Non-cancerous Breast Conditions

Non-cancerous breast conditions are very common and most women have them. In fact, most breast changes that are tested turn out to be benign. Benign is another word for non-cancerous. Unlike breast cancers, benign breast conditions are not life-threatening.

Benign conditions and breast cancer have many of the same symptoms. So it can be hard to tell the difference from just symptoms alone.

Some breast changes may not cause any symptoms and may be found during a mammogram. But sometimes they can cause symptoms that bother you.

If your symptoms or mammogram results suggest that you may have a problem with your breast, your doctor will take more steps to find out what it is. You may be asked questions about your medical history, get a full physical exam, or need to get some imaging tests done to learn more about the change in your breast. Some of these conditions are linked with a higher risk of later developing breast cancer.

Fibrosis and simple cysts

Many breast lumps turn out to be caused by fibrosis and/or cysts, which are benign changes in breast tissue that happen in many women at some time in their lives. These changes are sometimes called fibrocystic changes, and used to be called fibrocystic disease. They are most often diagnosed based on symptoms, such as breast lumps, swelling, and tenderness or pain. These symptoms tend to be worse just before a woman’s menstrual period begins. Your breasts may feel lumpy and, sometimes, you may notice a clear or slightly cloudy nipple discharge.

These changes are most common in women of childbearing age, but they can affect women of any age. They may be found in different parts of the breast and in both breasts at the same time.

Fibrosis

Fibrosis refers to a large amount of fibrous tissue, the same tissue that ligaments and scar tissue are made of. Areas of fibrosis feel rubbery, firm, or hard to the touch.
Cysts

A round, movable lump, especially one that’s tender to the touch, suggests a cyst. Cysts are fluid-filled, round or oval sacs within the breasts. They are most often found in women in their 40s, but they can occur in women of any age. Monthly hormone changes often cause cysts to get bigger and become painful and more noticeable just before the menstrual period.

Cysts start out from fluid building up inside the breast glands. Microcysts (tiny, microscopic cysts) are too small to feel and are found only when tissue is looked at under a microscope. If fluid continues to build up, macrocysts (large cysts) can form. These can be felt easily and can be as large as 1 or 2 inches across. As they grow, the breast tissue around the cyst may stretch and be painful.

Diagnosis

Most often, fibrocystic changes are diagnosed based on symptoms alone. If you have fibrocystic changes in your breast, the symptoms may change as you move through different stages of your menstrual cycle. Sometimes, one of the lumps might feel firmer or have other features that lead to a concern about cancer. When this happens, a biopsy may be needed to make sure that it’s not cancer.

Putting a thin needle into the cyst can confirm the diagnosis and, at the same time, drain the cyst fluid. Removing the fluid may reduce pressure and pain for some time, but the fluid doesn’t need to be removed unless it’s causing discomfort. And if removed, the fluid might come back later.

Treatment

Most women with fibrocystic changes and without bothersome symptoms do not need treatment, but they might be watched closely. If you have mild discomfort from fibrosis, you may get relief from well-fitted, supportive bras, applying heat, or 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 that these stimulants cause these 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 that women with severe symptoms cut out salt in their diets or take diuretics (drugs to help remove fluid from the body).

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, or androgens. But these are usually given only to women with severe symptoms because they also can have serious side effects.
How do fibrosis and simple cysts affect your risk for breast cancer?

Neither fibrosis nor cysts increase your risk of later developing breast cancer.

Hyperplasia (ductal or lobular)

Hyperplasia is also known as epithelial hyperplasia or proliferative breast disease. It’s an overgrowth of the cells that line the ducts or the milk glands (lobules). Based on how the cells look under a microscope, the hyperplasia is called either ductal hyperplasia (also called duct epithelial hyperplasia) or lobular hyperplasia. Hyperplasia may be described as usual or atypical based on the pattern of the cells.

- In usual hyperplasia, the pattern of cells is very close to normal.
- The cells are more distorted in atypical hyperplasia (or hyperplasia with atypia).

Diagnosis

Hyperplasia doesn’t usually cause a lump that can be felt, but can cause changes that can be seen on a mammogram. Diagnosis is made by a biopsy (where tissue is removed and checked under a microscope).

Treatment

Women with hyperplasia, especially atypical hyperplasia, need to see the doctor more often. They may need frequent breast exams and yearly mammograms, because some types of hyperplasia are linked to a higher risk of breast cancer.

Some women with atypical hyperplasia choose to take medicine to lower their risk of breast cancer. More on this can be found in Medicines to Reduce Breast Cancer Risk.

How does hyperplasia affect your risk for breast cancer?

Different types of hyperplasia can affect breast cancer risk:

- **Mild hyperplasia of the usual type**: This does not increase the risk for breast cancer

- **Moderate or florid hyperplasia of the usual type (without atypia), also known as usual hyperplasia**: The risk of breast cancer is about 1½ to 2 times that of a woman with no breast abnormalities.

- **Atypical hyperplasia (either atypical ductal hyperplasia [ADH] or atypical lobular hyperplasia [ALH])**: The risk of breast cancer is about 3½ to 5 times higher than that of a woman with no breast abnormalities. More details about pathology reports showing
atypical hyperplasia can be found in *Understanding Your Pathology Report: Atypical Hyperplasia*.

**Lobular carcinoma in situ (LCIS)**

Lobular carcinoma in situ (LCIS) may also be called lobular neoplasia. In this breast change, cells that look like cancer cells are growing in the milk-producing glands of the breast (called the lobules), but they don’t grow through the wall of the lobules. LCIS will not always become invasive lobular carcinoma if it isn’t treated. But having LCIS increases your risk of developing an invasive breast cancer in either breast later on, so close follow-up is very important.

**Diagnosis**

LCIS is diagnosed by a biopsy (where tissue is removed and checked under a microscope). Often, LCIS does not cause a tumor that can be felt or changes that can be seen on a mammogram. Most often, LCIS is found when a biopsy is done for another breast problem that is nearby. More information about pathology reports showing LCIS can be found in *Understanding Your Pathology Report: Lobular Carcinoma In Situ*.

**Treatment**

In most cases, LCIS does not need to be treated. Still, women with LCIS should make sure they have regular mammograms and doctor visits. Some women with LCIS choose to take medicine to help lower their risk of breast cancer. More detailed information on this can be found in *Medicines to Reduce Breast Cancer Risk*.

A certain kind of LCIS, called pleomorphic, may be more likely to turn into invasive cancer than most kinds of LCIS. Some doctors feel that this kind of LCIS needs to be removed completely with surgery.

Because LCIS is linked to an increased risk of cancer in both breasts, some women with LCIS choose to have a bilateral simple mastectomy (removal of both breasts but not axillary lymph nodes) to lower this risk. This is more often considered if they have other risk factors for breast cancer, such as a strong family history. This may be followed by delayed breast reconstruction.

**How does LCIS affect breast cancer risk?**

Women with LCIS have a 7 to 11 times higher risk of developing invasive cancer in either breast. For this reason, women with LCIS should make sure they have regular mammograms and doctor visits. Some women with LCIS choose to take medicine to lower their risk of breast cancer. More detailed information on this can be found in *Medicines to Reduce Breast Cancer Risk*.
**Adenosis**

In adenosis the breast lobules are enlarged, and they contain more glands than usual. Adenosis is often found in biopsies of women who have fibrocystic changes. There are many 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 a cancer.

*Sclerosing adenosis* is a special type of adenosis in which the enlarged lobules are distorted by scar-like fibrous tissue.

**Diagnosis**

If many enlarged lobules are close to one another, they may be large enough to be felt. When this is the case, it may be hard for the doctor to tell these lumps from a breast cancer with only a breast exam. Calcifications (mineral deposits) can form in adenosis, in sclerosing adenosis, and in cancers. These can be hard to tell apart on mammograms, so a biopsy is usually needed to know if they’re caused by adenosis or cancer. (In a biopsy, tissue is removed and checked under a microscope.)

**Treatment**

Women with adenosis do not need treatment, but might be watched closely.

**How does adenosis affect your risk for breast cancer?**

Some studies have found that women with sclerosing adenosis have a greater risk of developing breast cancer – about 1½ to 2 times the risk of women with no breast changes.

**Fibroadenomas**

Fibroadenomas are benign (non-cancer) tumors made up of both glandular breast tissue and stromal (connective) tissue. They’re most common in young women in their 20s and 30s, but can be found in women of any age.

Some fibroadenomas are too small to be felt and can be seen only if breast tissue is removed and examined under a microscope, but some are several inches across. Fibroadenomas tend to be round and have borders that are distinct from the surrounding breast tissue. They often feel like a marble within the breast. You can move them under the skin and they’re usually firm and not tender. A woman can have one or many fibroadenomas.

**Diagnosis**

Some fibroadenomas can be felt, but some are only found on an imaging test (like a mammogram). A biopsy (removing tissue to be checked under a microscope) is needed to know if a tumor is a fibroadenoma.
Most fibroadenomas look the same all over when seen under a microscope and are called *simple fibroadenomas*. But some fibroadenomas have other changes, too, and are called *complex fibroadenomas*.

**Treatment**

Many doctors recommend removing fibroadenomas, especially if they keep growing or change the shape of the breast. Sometimes (especially in middle-aged or elderly women) these tumors stop growing or even shrink on their own, without any treatment. In this case, as long as the doctors are sure the masses are fibroadenomas and not breast cancer, they may be left in place and watched to be sure they don’t grow.

This approach is useful for women with many fibroadenomas that are not growing. In such cases, removing them all might mean removing a lot of nearby normal breast tissue, causing scarring that would change the shape and texture of the breast. This could also make future mammograms harder to read.

It’s important for women who have fibroadenomas to have breast exams regularly to make sure they’re not growing.

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

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

Women with fibroadenomas have an increased risk of breast cancer – about 1½ to 2 times the risk of women with no breast changes.

**Phyllodes tumors**

Phyllodes tumors (fill-odes or full-oh-deez; also spelled phylloides and pronounced full-oy-deez) are rare breast tumors that start in the connective (stromal) tissue. They are most common in women in their 30s and 40s, but women of any age can have them. Very rarely, phyllodes tumors can be cancer. (This happens in about 1 out of 10 of these tumors.)

**Diagnosis**

The tumors are usually felt as a painless lump, but some may hurt. They may grow quickly and stretch the skin. They’re often hard to tell from fibroadenomas on imaging tests, or even with certain types of biopsies (mostly the kind of biopsy where a needle is used to remove a piece of tissue to check for cancer cells). Often the entire tumor needs to be removed to know for certain that it’s a phyllodes tumor that’s not cancer.
Treatment

Surgery is the main treatment. Phyllodes tumors can sometimes come back in the same place if they’re removed without taking enough of the normal tissue around them. For this reason, they’re treated by taking out the tumor and at least a 1 cm (a little less than ½ inch) area of normal breast tissue around the tumor.

Phyllodes tumors that are cancer are treated by removing them along with a wider area of normal tissue, or by removing the entire breast (mastectomy). Malignant phyllodes tumors are different from the more common types of breast cancer. They do not respond to hormone therapy and are less likely than most breast cancers to respond to radiation therapy or the chemotherapy drugs normally used for breast cancer. Phyllodes tumors that have spread to distant areas are often treated more like sarcomas (soft-tissue cancers) than breast cancers.

Because these tumors can come back, close follow-up with frequent breast exams and imaging tests are usually recommended after treatment.

How do phyllodes tumors affect your risk for breast cancer?

Having a phyllodes tumor that’s not cancer does not affect your breast cancer risk, but you may be watched more closely, because these tumors can come back after surgery.

Intraductal papillomas

Intraductal papillomas are benign (non-cancer) tumors that grow within the breast ducts. They’re wart-like growths of gland tissue along with fibrous tissue and blood vessels (called fibrovascular tissue).

*Solitary papillomas* or *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. 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.

*Papillomatosis* is a type of cell overgrowth (hyperplasia) in which there are very small areas of cell growth within the ducts, but they aren’t as distinct as papillomas are.

Diagnosis

Ductograms are sometimes helpful in finding papillomas. If the papilloma is large enough to be felt, a biopsy can be done (where tissue is removed to look at under the microscope).

Treatment

The usual treatment is to remove the papilloma and the part of the duct it’s in.
How do intraductal papillomas affect your risk for breast cancer?

They do not raise breast cancer risk unless there are other changes, such as atypical hyperplasia.

**Granular cell tumors**

Granular cell tumors start in primitive (early) nerve cells. They are rarely found in the breast. Most are found in the skin or the mouth, but they are uncommon even in those places. They are almost never cancer.

A granular cell tumor of the breast can most often be felt as a firm lump that you can move, but some may be attached to the skin or chest wall. They are usually about ½ to 1 inch across and most often are in the upper, inner part of the breast.

**Diagnosis**

Granular cell tumors are sometimes thought to be cancer because they can form lumps that are fixed in place. They may also look like cancer on a mammogram. A biopsy (removing a sample of tissue to be looked at under the microscope) can tell them apart from cancers.

**Treatment**

This tumor is usually cured by removing it along with a small margin (rim) of normal breast tissue around it.

How do granular cell tumors affect your risk for breast cancer?

Granular cell tumors are not linked to a higher risk of having breast cancer later in life.

**Fat necrosis and oil cysts**

*Fat necrosis* happens when an area of the fatty breast tissue is damaged, usually as a result of injury to the breast. It can also happen after surgery or radiation treatment. It’s more common in women with very large breasts.

As the body repairs the damaged tissue, it’s replaced by firm scar tissue. But some fat cells may respond differently to injury. Instead of forming scar tissue, the fat cells die and release their contents. This forms a sac-like collection of greasy fluid called an *oil cyst*. 
Diagnosis

Oil cysts and areas of fat necrosis can form a lump that can be felt. These can be hard to tell apart from cancers by a breast exam or even a mammogram. A biopsy (removing all or part of the lump to look at the tissue under the microscope) may be needed to learn if cancer is present.

Oil cysts (like other cysts) can be seen on ultrasound and then diagnosed by needle aspiration, where a thin needle is put into the cyst to take out the fluid.

Treatment

Fat necrosis and oil cysts usually don’t need to be treated. And sometimes fat necrosis goes away on its own.

The needle aspiration done to remove the fluid in an oil cyst can also serve as treatment. In some cases, surgery may be used to take out the lump or lumpy area if it becomes bothersome.

How do fat necrosis and oil cysts affect your risk for breast cancer?

These breast changes do not increase a woman’s risk of breast cancer.

Mastitis

Mastitis can usually be diagnosed based on a woman’s symptoms and a breast exam. The body’s white blood cells release substances to fight the infection. This causes swelling and increased blood flow. The area may become painful, red, and warm to the touch. Other symptoms can include fever and a headache.

Diagnosis

Mastitis can usually be diagnosed based on a woman’s symptoms and the results of a breast exam. The body’s white blood cells release substances to fight the infection. This causes swelling and increased blood flow. The area may become painful, red, and warm to the touch. Other symptoms can include fever and a headache.

Treatment

Mastitis is treated with antibiotics. In some cases, a breast abscess (a collection of pus) may form. Abscesses are treated by draining the pus, either by surgery or by using a needle (often guided by ultrasound), and then antibiotics.
An uncommon type of cancer known as inflammatory breast cancer 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 does not help within a week or so, you might need a skin biopsy 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.

How does mastitis affect your risk for breast cancer?

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

**Duct ectasia**

Duct ectasia, also known as *mammary duct ectasia*, is common in women over 50. It occurs when a breast duct widens and its walls thicken, which can cause it to become blocked and lead to fluid build-up.

**Diagnosis**

Often, this condition causes no symptoms and is found when a biopsy (removing a piece of tissue to checked under a microscope) is done for another problem.

Less often, duct ectasia may cause a sticky green or black discharge, which is often thick. The nipple and nearby breast tissue may be tender and red. The nipple may be pulled inward. Sometimes scar tissue around the abnormal duct causes a hard lump that may be confused with cancer.

If it causes a lump, a biopsy may be needed.

**Treatment**

Duct ectasia sometimes gets better without treatment. Warm compresses and antibiotics may be used in some cases. If the symptoms do not go away, the abnormal duct may be removed with surgery.

How does duct ectasia affect your risk for breast cancer?

Duct ectasia does not increase your breast cancer risk.

**Other non-cancerous breast conditions**

Some other types of less common benign or non-cancerous tumors and conditions can also be found in the breast.
Radial scars

Radial scars, also called complex sclerosing lesions, are often found when a breast biopsy is done for some other purpose. Radial scars may distort the normal breast tissue.

Radial scars are not really scars, but are called such because they look like scars when seen under a microscope.

Radial scars do not usually cause symptoms, but they are important for 2 reasons. First, if they are large enough, they may look like cancer on a mammogram, or even on a biopsy. Second, they are linked to a slight increase in the woman’s risk of developing breast cancer.

Women who have them may be advised to see the doctor more often than usual. Many doctors recommend removing radial scars.

Other breast changes that are not cancer

Lipomas are common, benign fatty tumors that can appear almost anywhere in the body, including the breast. They’re usually not tender.

Other less common benign lumps or tumors that may be found in the breast include:

- **Hamartoma**: a smooth, painless lump formed by the over-growth of mature cells
- **Hemangioma**: a rare tumor made of blood vessels
- **Hematoma**: a collection of blood within the breast caused by internal bleeding
- **Adenomyoepthelioma**: a very rare tumor formed by certain cells in the duct walls
- **Neurofibroma**: a tumor that’s an over-growth of nerve cells

None of these conditions raises breast cancer risk, but they may need to be biopsied or removed to know what they are.

Summary of breast conditions that affect breast cancer risk

Benign breast conditions are classified into 3 general groups, based on:

- Whether the cells are multiplying (proliferative) and
- Whether there are abnormal cells or patterns of cells (atypia)

The groups are summarized here.

**Non-proliferative lesions.** These conditions are not linked with the overgrowth of breast tissue. They do not seem to affect breast cancer risk, or if they do, the effect is very small.

- Fibrosis
• Cysts
• Mild hyperplasia of the usual type
• Adenosis (non-sclerosing)
• Phyllodes tumor (benign)
• A single (solitary) papilloma
• Granular cell tumor
• Fat necrosis
• Mastitis
• Duct ectasia
• Benign lumps or tumors (lipoma, hamartoma, hemangioma, hematoma, neurofibroma, adenomyoepithelioma)

**Proliferative lesions without atypia.** These conditions are linked with the growth of cells in the ducts or lobules of the breast tissue. They seem to raise a woman’s risk of breast cancer slightly (1½ to 2 times the usual risk).

• Moderate or florid ductal hyperplasia of the usual type (without atypia)
• Fibroadenoma
• Sclerosing adenosis
• Multiple papillomas or papillomatosis
• Radial scars

**Proliferative lesions with atypia.** These conditions are linked with the excess growth of cells in the ducts or lobules of the breast tissue, and the cells no longer look normal. They can raise breast cancer risk about 3½ to 5 times higher than normal.

• Atypical ductal hyperplasia (ADH)
• Atypical lobular hyperplasia (ALH)
• Lobular carcinoma in situ (LCIS) (LCIS raises breast cancer risk 7 to 11 times that of normal.)

**If you have a breast condition that increases breast cancer risk**

Some non-cancerous breast conditions may increase your risk for breast cancer. But it’s important to understand what this really means.
According to one study of women living in the Midwest (a mainly white population), here’s an example of what increased risk looks like:

- About 5 of 100 women who do not have any benign breast conditions would be expected to develop breast cancer within the next 15 years.

- Among women with a benign condition that increases risk 1½ to 2 times, about 7 to 10 out of 100 might be expected to develop breast cancer in the next 15 years.

- Among women with atypical hyperplasia (ductal or lobular), whose risk is 3½ to 5 times normal, about 18 to 25 women out of 100 would be expected to develop breast cancer within 15 years.

It’s also very important to keep in mind that many other factors can affect your risk. Your age, race/ethnicity, body weight, family history, menstrual and pregnancy history, and other factors all affect your breast cancer risk. (For more information, see “What are the risk factors for breast cancer?” in Breast Cancer.) These all must be taken into account when trying to determine your actual risk of breast cancer.

If you are at higher than average risk for breast cancer, talk with your doctor about whether you should have breast MRI along with your screening mammograms and whether you should start screening at an earlier age. You may also want to discuss steps you could take that might lower your risk of breast cancer.

References


Last Medical Review: 3/16/2015
Last Revised: 4/21/2016

2015 Copyright American Cancer Society