



Breast Cancer

About Breast Cancer

- In 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 breast cancer deaths globally.
- Approximately half of breast cancers develop in women who have no identifiable breast cancer risk factor other than gender (female) and age (over 40 years).
- Female gender is the strongest breast cancer risk factor; only 0.5-1% of breast cancers occur in men.
- As of the end of 2020, there were 7.8 million women alive who were diagnosed with breast cancer in the past 5 years, making it the world's most prevalent cancer.



What Is Breast Cancer?

- Breast cancer is a disease in which cells in the breast grow out of control.
- A breast is made up of three main parts: lobules, ducts, and connective tissue. The lobules are the glands that produce milk. The ducts are tubes that carry milk to the nipple. The connective tissue (which consists of fibrous and fatty tissue) surrounds and holds everything together. Most breast cancers begin in the ducts or lobules.
- Breast cancer can spread outside the breast through blood vessels and lymph vessels. When breast cancer spreads to other parts of the body, it is said to have *metastasized*.

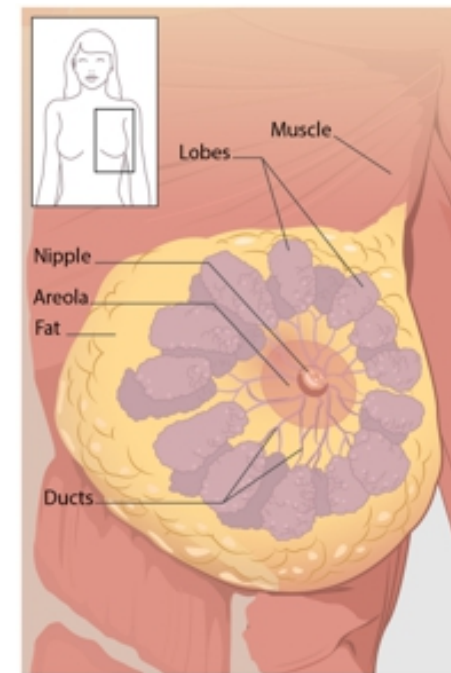


Image Source: [CDC](#)

Common Types of Breast Cancer

The most common kinds of breast cancer are—

- **Invasive ductal carcinoma.** The cancer cells grow outside the ducts into other parts of the breast tissue. Invasive cancer cells can also spread, or metastasize, to other parts of the body.
- **Invasive lobular carcinoma.** Cancer cells spread from the lobules to the breast tissues that are close by. These invasive cancer cells can also spread to other parts of the body.

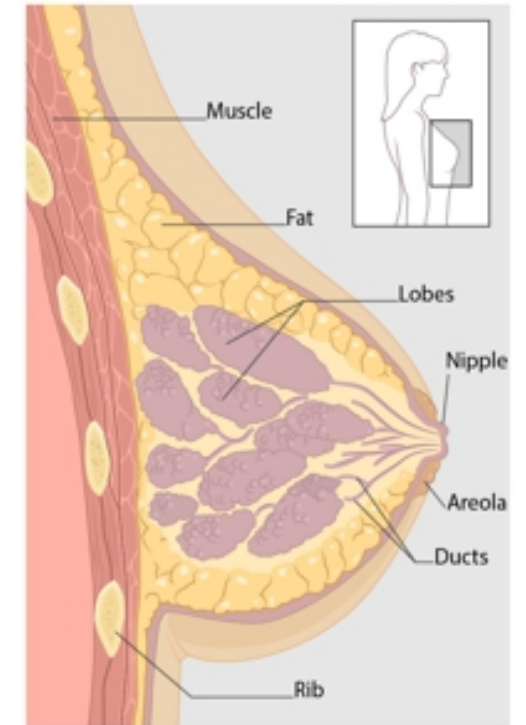


Image Source: [CDC](#)

Breast Cancer Symptoms

- Different people have different symptoms of breast cancer. Some people do not have any signs or symptoms at all.
- Some warning signs of breast cancer include:
 - New lump in the breast or underarm
 - Thickening or swelling of part of the breast
 - Irritation or dimpling of breast skin
 - Redness or flaky skin in the nipple area or the breast
 - Pulling in of the nipple or pain in the nipple area
 - Nipple discharge other than breast milk, including blood
 - Any change in the size or the shape of the breast
 - Pain in any area of the breast

Keep in mind that these symptoms can happen with other conditions that are not cancer. If you have any signs or symptoms that worry you, contact your healthcare provider.

Breast Lumps and Bumps

- **No breast is typical** – What is normal for you may not be normal for another woman. Most women say their breasts feel lumpy or uneven. The way your breasts look and feel can be affected by getting your period, having children, losing or gaining weight, and taking certain medications. Breasts also tend to change as you age.
- **Many conditions can cause lumps in the breast** – While cancer is a possibility, most breast lumps are caused by other medical conditions. The two most common causes of breast lumps are fibrocystic breast condition and cysts. Fibrocystic condition causes noncancerous changes in the breasts that can make them lumpy, tender, and sore. Cysts are small fluid-filled sacs that can develop in the breast.

If you notice a new lump or bump—or an existing one that worries you, contact your healthcare provider.

Breast Cancer Risk Factors You Cannot Control

- **Getting older** – The risk for breast cancer increases with age; most breast cancers are diagnosed after age 50.
- **Genetic mutations** – Women who have inherited certain genetic changes (mutations), such as BRCA1 and BRCA2, are at higher risk of developing breast and ovarian cancer.
- **Reproductive history** – Early menstrual periods before age 12 and starting menopause after age 55 expose women to hormones longer, raising their risk of getting breast cancer.
- **Having dense breasts** – Dense breasts have more connective tissue than fatty tissue, which can sometimes make it hard to see tumors on a mammogram. Women with dense breasts are more likely to get breast cancer.
- **Personal history of breast cancer or certain non-cancerous breast diseases** – Women who have had breast cancer are more likely to get breast cancer a second time. Some non-cancerous breast diseases (e.g., atypical hyperplasia, lobular carcinoma in situ) are associated with a higher risk of getting breast cancer.

Breast Cancer Risk Factors You Cannot Control

- **Family history of breast or ovarian cancer** – A woman’s risk for breast cancer is higher if she has a mother, sister, or daughter (first-degree relative) or multiple family members on either her mother’s or father’s side of the family who have had breast or ovarian cancer. Having a first-degree male relative with breast cancer also raises a woman’s risk.
- **Previous treatment using radiation therapy** – Women who had radiation therapy to the chest or before age 30 have a higher risk of getting breast cancer later in life.
- **Previous treatment using the drug diethylstilbestrol (DES)** – Between 1940 and 1971, some pregnant women in the United States were given DES to prevent miscarriage. Women who took DES, as well as women whose mothers took DES while pregnant, have a higher risk of developing breast cancer.

Breast Cancer Risk Factors You Can Change

- **Smoking and secondhand smoke** – Smoking is linked to a higher risk of breast cancer in younger, premenopausal women. Research also has shown a possible link between very heavy secondhand smoke exposure and breast cancer risk in postmenopausal women.
- **Not being physically active** – Women who are not physically active have a higher risk of getting breast cancer.
- **Being overweight or obese after menopause** – Older women who are overweight or obese have a higher risk of developing breast cancer than those at a normal weight.
- **Taking hormones** – Some forms of hormone replacement therapy taken during menopause can raise risk for breast cancer when taken for 5+ years. Certain oral contraceptives also have been found to increase breast cancer risk.
- **Reproductive history** – Having a first pregnancy after age 30, not breastfeeding, and never having a full-term pregnancy can raise breast cancer risk.
- **Drinking alcohol** – Studies show a woman's risk for breast cancer increases with the more alcohol she drinks.

Breast Cancer Screening

Although breast cancer screening cannot prevent breast cancer, it can help find breast cancer early, when it is easier to treat. Talk to your doctor about which screening tests are right for you, and when you should have them.

- **Mammogram** – A mammogram is an X-ray of the breast. For many women, mammograms are the best way to find breast cancer early. Having regular mammograms can lower the risk of dying from breast cancer.
- **Breast MRI** – A breast MRI uses magnets and radio waves to take pictures of the breast. Breast MRI is used along with mammograms to screen women who are at high risk for getting breast cancer.
- **Clinical breast exam** – A clinical breast exam is performed by a doctor or nurse who uses his or her hands to feel for lumps or other changes.
- **Breast self-exam** – Being familiar with how your breasts look and feel can help you notice symptoms such as lumps, pain, or changes in size that may be of concern. You should report any changes that you notice to your doctor or healthcare provider.

The United States Preventive Services Task Force recommends women who are 50 to 74 years old and at average risk for breast cancer get a mammogram every 2 years. Women who are 40 to 49 years old should talk to their healthcare provider about when to start and how often to get a mammogram.

Diagnosing Breast Cancer

Doctors often use additional tests to find or diagnose breast cancer, including:

- **Breast ultrasound** – A machine that uses sound waves to create pictures, called sonograms, of areas inside the breast.
- **Diagnostic mammogram** – If you have a problem in your breast, such as lumps, or if an area of the breast looks abnormal on a screening mammogram, doctors may have you get a diagnostic mammogram. This is a more detailed X-ray of the breast.
- **Breast MRI** – A kind of body scan that uses a magnet linked to a computer. The MRI scan will make detailed pictures of areas inside the breast.
- **Biopsy** – This is a test that removes tissue or fluid from the breast to be looked at under a microscope and do more testing.

If breast cancer is diagnosed, other tests are done to find out if cancer cells have spread within the breast or to other parts of the body. This process is called staging. Whether the cancer is only in the breast, is found in lymph nodes under your arm, or has spread outside the breast determines your stage of breast cancer. The type and stage of breast cancer tells doctors what kind of treatment you need.

Treating Breast Cancer

Breast cancer is treated in several ways depending on the type of breast cancer and how far it has spread. People with breast cancer often get more than one kind of treatment.

- Surgery – An operation where doctors cut out cancer tissue.
- Chemotherapy – Using special medicines to shrink or kill the cancer cells.
- Hormonal therapy – Blocks cancer cells from getting the hormones they need to grow.
- Biological therapy – Works with your body's immune system to help it fight cancer cells or to control side effects from other cancer treatments.
- Radiation therapy – Using high-energy rays (similar to X-rays) to kill the cancer cells.

Breast Cancer in Men

- Although rare, men can get breast cancer too.
- About 1 out of every 100 breast cancers diagnosed in the United States is found in a man.
- The most common symptoms of breast cancer in men are a lump or swelling in the breast, redness or flaky skin in the breast, irritation or dimpling of breast skin, nipple discharge, and/or pulling in of the nipple or pain in the nipple area.
- Several factors can increase a man's chance of getting breast cancer, but having risk factors does not mean you will get breast cancer.
- If several members of your family have had breast or ovarian cancer, or one of your family members has a known BRCA1 or BRCA2 mutation, share this information with your doctor. You may be referred for genetic counseling.
- All men can lower their risk by keeping a healthy weight and exercising regularly.

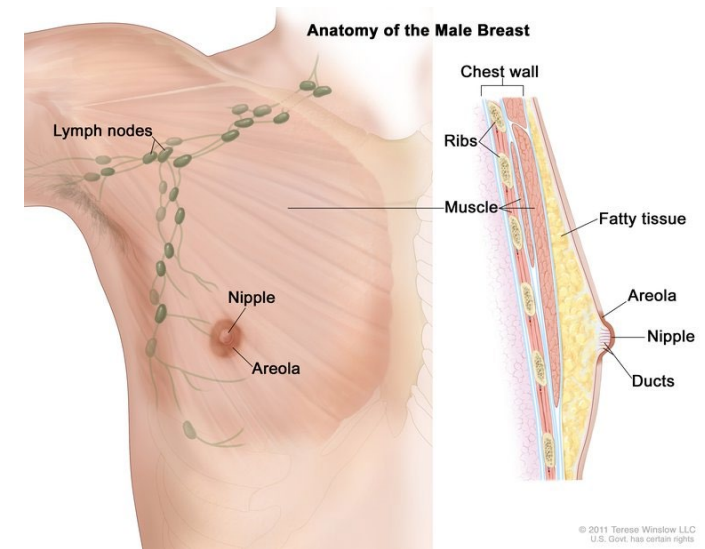


Image Source: [CDC](#)

Caterpillar Employee Assistance Program (EAP)

- If you or someone you care about has been impacted by breast cancer, the Caterpillar Employee Assistance Program (EAP) may be able to help.
- The EAP is a global, voluntary, and completely confidential service provided to employees and their eligible family members to help meet many challenges at home and work, including stress and grief related to health issues.
- Access information and global helplines can be found online at [CaterpillarEAP.com](https://www.CaterpillarEAP.com).



Sources

- Breastcancer.org ([breastcancer.org](https://www.breastcancer.org))
- Centers for Disease Control and Prevention ([cdc.gov](https://www.cdc.gov))
- World Health Organization ([who.int](https://www.who.int))

Total health



Emotional



Financial



Physical



Purpose



Social