientists must often think like detectives, looking for clues to signal which women may be more likely than others to develop the disease. These clues are called "risk factors."

To identify risk factors, scientists continually examine various trends and patterns among women worldwide who are diagnosed with the disease. Age, individual and family medical history, reproductive history, genetic alterations, race, economic status, environmental exposures to pollutants, and lifestyle habits are all examples of the factors that can be evaluated. This information tells a scientific story that helps experts predict with some certainty a woman's odds for developing breast cancer. It's important to note, however, that this is not an exact science and that such predictions are not definite.

Having one or two of these risk factors doesn't mean a woman will develop breast cancer. But knowing her personal risk factor profile and understanding what it means will help her and her doctor plan a course of action that may reduce her chances of developing the disease or, at least, to detect it in its earliest, most treatable stages.

*The most common risk factors:*

- **Sex.**  
The highest risk factor for breast cancer is being female; the disease is about 100 times more common among women.
- **Age.**  
The risk of breast cancer increases as a woman grows older. The risk is especially high for women age 60 and older. Breast cancer is uncommon in women younger than age 35, although it does occur. There is some evidence to suggest young African American women are at greater risk for breast cancer than young Caucasian women.
- **Personal History.**  
Women who have had breast cancer and women with a history of breast disease (not cancer, but a condition that may predispose them to cancer) may develop it again.
- **Family History.**  
The risk of developing breast cancer increases for a woman whose mother, sister, daughter, or two or more close relatives have had the disease. It is important to know how old they were at the time they were diagnosed.
- **The Breast Cancer Genes.**  
Some individuals, both women and men, may be born with an "alteration" (or change) in one of two genes that are important for regulating breast cell growth. Individuals who inherit an alteration in the BRCA1 or BRCA2 gene are at an "inherited" higher risk for breast cancer. They also may pass this alteration on to their children. It is very rare. Scientists estimate that only about 5-10 percent of all breast cancers are due to genetic changes. One out of two women with these changes are likely to develop breast cancer. Women with a family history of breast cancer are encouraged to speak to a genetics counselor to determine the pros and cons of genetic testing.

*The next 5 risk factors all involve estrogen, a hormone that naturally occurs in men and women. However, at the time menstruation begins, women start to produce larger amounts of estrogen and will continue to do so until they reach menopause. Estrogen appears to play a key role in breast cancer. Although estrogen doesn't actually cause breast cancer, it may stimulate the growth of cancer cells. Estrogen-related risk factors are:*

- **Having an early menarche (first period or menstrual bleeding).** Women who begin menstruating before age 12 are at increased risk of developing breast cancer. The more menstrual cycles a woman has over her lifetime, the more likely she is to get the disease.
- **Having a first pregnancy after age 25 or 35.**  
Although early pregnancies may help lower the chances of getting breast cancer, particularly before the age of 25, these same hormonal changes after age 35 may contribute to the incidence of breast cancer.
- **Having no children.**  
Women who experience continuous menstrual cycles until menopause are at a higher than average risk.
- **Use of Hormone Replacement Therapy (HRT).** Based on the Women's Health Initiative Study (2002), women do appear to have an increased risk of breast cancer while they are on HRT and a short time thereafter, compared to those who have never used postmenopausal HRT. This is based on a study of 16,000 healthy postmenopausal

women aged 50 to 79 who were taking either estrogen plus progestin as HRT or a placebo (an inactive pill).

- **Use of Oral Contraceptives (OCs) and Breast Cancer.** Current or former use of OCs among women ages 35 to 64 did not significantly increase the risk of breast cancer. The findings were similar for Caucasian and African-American women. Data also show that former OC use does not increase the risk of breast cancer later in life.

### ***Other risk factors - and lifestyle choices to avoid them***

*Common to all women are daily lifestyle decisions that may affect breast cancer risk. These day-to-day choices involve factors such as poor diet, insufficient physical activity, alcohol use, and smoking. Besides possibly reducing breast cancer risk, lifestyle improvements represent smart steps for a healthier life, since they can help prevent heart disease, diabetes, and many other chronic, life-threatening conditions.*

- **Decrease your daily fat intake - especially saturated or hydrogenated fats.** Eat leaner meats and limit red meat. Reducing your fat intake helps prevent other health problems such as heart disease and stroke and may reduce your chance of developing breast and colon cancers.
- **Increase fiber in your diet.**  
Fiber is found in whole grains, vegetables, and fruits. This type of diet is beneficial for your heart and can help prevent other cancers such as colon cancer.
- **Eat fresh fruits and vegetables.**  
In addition to their fiber content, fruits and vegetables have antioxidant properties and micronutrients that may help prevent some cancers.
- **Limit alcohol.**  
Evidence suggests that a small increase in risk exists for women who average two or more drinks per day (beer, wine, and distilled liquor).
- **Stay active.**  
The U.S. Surgeon General has recently reported that you can help prevent many health problems by engaging in a moderate amount of physical activity (such as taking a brisk, 30-minute walk) on most days of the week. Strive to maintain the body weight recommended by a health professional, since excess fat may stimulate estrogen production.
- **Don't smoke.**  
Although smoking doesn't cause breast cancer, it can increase the chance of blood clots, heart disease, and other cancers that may spread to the breast.

For additional information on risk factors, access the American Cancer Society Website, [www.cancer.org](http://www.cancer.org), Breast Cancer Facts and Figures, 2006.

### **Screening**

For more information about mammography screening, please refer to American Cancer Society's Website at [www.cancer.org](http://www.cancer.org).

#### **Q: Is mammography reliable as a screening tool for breast cancer?**

**A:**  
Mammography screening remains the best available method to detect breast cancer early. In 1992, the U.S. Congress passed the Mammography Quality Standards Act to ensure that mammography facilities throughout the country are of high quality and reliable. To lawfully perform mammography, each facility must prominently display a certificate issued by the U.S. Food and Drug Administration (FDA). This certificate serves as evidence that the facility meets quality standards.

#### **Q: Is mammography screening the only way to detect breast cancer?**

**A:**  
Other screening tests, such as magnetic resonance imaging (MRI) are available, but mammography screening remains

the best available method to detect breast cancer early. However, no medical test is always 100 percent accurate, and mammography is no exception. Research is under way to improve the technology to lead to better accuracy and to create new technologies.

**Q: What is an MRI and isn't this test more effective than mammography?**

**A:**  
Magnetic resonance imaging tests, or MRIs, are more thorough than mammograms and can better spot some cancers, but they also detect more growths that look suspicious but are actually benign. They're also much more expensive and may not be covered by insurance. In addition, MRI-guided biopsies are not widely available. In short, case-by-case decisions make the most sense.

**Q: What should women expect when they have a mammogram?**

**A:**  
A woman who still menstruates should schedule the mammogram for one week after her menstrual period begins, when the breasts will be the least tender. Women are asked to avoid using deodorant and lotions on the day of the mammogram and should wear two-piece clothing to make undressing more convenient. A specially trained radiologic technologist will perform the mammogram. The woman will be asked to undress from the waist up only and stand next to the x-ray machine. Two flat surfaces will compress one breast first, then the other for a few seconds. Compression is necessary to produce the best pictures using the lowest amount of radiation possible.

**Q: What barriers keep women from getting mammograms on a routine basis?**

**A:**  
Studies have identified a number of barriers to mammography screening. Some can be overcome with health education; others require programs to make mammography more accessible for women. The top barriers, in women's words, are:

- "I don't need a mammogram because my doctor has never recommended I have one."
- "I've never thought about it."
- "I have no breast problems, so mammography isn't necessary."
- "I don't have enough time."
- "I have had a mastectomy (double mastectomy, radical mastectomy) and don't have breasts."
- "I don't have a family history of breast cancer"

**Other barriers include:**

- Fear about pain from the procedure.
- Fear of a diagnosis of breast cancer.
- Concerns about screening costs.
- Concerns about the financial burden of diagnostic procedures and treatment, if needed.
- No recent clinical breast examination or Pap test.
- No routine source of health care.
- Difficulty taking time off from work to be screened.
- Living a far distance from the screening site.
- Source: The Manual of Intervention Strategies to Increase Mammography Rates, Centers for Disease Control and Prevention with the Prudential Center for Health Care Research.

**Q: Will health insurance pay for screening mammograms?**

**A:**  
Regular screening mammograms are covered by the U.S. government's Medicare and Medicaid programs and other private health insurance plans (women should check their own insurance plans for individual details). Free or low-cost mammograms are available for women without health insurance in many locations. For a program near you, contact the CDC at (888) 842-6355.

**Q: Will Medicare pay for screening mammograms?**

**A:**  
Yes. Medicare covers mammography screening every year for women age 40 and older who are Medicare recipients. Yet, eligible women and their doctors may not now about this important benefit. A series of publications regarding this benefit are available in English and Spanish. For ore information about Medicare coverage, contact the Medicare toll-free hotline at (800) MEDICARE or the Medicare Website, [www.medicare.gov](http://www.medicare.gov).

**Q: How can women get low-cost or free mammograms?**

**A:**  
For information on low- or no cost mammography screening, contact the Centers for Disease Control and Prevention (CDC) at (888) 842-6355 or visit their Web site at [www.cdc.gov](http://www.cdc.gov). Women seeking mammograms at a reduced rate are urged to make their appointment early in the year, as space may be limited. To find a breast-imaging facility, contact the National Cancer Institute at (800) 4-CANCER.

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