

Male Breast Cancer

What is male breast cancer?

Male breast cancer is a disease in which cancer cells form in the tissues of the breast. Breast cancer can strike men at any age, but is most common between 60 and 70 years of age. Male breast cancer makes up less than 1% of all breast cancer cases. About 1,500 new cases are diagnosed in the United States every year.

What are the types of male breast cancer?

The different types of male breast cancer include:

Infiltrating ductal carcinoma: Cancer that has spread beyond the breast ducts. Most men with breast cancer have this type of cancer.

Ductal carcinoma in situ: Abnormal cells that are found in the lining of a duct, also called intraductal carcinoma.

Inflammatory breast cancer: A type of cancer in which the breast looks red and swollen and feels warm.

Paget's disease of the nipple: A tumor that has grown from the breast ducts beneath the nipple, onto the surface of the nipple.

Are there male risk factors for developing breast cancer?

Anything that increases your chance of getting a disease is called a risk factor. Male risk factors for developing breast cancer may include the following:

- Age – the mean age at which men develop the disease is 65 to 70
- Exposure of the breast to radiation
- Having a condition that reduces testicular function such as:
 - Inflammation of or injury to the testes
 - Undescended testes
 - Gynecomastia (abnormal enlargement of the breast in men)
- Having a disease related to high levels of estrogen in the body, such as cirrhosis (liver disease) or Klinefelter's syndrome (a genetic disorder)
- Having several female relatives who have had breast cancer, especially relatives who have an alteration in the BRCA2 gene

How is breast cancer diagnosed in men?

Typically, men with breast cancer have lumps that can be felt. A biopsy can also be done to detect cancer. A biopsy is the removal of tissue or fluid. There are several types of biopsies.

Needle biopsy: A thin needle is used to remove a part of a lump, suspicious tissue, or fluid. This procedure is also called a fine-needle aspiration biopsy.

Core biopsy: A wide needle is used to remove part of a lump or suspicious tissue.

Excisional biopsy: An entire lump or suspicious tissue is removed.

After the tissue or fluid is removed, it is sent to a pathologist who views it under a microscope to check for cancer cells.

Is survival for men with breast cancer similar to the survival for women with breast cancer?

Yes. Survival is similar when the stage (extent of the cancer in the body) at diagnosis is the same. Breast cancer in men, however, is often diagnosed at a later stage. Cancer found at a later stage may be less likely to be cured.

Also, certain factors affect chance of recovery and treatment options. These factors include: the stage of the cancer, the type of breast cancer, certain characteristics of the cancer's cells, whether the cancer is found in the other breast, and the patient's age and general health.

What are the stages of male breast cancer?

After breast cancer has been diagnosed, tests are done to find out if cancer has spread within the breast or to other parts of the body. The process used to find out whether the cancer has spread within the breast or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is important to know the stage in order to plan treatment. The following stages are used for breast cancer:

Stage 0 (carcinoma in situ)

In stage 0, abnormal cells are found in breast, but have not spread to surrounding tissue. This is called carcinoma in situ. There are 2 types of breast carcinoma in situ:

- Ductal carcinoma in situ (DCIS) is a noninvasive, precancerous condition in which abnormal cells are found in the lining of a breast duct. The abnormal cells have not spread outside the duct to other tissues in the breast. In some cases, DCIS may become invasive cancer and spread to other tissues, although it is not known at this time how to predict which lesions will become invasive.
- Lobular carcinoma in situ (LCIS) is a condition in which abnormal cells are found in the lobules of the breast. This condition seldom becomes invasive cancer and is very rare in male patients.

Stage I

In stage I, the tumor is 2 centimeters or smaller and has not spread outside the breast.

Stage IIA

In stage IIA:

- No tumor is found in the breast, but cancer is found in the axillary lymph nodes (the lymph nodes under the arm); or
- The tumor is 2 centimeters or smaller and has spread to the axillary lymph nodes; or
- The tumor is between 2 and 5 centimeters but has not spread to the axillary lymph nodes.

Stage IIB

In stage IIB, the tumor is either:

- Between 2 and 5 centimeters and has spread to the axillary lymph nodes; or
- Larger than 5 centimeters but has not spread to the axillary lymph nodes.

Stage IIIA

In stage IIIA:

- No tumor is found in the breast, but cancer is found in axillary lymph nodes that are attached to each other or to other structures; or
- The tumor is 5 centimeters or smaller and has spread to axillary lymph nodes that are attached to each other or to the structures: or
- The tumor is larger than 5 centimeters and has spread to axillary lymph nodes that may or may not be attached to each other or to other structures.

Stage IIIB

In stage IIIB, the cancer may be any size and:

- Has spread to tissues near the breast (the skin or chest wall, including the ribs and muscles in the chest); and
- May have spread to lymph nodes within the breast or under the arm.

Stage IIIC

In stage IIIC, the cancer:

- Has spread to lymph nodes beneath the collarbone and near the neck; and
- May have spread to lymph nodes within the breast or under the arm and to tissues near the breast.

Stage IIIC breast cancer is divided into operable and inoperable breast cancer.

In operable stage IIIC, the cancer is found in:

- 10 or more of the lymph nodes under the arm; or
- The lymph nodes beneath the collarbone and near the neck on the same side of the body as the breast with cancer; or
- The lymph nodes within the breast itself and in lymph nodes under the arm.

In inoperable stage IIIC breast cancer:

- The cancer has spread to the lymph nodes above the collarbone and near the neck on the same side of the body as the breast with cancer.

Stage IV

In stage IV, the cancer has spread to other organs of the body, most often the bones, lungs, liver, or brain.

How is male breast cancer treated?

There are four types of standard treatment used to treat male breast cancer. These types include:

- Surgery (an operation to remove the cancer)
- Chemotherapy (using drugs to kill cancer cells)
- Hormone therapy (using hormones to stop the cells from growing)
- Radiation therapy (using high-dose x-ray to kill cancer cells)

When chemotherapy, hormone therapy and radiation therapy are given after surgery, they are called “adjuvant” therapy. Chemotherapy can also be given before surgery and is called “neoadjuvant” therapy.

What about reconstructive surgery?

Men can benefit from reconstructive surgery. Most people assume that post-mastectomy reconstruction is only for women. However, if surgical treatment causes a deformity such as asymmetry, loss of nipple contour, or other problems, reconstructive surgery is an appropriate option.

How is male breast cancer treated by stage?

Stage 0 – I

For most men in this group, surgical removal of the breast cancer is the only treatment needed. This is usually done by mastectomy and removal of lymph nodes under the arm.

Lumpectomy or other breast-conserving procedures are rarely an option since the whole breast can be removed under local anesthesia. If breast-conserving procedures are done, they should be followed by radiation therapy.

Chemotherapy and/or adjuvant therapy with tamoxifen may be recommended for some men with Stage I breast cancer, depending on its size and results of lab tests. Adjuvant therapy is used for tumors larger than 1 cm (amount one-half inch) or with high growth rates.

Stage II

The options for surgery and radiation therapy are the same as with Stage I cancers. But if the nodes contain cancer cells, adjuvant therapy is usually recommended. Hormonal therapy is suggested for all node-positive (cancer that has spread to the lymph nodes), estrogen receptor-

positive tumors. Chemotherapy is also usually recommended. Choices about chemotherapy may be influenced by a man's age and general state of health. It is less likely to be chosen for older men, particularly those in poor health.

Radiation may also be recommended if several nodes are involved. Radiation therapy not only reduces the chance that the cancer will come back in the area of the breast, but it may actually increase the chance for cure. When node-negative cancers involve the chest muscle or the skin, radiation therapy after surgery may reduce the risk of local recurrence.

Stage III

This stage will be treated with chemotherapy and surgery, followed by adjuvant tamoxifen therapy (if the tumor is estrogen or progesterone receptor positive). In addition, most doctors would recommend radiation therapy to the chest wall.

Stage IV

Systemic therapy is the primary treatment using chemotherapy, hormonal therapy, or both. Immunotherapy with trastuzumab (Herceptin) alone or in combination with chemotherapy is an option for men whose cancer cells have high levels of HER2/neu protein.

Radiation and/or surgery may also be used to treat certain symptoms. Treatment to relieve symptoms depends on where the cancer has spread. For example, pain resulting from bone metastases may be treated with external beam radiation therapy and/or biphosphonates are drugs that can help prevent bone damage caused by metastatic breast cancer.

Can male breast cancer recur?

Recurrent disease means that the cancer has come back (recurred) after it has been treated. It may come back in the breast, in the soft tissues of the chest (the chest wall), or in another part of the body.

If the cancer has a local (breast or chest wall) recurrence and no evidence of distant metastases, cure is still possible. Surgical removal of the recurrence, followed by radiation therapy, is recommended whenever possible. If the area has already been treated with radiation, it may not be possible to give much or any additional radiation without severely damaging the normal tissues. Distant recurrences are treated the same way as metastases found at the time of diagnosis.

Where can I find more information about male breast cancer?

The Learning Center

The Learning Center is a free consumer health library with the latest information on cancer care, support, prevention and general health and wellness issues. Knowledgeable staff and volunteers help visitors locate the information they need. The Learning Center provides access to brochures,

journals, reference books, online health databases, magazines and newsletters, audio and videotapes and Web sites. Locations include:

- Levit Learning Center
Mays Clinic, Floor 2, near The Tree Sculpture, Room ACB2.1120 – 713-563-8010
- Law Learning Center
Main Building, Floor 4, near Elevator A, Room R4.1100 – 713-745-8063

Books available in The Learning Center:

“Saving Jack: A Man’s Struggle with Breast Cancer,” by Jack Willis

“A Warrior’s Way,” by John R. Cope

“Diseases of the Breast,” 4th Ed, by Harris, Lippman, Morrow and Osborne.

American Cancer Society

1-800-227-2345

www.cancer.org

Across the United States, this voluntary organization offers free booklets, support groups, and programs such as Reach to Recovery.

National Cancer Institute’s Cancer Information Service (CIS)

1-800-4-CANCER

www.cancer.gov

Supported by the National Cancer Institute, this free telephone service provides current information on cancer prevention, detection, diagnosis, treatment, and rehabilitation. CIS also makes referrals for counseling, home care services, and hospice and screening programs. Bilingual counselors are on duty to help Spanish-speaking callers.