

What Is Breast Cancer?

Breast cancer is a type of cancer that starts in the breast. Cancer starts when cells begin to grow out of control. (To learn more about how cancers start and spread, see [What Is Cancer?](#))

Breast cancer cells usually form a tumor that can often be seen on an x-ray or felt as a lump. Breast cancer occurs almost entirely in women, but [men can get breast cancer](#), too.

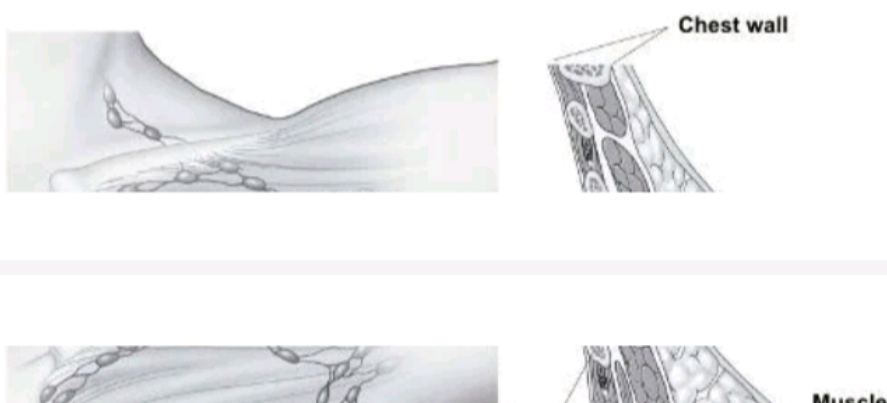
It's important to understand that most breast lumps are benign and not cancer (malignant). Non-cancerous breast tumors are abnormal growths, but they do not spread outside of the breast. They are not life threatening, but some types of benign breast lumps can increase a woman's risk of getting breast cancer. Any breast lump or change needs to be checked by a health care professional to determine if it is benign or malignant (cancer) and if it might affect your future cancer risk. See [Non-cancerous Breast Conditions](#) to learn more.

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)
- There are also other types of breast cancer that are less common like phyllodes tumor and angiosarcoma
- A small number of cancers start in other tissues in the breast. These cancers are called [sarcomas](#) and [lymphomas](#) and are not really thought of as breast cancers.

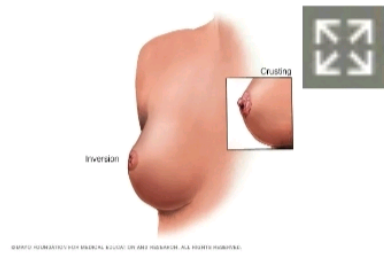
Although many types of breast cancer can cause a lump in the breast, not all do. See [Breast Cancer Signs and Symptoms](#) to learn what you should watch for and report to a health care provider. Many breast cancers are also found on screening mammograms, which can detect cancers at an earlier stage, often before they can be felt, and before symptoms develop.



What patients and caregivers need to know about [cancer, coronavirus, and COVID-19](#).

Symptoms

Signs and symptoms of breast cancer may include:



Nipple changes

- A breast lump or thickening that feels different from the surrounding tissue
- Change in the size, shape or appearance of a breast
- Changes to the skin over the breast, such as dimpling
- A newly inverted nipple
- Peeling, scaling, crusting or flaking of the pigmented area of skin surrounding the nipple (areola) or breast skin
- Redness or pitting of the skin over your breast, like the skin of an orange

When to see a doctor

If you find a lump or other change in your breast — even if a recent mammogram was normal — make an appointment with your doctor for prompt evaluation.

When to see a doctor

If you find a lump or other change in your breast — even if a recent mammogram was normal — make an appointment with your doctor for prompt evaluation.

Causes

Doctors know that breast cancer occurs when some breast cells begin to grow abnormally. These cells divide more rapidly than healthy cells do and continue to accumulate, forming a lump or mass. Cells may spread (metastasize) through your breast to your lymph nodes or to other parts of your body.

Breast cancer most often begins with cells in the milk-producing ducts (invasive ductal carcinoma). Breast cancer may also begin in the glandular tissue called lobules (invasive lobular carcinoma) or in other cells or tissue within the breast.

Researchers have identified hormonal, lifestyle and environmental factors that may increase your risk of breast cancer. But it's not clear why some people who have no risk factors develop cancer, yet other people with risk factors never do. It's likely that breast cancer is caused by a complex interaction of your genetic makeup and your environment.

Inherited breast cancer

Doctors estimate that about 5 to 10 percent of breast cancers are linked to gene mutations passed through generations of a family.

Risk factors

A breast cancer risk factor is anything that makes it more likely you'll get breast cancer. But having one or even several breast cancer risk factors doesn't necessarily mean you'll develop breast cancer. Many women who develop breast cancer have no known risk factors other than simply being women.

Factors that are associated with an increased risk of breast cancer include:

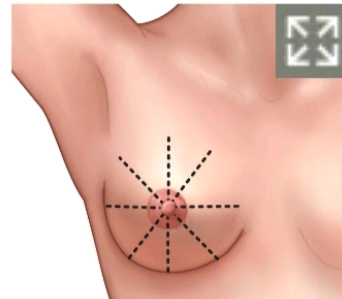
- **Being female.** Women are much more likely than men are to develop breast cancer.
- **Increasing age.** Your risk of breast cancer increases as you age.
- **A personal history of breast conditions.** If you've had a breast biopsy that found lobular carcinoma in situ (LCIS) or atypical hyperplasia of the breast, you have an increased risk of breast cancer.
- **A personal history of breast cancer.** If you've had breast cancer in one breast, you have an increased risk of developing cancer in the other breast.

- **A family history of breast cancer.** If your mother, sister or daughter was diagnosed with breast cancer, particularly at a young age, your risk of breast cancer is increased. Still, the majority of people diagnosed with breast cancer have no family history of the disease.
- **Inherited genes that increase cancer risk.** Certain gene mutations that increase the risk of breast cancer can be passed from parents to children. The most well-known gene mutations are referred to as BRCA1 and BRCA2. These genes can greatly increase your risk of breast cancer and other cancers, but they don't make cancer inevitable.
- **Radiation exposure.** If you received radiation treatments to your chest as a child or young adult, your risk of breast cancer is increased.
- **Obesity.** Being obese increases your risk of breast cancer.
- **Beginning your period at a younger age.** Beginning your period before age 12 increases your risk of breast cancer.

Prevention

Breast cancer risk reduction for women with an average risk

Making changes in your daily life may help reduce your risk of breast cancer. Try to:



- **Ask your doctor about breast cancer screening.** Discuss with your doctor when to begin breast cancer screening exams and tests, such as clinical breast exams and mammograms.

Breast self-exam

Talk to your doctor about the benefits and risks of screening. Together, you can decide what breast cancer screening strategies are right for you.

- **Become familiar with your breasts through breast self-exam for breast awareness.** Women may choose to become familiar with their breasts by occasionally inspecting their breasts during a breast self-exam for breast awareness. If there is a new change, lumps or other unusual signs in your breasts, talk to your doctor promptly.

Breast awareness can't prevent breast cancer, but it may help you to better

Breast awareness can't prevent breast cancer, but it may help you to better understand the normal changes that your breasts undergo and identify any unusual signs and symptoms.

- **Drink alcohol in moderation, if at all.** Limit the amount of alcohol you drink to no more than one drink a day, if you choose to drink.
- **Exercise most days of the week.** Aim for at least 30 minutes of exercise on most days of the week. If you haven't been active lately, ask your doctor whether it's OK and start slowly.
- **Limit postmenopausal hormone therapy.** Combination hormone therapy may increase the risk of breast cancer. Talk with your doctor about the benefits and risks of hormone therapy.

Some women experience bothersome signs and symptoms during menopause and, for these women, the increased risk of breast cancer may be acceptable in order to relieve menopause signs and symptoms.

To reduce the risk of breast cancer, use the lowest dose of hormone therapy possible for the shortest amount of time.

Breast Cancer in Rural India:
Knowledge, attitudes, practices;
Delays to care and Quality of life

Nitin Gangane

Abstract

Background: Cancer is a major public health problem globally. The incidence of cancer is increasing rapidly in many low- and middle-income countries like India due to the epidemiological transition. At present, breast cancer is the leading cancer in females in many countries including India. In spite of all of the epidemiological evidence pointing towards a surge in breast cancer cases, the National Cancer Control Programme of India has not yet taken sufficient measures to understand the disease burden and to plan a course of action to cope with the increasing cancer burden.

Aim: The aim of this thesis is to explore the knowledge, attitudes, and practices regarding breast cancer in a predominantly rural district of central India along with identifying the determinants of delays to care and quality of life (QoL) in breast cancer patients. This understanding may help to strengthen the health system by improving breast cancer control and management programmes and the delivery of care.

Methods: This thesis combines findings from two cross-sectional studies in the predominantly rural district of Wardha. The first study was a population-based cross-sectional survey conducted on 1000 women, in which face-to-face interviews were conducted with the help of a questionnaire covering demographic and socio-economic information, knowledge, attitudes and practices regarding breast cancer screening and breast cancer. The Chi-square test for proportions and t-test for means were used and multivariable linear regression analysis was performed to study the association between socio-demographic factors and knowledge, attitude and practices. The second study was a patient-based cross-sectional study conducted in 212 breast cancer patients. All 212 breast cancer patients were included for patient delay. However, 208 female breast cancer patients could be included for system delay, quality of life and self-efficacy, as there was some information lacking in 4 patients. Information on socio-demographic characteristics, patient and system delays and also reasons for the delays were collected. The study also utilised WHOQOL-BREF for QoL and self-efficacy measurements in breast cancer patients. Socio-demographic determinants were examined by frequencies and means and multivariable logistic and linear regression analysis to assess the relationship between exposure and outcome variables.

Results: One third of the respondents had not heard about breast cancer, and more than 90% of women from both rural and semi-urban areas were not aware of breast self-examination. Patient delay of more than 3 months was observed in almost half of participants, while a system delay of more than 12 weeks was seen in 23% of the breast cancer patients. The late clinical stage of the disease was also significantly associated with patient delay. The most common reason for patient delay was painlessness of the breast lump. Incorrect initial diagnosis or late reference for diagnosis were the most common reasons for diagnostic delay while the high cost of treatment was the most common reason for treatment delay. Self-efficacy was positively associated with QoL, after adjusting for socio-demographic factors, patient delay and clinical stage of disease.

Conclusions: Our research showed poor awareness and knowledge about breast cancer, its symptoms and risk factors in women in rural India. Breast self-examination was hardly practiced, although the willingness to learn was high. Although the ideal is no delay in diagnosis and treatment, diagnostic and treatment delays observed in the study were not much higher than those reported in the literature, even from countries with good health facilities. However, further research is needed to identify access barriers throughout the process of cancer diagnosis and treatment. The quality of life was moderately good and its strong relationship with self-efficacy makes these two dimensions of breast cancer patients relevant enough to be considered for health workers and policy makers in the future.

Interventions focused on improving breast awareness in women and the breast cancer continuum of care should be implemented at a district level. The role of community social health activists in breast cancer prevention should be encouraged and the implementation of an operational national breast cancer program is urgently required.

Male breast cancer

Men diagnosed with male breast cancer at an early stage have a good chance for a cure. Treatment typically involves surgery to remove the breast tissue. Other treatments, such as chemotherapy and radiation therapy, may be recommended based on your particular situation.

Symptoms

Signs and symptoms of male breast cancer can include:

- A painless lump or thickening in your breast tissue
- Changes to the skin covering your breast, such as dimpling, puckering, redness or scaling
- Changes to your nipple, such as redness or scaling, or a nipple that begins to turn inward
- Discharge from your nipple

When to see a doctor

Make an appointment with your doctor if you have any persistent signs or symptoms that worry you.

Causes

It's not clear what causes male breast cancer.

Doctors know that male breast cancer occurs when some breast cells divide more rapidly than healthy cells do. The accumulating cells form a tumor that may spread (metastasize) to nearby tissue, to the lymph nodes or to other parts of the body.

Where breast cancer begins in men

Everyone is born with a small amount of breast tissue. Breast tissue consists of milk-producing glands (lobules), ducts that carry milk to the nipples, and fat.

During puberty, women begin developing more breast tissue, and men do not. But because men are born with a small amount of breast tissue, they can develop breast cancer.

Types of breast cancer diagnosed in men include:

- **Cancer that begins in the milk ducts (ductal carcinoma).** Nearly all male breast cancer is ductal carcinoma.
 - **Cancer that begins in the milk-producing glands (lobular carcinoma).**
-

Risk factors

Factors that increase the risk of male breast cancer include:

- **Older age.** The risk of breast cancer increases as you age. Male breast cancer is most often diagnosed in men in their 60s.
 - **Exposure to estrogen.** If you take estrogen-related drugs, such as those used for hormone therapy for prostate cancer, your risk of breast cancer is increased.
 - **Family history of breast cancer.** If you have a close family member with breast cancer, you have a greater chance of developing the disease.
 - **Klinefelter's syndrome.** This genetic syndrome occurs when boys are born with more than one copy of the X chromosome. Klinefelter's syndrome causes abnormal development of the testicles. As a result, men with this syndrome produce lower levels of certain male hormones (androgens) and more female hormones (estrogens).
 - **Liver disease.** Certain conditions, such as cirrhosis of the liver, can reduce
-

- **Liver disease.** Certain conditions, such as cirrhosis of the liver, can reduce male hormones and increase female hormones, increasing your risk of breast cancer.
- **Obesity.** Obesity is associated with higher levels of estrogen in the body, which increases the risk of male breast cancer.
- **Testicle disease or surgery.** Having inflamed testicles (orchitis) or surgery to remove a testicle (orchiectomy) can increase your risk of male breast cancer.