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About Breast Cancer in Men

Get an overview of breast cancer in men and the latest key statistics in the US.

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?

What Is Breast Cancer in Men?

- Male breast tissue
- Where breast cancer starts
- How breast cancer spreads
- Benign breast conditions

Types of Breast Cancer in Men

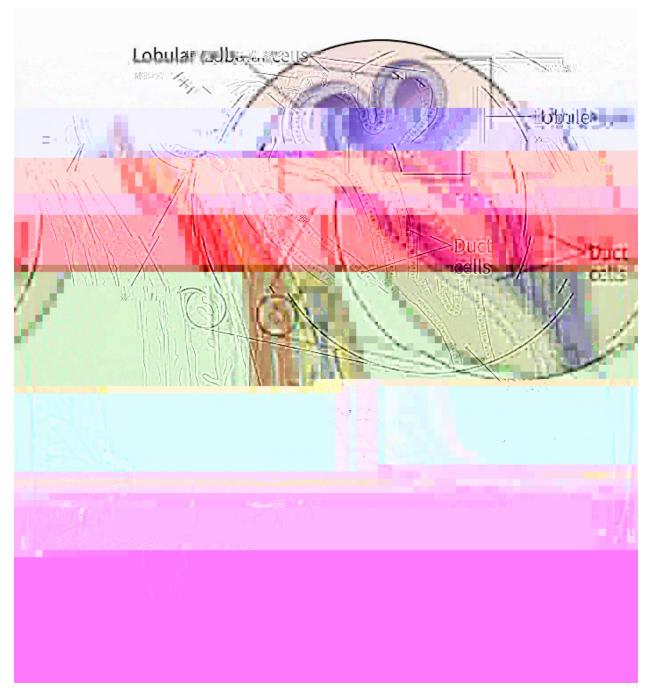
Breast cancer occurs mainly in women, but men can get it, too. Many people do not realize that men have breast tissue and that they can develop breast cancer. Cells in nearly any part of the body can become cancer and can spread to other areas.

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 What Is Cancer?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 sarcomas² and lymphomas³ 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 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)

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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, <u>surgery to remove one or more lymph nodes</u>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

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 carcinoma⁹ (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

<u>Invasive lobular carcinoma</u>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

<u>This type of breast cancer</u>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 <u>Inflammatory Breast</u> Cancer¹²for 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)arcinoma

- conditions/lobular-carcinoma-in-situ.html
- 9. <u>www.cancer.org/cancer/types/breast-cancer/about/types-of-breast-cancer/invasive-breast-cancer.html</u>
- 10. <u>www.cancer.org/cancer/types/breast-cancer/about/types-of-breast-cancer/invasive-breast-cancer.html</u>
- 11. <u>www.cancer.org/cancer/types/breast-cancer/about/types-of-breast-cancer/paget-disease-of-the-nipple.html</u>
- 12. <u>www.cancer.org/cancer/types/breast-cancer/about/types-of-breast-cancer/inflammatory-breast-cancer.html</u>

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Last Revised: April 27, 2018

Key Statistics for Breast Cancer in Men

How common is breast cancer in men?

How common is breast cancer in men?

The American Cancer Society estimates for breast cancer in men in the United States for 2024 are:

- About 2,790 new cases of invasive breast cancer will be diagnosed
- About 530 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. As in Black women, Black men with breast cancer tend to have a worse prognosis (outlook).

For men, the average lifetime risk of getting breast cancer is about 1 in 726. But each man's risk might be higher or lower than this, based on whether he has <u>risk factors for</u> breast cancer¹.

Visit the <u>American Cancer Society's Cancer Statistics Center</u>² for more key statistics.

Hyperlinks

- 1. <u>www.cancer.org/cancer/types/breast-cancer-in-men/causes-risks-prevention/risk-factors.html</u>
- 2. <u>cancerstatisticscenter.cancer.org/</u>

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Last Revised: January 19, 2024

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

- Causes of breast cancer and breast cancer prevention
- New laboratory tests
- Treatment

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

Hyperlinks

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

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Last Revised: April 27, 2018

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