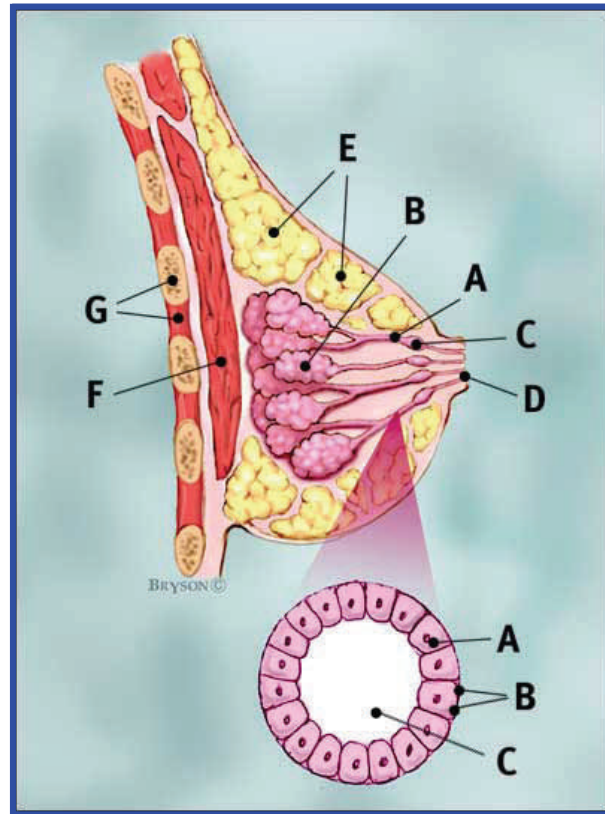


2. THE BREAST

2.1 Breast Anatomy

2.2 Breast Changes

Breast Anatomy



Breast profile:

- A ducts
- B lobules
- C dilated section of duct to hold milk
- D nipple
- E fat
- F pectoralis major muscle
- G chest wall/rib cage

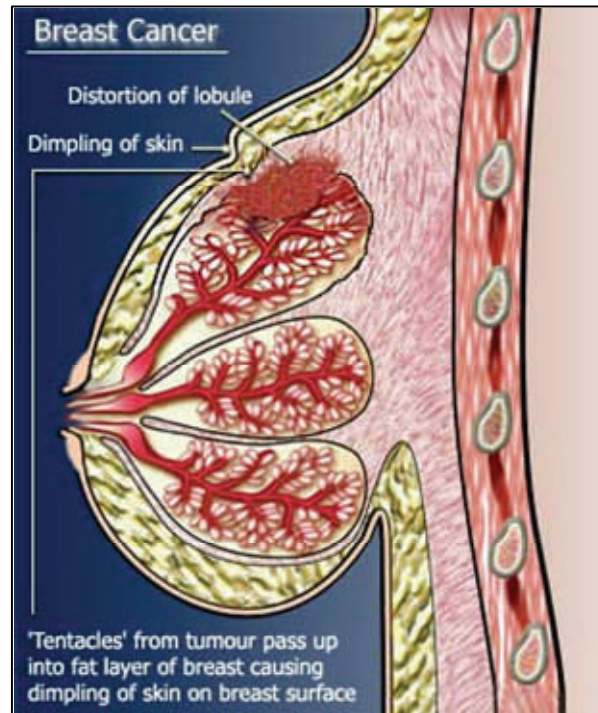
Enlargement:

- A normal duct cells
- B basement membrane
- C lumen (centre of duct)

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Related Topics
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Breast Anatomy: skin dimpling

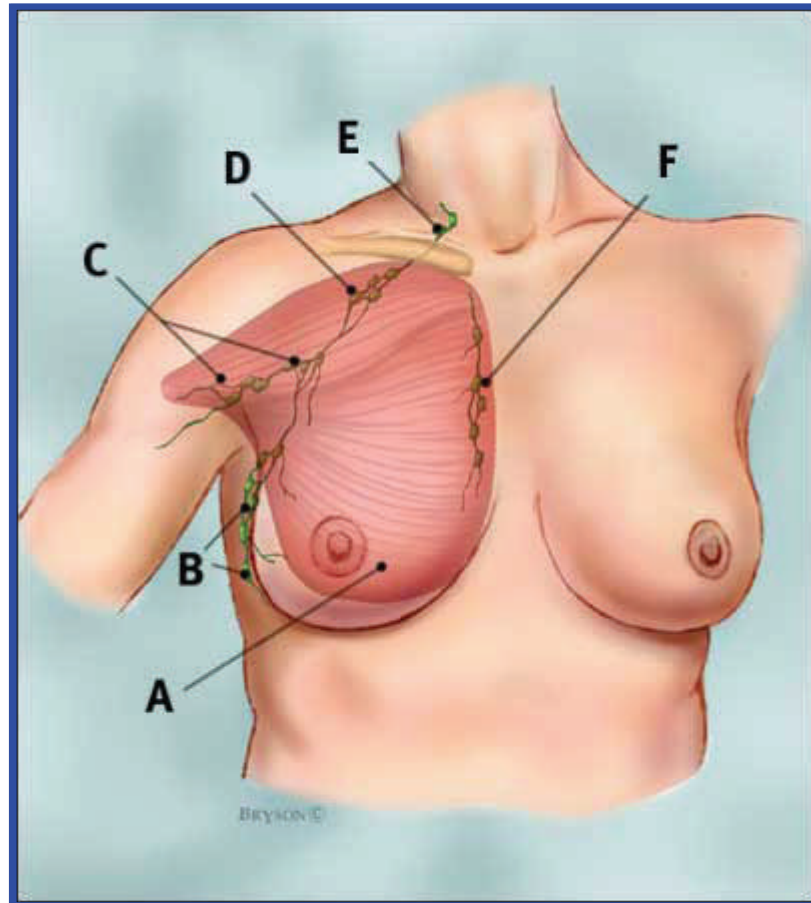


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Axillary Lymph Nodes



Lymph node areas adjacent to breast area.

- A** pectoralis major muscle
- B** axillary lymph nodes: levels I
- C** axillary lymph nodes: levels II
- D** axillary lymph nodes: levels III
- E** supraclavicular lymph nodes
- F** internal mammary lymph nodes

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Breast Changes

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From time to time a woman or her doctor may find breast changes such as:

- A lump or lumpiness.
- Any change in the shape or appearance of the breast such as dimpling or redness.
- An area that feels different to the rest.
- A discharge from the nipple.
- Any change in the shape or appearance of the nipple such as pulling in or scaliness (nipple inversion or retraction).
- Pain

Many women are concerned that a breast change might be breast cancer. Even though this will not be true in most cases, it is very important that all breast changes are carefully investigated. If it is cancer, finding it early will mean a much better chance of effective treatment.

Investigating breast changes

What investigations will the doctor suggest?

It is recommended that the doctor uses an approach known as the triple test to find the cause of a breast change. However, it should be noted that many women with breast changes will not need all of these tests.

The **triple test** includes:

- [clinical breast examination](#) and taking a personal history
- [imaging tests](#) i.e. mammography, ultrasound or MRI

Related Topics
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Breast Changes *cont'd*

- [non-surgical biopsy](#); i.e. a fine needle aspiration and core biopsy.

This is when a sample of cells or tissue is extracted from the lump.

Most women show no signs of cancer on any of the tests. The small number who do show possible signs of cancer on one or more of the tests may be advised to see a surgeon and may have an open surgical biopsy.

How accurate is the triple test?

No single test will be able to find every cancer. However, if all three tests are done and none shows signs of cancer, it is very unlikely that cancer is present. If all three tests are performed, more than 99.5% of cancers will be found by one or more of the tests.

Clinical breast examination

The doctor can tell much about the likely causes of a breast change from this test, which provides a thorough examination of the whole breast area, including the armpits and up to the collarbone.

After the woman has removed all clothing from the upper half of her body, the doctor may look at her breasts while she is seated or standing to see whether any changes are visible. Following this, she may be asked to lie down, so the doctor can examine both breasts and nipples as well as the armpits. If necessary the doctor will organise a referral to a surgeon.

Imaging tests

The next step may be an imaging test, which is mammography or ultrasound. (See Section 1.5: [Breast Screening](#)). For some women, both tests may be needed to gain enough information about the breast change.

Related Topics
[2.1 Breast Anatomy](#)

Breast changes *cont'd*

Non-surgical biopsy

If a woman has a lump or lumpiness which is not caused by hormonal changes or a cyst, she may have a fine needle aspiration biopsy or a core biopsy. This is the third part of the triple test. In these tests, a small sample of the cells from the lump or area of breast change are examined to determine the types of cells that are present.

Open surgical biopsy

If any of the tests show signs of cancer, the woman will be referred to a surgeon and she may have a surgical biopsy. This test is used to provide the most accurate information about whether a cancer is present or not. An open biopsy is usually performed at a hospital or a day surgery clinic, in most cases under a general anaesthetic.

Causes of breast changes

The vast majority of breast changes are not breast cancer. If you find a lump or other change in your breast or nipple it might be caused by the following.

Hormonal changes

Hormones produced by glands in the body make a woman's breast feel different at various times during her menstrual cycle. Women who have been through menopause and are not taking hormone replacement therapy, or who have had their ovaries removed, no longer have breast changes due to hormonal activity. Hormonal changes may cause women to have swollen, painful or tender breasts at different times in their cycle; these are not a sign of breast cancer and usually do not require treatment. However, treatments are available for hormonal breast pain from the doctor, if needed. It may be useful to keep a record of breast

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Breast changes *cont'd*

changes prior to menstruating over a couple of months to see whether there is any pattern to the changes.

Cysts

A cyst is a fluid-filled sac. Fluid is produced and absorbed by the breast as part of the usual cycle of hormonal breast changes. Although we don't know why some women are more susceptible to breast cysts than others, we do know they are common in women aged 35 to 50 and in women who are taking hormone replacement therapy.

Simple cysts are not cancer and do not change into cancer. However, in rare cases, cysts may have a cancer growing within them or close to them. These changes can be seen on an ultrasound, or found after a cyst is aspirated or drained. Many women have a cyst or a number of cysts without knowing it, and they do not usually require treatment. Some women first detect their cyst as a painful lump and they may decide to have it drained if it is painful or troublesome. This is done by inserting a fine needle into the cyst to draw out the fluid, and is usually a simple and fairly painless procedure.

Fibroadenomas

A fibroadenoma is a smooth, firm breast lump made up of fibrous and glandular tissue. The term "breast mouse" is also used to refer to a fibroadenoma. We do not know the cause of fibroadenomas; however, they are not cancer and rarely change into breast cancer. Fibroadenomas are more common in younger women and may become tender in the days before a period or grow bigger during pregnancy. Women have a choice about whether to have their fibroadenoma removed, but if it is monitored and continues to enlarge, it should be removed.

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Most often, younger women or those with smaller fibroadenomas will not have them taken out. The operation to remove a fibroadenoma is relatively simple. A general anaesthetic is usually required.

Further information:

[Do you have a breast change?](#) National Breast Cancer Centre

This information brochure is to help you better understand the cause of breast changes and the tests which may be needed to find the cause of your breast change.

[Breast changes: what you need to know](#) National Breast Cancer Centre

Provides information to help women better understand what breast changes are, how the doctor may investigate breast changes, and how to make sure they are receiving the best health care available.

[Breast changes](#) National Breast Cancer Centre

Related Topics

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