



# Fibrocystic Changes in the Breast

Many breast lumps turn out to be non-cancerous (benign) changes in fibrous tissue (fibrosis) and/or cysts, which together are known as **fibrocystic changes**. These changes used to be called fibrocystic disease, but they are a normal finding in many women.

Fibrocystic changes are most common in women of child-bearing age, but they can affect women of any age.

- [Fibrosis](#)
- [Cysts](#)
- [Diagnosis of fibrocystic changes](#)
- [How do fibrocystic changes affect your risk for breast cancer?](#)
- [Treatment of fibrocystic changes](#)

## Fibrosis

Fibrosis refers to an area of fibrous tissue, the same tissue that ligaments and scar tissue are made of. Areas of fibrosis can feel rubbery or firm to the touch.

## Cysts

Cysts are fluid-filled, round or oval sacs within the breasts. They are often felt as a round, movable lump (or lumps), which might be tender to the touch. They are most common in women in their 30s or 40s, but they can occur in women of any age. Monthly hormone changes often cause cysts to get bigger and become painful and sometimes more noticeable just before the menstrual period.

Cysts begin when fluid starts to build up inside the breast glands. They start as **microcysts** (very small cysts), which are too small to feel unless they are part of a cluster (group) of microcysts. If fluid continues to build up, they can develop into **macrocyts** (large cysts). These can often be felt easily and can be as large as 1 or 2 inches across.

## Diagnosis of fibrocystic changes

Most often, fibrocystic changes are diagnosed based on symptoms, such as breast lumps, swelling, and/or tenderness or pain. These symptoms tend to be worse just

before your menstrual period, and they may change (such as the lumps growing or shrinking) during different stages of your menstrual cycle. At times you may notice some nipple discharge.

If there is a concern about a lump possibly being cancer, a [breast ultrasound](#)<sup>1</sup> typically is done to see if the lump is solid or if it has fluid in it (that is, if it's a cyst). There are different types of cysts:

- A **simple cyst** is filled entirely with fluid. Simple cysts are not a cause for concern.
- A **complicated cyst** is similar to a simple cyst, but it has what looks like 'debris' floating in the fluid. Complicated cysts are very unlikely to be cancer, but in some cases a doctor might advise a follow-up exam or a procedure to remove the fluid with a thin, hollow needle, just to be sure.

A **complex cystic and solid mass**

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using over-the-counter pain relievers.

Some women report that their breast symptoms improve if they avoid caffeine and other stimulants found in coffee, tea, chocolate, and many soft drinks. Studies have not found a clear link between these stimulants and breast symptoms, but many women feel that avoiding these foods and drinks for a couple of months is worth trying.

Because breast swelling toward the end of the menstrual cycle is painful for some women, some doctors recommend over-the-counter pain relievers such as acetaminophen or ibuprofen, or other medicines. It's been suggested that some types of vitamin or herbal supplements might relieve symptoms, but so far none have been proven to be helpful, and some may have side effects if taken in large doses. Some doctors prescribe hormones, such as oral contraceptives (birth control pills), [tamoxifen](#)<sup>3</sup>, or androgens. But these are usually given only to women with severe symptoms because they also can have serious side effects.

If you have breast symptoms that aren't improving or are getting worse, it's important to see your doctor for further evaluation.

## Hyperlinks

1. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-ultrasound.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-ultrasound.html)
2. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html)
3. [www.cancer.org/cancer/types/breast-cancer/risk-and-prevention/tamoxifen-and-raloxifene-for-breast-cancer-prevention.html](http://www.cancer.org/cancer/types/breast-cancer/risk-and-prevention/tamoxifen-and-raloxifene-for-breast-cancer-prevention.html)

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## Hyperplasia of the Breast

Hyperplasia is an overgrowth of the cells that line the **lobules** (milk-producing glands) or **ducts** (small tubes) inside the breast. It is not cancer, but some types of hyperplasia are linked with a higher risk of developing breast cancer.

- [Diagnosis of hyperplasia](#)
- [How does hyperplasia affect your risk for breast cancer?](#)
- [Treatment of hyperplasia](#)
- [Reducing breast cancer risk or finding it early](#)

### Diagnosis of hyperplasia

Hyperplasia can be described as either **usual** or **atypical**, based on how the cells look under a microscope.

In **usual ductal hyperplasia**, there is an overgrowth of cells lining the ducts in the

## Reducing breast cancer risk or finding it early

Both ADH and ALH are linked to a higher risk of breast cancer. Even though most women with ADH or ALH will not develop breast cancer, it's still important to talk with a health care provider about your risk and what you can do about it.

Options for women at higher risk of breast cancer from ADH or ALH may include:

- **Seeing a health care provider more often**(such as every 6 to 12 months) for a breast exam along with a yearly [mammogram](#)<sup>4</sup>. Additional imaging with [breast MRIs](#)<sup>5</sup> may also be recommended, especially if you have other factors that raise your risk of breast cancer.

- **Making lifestyle changes to lower breast cancer risk.** To learn more, see [Can I Lower My Risk of Breast Cancer?](#)<sup>6</sup>

**Taking medicine to help lower breast cancer risk.** For more on this, see [Deciding Whether to Use Medicine to Reduce Breast Cancer Risk](#)<sup>7</sup>

Lippman ME, Morrow M, Osborne CK, eds. *Diseases of the Breast*. 5th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2014.

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## **Lobular Carcinoma in Situ (LCIS)**




**Lobular carcinoma in situ (LCIS)** is a type of breast change that is sometimes seen when a [breast biopsy](#)<sup>1</sup> is done. In LCIS, cells that look like cancer cells are growing in the lining of the milk-producing glands (lobules) of the breast, but they don't invade through the wall of the lobules.

- [Is LCIS cancer?](#)
- [Types of LCIS](#)
- [Diagnosis of LCIS](#)
- [How does LCIS affect breast cancer risk?](#)
- [Treatment for LCIS](#)
- [Reducing breast cancer risk or finding it early](#)

## Is LCIS cancer?

LCIS is not considered cancer, and it typically does not spread beyond the lobule (that is, it doesn't become invasive breast cancer) if it isn't treated. But having LCIS does increase your risk of later developing an invasive breast cancer in either breast. (See "How does LCIS affect breast cancer risk?")



on a [mammogram](#)<sup>2</sup>, although pleomorphic and florid LCIS are sometimes found this way. Most often, LCIS is found when a [breast biopsy](#)<sup>3</sup> is done for another problem that's Duringsovedd thicheckeddin0 0eg /GS381 gs (nearby.62.4uring a biopsy, sm2ll pilab.)w 98.69 704 m





**Adenosis** is a benign (non-cancerous) breast condition in which the lobules (milk-producing glands) are enlarged, and there are more glands than usual. Adenosis is often found in biopsy samples of women who have [fibrocystic changes](#) in their breasts.

There are many other names for this condition, including aggregate adenosis, tumoral adenosis, or adenosis tumor. Even though some of these terms contain the term tumor, adenosis is not breast cancer.

**Sclerosing adenosis** is a special type of adenosis in which the enlarged lobules are distorted by scar-like tissue. This type may cause breast pain.

- [Diagnosis of breast adenosis](#)
- [Treatment of adenosis](#)
- [How does adenosis affect your risk for breast cancer?](#)

## Diagnosis of breast adenosis

If many enlarged lobules are close to one another, they may be large enough to be

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# **Fibroadenomas of the Breast**

in women of any age. They tend to shrink after a woman goes through menopause.

- [Diagnosis of fibroadenomas](#)
- [How do fibroadenomas affect your risk for breast cancer?](#)
- [Treatment of fibroadenomas](#)

## Diagnosis of fibroadenomas

Some fibroadenomas are too small to be felt, but some can be up to several inches across. A woman can have one or many fibroadenomas.

Fibroadenomas can often feel like a marble within the breast. They tend to be round or oval and have clear-cut borders. You can move them under the skin, and they're usually firm or rubbery, but not tender. Some fibroadenomas are only found by an imaging test (such as a [mammogram](#)<sup>1</sup> or [ultrasound](#)<sup>2</sup>).

A [breast biopsy](#)<sup>3</sup> (removing some breast tissue to check it in the lab) may be needed to know for sure if a breast mass is a fibroadenoma (or some other condition).

Most fibroadenomas look the same all over when seen under a microscope. These are called **simple fibroadenomas**. But some fibroadenomas have other changes, too, and are called **complex fibroadenomas**. (Complex fibroadenomas tend to be bigger and tend to occur in older patients.)

## How do fibroadenomas affect your risk for breast cancer?

Simple fibroadenomas do not seem to increase breast cancer risk by much, if at all. Complex fibroadenomas seem to increase the risk slightly more than simple fibroadenomas.

## Treatment of fibroadenomas

Most fibroadenomas don't need to be treated. But doctors might recommend removing them in some cases, especially if they keep growing or change the shape of the breast.

Sometimes fibroadenomas stop growing or even shrink on their own, without any treatment. As long as the doctor feels sure the masses are fibroadenomas and not breast cancer, they can often be left in place and watched to be sure they don't grow. This approach is useful for women with many fibroadenomas that aren't growing. In such cases, removing them might mean removing a lot of nearby normal breast

tissue, causing scarring and changes in the shape and texture of the breast.

It's important that women with fibroadenomas have regular breast exams or imaging tests to make sure the fibroadenomas are not growing.

Sometimes one or more new fibroadenomas can appear after one is removed. This usually means that another fibroadenoma has formed – it does not mean that the old one has come back.

## Hyperlinks

1. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/mammogram-basics.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/mammogram-basics.html)
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# Phyllodes Tumors of the Breast

Phyllodes tumors (Q qapPhylle

Phyllodes tumors are most common in women in their 40s, but women of any age can have them. Women with [Li-Fraumeni syndrome](#)<sup>1</sup> (a rare, inherited genetic condition) have an increased risk for phyllodes tumors.

## Diagnosis of phyllodes tumors

Phyllodes tumors are usually felt as a firm, painless breast lump, but some may hurt. They tend to grow large fairly quickly, and they often stretch the skin.

Sometimes these tumors are seen first on an imaging test (like an [ultrasound](#)<sup>2</sup> or [mammogram](#)<sup>3</sup>), in which case they're often hard to tell apart from [fibroadenomas](#).

The diagnosis can often be made with a [core needle biopsy](#)<sup>4</sup>, but sometimes the entire tumor needs to be removed (during an [excisional biopsy](#)<sup>5</sup>) to know for sure that it's a phyllodes tumor, and whether it's malignant or not.

## How do phyllodes tumors affect your risk for breast cancer?

Having a benign phyllodes tumor does not affect your breast cancer risk. If you have a malignant phyllodes tumor, it does not affect your risk of getting other types of breast cancer. Still, you may be watched more closely and get regular imaging tests after treatment for a phyllodes tumor, because these tumors can sometimes come back after surgery.

## Treatment of phyllodes tumors

Phyllodes tumors typically need to be removed completely with surgery.

If the tumor is found to be **benign**, an excisional biopsy might be all that is needed, as long as the tumor was removed completely.

If the tumor is **borderline or malignant**, a wider margin (area of normal tissue around the tumor) usually needs to be removed as well. This might be done with [breast-conserving surgery](#)<sup>6</sup> (lumpectomy or partial mastectomy), in which part of the breast is removed. Or the entire breast might be removed with a [mastectomy](#)<sup>7</sup>, especially if a margin of normal breast tissue can't be taken out with breast-conserving surgery. [Radiation therapy](#)<sup>8</sup> might be given to the area after surgery, especially if it's not clear that all of the tumor was removed.

Malignant phyllodes tumors are different from the more common types of breast cancer.

They are less likely to respond to some of the treatments commonly used for breast cancer, such as the [hormone therapy](#)<sup>9</sup> or [chemotherapy](#)<sup>10</sup> drugs normally used for breast cancer. Phyllodes tumors that have spread to other parts of the body are often treated more like [sarcomas](#)<sup>11</sup> (soft-tissue cancers) than breast cancers.

Phyllodes tumors can sometimes come back in the same place. Because of this, close follow-up with frequent breast exams and imaging tests are usually recommended after treatment.

## Hyperlinks

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9. [www.cancer.org/cancer/types/breast-cancer/treatment/hormone-therapy-for-breast-cancer.html](http://www.cancer.org/cancer/types/breast-cancer/treatment/hormone-therapy-for-breast-cancer.html)
10. [www.cancer.org/cancer/types/breast-cancer/treatment/chemotherapy-for-breast-cancer.html](http://www.cancer.org/cancer/types/breast-cancer/treatment/chemotherapy-for-breast-cancer.html)
11. [www.cancer.org/cancer/types/soft-tissue-sarcoma/about/soft-tissue-sarcoma.html](http://www.cancer.org/cancer/types/soft-tissue-sarcoma/about/soft-tissue-sarcoma.html)

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# **Intraductal Papillomas of the Breast**

- [Diagnosis of breast papillomas](#)
- [How do intraductal papillomas affect your risk for breast cancer?](#)
- [Treatment of breast papillomas](#)

## What are intraductal papillomas?

**Solitary papillomas** (solitary intraductal papillomas) are single tumors that often grow in the large milk ducts near the nipple. They are a common cause of clear or bloody nipple discharge, especially when it comes from only one breast. They may be felt as a small lump behind or next to the nipple. Sometimes they can be painful.

Papillomas may also be found in small ducts in areas of the breast farther from the nipple. In this case, there are often several growths (**multiple papillomas**). These are less likely to cause nipple discharge.

In **papillomatosis**, there are very small areas of cell growth within the ducts, but they aren't as distinct as papillomas are.

## Diagnosis of breast papillomas

Papillomas might cause symptoms such as clear or bloody nipple discharge (or a breast lump), or they might show up as an abnormal area on an imaging test (such as a [mammogram](#)).

Whether or not papillomas need to be treated depends on factors such as their size, if there is more than one, and if they're causing symptoms. Because papillomas can

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## Fat Necrosis and Oil Cysts in the Breast

**Fat necrosis** is a benign (non-cancerous) breast condition that can develop when an area of fatty breast tissue is injured. It can also develop after breast surgery or radiation treatment.

- [Stages of fat necrosis](#)
- [Diagnosis of fat necrosis and oil cysts](#)
- [How do fat necrosis and oil cysts affect breast cancer risk?](#)
- [Treatment of fat necrosis and oil cysts](#)

### Stages of fat necrosis

There are different stages of fat necrosis. As the fat cells die, they release their contents, forming a sac-like collection of greasy fluid called an **oil cyst**. Over time, [calcifications](#)<sup>1</sup> (small deposits of calcium) can form around the walls of the cyst, which can often be seen on [mammograms](#)<sup>2</sup>. As the body continues to repair the damaged breast tissue, it's usually replaced by denser scar tissue.

### Diagnosis of fat necrosis and oil cysts

Oil cysts and areas of fat necrosis can form a lump that can be felt, but it usually doesn't hurt. The skin around the lump might look thicker, red, or bruised. Sometimes these changes can be hard to tell apart from cancers on a breast exam or even a mammogram. If this is the case, a [breast biopsy](#)<sup>3</sup> (removing all or part of the lump to look at the tissue under the microscope) might be needed to find out if the lump





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## Mastitis

**Mastitis** is inflammation (swelling) in the breast, which is usually caused by an infection. It is most common when a woman is breastfeeding, but it can happen at other times as well.

A clogged milk duct that doesn't let milk fully drain from the breast, or breaks in the skin of the nipple can lead to infection. This causes the body's white blood cells to release substances to fight the infection, which can lead to swelling and increased blood flow. The infected part of the breast may become swollen, painful, red, and warm to the touch. Mastitis can also cause fever and a headache, or general flu-like symptoms.

- [Diagnosis of mastitis](#)
- [How does mastitis affect your risk of breast cancer?](#)
- [Treatment of mastitis](#)

## Diagnosis of mastitis

Mastitis can often be diagnosed based on symptoms and the results of a breast exam. It usually affects only one breast.

## How does mastitis affect your risk of breast cancer?

Having mastitis does not raise your risk of developing breast cancer.

## Treatment of mastitis

Mastitis is typically treated with antibiotics, along with emptying the milk from the breast. In some cases, a breast abscess (a collection of pus) may form. Abscesses are treated by draining the pus, either by surgery or by aspiration (using a thin, hollow needle, often guided by [ultrasound](#)<sup>1</sup>), and then antibiotics.

[Inflammatory breast cancer](#)<sup>2</sup> has symptoms that are a lot like mastitis and can be mistaken for an infection. If you've been diagnosed with mastitis and antibiotic treatment doesn't help within a week or so, you might need a skin [biopsy](#)<sup>3</sup> to be sure it's not cancer. Inflammatory breast cancer can spread quickly, so don't put off going back to the doctor if you still have symptoms after antibiotic treatment.

## Hyperlinks

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## Duct Ectasia

Duct ectasia, also known as **mammary duct ectasia**, is a benign (non-cancerous) breast condition that occurs when a milk duct in the breast widens and its walls thicken. This can cause the duct to become blocked and lead to fluid build-up. It's more common in women who are getting close to menopause. But it can happen at other ages, too.

- [Diagnosis of duct ectasia](#)
- [How does duct ectasia affect your breast cancer risk?](#)
- [Treatment of duct ectasia](#)

### Diagnosis of duct ectasia

Often, this condition causes no symptoms and is found when a [biopsy](#)<sup>1</sup> (removal of small pieces of breast tissue to be checked with a microscope) is done for another breast problem.

Duct ectasia does not increase your risk for breast cancer.

## Treatment of duct ectasia

Duct ectasia that is causing symptoms sometimes gets better without treatment. Warm compresses and antibiotics may be used in some cases. If the symptoms don't go away, the abnormal duct might need to be surgically removed.

## Hyperlinks

1. [www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/biopsy-types.html](http://www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/biopsy-types.html)
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# Radial Scars and Some Other Non-cancerous Breast Conditions

These are some of the less common types of benign (non-cancerous) tumors and conditions that can be found in the breast.

- [Radial scars](#)
- [Other breast changes that are not cancer](#)

## Radial scars

Radial scars are also called **complex sclerosing lesions**. They're most often found when a breast [biopsy](#)<sup>1</sup> is done for some other purpose. Sometimes radial scars show up as a distortion of the normal breast tissue on a mammogram.

Radial scars are not really scars, but they look like scars when seen with a microscope. They don't usually cause symptoms, but they are important because:

- If they are large enough, they may look like cancer on an imaging test such as a [mammogram](#)<sup>2</sup>, or even on a biopsy.
- They seem to be linked to a slight increase in a woman's risk of developing breast cancer.

Doctors often recommend surgery to remove radial scars, but in some cases they can use imaging tests instead to watch for any concerning changes.

## Other breast changes that are not cancer

Other types of benign masses and other changes can also be found in the breast. Many of these are described on other [Non-cancerous Breast Conditions](#) pages.

Some types of benign breast changes that are not covered on those pages are listed below. None of these conditions raise breast cancer risk, but they may need to be [biopsied](#)<sup>3</sup> or removed to know what they are and to be sure they don't have any cancer cells in them.

- **Lipoma:** a fatty tumor that can appear almost anywhere in the body, including the breast. It is usually not painful.

- **Hamartoma:** a smooth, painless lump formed by the overgrowth of mature breast cells, which can be made up of fatty, fibrous, and/or gland tissues
- **Hemangioma:** a rare tumor made up of blood vessels
- **Hematoma:** a collection of blood within the breast caused by internal bleeding
- **Adenomyoepithelioma:** a very rare tumor formed by certain cells in the milk duct walls
- **Neurofibroma:** a tumor that's an overgrowth of nerve cells
- **Granular cell tumor:** a tumor that starts in early forms of Schwann cells, which normally surround and help insulate nerve cells. These tumors rarely start in the breast.

## Hyperlinks

1. [www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/biopsy-types.html](http://www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests/biopsy-types.html)
2. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/mammogram-basics.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/mammogram-basics.html)
3. [www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html](http://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy.html)

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