

What is breast cancer in men?

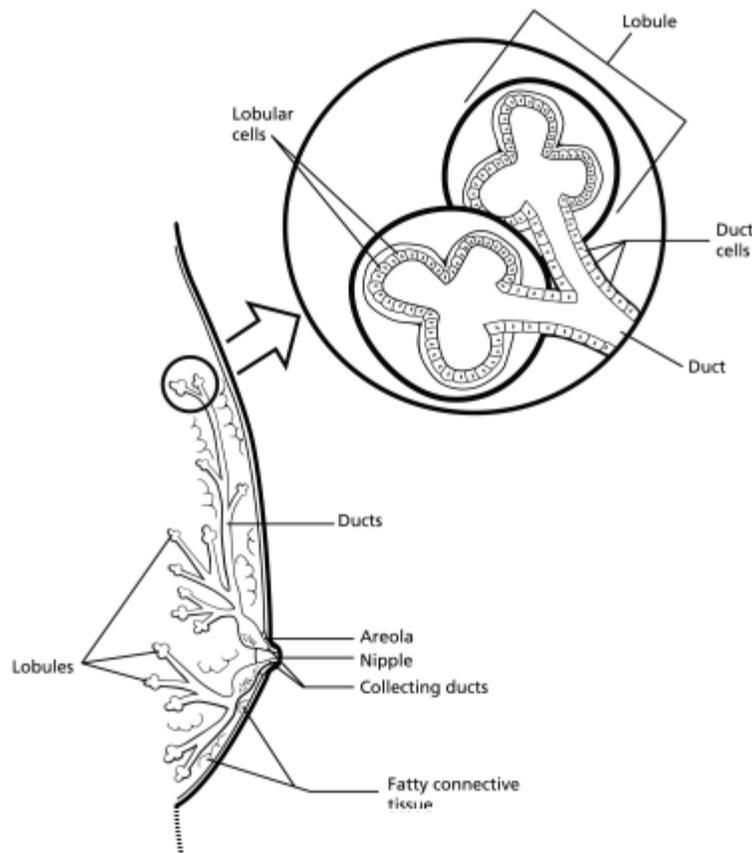
A breast cancer is a malignant tumor that starts from cells of the breast. A *malignant tumor* is a group of cancer cells that may grow into (invade) surrounding tissues or spread (metastasize) to distant areas of the body. Cells in nearly any part of the body can become cancer, and can spread to other areas of the body. To learn more about how cancers start and spread, see [What Is Cancer?](#)

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.

Normal breast structure

To understand breast cancer, it helps to have some basic knowledge about the normal structure of the breasts.

The breast is made up mainly of lobules (glands that can produce milk if the right hormones are present), ducts (tiny tubes that carry the milk from the lobules to the nipple), and stroma (fatty tissue and connective tissue surrounding the ducts and lobules, blood vessels, and lymphatic vessels).



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, lobules to form at the ends of ducts, and the amount of stroma to increase. Even after puberty, men and boys 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.

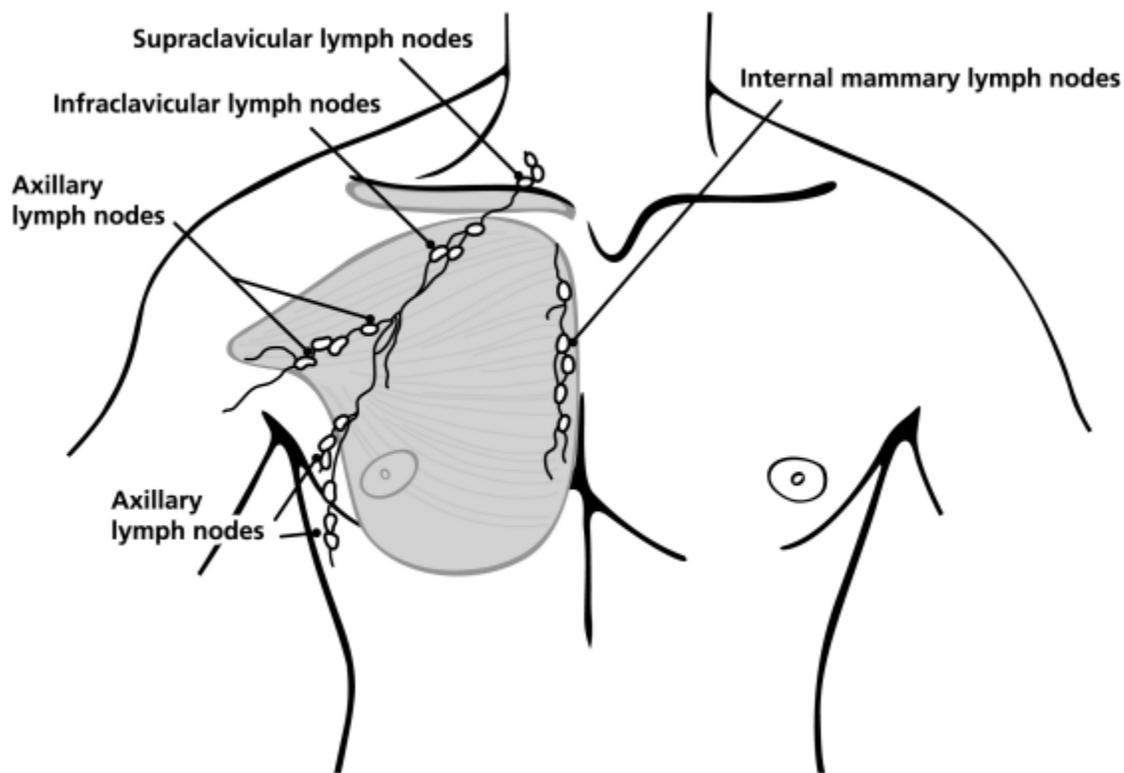
Like all cells of the body, a man's breast duct cells can undergo cancerous changes. But breast cancer is less common in men because their breast duct cells are less developed than those of women and because they normally have lower levels of female hormones that affect the growth of breast cells.

The lymph (lymphatic) system of the breast

The lymph system is important to understand because it is one of the ways that breast cancers can spread. This system has several parts.

Lymph nodes are small, bean-shaped collections of immune system cells (cells that are important in fighting infections) that are connected by lymphatic vessels. Lymphatic 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 lymphatic vessels and begin to grow in lymph nodes.

Most lymphatic vessels in the breast connect to lymph nodes under the arm (axillary nodes). Some lymphatic vessels connect to lymph nodes under the breast bone (internal mammary nodes) and either above or below the collarbone (supraclavicular or infraclavicular nodes).



If the cancer cells have spread to these lymph nodes, there is a higher chance that the cells could have also gotten into the bloodstream and spread (metastasized) to other sites in the body. The more lymph nodes with breast cancer cells, the more likely it is that the cancer may be found in other organs as well. Because of this, finding cancer in one or more lymph nodes often affects the treatment plan. 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 estrogens 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 the section "[What are the risk factors for breast cancer in men?](#)"

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.

General breast cancer terms

Here are some of the key words used to describe breast cancer.

Carcinoma

This term describes a cancer that begins in the lining layer (epithelial cells) of organs such as the breast. Nearly all breast cancers are carcinomas (either ductal carcinomas or lobular carcinomas).

Adenocarcinoma

An adenocarcinoma is a type of carcinoma that starts in glandular tissue (tissue that makes and secretes a substance). The ducts and lobules of the breast are glandular tissue (they make breast milk in women), so cancers starting in these areas are sometimes called adenocarcinomas.

Carcinoma in situ

This is an early stage of cancer, when it is confined to the layer of cells where it began. In breast cancer, *in situ* means that the abnormal cells remain confined to ducts (ductal carcinoma in situ, or DCIS). These cells have not grown into (invaded) deeper tissues in the breast or spread to other organs in the body.

Ductal carcinoma in situ of the breast is sometimes referred to as *non-invasive* or *pre-invasive* breast cancer because it might develop into an invasive breast cancer if left untreated.

When cancer cells are confined to the lobules it is called *lobular carcinoma in situ* (LCIS). This is not actually a true pre-invasive cancer because it does not turn into an invasive cancer if left untreated. It is linked to an increased risk of invasive cancer in both breasts. LCIS is rarely, if ever seen in men.

Invasive (or infiltrating) carcinoma

An invasive cancer is one that has already grown beyond the layer of cells where it started (as opposed to carcinoma in situ). Most breast cancers are invasive carcinomas, either invasive ductal carcinoma or invasive lobular carcinoma.

Sarcoma

Sarcomas are cancers that start in connective tissues such as muscle tissue, fat tissue, or blood vessels. Sarcomas of the breast are rare.

Types of breast cancer in men

Breast cancer can be separated into several types based on the way the cancer cells look under the microscope. In some cases a single breast tumor can be a combination of these types or be a mixture of invasive and in situ cancer. And in some rarer types of breast cancer, the cancer cells may not form a tumor at all.

Breast cancer can also be classified based on proteins on or in the cancer cells, into groups like hormone receptor-positive and triple-negative. These are discussed in the section "[How is breast cancer in men classified?](#)"

Ductal carcinoma in situ (DCIS)

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](#).

Infiltrating (or invasive) ductal carcinoma (IDC)

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 (ILC)

This type of breast cancer starts in the breast lobules (collections of cells that, in women, produce breast milk) and grows into the fatty tissue of the breast. 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 tissue.

Paget disease of the nipple

This type of breast cancer 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 accounts for about 1% of female breast cancers and a higher percentage 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. This cancer is discussed in detail in our document [Inflammatory Breast Cancer](#).