

# Breast Cancer 411

Breast Cancer 411 is general information to help you understand breast cancer:

- Facts and myths
- Signs, symptoms and types
- Detection tests, tools and technologies
- Statistics
- Risk factors
- Diagnostic techniques
- Stages of breast cancer and treatment options

For detailed information, please refer to medical professionals and resources about breast cancer.

We hope you find our website to be a useful resource, and we wish you all the best.

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## Facts and Myths about Breast Cancer

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### What breast cancer is (Fact):

- A very common disease among women of all ages
- The leading cause of cancer death in black women
- Not your fault

### What could have an effect on developing breast cancer (Fact):

- Alcohol consumption
- Environmental chemicals and pollutants
- Family genetics
- Fried, grilled meats and high fat diet
- Inactivity, no exercise
- Obesity, overweight
- Smoking

### What does not cause breast cancer or cancer death (Fact):

- Abortions
- An injury to the breast
- Antiperspirants, deodorants
- Bad behavior or “karma”
- Bras with underwire
- Breast-feeding
- Caffeine or Coffee
- Emotional stress
- Jogging
- Mammograms
- Seat belts
- Talking with or touching someone with cancer

### What cures breast cancer naturally (Myth)

- Apricot pits
- Eating broccoli by the bushel
- Shark fins
- Spinning around in circles with a pot on your head

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## Signs, Symptoms and Types

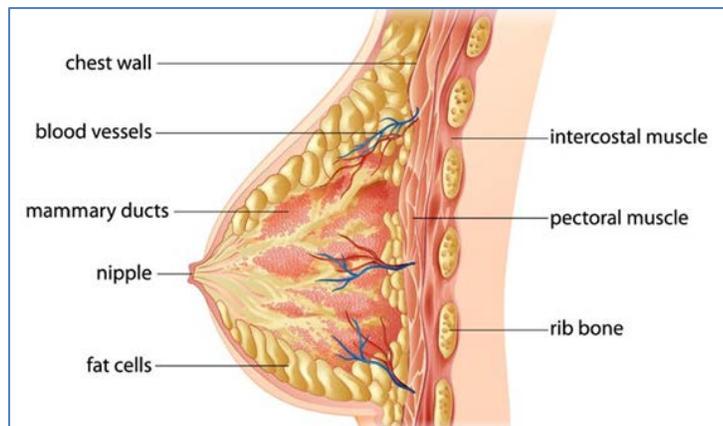
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### Cancer Basics

Cancer is a disease that occurs when abnormal cells divide out of control and destroy tissue. This continuous cell division results in a malignant tumor. When malignant cells develop in the tissues of the breast, it is **breast cancer**. These cancerous cells can spread to the lymph nodes, and possibly to other organs of the body.

Anyone with breast tissue can develop breast cancer, which affects primarily women. A woman's chance of being diagnosed is one out of eight (1 of 8) by the time she is 80 years old. Men can also develop breast cancer, which about one out of 100 men.

### Normal breast:



### **Fact:**

**A woman's chance of developing breast cancer increases with age.**

By age 30	1 in 2,212
By age 40	1 in 235
By age 50	1 in 54
By age 60	1 in 23
By age 70	1 in 14
By age 80 and over	1 in 8

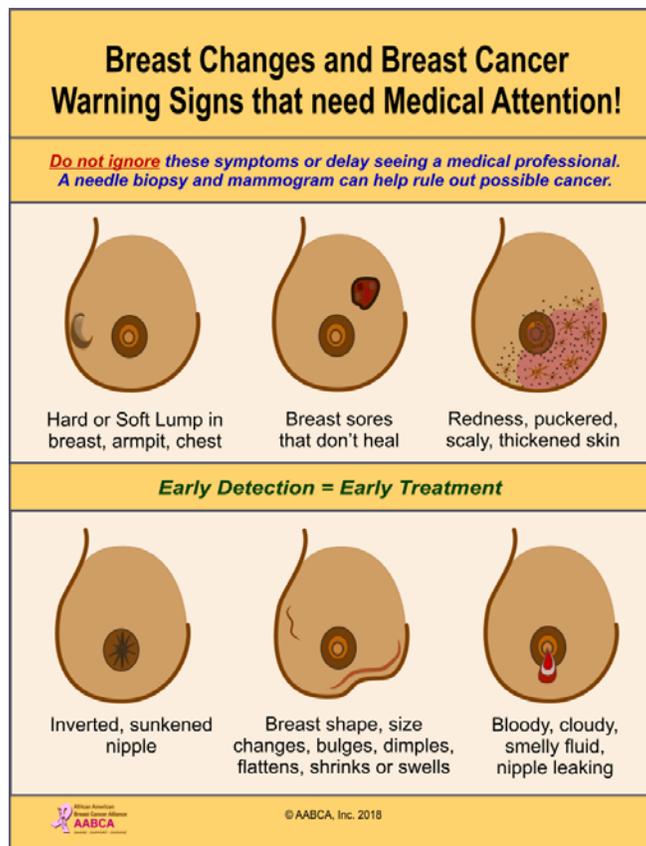
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## Signs and Symptoms of Breast Cancer

Symptoms of breast cancer vary from person to person. Some common **warning signs and symptoms** include:

- A breast lump or thickening on or inside of the breast
- Skin changes, such as swelling, redness, scaling or other visible
- Change in the shape and/or size of one or both breasts
- Changes in the appearance of one or both nipples
- Nipple discharge that is bloody, clear, greenish, pus, other than breast milk
- General pain in/on any part of the breast
- Irritated or itchy breasts
- Change in breast color
- Changes in touch (may feel hard, tender or warm)
- Peeling or flaking of the nipple skin
- Redness or pitting of the breast skin (like the skin of an orange)

Click for a [larger](#) size of diagram:



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## Breast Cancer Statistics – The Basics

The breast is consisted of billions of microscopic cells. These cells when healthy, multiply in an orderly fashion. New healthy cells are made to replace existing cells that die. Cells with cancer multiply uncontrollably and have a negative impact on the functioning of surrounding healthy cells.

Breast cancer is a common disease in which cells in the breast divide, grow out of control and become malignant. Generally, tumors in the breast tend to grow slowly. By the time a lump is large enough to feel it may have been growing for as long as 10 years. However, some breast cancer tumors can be aggressive and grow at a much faster rate.

Between 50% to 75% of breast cancers, begin in the milk ducts. Another 10% to 15% begin in the lobules and other breast tissues. Cancerous cells can spread to the lymph nodes and possibly to other organs of the body. Cells may travel early in the process when the tumor is small or later when the tumor is large.

Breast cancer accounts for 16% of all female cancers and 22.9% of invasive cancers in women. 18.2% of all cancer deaths worldwide, including both males and females, are from breast cancer. More than 75% of women diagnosed with breast cancer have no known risk factors, most breast lumps are noncancerous and the majority of breast cancers are not hereditary.

While the occurrence of breast cancer has increased over the years, the rate of mortality has significantly decreased with early detection and treatment resulting in more survivors.

## Risk Factors

- Gender - simply being a woman is the main risk factor for developing breast cancer. Men can also develop breast cancer, but this disease is about 100 times more common among women than men.
- Menstrual periods - Women who started menstruating early (before age 12) and/or went through menopause later (after age 55) have a

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slightly higher risk of breast cancer. This increase in risk may be due to a longer lifetime exposure to the hormones estrogen and progesterone.

- Getting older – As a woman ages the risk of developing breast cancer increases. Over 80% of all female breast cancers occur among women aged 50+ years, after menopause.
- Genetics - Women who have a close relative with a history of breast or ovarian cancer are more likely to develop breast cancer. If two close family members develop the disease, it does not necessarily mean they shared the genes that made them more vulnerable because breast cancer is a relatively common cancer.
- Women who carry the BRCA1 and BRCA2 genes have a considerably higher risk of developing both breast and/or ovarian cancer. These genes can be inherited. TP53 is another gene that is also linked to a greater breast cancer risk.
- A history of breast cancer - women who have had breast cancer even non- invasive cancer are more likely to develop the disease again compared to women who have no history of the disease.
- Having had certain types of breast lumps - women who have had some types of benign (non-cancerous) breast lumps are more likely to develop cancer later on. Examples include atypical ductal hyperplasia or lobular carcinoma in situ.
- Dense breast tissue - women with dense or very thick breast tissue have a greater risk of developing breast cancer.
- Estrogen exposure - women who started their menstrual periods early before age 12 or entered menopause later than age 55 have a higher risk of developing breast cancer. This is due to their bodies being exposed to estrogen for a longer timeframe. Estrogen exposure begins when periods start and declines sharply during menopause.

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- Obesity - post-menopausal overweight and obese women may have a higher risk of developing breast cancer. Experts say that there are higher levels of estrogen in these menopausal women, which may place them at higher risk.
- Late pregnancy or no pregnancy – women with a first full-term pregnancy after age 30 and women who have never had a full term pregnancy are also at higher risk for breast cancer.
- HRT (hormone replacement therapy) - combined and estrogen only HRT therapies may increase a woman's risk slightly for developing breast cancer.
- Radiation exposure - undergoing X-rays and CT scans may raise a woman's risk slightly for developing breast cancer. Scientists at the Memorial Sloan-Kettering Cancer Center found that women treated with radiation to the chest for a childhood cancer have a higher risk of developing breast cancer.
- Alcohol consumption – The Mayo Clinic finds alcohol consumption that exceeds one alcoholic beverage per day increases a woman's risk for breast cancer.

For more facts and information about breast cancer and cancer regarding African Americans refer to the American Cancer Society website: [www.cancer.org](http://www.cancer.org).

American Cancer Society “Cancer Facts and Figures, 2016-2018”, <https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/cancer-facts-and-figures-for-african-americans/cancer-facts-and-figures-for-african-americans-2016-2018.pdf>

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## Types of Breast Cancer

Breast cancer occurs in two broad categories: noninvasive and invasive.

**Noninvasive (in situ) breast cancer:** Cancerous cells remain in a particular location of the breast, without spreading to surrounding tissue, lobules or ducts.

**Invasive (infiltrating) breast cancer:** Cancerous cells break through normal breast tissue barriers and spread to other parts of the body through the bloodstream and lymph nodes.

Breast cancer is also classified based on where in the breast the disease started (e.g., milk ducts, lobules), how the disease grows, and other factors.

## Types of invasive breast cancer:

**Invasive ductal carcinoma (IDC):** IDC begins in the milk ducts and accounts for 70 percent or more of invasive breast cancers.

**Invasive lobular carcinoma (ILC):** ILC begins in the lobules and is rarer. Sometimes, the origin of the tumor may not be known.

**Inflammatory breast cancer (IBC)** is a unique type of breast cancer that often starts within the soft tissues of the breast and causes the lymph vessels in the skin of the breast to become blocked. As a result, the breast can become firm, tender, itchy, red, and warm due to increased blood flow and a build-up of white blood cells.

**Metastatic breast cancer** occurs when cancer cells spread to another part of the body. Breast cancer can be metastatic at the time of diagnosis, or following treatment. Cancer cells can travel through the bloodstream, lymph nodes and spread to other organs and parts of the body.

**Papillary carcinoma** is a rare type of breast cancer, accounting for about three percent of all breast cancers. Papillary carcinoma typically has a better prognosis than other, more common breast cancers.

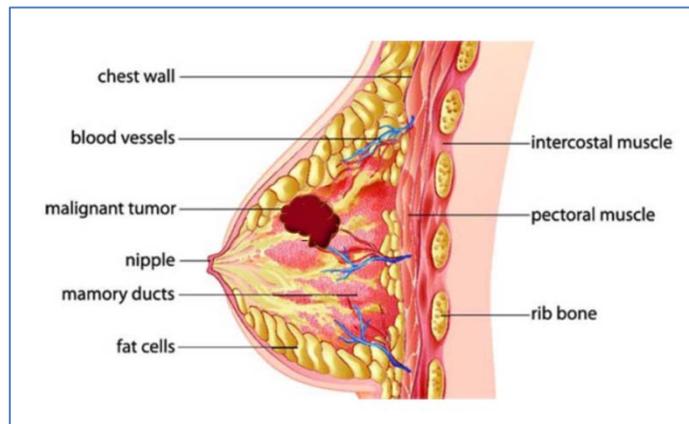
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**Triple-negative breast cancer (TNBC)** has cancer cells that do not contain receptors for estrogen, progesterone, or HER2. About 10 – 20 percent of all breast cancers are triple-negative. This type of breast cancer is usually invasive and usually begins in the breast ducts.

Research shows that TNBC affects certain populations of women more than others; it is more common in African American women, younger women, and women who carry a BRCA1 gene mutation. Women of African descent are up to three times more likely to be diagnosed with TNBC, than Caucasian or Hispanic women. In addition, TNBC in African American women tends to be more aggressive, is diagnosed at a later stage, and carries poorer survival outcomes compared to Caucasian women.

Some other types of breast cancer include, but are not limited to *Paget's disease of the nipple, sarcoma of the breast, medullary carcinoma, tubular carcinoma, mucinous carcinoma, metaplastic carcinoma, adenocystic carcinoma, phyllodes tumor and angiosarcoma.*

## Tumor in Breast



## Diagnosing Breast Cancer

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Mammography is a low-dose X-ray used to detect breast cancer. If an abnormality that could be cancerous is detected, a biopsy is performed.

During a biopsy, the physician may remove some cells from the lump through various methods:

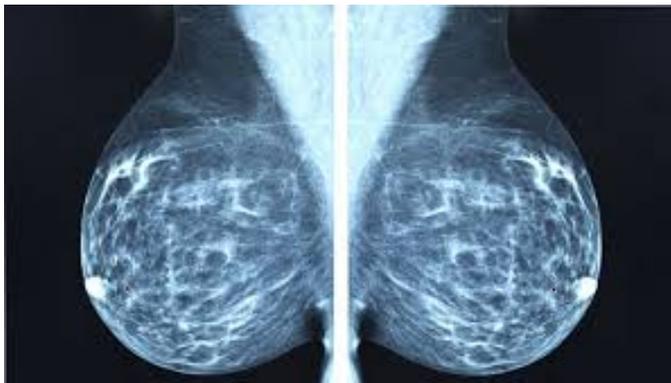
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- Fine-needle aspiration **biopsy**. This is the simplest **type of breast biopsy** and may be used to evaluate a lump that can be felt during a clinical **breast** exam.
- Core needle **biopsy**.
- Stereotactic **biopsy**.
- Ultrasound-guided core needle **biopsy**.
- MRI-guided core needle **biopsy**.

A mammogram can detect many but not all cases of breast cancer. Other types of breast imaging methods may be needed.

## Breast Cancer Detection Tests, Tools and Technologies

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Various tests are utilized to diagnose breast cancer and other breast conditions. Screening tools and tests can be in the form of biopsy, blood, genetics or images of the tumor. The type of diagnostic test used is determined by the specific needs of each patient.

- **Mammogram:** Is a compression x-ray of the breasts.
- **MRI:** Magnets and radio waves produce a 3-D image of the breast. A contrast dye may be injected into a vein to increase the visibility of cancerous tissues.
- **Ultrasound:** Sound waves are used to create an internal image of breast glands and underlying tissues.
- **Breast Specific Gamma Imaging:** This is a non-compression type mammogram used to detect blood flow to cancer cells.

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- **Tomosynthesis:** A form of digital mammography that takes multiple x-rays creating a 3-D picture of the breast allowing a visual between layers of breast tissue.
- **PEM:** Position Emission Mammography uses a small amount of radioactive tracer dye injected during the PEM to scan an image the breast.
- **Chest X-Ray:** An imaging test to check the inside of your chest to see if the breast cancer has spread to your lungs or ribs.
- **Bone Scan:** an imaging test used to help diagnose if cancer has metastasized; spread to your bones.
- **Computed Tomography (CT/CAT) Scan:** An X-ray that gives a more detailed picture that can detect extremely small tumors and if the cancer has spread to the lymph nodes, liver, brain, lungs, or bones.
- Imaging techniques are not intended to replace mammograms, but are additional diagnostic tools for women with increased risk for breast cancer. In some instances, these imaging diagnostic tools may help some women avoid unnecessary biopsies.
- There are alternative screening techniques to detect breast cancer in women with dense or large breasts and women with health conditions that prohibit the use of a mammography.

Breast cancer detected in the early stages increase the chance of early treatment.

Be aware that diagnostic errors can occur. A misdiagnosis, delayed diagnosis or failed diagnosis can make a difference in delays and options of treatment, outcomes, survival or lead to death.

Sources:

Breast Cancer.org, <http://www.breastcancer.org/symptoms/testing/types>  
WebMD.com, <http://www.webmd.com/breast-cancer/features/latest-in-breast-cancer-detection>

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## Stages Terms and Treatment Options for Breast Cancer

Stages	Common Treatment Options
<b>Early breast cancer</b>	<ul style="list-style-type: none"> <li><i>Different for each patient:</i></li> </ul>
<b>Stage 0:</b> Cancer cells present in the lining of the breast lobule or a duct, have not spread, aka DCIS.	Surgery, radiation, hormonal treatment.
<b>Stage I:</b> Cancer cells have spread from lobules of ducts to nearby tissue is invasive, but has no spread to lymph nodes. Tumor is less than 1 inch in size.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment.
<b>Stage II:</b> Tumor size is 1 – 2 inches large and may have spread to lymph nodes.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment.
<b>Stage IIIA:</b> Tumor size is 2 inches or larger and cancer cells have spread into the underarm lymph nodes.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment or chemotherapy, radiation and hormonal treatment.
<b>Advanced breast cancer</b>	
<b>Stage IIIB:</b> Any size tumor, locally advanced cancer that has spread into breast and chest.	Chemotherapy to shrink the tumor before surgery, radiation, and chemotherapy.
<b>Stage IV:</b> Metastatic breast cancer has spread to other body parts, bone, liver, lung, or brain.	Hormonal treatment, chemotherapy and/or Palliative care to reduce breast cancer.
<b>Recurrence:</b> (local, regional or distant) return of the cancer.	Hormonal treatment, chemotherapy, targeted therapy

- **Discuss all treatment options with your doctors to decide which choices are best for you including available clinical trial studies.**

**Source:** [www.getbcfacts.com](http://www.getbcfacts.com)