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About Breast Cancer in Men

Overview and Types

If you have been diagnosed with breast cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- [What Is Breast Cancer in Men?](#)

Research and Statistics

See the latest estimates for new cases of breast cancer in men and deaths in the US and what research is currently being done.

- [Key Statistics for Breast Cancer in Men](#)
 - [What's New in Research for Breast Cancer in Men?](#)
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What Is Breast Cancer in Men?

Breast cancer occurs mainly in women, but men can get it, too. Many people do not realize that men have breast tissue and that they can develop breast cancer. Cells in nearly any part of the body can become cancer and can spread to other areas.

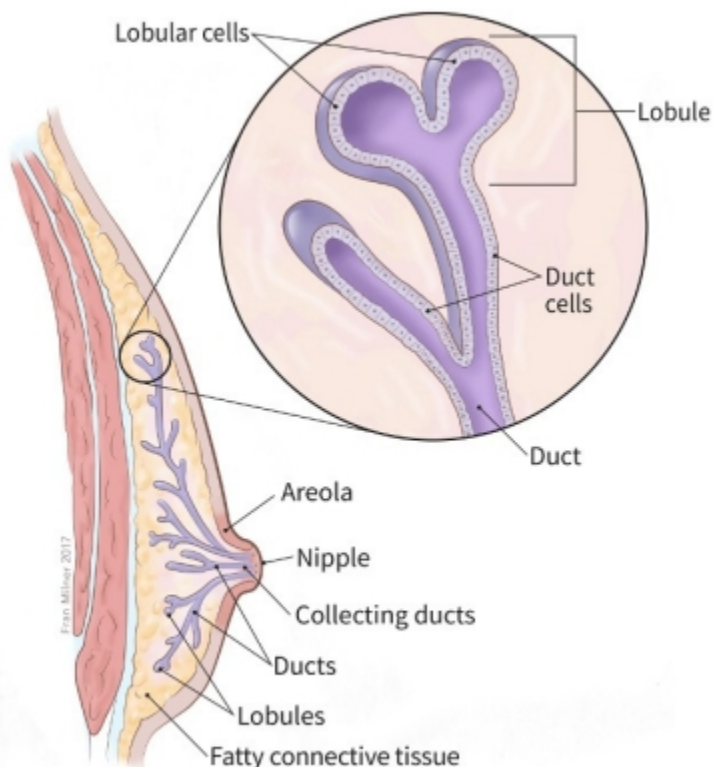
Breast cancer starts when cells in the breast begin to grow out of control. These cells usually form a tumor that can often be seen on an x-ray or felt as a lump. The tumor is malignant (cancer) if the cells can grow into (invade) surrounding tissues or spread

(metastasize) to distant areas of the body.

To learn more about how cancers start and spread, see [Cancer Basics](#)¹.

Male breast tissue

Until puberty (on average around age 9 or 10), young boys and girls have a small amount of breast tissue consisting of a few ducts located under the nipple and areola (area around the nipple). At puberty, a girl's ovaries make female hormones, causing breast ducts to grow and lobules to form at the ends of ducts. Even after puberty, boys and men normally have low levels of female hormones, and breast tissue doesn't grow much. Men's breast tissue has ducts, but only a few if any lobules.



Where breast cancer starts

Breast cancers can start from different parts of the breast. Most breast cancers begin in the ducts that carry milk to the nipple (ductal cancers). Some start in the glands that make breast milk (lobular cancers). Men have these ducts and glands, too, even though they aren't normally functional. There are also types of breast cancer that start in other

types of breast cells, but these are less common.

A small number of cancers start in other tissues in the breast. These cancers are called [sarcomas](#)² and [lymphomas](#)³ and are not really thought of as breast cancers.

Although many types of breast cancer can cause a lump in the breast, not all do. There are [other symptoms of breast cancer you should watch for](#)⁴ and report to a health care provider.

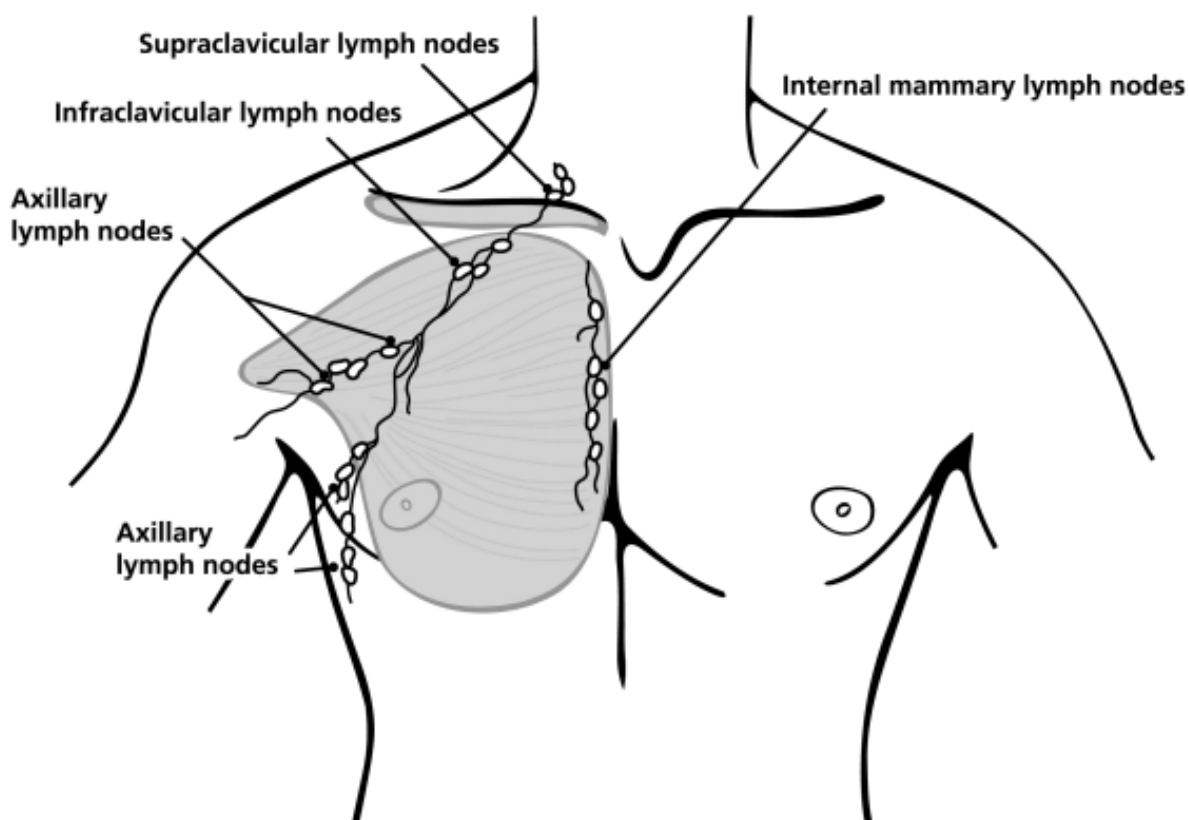
It's also important to understand that most breast lumps are benign and not cancer (malignant). Benign breast tumors are abnormal growths, but they do not spread outside of the breast and they are not life threatening. Any breast lump or change needs to be checked by a health care provider to determine whether it is benign or malignant (cancer) and whether it might impact your future cancer risk.

How breast cancer spreads

Breast cancer can spread when the cancer cells get into the blood or lymph system and are carried to other parts of the body.

The lymph system is a network of lymph (or lymphatic) vessels found throughout the body. The lymph vessels carry lymph fluid and connect lymph nodes. Lymph nodes are small, bean-shaped collections of immune system cells. Lymph vessels are like small veins, except that they carry a clear fluid called lymph (instead of blood) away from the breast. Lymph contains tissue fluid and waste products, as well as immune system cells. Breast cancer cells can enter lymph vessels and start to grow in lymph nodes. Most of the lymph vessels of the breast drain into:

- Lymph nodes under the arm (axillary nodes)
- Lymph nodes around the collar bone (supraclavicular [above the collar bone] and infraclavicular [below the collar bone] lymph nodes)
- Lymph nodes inside the chest near the breast bone (internal mammary lymph nodes)



If the cancer cells have spread to your lymph nodes, there is a higher chance that the cells could have also traveled through the lymph system and spread (metastasized) to other parts of your body. The more lymph nodes with breast cancer cells, the more likely it is that the cancer may be found in other organs. Because of this, finding cancer in one or more lymph nodes often affects your treatment plan. Usually, [surgery to remove one or more lymph nodes](#)⁵ will be needed to know whether the cancer has spread.

Still, not all men with cancer cells in their lymph nodes develop metastases to other areas, and some men can have no cancer cells in their lymph nodes and later develop metastases.

Benign breast conditions

Men can also have some benign (not cancerous) breast disorders.

Gynecomastia

Gynecomastia is the most common male breast disorder. It is not a tumor but rather an increase in the amount of a man's breast tissue. Usually, men have too little breast tissue to be felt or noticed. Gynecomastia can appear as a button-like or disk-like growth under the nipple and areola (the dark circle around the nipple), which can be felt and sometimes seen. Some men have more severe gynecomastia and they may appear to have small breasts. Although gynecomastia is much more common than breast cancer in men, both can be felt as a growth under the nipple, which is why it's important to have any such lumps checked by your doctor.

Gynecomastia is common among teenage boys because the balance of hormones in the body changes during adolescence. It is also common in older men due to changes in their hormone balance.

In rare cases, gynecomastia occurs because tumors or diseases of certain endocrine (hormone-producing) glands cause a man's body to make more estrogen (the main female hormone). Men's glands normally make some estrogen, but not enough to cause breast growth. Diseases of the liver, which is an important organ in male and female hormone metabolism, can change a man's hormone balance and lead to gynecomastia. Obesity (being extremely overweight) can also cause higher levels of estrogen in men.

Some medicines can cause gynecomastia. These include some drugs used to treat ulcers and heartburn, high blood pressure, heart failure, and psychiatric conditions. Men with gynecomastia should ask their doctors if any medicines they are taking might be causing this condition.

Klinefelter syndrome, a rare genetic condition, can lead to gynecomastia as well as increase a man's risk of developing breast cancer. This condition is discussed further in [Risk Factors for Breast Cancer in Men](#)⁶.

Benign breast tumors

There are many types of benign breast tumors (abnormal lumps or masses of tissue), such as papillomas and fibroadenomas. Benign tumors do not spread outside the breast and are not life threatening. Benign breast tumors are common in women but are very rare in men.

Types of Breast Cancer in Men

The most common types of breast cancer are ductal carcinoma in situ, invasive ductal carcinoma, and invasive lobular carcinoma.

Most breast cancers are **carcinomas**. In fact, breast cancers are often a type of carcinoma called **adenocarcinoma**, which starts in cells that make glands (glandular tissue). Breast adenocarcinomas start in the ducts (the milk ducts) or the lobules (milk-producing glands).

There are other, less common, types of breast cancers, too, such as **sarcomas**, phyllodes, Paget's disease and angiosarcomas which start in the cells of the muscle, fat, or connective tissue.

Sometimes a single breast tumor can be a combination of different types. And in some very rare types of breast cancer, the cancer cells may not form a lump or tumor at all.

When a biopsy is done to find out the specific type of breast cancer, the pathologist also will say if the cancer has spread in to the surrounding tissues. The name of the breast cancer type will change depending on the extent of the cancer.

- **In situ** breast cancers have not spread.
- **Invasive** or **infiltrating** cancers have spread (invaded) into the surrounding breast tissue.

These general kinds of breast cancer can be further described with the terms outlined above.

Ductal carcinoma in situ

Ductal carcinoma in situ (DCIS; also known as intraductal carcinoma) is considered non-invasive or pre-invasive breast cancer. In DCIS (also known as intraductal carcinoma), cells that lined the ducts have changed to look like cancer cells. The difference between DCIS and invasive cancer is that the cells have not spread (invaded) through the walls of the ducts into the surrounding tissue of the breast (or spread outside the breast). DCIS is considered a pre-cancer because some cases can go on to become invasive cancers. Right now, though, there is no good way to know for certain which cases will go on to become invasive cancers and which ones won't. DCIS accounts for about 1 in 10 cases of breast cancer in men. It is almost always curable with [surgery](#).⁷

Lobular carcinoma in situ

[Lobular carcinoma in situ \(LCIS\)](#)⁸ may also be called lobular neoplasia. In LCIS, cells that look like cancer cells are growing in the lobules of the milk-producing glands of the breast, but they haven't grown through the wall of the lobules. LCIS is not a true pre-

invasive cancer because it does not turn into an invasive cancer if left untreated, but it is linked to an increased risk of invasive cancer in both breasts. LCIS is rarely, if ever seen in men.

Infiltrating (or invasive) ductal carcinoma

This is the most common type of breast cancer. [Invasive \(or infiltrating\) ductal carcinoma](#)⁹ (IDC) starts in a milk duct of the breast, breaks through the wall of the duct, and grows into the fatty tissue of the breast. Once it breaks through the wall of the duct, it has the potential to spread to other parts of the body. Invasive (or infiltrating) ductal carcinoma (IDC) starts in a milk duct of the breast, breaks through the wall of the duct, and grows into the fatty tissue of the breast. At this point, it may be able to spread (metastasize) to other parts of the body through the lymphatic system and bloodstream. At least 8 out of 10 male breast cancers are IDCs (alone or mixed with other types of invasive or in situ breast cancer). Because the male breast is much smaller than the female breast, all male breast cancers start relatively close to the nipple, so they are more likely to spread to the nipple. This is different from Paget disease as described below.

Infiltrating (or invasive) lobular carcinoma

[Invasive lobular carcinoma](#)¹⁰ (ILC) starts in the milk-producing glands (lobules). Like IDC, it can spread to other parts of the breast and body. ILC is very rare in men, accounting for only about 2% of male breast cancers. This is because men do not usually have much lobular (glandular) breast tissue.

Paget disease of the nipple

[This type of breast cancer](#)¹¹ starts in the breast ducts and spreads to the nipple. It may also spread to the areola (the dark circle around the nipple). The skin of the nipple usually appears crusted, scaly, and red, with areas of itching, oozing, burning, or bleeding. There may also be an underlying lump in the breast.

Paget disease may be associated with DCIS or with infiltrating ductal carcinoma. It is rare and accounts for about 1-3% of female breast cancers and a higher percentage (5%) of male breast cancers.

Inflammatory breast cancer

Inflammatory breast cancer is an aggressive, but rare type of breast cancer. It makes the breast swollen, red, warm and tender rather than forming a lump. It can be mistaken

for an infection of the breast. This is very rare in men. See [Inflammatory Breast Cancer](#)¹² for more information.

Special types of invasive breast carcinoma

There are some special types of breast cancer that are sub-types of invasive carcinoma. They are much less common than the breast cancers named above.

Some of these may have a better or worse prognosis than standard infiltrating ductal carcinoma.

- Adenoid cystic (or adenocystic) carcinoma
- Low-grade adenosquamous carcinoma (this is a type of metaplastic carcinoma)
- Medullary carcinoma
- Mucinous (or colloid) carcinoma
- Papillary carcinoma
- Tubular carcinoma
- Metaplastic carcinoma (including spindle cell and squamous, except low grade adenosquamous carcinoma)
- Micropapillary carcinoma
- Mixed carcinoma (has features of both invasive ductal and lobular)

In general, these sub-types are still treated like standard infiltrating carcinoma.

Hyperlinks

1. www.cancer.org/cancer/cancer-basics.html
2. <https://www.cancer.org/cancer/soft-tissue-sarcoma.html>
3. <https://www.cancer.org/cancer/lymphoma.html>
4. www.cancer.org/cancer/breast-cancer-in-men/detection-diagnosis-staging/signs-symptoms.html
5. www.cancer.org/cancer/breast-cancer-in-men/treating/surgery.html
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Key Statistics for Breast Cancer in Men

The American Cancer Society estimates for breast cancer in men in the United States for 2019 are:

- About 2,670 new cases of invasive breast cancer will be diagnosed

- About 500 men will die from breast cancer

Breast cancer is about 100 times less common among white men than among white women. It is about 70 times less common among black men than black women. Like black women, black men with breast cancer tend to have a worse prognosis (outlook). For men, the lifetime risk of getting breast cancer is about 1 in 833.

Visit the [American Cancer Society's Cancer Statistics Center](#)¹ for more key statistics.

Hyperlinks

1. <https://cancerstatisticscenter.cancer.org/>

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What's New in Research for Breast Cancer in Men?

Breast cancer in men is rare and is often treated like breast cancer in women, but research is showing that there are some differences. More research is needed.

Research into the causes, prevention, and treatment of breast cancer is under way in many medical centers throughout the world. However, most breast cancer clinical trials and research are done in women. See [What's New In Breast Cancer Research? \(in women\)](#)¹ for more information on advances in breast cancer treatment.

Causes of breast cancer and breast cancer prevention

Studies continue to uncover lifestyle factors and habits that alter breast cancer risk. Ongoing studies are looking at the effect of exercise, weight gain or loss, and diet on breast cancer risk. Research is also looking to see if being overweight or obese as a teenager increases breast cancer risk in men as it does for breast cancer in women.

Research has identified several genetic variations associated with breast cancer risk. It shows that these genetic variations affect breast cancer risk in different ways for men and women. This suggests differences in the biology of breast cancer in men and women. More research is being done on this. Scientists are also exploring how common gene variations may affect breast cancer risk. Each gene variant has only a modest effect on risk (10% to 20%), but when taken together they may possibly have a large impact.

New laboratory tests

Circulating tumor cells/tumor DNA

Researchers have found that in many breast cancers, cells may break away from the tumor and enter the blood. These circulating tumor cells (CTCs) and the DNA from these cancer cells (circulating tumor DNA [ctDNA]) can be detected with sensitive lab tests. It is thought that these “liquid biopsies” may help monitor patients while they are getting treatment. This might also be an easy way to collect tumor cells to test for new drugs or sensitivities to currently available drugs before actually giving them. Although these tests are available for general use, and the research is promising, more studies are needed.

Treatment

Radiation therapy

Men with breast cancer tend to be diagnosed with larger tumors and often have mastectomies. But it's not clear whether these men should have radiation therapy after surgery, as well. Most doctors follow the same guidelines set for women with breast cancer who have mastectomies, but it is not clear if these recommendations should be the same for men. More studies are needed to define the role of radiation after mastectomy in men with breast cancer.

Immunotherapy

Recent studies in a few types of cancer have shown a promising new way to get immune cells called **T cells (a type of white blood cell)** to fight cancer by changing them in the lab so they can find and destroy cancer cells. Research for this type of treatment in breast cancer is being investigated.

Hyperlinks

1. www.cancer.org/cancer/breast-cancer/about/whats-new-in-breast-cancer-research.html

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