CONDITION

Breast cancer in men

Learn about breast cancer in men, including possible symptoms, risk factors, diagnosis, treatment, genetic testing, and follow-up care.

WHAT IT IS
Cancer arising in male breast tissue

BODY SYSTEM
Breasts

MAIN SYMPTOMS
Firm breast lump, nipple changes, nipple discharge, skin dimpling

WHAT CAUSES IT
Usually unknown, sometimes inherited DNA changes

HOW IT IS DIAGNOSED
Core needle biopsy

MAIN TREATMENT
Surgery, radiation, hormone therapy, chemotherapy

CAN IT BE CURED?
Sometimes, early-stage disease can be eliminated

IS IT AN EMERGENCY?
Sometimes, with severe difficulty breathing

LONG-TERM OUTLOOK
Early disease often eliminated, spread often controlled

Overview

Breast cancer in men begins when cells in breast tissue grow out of control. Men have less breast tissue than women, but they still have ducts and other cells that can become cancerous. Most breast cancers in men begin in the ducts.

The condition is uncommon, so breast changes may be ignored or mistaken for something else. This can delay diagnosis. A new breast lump, nipple change, or discharge should be assessed promptly.

Many breast cancers in men have hormone receptors, which allow hormones such as estrogen to encourage cancer growth. Testing for these receptors and other tumor features helps guide treatment.

Breast cancer may remain in the breast, spread to nearby lymph nodes, or reach distant organs. Treatment depends on its stage and biological features, as well as the person's health and preferences. Early-stage disease can often be treated with the goal of eliminating it. Cancer that has spread can often be controlled with medicines.

Breast cancer can also occur in transgender and nonbinary people. Screening and treatment decisions depend on factors such as the breast tissue present, previous surgery, hormone use, inherited risk, and individual health history.

Symptoms

The most common sign is a firm lump, often near or behind the nipple. It may be painless, but pain does not rule cancer in or out.

Other possible symptoms include:

These changes are not always cancer. Gynecomastia, a noncancerous enlargement of male breast tissue, is a more common cause of swelling. Infections, cysts, medicines, and injuries can also cause symptoms. Examination, imaging, and sometimes a biopsy are needed to identify the cause.

Arrange a medical appointment promptly for a new lump or nipple or skin change. Do not wait for it to become painful.

Seek emergency care for severe difficulty breathing, sudden chest pain, fainting, or new weakness on one side of the body. These symptoms are not specific to breast cancer but may indicate a serious medical problem.

- A nipple that turns inward or changes position
- Clear or bloody nipple discharge
- Scaling, crusting, redness, or an open sore on the nipple
- Dimpling, thickening, or swelling of breast skin
- A change in breast shape or size
- A lump or swelling in the armpit
- Persistent breast or nipple pain

Causes and risk factors

Breast cancer develops through DNA changes that disrupt normal cell growth and repair.

Usually, no single cause can be identified. A risk factor does not mean cancer will develop, and some men with breast cancer have no known risk factors.

Risk rises with age. Family history may also matter, particularly when close relatives have had breast, ovarian, pancreatic, or prostate cancer or developed cancer at a young age.

Inherited harmful changes in BRCA2 have the strongest known genetic association with breast cancer in men. Changes in BRCA1 and other genes may also increase risk.

Other risk factors include:

Most people with these factors will not develop breast cancer.

Professional guidance recommends offering genetic counseling and inherited genetic testing to men diagnosed with breast cancer. Results may affect treatment and inform relatives about their risk. When possible, family testing is usually most informative when it begins with someone who has had cancer.

- Previous radiation treatment to the chest
- Klinefelter syndrome
- Conditions affecting the testicles or male hormone levels
- Liver disease, which can alter sex hormone balance
- Obesity
- Estrogen exposure, depending on its purpose, dose, and duration
- Previous breast cancer or certain high-risk breast tissue changes

Diagnosis

Diagnosis starts with a medical history and examination of both breasts, the nipples, and nearby lymph node areas.

A diagnostic mammogram uses low-dose X-rays to look for abnormalities. Ultrasound can show whether an area is solid or fluid-filled and assess lymph nodes. MRI may be used in selected situations but is not required for everyone.

Imaging cannot confirm cancer by itself. Confirmation requires a biopsy , in which tissue is removed and examined under a microscope. A core needle biopsy commonly provides enough tissue for several tests.

If cancer is found, the pathology report may describe:

Additional tests may determine the stage, which reflects tumor size, lymph node involvement,

and spread to distant areas. Extensive body scans are not necessary for everyone with early-stage cancer.

The care team may include a breast surgeon, medical oncologist, radiation oncologist, radiologist, pathologist, genetic counselor, and primary care clinician. Ask for a copy of the pathology report to help follow treatment discussions.

- Cancer type and grade
- Estrogen and progesterone receptor status
- HER2 status
- Whether cancer is present in nearby lymph or blood vessels

Treatment and management

Treatment depends on the cancer's stage and biology, other health conditions, likely side effects, and personal priorities. Age alone does not determine treatment.

Surgery

Surgery is a main treatment when cancer has not spread to distant organs. Because men have less breast tissue and tumors are often close to the nipple, a mastectomy is common.

Breast-conserving surgery, or lumpectomy, may be possible if the tumor can be removed with a rim of healthy tissue. Radiation usually follows breast-conserving surgery.

A sentinel lymph node biopsy checks the first lymph nodes that drain the breast. If they do not contain cancer, more extensive lymph node surgery may be avoided. Additional surgery or radiation may be considered when nodes are involved.

Options after mastectomy may include reconstruction, nipple tattooing, a prosthesis, or no reconstruction.

Radiation therapy

Radiation uses focused high-energy beams to destroy cancer cells. It is commonly given after breast-conserving surgery and may be advised after mastectomy when tumor size, surgical margins, or lymph node involvement increases the risk of local recurrence.

Short-term effects may include fatigue and skin irritation. Later effects can include tissue firmness and, less commonly, swelling or injury to nearby organs. Modern planning limits exposure to healthy tissue.

Hormone therapy

Most breast cancers in men are hormone receptor-positive. Hormone therapy blocks

hormones from helping the cancer grow or reduces hormone production.

Tamoxifen is commonly used. Possible effects include hot flashes, sexual concerns, mood changes, and an increased risk of blood clots.

Aromatase inhibitors lower estrogen production and may need to be combined with medicine that reduces hormone production by the testicles. Discuss the choice and treatment length with the oncology team. Do not stop or change treatment without medical advice.

Chemotherapy and targeted medicines

Chemotherapy may be given before surgery to shrink a tumor, after surgery to lower recurrence risk, or to treat cancer that has spread. Its expected benefit depends on the stage, tumor features, and overall health.

HER2-targeted medicines may treat HER2-positive cancer. Other targeted medicines may be options for cancers with particular inherited or tumor changes. Immunotherapy may be appropriate for some advanced cancers with specific test results.

Clinical trials can provide access to newer approaches. Ask whether any suitable trials include men.

Supportive care can address pain, nausea, fatigue, sleep problems, sexual health, emotional distress, and practical concerns. Anyone who may want biological children should discuss fertility preservation before treatment begins.

Complications

Breast cancer can return in the breast or chest wall, nearby lymph nodes, or distant organs. Recurrence risk varies according to the original cancer's stage and biology.

Treatment complications may include lymphedema, reduced shoulder movement, numbness after surgery, radiation-related skin changes, and medicine side effects. Lymphedema can cause arm or chest swelling months or years after lymph node treatment.

Anxiety, low mood, body-image concerns, and isolation can also occur. The care team can help locate counseling, peer support, or male-specific cancer resources.

During chemotherapy, fever or signs of infection may require urgent assessment because treatment can reduce infection-fighting white blood cells. Follow the oncology team's instructions about when and where to call. Seek urgent care for sudden shortness of breath, chest pain, coughing blood, or painful swelling in one leg, which may indicate a blood clot.

Follow up

Follow-up visits review symptoms, examine the breast or chest wall and lymph node areas, and manage ongoing side effects. Visits are usually more frequent at first. The schedule depends on treatment and individual risk.

After breast-conserving surgery, follow-up generally includes mammography of the treated breast. Imaging of the opposite breast may be considered when an inherited harmful gene change is present. MRI is not routinely used for every man.

Routine CT scans, bone scans, and blood tumor-marker tests are generally not recommended to search for recurrence after early-stage treatment when there are no symptoms. Testing may be ordered for concerning symptoms or examination findings.

Keep an updated treatment summary listing the cancer stage, pathology results, operations, radiation, medicines, and genetic test results. Continue primary care for vaccinations, bone health, cardiovascular risk, diabetes, and other needs.

Contact the care team between visits for a new breast or chest-wall lump, persistent bone pain, unexplained weight loss, ongoing cough, worsening shortness of breath, new neurological symptoms, or arm swelling. These symptoms often have noncancerous causes but should be assessed.

Sources

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