



Breast Cancer 411

**Breast Cancer and Breast
Health information for
women of all ages.**

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.

1 in 8 women will be diagnosed with breast cancer in her lifetime.



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

Facts and Myths about Breast Cancer

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

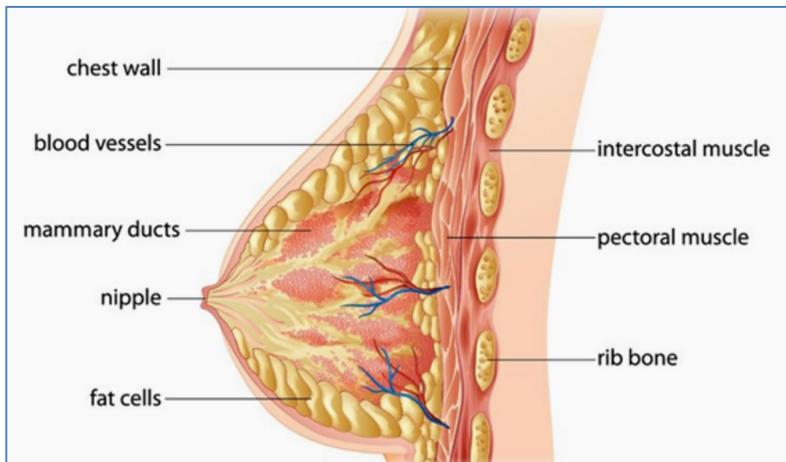
Signs, Symptoms and Types

Cancer Basics

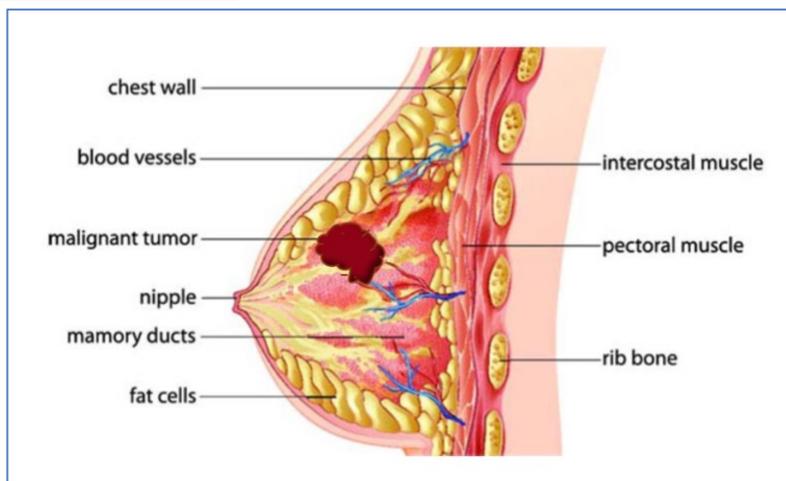
Cancer is a disease that occurs when abnormal cells divide out of control and destroy tissue. This continuous cell division results in a malignant tumor. When malignant cells develop in the tissues of the breast, it is **breast cancer**. These cancerous cells can spread to the lymph nodes, and possibly 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 are about one out of 125 men.

Normal breast



Tumor in Breast



Signs and Symptoms of Breast Cancer

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

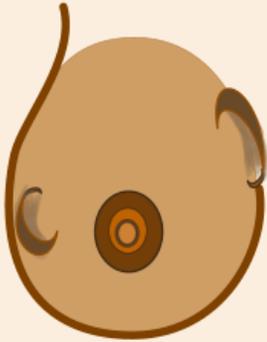
- A breast lump or hard thickening on or inside of the breast
- Skin changes, such as swelling, redness, scaling or other visible
- Change in the shape and/or size of one or both breasts
- Changes in the appearance of one or both nipples, bulges or sinks inward
- Nipple discharge that is bloody, clear,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



Breast Self-Exam done monthly can help you learn about your breasts and any changes you find. Make a medical appointment to have any symptom listed above examined for possible breast cancer or disease.

Breast Changes and Breast Cancer Warning Signs that need Medical Attention!

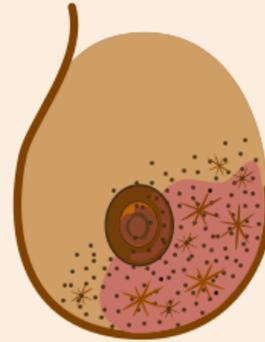
Do not ignore these symptoms or delay seeing a medical professional.
A needle biopsy and mammogram can help rule out possible cancer.



Hard or Soft Lump in breast, armpit, chest

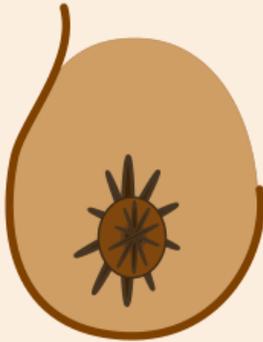


Breast sores that don't heal



Redness, puckered, scaly, thickened skin

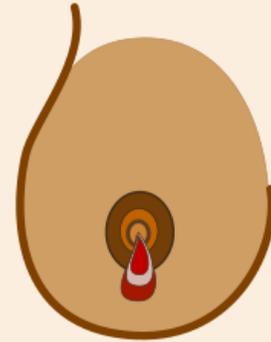
Early Detection = Early Treatment



Areola and nipple turned inward, sunken



Breast changes color, shape, size, bulges, dimples, pain, shrinks, sunken or swells



Nipple leaking, bloody, cloudy, pus, smelly fluid

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.

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 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.
- **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 Black Americans, refer to the American Cancer Society website:

www.cancer.org.

American Cancer Society “Cancer Facts and Figures, 2022-2024”,
<https://www.cancer.org/latest-news/facts-and-figures-african-american-black-people-2022-2024.html>

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.

- **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 TNBC affects others; it is more common in Black 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 Black women tends to be more aggressive, 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.*

Diagnosing Breast Cancer

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

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

- 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**.

Breast Cancer Detection Tests, Tools and Technologies

Various tests are utilized to diagnose breast cancer and other breast conditions.

Mammogram images



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.

- **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 and better outcomes.

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>

Stages, Terms and Treatment Options for Breast Cancer

Stages	Common Treatment Options
Early breast cancer	<ul style="list-style-type: none"> <i>Different for each patient:</i>
Stage 0: Cancer cells present in the lining of the breast lobule or a duct, have not spread, aka DCIS, noninvasive.	Surgery, radiation, hormonal treatment.
Stage 1: Tumor is less than 1 inch in size. Cancer cells present in the lobules (LCIS) or ducts (DCIS) to nearby tissue are noninvasive, with no spread to lymph nodes.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment.
Stage 2A: Tumor size is up to 1 inch, with or without spread to underarm lymph nodes.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment.
Stage 2B: Tumor size is 1 – 2 inches large, invasive with or without spread to lymph nodes.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment.
Stage 3A: Tumor size is 2 inches or larger, invasive and cancer cells have spread into the underarm lymph nodes. Locally advanced cancer.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment or chemotherapy, radiation and hormonal treatment.
Stage 3B: Tumor size is 3 inches or larger and cancer cells have spread into or near the breast and underarm lymph nodes. Also, 3B Inflammatory breast cancer cells block the lymph nodes in the skin of the breast looks red and swollen.	Surgery, lymph node dissection if node-positive, radiation, chemotherapy, and radiation treatment or chemotherapy, radiation and hormonal treatment.

Stages	Common Treatment Options
Advanced breast cancer	
Stage 3C: Any size tumor, locally advanced cancer that has spread into breast, chest, lymph nodes, and neck or under the arm.	Chemotherapy to shrink the tumor before surgery, radiation, and chemotherapy.
Stage 4: 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.
Recurrent Cancer: Cancer that comes back after it is treated can recur in the breast, chest wall or other parts of the body.	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