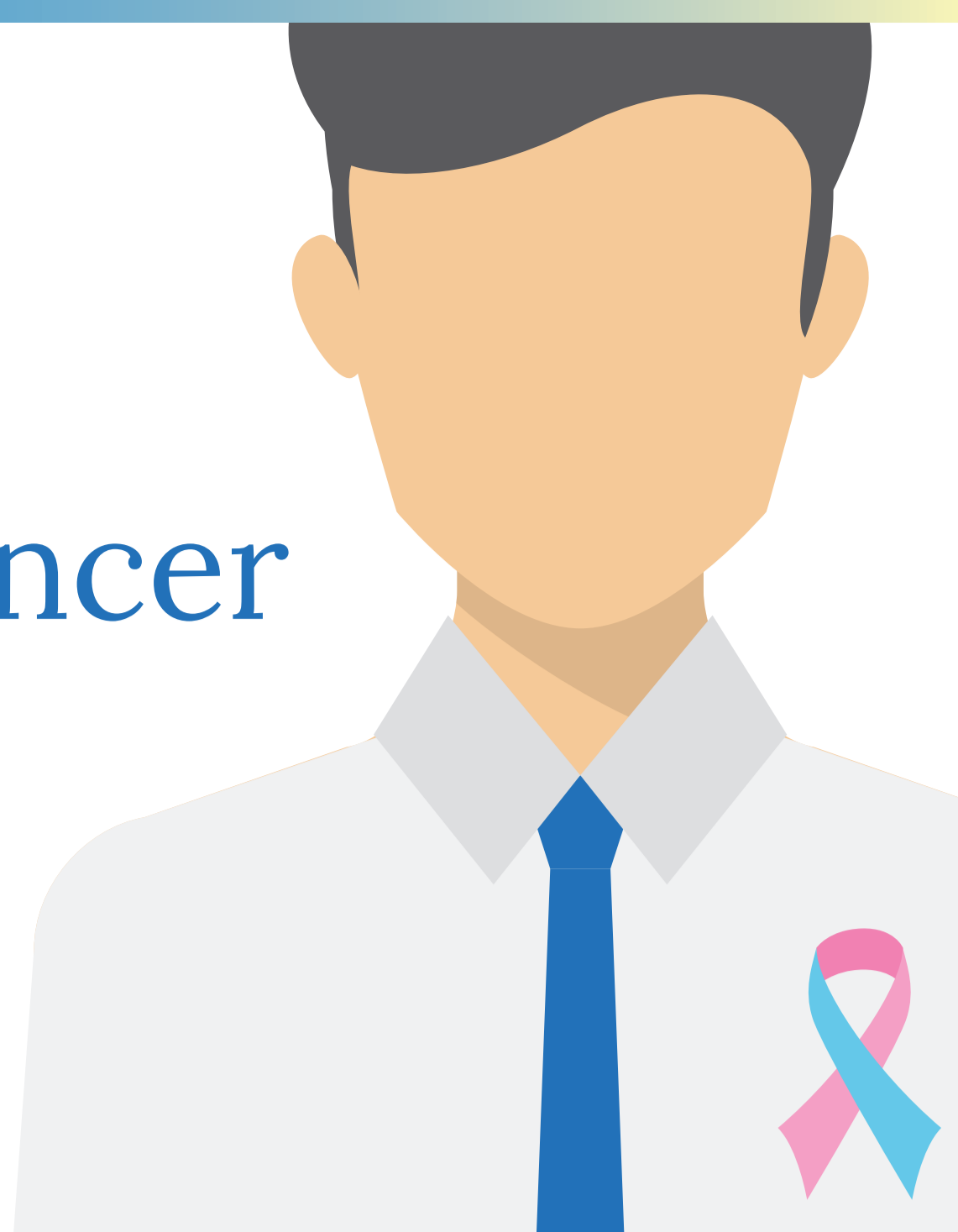


Male Breast Cancer

KNOW THE FACTS

Many men may be surprised to learn that they can get breast cancer. Although breast cancer in men is uncommon, it is important to know the risks factors, as well as the signs and symptoms, of the disease. Advances in breast cancer treatment mean many men today can expect to beat the disease when detected early.



1 in 1,000 men will develop invasive breast cancer during his lifetime.



About **2,800** new cases of invasive breast cancer in men will be diagnosed this year

Risk Factors



AGE

The risk of breast cancer goes up as a man ages. Breast cancer is most common among men ages

60 to 70.



RADIATION EXPOSURE

A man whose **chest area has been treated with radiation** (for example, the treatment of a cancer in the chest, such as lymphoma) has an increased risk of developing breast cancer.



FAMILY HISTORY/GENETICS

Men having several female relatives who have had breast cancer, especially those with a mutation of the BRCA2 gene, are more likely to develop breast cancer.

About **1 in 5 men** with breast cancer has a close relative, male or female, with the disease.



OBESITY

Men who are obese may be at **greater risk for male breast cancer**. Fat cells convert the male hormone androgen into the female hormone estrogen, which may lead to an increased amount of estrogen in the body, possibly triggering breast cancer.



HIGH ESTROGEN LEVELS

Having a disease connected to increased amounts of estrogen in the body, such as **cirrhosis (liver disease) or Klinefelter syndrome (a genetic disorder)** may increase the risk of developing breast cancer.

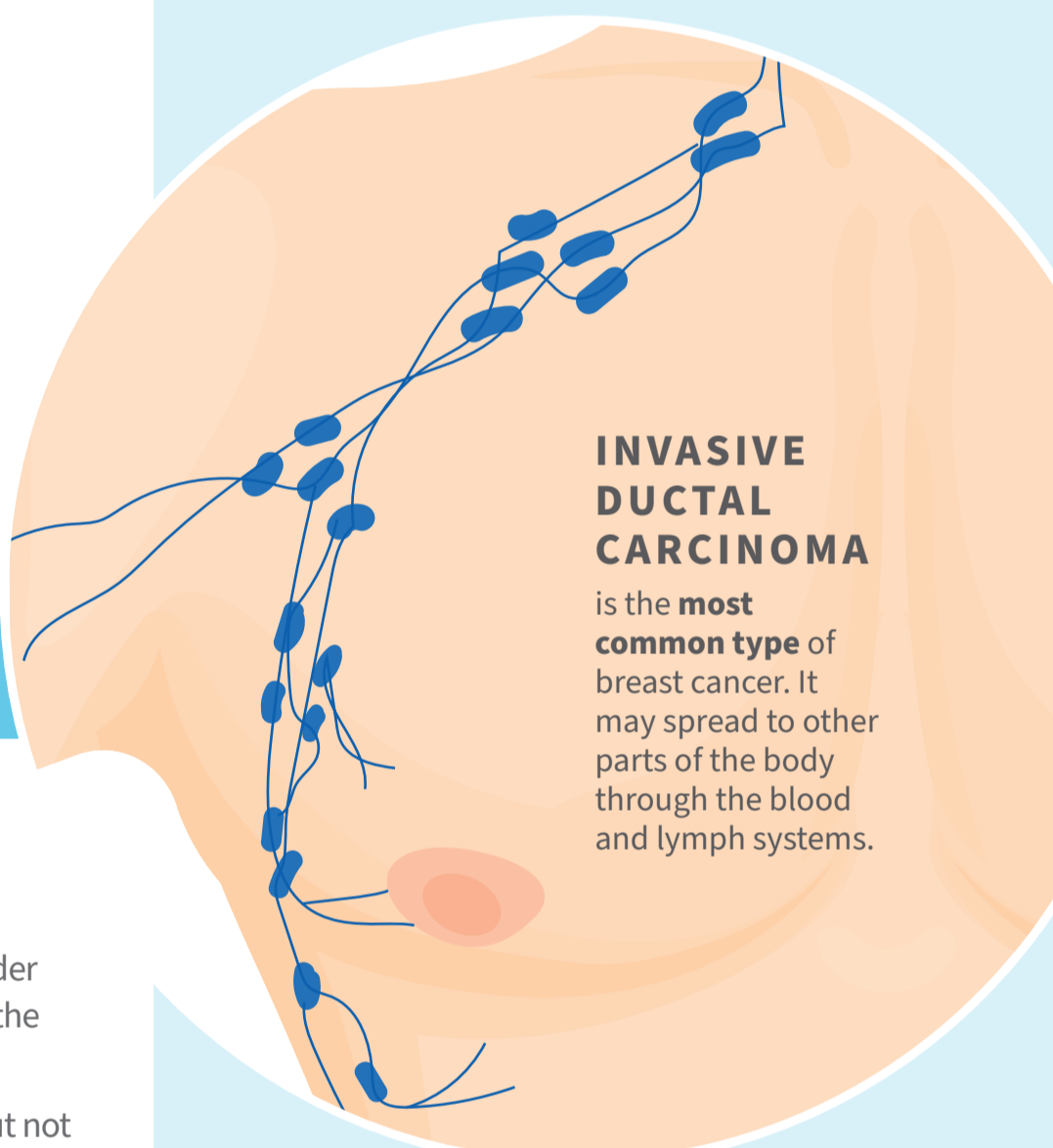


HEAVY DRINKING

Alcohol use is linked to an increased risk of developing male breast cancer. The **risk increases with the amount of alcohol** consumed.

Treatment Options

Invasive ductal carcinoma is the most common type of breast cancer. Invasive, or infiltrating, ductal carcinoma begins in the ducts and spreads in the fatty tissue of the breast. Most men with breast cancer have this type of cancer.



SURGERY

The type of surgery you have depends on your individual case. Surgical options include:

- Surgery for men with breast cancer is usually a **modified radical mastectomy** (removal of the breast, many of the lymph nodes under the arm, the lining over the chest muscles, and sometimes part of the chest wall muscles).
- **Breast-conserving surgery**, an operation to remove the cancer but not the breast itself, is also used for some men with breast cancer. A **lumpectomy** is done to remove the tumor (lump) and a small amount of normal tissue around it. Radiation therapy is given after surgery to kill any cancer cells that are left.



CHEMOTHERAPY

Chemotherapy is typically used to treat patients with locally advanced or metastatic breast cancer. It can be used either before or after surgery.

- **Before surgery (neo-adjuvant):** To reduce the size of large tumors and destroy cancer cells
- **After surgery (adjuvant):** To destroy remaining cancer cells and prevent the disease from spreading



RADIATION THERAPY

Radiation therapy uses targeted energy (e.g., X-rays, radioactive substances) to destroy cancer cells, shrink tumors and/or alleviate certain cancer-related symptoms. It may be used:

- As a primary treatment to destroy cancer cells
- In combination with another treatment to stop the growth of cancer cells
- Before another treatment to shrink a tumor
- After another treatment to stop the growth of any remaining cancer cells
- To relieve symptoms of advanced cancer



TARGETED THERAPY

Targeted therapies are drugs or other substances designed to block the growth and spread of cancer by **preventing cancer cells from dividing or by destroying them directly**. While standard chemotherapy affects all cells in the body, targeted therapy directs drugs or other specially created substances to attack cancer cells without harming normal cells.



HORMONE THERAPY

Hormone therapy is designed to add, block or remove hormones from the body to slow or stop the growth of cancer cells. Hormone therapies include:

- **Selective estrogen receptor modulators (SERMs):** These are drugs that are designed to block estrogen from reaching cancer cells. Tamoxifen is a commonly used hormone therapy to prevent breast cancer recurrence.
- **Aromatase inhibitors:** These are drugs that are designed to block estrogen production to starve cancer cells of estrogen that fuels cell growth.

Understanding the Disease

Male breast cancer occurs when malignant (cancer) cells form in the tissues of the breast. Men have breast tissue that develops in the same way as breast tissue in women, and is susceptible to cancer cells in the same way. In girls, hormonal changes at puberty cause female breasts to grow. In boys, hormones made by the testicles prevent the breasts from growing. Breast cancer in men is less common than in women because male breasts have ducts that are less developed and are not exposed to growth-promoting female hormones. Just like in women, however, breast cancer in men can begin in the ducts and spread into surrounding cells.

COMMON SIGNS AND SYMPTOMS

- Lumps in the breast, usually painless
- Thickening of the breast
- Changes to the nipple or breast skin, such as dimpling, puckering or redness
- Discharge of fluid from the nipples



PREVENTION

Although certain risk factors may increase a man's chances of developing breast cancer, the cause of most breast cancers in men is still unknown. By maintaining an ideal body weight and restricting alcohol consumption, men may be able to lower their risk of developing breast cancer.

In general, men are diagnosed with breast cancers at more advanced stages than women. Early detection and prompt treatment is key to improving the chance of recovery.