



# Understanding a Breast Cancer Diagnosis

## Types of Breast Cancer

There are several types of breast cancer. The type of breast cancer you have depends on where in the breast it started and other factors.

- [Types of Breast Cancer Overview](#)
- [Ductal Carcinoma In Situ \(DCIS\)](#)
- [Invasive Breast Cancer \(IDC/ILC\)](#)
- [Angiosarcoma of the Breast](#)
- [Inflammatory Breast Cancer](#)
- [Paget Disease of the Nipple](#)

## Breast Cancer Grade and Other Tests

Doctors use information from your breast biopsy to learn a lot of important things about the exact kind of breast cancer you have.

- [Breast Cancer Grades](#)
- [Breast Cancer: Ploidy and Cell Proliferation](#)
- [Breast Cancer Hormone Receptor Status](#)
- [Breast Cancer HER2 Status](#)
- [Breast Cancer Gene Expression Tests](#)
- [Understanding Your Pathology Report](#)

## Stages and Outlook (Prognosis)

If you have been diagnosed with breast cancer, tests will be done to find out the extent (stage) of the cancer. The stage of a cancer helps determine how serious the cancer is

and how best to treat it.

- [Stages of Breast Cancer](#)
- [Breast Cancer Survival Rates](#)

## Questions to Ask About Your Breast Cancer

You can take an active role in your breast cancer care by learning about your cancer and its treatment and by asking questions. Get a list of key questions here.

- [Questions to Ask Your Doctor About Breast Cancer](#)
- [Questions Worksheet \[PDF\]](#)

## Types of Breast Cancer

The most common types of breast cancer are ductal carcinoma in situ, invasive ductal carcinoma, and invasive lobular carcinoma.

### How type is determined

Most breast cancers are **carcinomas**. These cancers start in the cells that line organs and tissues. (These cells are called epithelial cells.) In fact, breast cancers are often a type of carcinoma called **adenocarcinoma**, which starts in cells that make glands (glandular tissue). Breast adenocarcinomas start in the ducts (the milk ducts) or the lobules (milk-producing glands).

There are other types of breast cancers, too, such as **sarcomas**, which start in the cells of the muscle, fat, or connective tissue.

Sometimes a single breast tumor can be a combination of different types. And in some very rare types of breast cancer, the cancer cells may not form a lump or tumor at all.

Doctors will try to find out whether the cancer has spread beyond the place it started.

- **In situ** breast cancers have not spread.
- **Invasive** or **infiltrating** cancers have spread (invaded) into the surrounding breast tissue.

## Common kinds of breast cancer

These general kinds of breast cancer can be further described with the terms outlined above.

## **Ductal carcinoma in situ**

[Ductal carcinoma in situ](#) (DCIS; also known as *intraductal carcinoma*) is a non-invasive or pre-invasive breast cancer.

## **Lobular carcinoma in situ**

Lobular carcinoma in situ (LCIS) may also be called lobular neoplasia. This breast change is not a cancer, though the name can be confusing. In LCIS, cells that look like cancer cells are growing in the lobules of the milk-producing glands of the breast, but they don't grow through the wall of the lobules.

## **Invasive (or infiltrating) ductal carcinoma**

This is the most common type of breast cancer. [Invasive \(or infiltrating\) ductal carcinoma](#) (IDC) starts in a milk duct of the breast, breaks through the wall of the duct, and grows into the fatty tissue of the breast.

## **Invasive (or infiltrating) lobular carcinoma**

[Invasive lobular carcinoma](#) (ILC) starts in the milk-producing glands (lobules). Like IDC, it can spread to other parts of the body.

## **Special types of invasive breast carcinoma**

There are some special types of breast cancer that are sub-types of invasive carcinoma. These are often named after features seen when they are viewed under the microscope, like the ways the cells are arranged.

Some of these may have a better prognosis than standard infiltrating ductal carcinoma. These include:

- Adenoid cystic (or adenocystic) carcinoma
- Low-grade adenosquamous carcinoma (this is a type of metaplastic carcinoma)
- Medullary carcinoma
- Mucinous (or colloid) carcinoma

- Papillary carcinoma
- Tubular carcinoma

Some sub-types have the same or maybe worse prognoses than standard infiltrating ductal carcinoma. These include:

- Metaplastic carcinoma (most types, including spindle cell and squamous)
- Micropapillary carcinoma
- Mixed carcinoma (has features of both invasive ductal and lobular)

In general, all of these sub-types are still treated like standard infiltrating

## Less common types of breast cancer

### Inflammatory breast cancer

[Inflammatory breast cancer](#) is an uncommon type of invasive breast cancer. It accounts for about 1% to 3% of all breast cancers.

### Paget disease of the nipple

[This type of breast cancer](#) starts in the breast ducts and spreads to the skin of the nipple and then to the areola, the dark circle around the nipple. It is rare, accounting for only about 1% of all cases of breast cancer.

### Phyllodes tumor

Phyllodes tumors are rare breast tumors. They develop in the connective tissue (stroma) of the breast, in contrast to carcinomas, which develop in the ducts or lobules.

### Angiosarcoma

This form of cancer rarely occurs in the breasts. [Angiosarcoma](#) starts in cells that line blood vessels or lymph vessels.

- [References](#)

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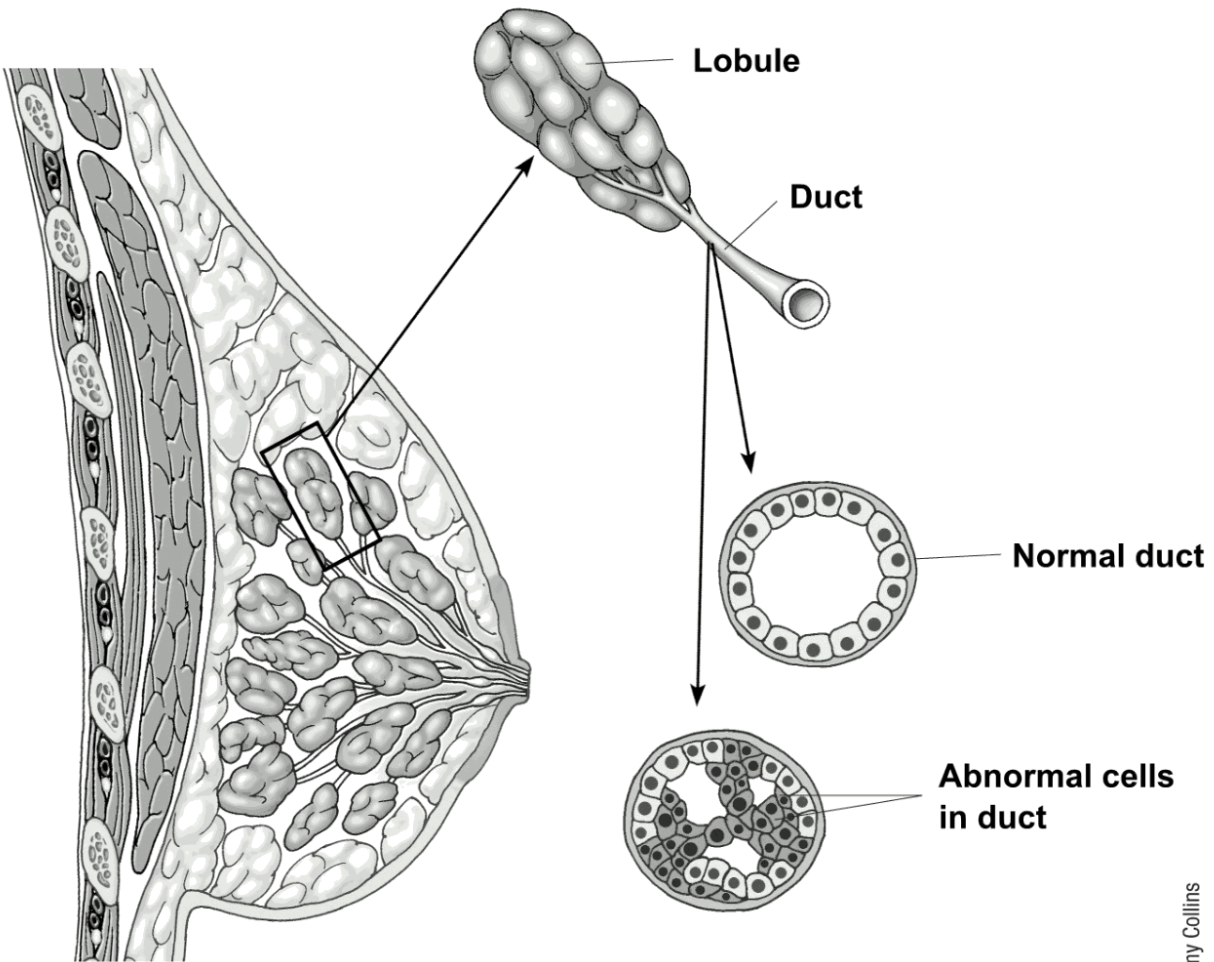
## Ductal Carcinoma In Situ (DCIS)

**About 1 in 5 new breast cancers will be DCIS or ductal carcinoma in situ.** Nearly all women with this early stage of breast cancer can be cured.

Ductal carcinoma in situ, or DCIS, is also called intraductal carcinoma and Stage 0 breast cancer. DCIS is sometimes called a pre-cancer. It's a non-invasive or pre-invasive breast cancer. This means the cells that line the ducts have changed to look like cancer cells but they have not spread through the walls of the ducts into the nearby breast tissue.

Because DCIS hasn't spread into the breast tissue around it, it can't spread (metastasize) beyond the breast to other parts of the body.

DCIS is considered a pre-cancer because sometimes it can become an invasive cancer. This means that over time, DCIS may spread out of the duct into nearby tissue, and could metastasize. Right now, though, there's no good way to know for certain which will become invasive cancers and which ones won't. So all women with DCIS should be treated.



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## Ductal carcinoma in situ

[Learn about treatment for ductal carcinoma in situ.](#)

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## Invasive Breast Cancer (IDC/ILC)

Breast cancers that have spread into surrounding breast tissue are known as invasive breast cancer. There are different kinds of invasive breast cancer. Some kinds are more common than others.

## Invasive ductal carcinoma

Invasive, or infiltrating, ductal carcinoma is the most common type of breast cancer. About 8 of 10 invasive breast cancers are invasive (or infiltrating) ductal carcinomas, which may be shortened to IDC.

IDC starts in the cells that line a milk duct in the breast, breaks through the wall of the duct, and grows into the nearby breast tissues. At this point, it may be able to spread (metastasize) to other parts of the body through the lymph system and bloodstream.

There are sub-types of invasive ductal carcinoma that are often named after cell features that can be seen under the microscope.

Some of these sub-types might **have better treatment outcomes** than standard infiltrating ductal carcinoma. These include:

- Adenoid cystic (or adenocystic) carcinoma
- Low-grade adenosquamous carcinoma (this is a type of metaplastic carcinoma)
- Medullary carcinoma
- Mucinous (or colloid) carcinoma
- Papillary carcinoma
- Tubular carcinoma

Some sub-types have **the same or maybe worse treatment outcomes** than standard infiltrating ductal carcinoma. These include:

- Metaplastic carcinoma (most types, including spindle cell and squamous)
- Micropapillary carcinoma
- Mixed carcinoma (has features of both invasive ductal and lobular)

For the most part, the sub-types are treated the same ways as standard IDC.

## Invasive lobular carcinoma

Invasive lobular carcinoma (ILC) starts in the milk-producing glands (lobules). Like IDC, it can spread (metastasize) to other parts of the body. About 1 invasive breast cancer in 10 is an ILC. Invasive lobular carcinoma may be harder to detect on a mammogram than invasive ductal carcinoma.

## Other types of invasive breast cancer

Less common types of invasive breast cancer are:

- Inflammatory breast cancer
- Paget disease of the nipple

Learn about [treatments for invasive breast cancer](#).

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# Inflammatory Breast Cancer

Inflammatory breast cancer (IBC) is rare. It differs from other types of breast cancer in its symptoms, outlook, and treatment. Symptoms include **breast swelling, redness of the skin**, and **pitting or ridging of the skin of the breast** so that it may look and have a **texture like orange peel**. If you have any of these symptoms, it does not mean that you have IBC, but you should see a doctor right away.

## What is inflammatory breast cancer?

Inflammatory breast cancer (IBC) has some symptoms of inflammation like swelling and redness. But infection or injury do not cause IBC or the symptoms. IBC symptoms are caused by cancer cells blocking lymph vessels in the skin.

## How is inflammatory breast cancer different from other types of breast cancer?

Inflammatory breast cancer differs from other types of breast cancer in several key ways:

- Inflammatory breast cancer (IBC) doesn't look like a typical breast cancer, It often does not cause a breast lump, and it might not show up on a mammogram. This makes it harder to diagnose.
- IBC tends to occur in younger women (at an average age of 52 versus 57 for more common forms of breast cancer).
- African-American women appear to be at higher risk of IBC than white women.
- IBC is more common among women who are overweight or obese.

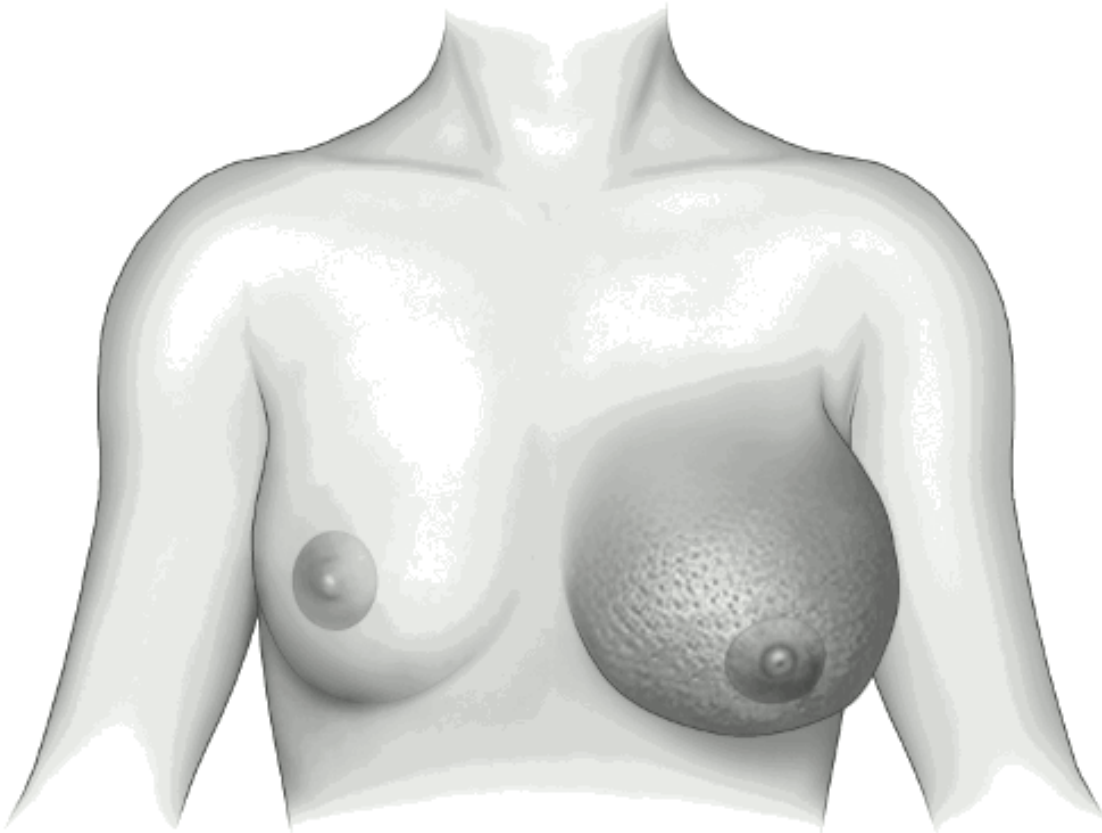


- IBC also tends to be more aggressive—it grows and spreads much more quickly—than more common types of breast cancer.
- IBC is always at a locally advanced stage when it's first diagnosed because the breast cancer cells have grown into the skin. (This means it at least stage IIIB.)
- In most cases, IBC has already spread (metastasized) to distant parts of the body when it is diagnosed. This makes it harder to treat successfully.

## **What are the signs and symptoms of inflammatory breast cancer?**

Inflammatory breast cancer (IBC) causes a number of signs and symptoms, most of which develop quickly and start at the same time, including:

- Thickening (edema/swelling) of the skin of the breast
- Redness involving more than one-third of the breast
- The breast may become harder
- Pitting or ridging of the skin of the breast so that it may look and have a texture like orange peel
- Sometimes the nipple is inverted.
- Swelling can make one breast look larger than the other.
- The breast feels warm and can feel heavy compared to the other breast.
- The breast may also be tender and painful or itchy.



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## Inflammatory breast cancer

Tenderness, redness, warmth, and itching are common symptoms of a breast infection or inflammation, such as mastitis if you're pregnant or breastfeeding. Because these problems are much more common than IBC, your doctor might at first suspect infection as a cause and treat you with antibiotics.

This may be a good first step, but if your symptoms don't get better in 7 to 10 days, more tests need to be done to look for cancer. The possibility of IBC should be considered more strongly in a woman who has these symptoms and is not pregnant or breastfeeding, or has been through menopause.

IBC grows and spreads quickly, so the cancer may have already spread to nearby lymph nodes by the time symptoms are noticed. This spread can cause swollen lymph nodes under your arm or above your collar bone. If the diagnosis is delayed, the cancer can spread to lymph nodes in your chest or to distant sites in the body.

If you have any of these symptoms, it does not mean that you have IBC, but you should

see a doctor right away. If treatment with antibiotics is started, you'll need to let your doctor know if it doesn't help, especially if the symptoms get worse or the area affected gets larger. Ask to see a specialist (like a breast surgeon) or you might want to get a second opinion if you're concerned.

## How is inflammatory breast cancer diagnosed?

### Imaging tests

If inflammatory breast cancer (IBC) is suspected, one or more of the following imaging tests may be done:

- [Mammogram](#)
- [Breast ultrasound](#)
- [MRI \(magnetic resonance imaging\) scan](#)
- [CT \(computed tomography\) scan](#)
- [PET \(positron emission tomography\) scan](#)

Sometimes a photo of the breast is taken to help record the amount of redness and swelling before starting treatment.

### Biopsy

Breast cancer is diagnosed by a [biopsy](#), taking out a small piece of the breast tissue and looking at it under a microscope. Your physical exam and other tests may show findings that are "suspicious for" IBC, but only a biopsy can tell for sure that cancer is present.

### Tests on biopsy samples

The cancer cells in the biopsy sample will be [graded](#) based on how abnormal they look. They will also be tested for certain proteins that help decide which treatments will be helpful.

The cells are tested for [hormone receptors](#). Women whose breast cancer cells contain hormone receptors are likely to benefit from treatment with hormone therapy drugs.

Cancer cells are also tested to see if they contain too much of a protein called HER2/neu (often just called HER2) or too many copies of the gene for that protein. If they do, the woman may be helped by certain drugs that target HER2.

## Stages of inflammatory breast cancer

Inflammatory breast cancer that has spread outside the breast and nearby lymph nodes is **stage IV**.

All other inflammatory breast cancers are **stage III**. If the cancer has spread to lymph nodes around the collarbone or inside the chest, it's **stage IIIC**. Otherwise, it's **stage IIIB**.

If you need more details, read about [breast cancer staging](#).

## Survival rates for inflammatory breast cancer

Inflammatory breast cancer (IBC) is considered an aggressive cancer because it grows quickly, is more likely to have spread at the time it's found, and is more likely to come back after treatment than most other types of breast cancer. The outlook is generally not as good as it is for most other types of breast cancer.

Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they cannot predict what will happen in any particular person's case. Many other factors can affect a person's outlook, such as age, general health, treatment received, and how well the cancer responds to treatment. Your doctor can tell you how the numbers below may apply to you, as he or she is familiar with your situation.

These survival rates are based on people diagnosed years ago. Improvements in treatment since then may result in a more favorable outlook for people now being diagnosed with inflammatory breast cancer.

These numbers are based on data from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) database, for patients who were diagnosed with inflammatory breast cancer between 1990 and 2008.

Median survival is the length of time for half of the patients in a group to have died. By definition, half of the patients in that group are still alive. It is important to remember that the median is just a kind of average used by researchers. No one is "average" and many people have much better outcomes than the median. Also, people with inflammatory breast cancer can die of other things, and these numbers don't take that into account.

- The median survival rate for people with stage III inflammatory breast cancer is about 57 months.
- The median survival rate for people with stage IV inflammatory breast cancer is about 21 months.

## How is inflammatory breast cancer treated?

Inflammatory breast cancer (IBC) that has not spread outside the breast or nearby lymph nodes is stage IIIB or IIIC. In most cases, treatment is chemotherapy to try to shrink the tumor, followed by surgery to remove the cancer. Radiation is given after surgery, and, in some cases, more chemo may be given after radiation.

IBC that has spread to other parts of the body (stage IV) is treated with chemotherapy, hormone therapy, and/or with a drug that targets HER2.

For details, see [treatment of inflammatory breast cancer](#).

## What's new in inflammatory breast cancer research?

Studies comparing DNA and other molecules from IBC with that of the usual types of breast cancer have shown some important differences. Scientists believe that some of these differences account for the unique and aggressive way that IBC spreads and grows. There's hope that understanding these differences will lead to better treatments that target cell changes specific to IBC.

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## Angiosarcoma of the Breast

Angiosarcoma of the breast is rare. It's usually a complication of previous [radiation](#)

[treatment to the breast](#). It can also occur in the affected arms of women with [lymphedema](#), but this is rare. (Lymphedema is swelling that can develop after surgery or radiation therapy to treat breast cancer.)

## What is angiosarcoma of the breast?

Angiosarcoma is cancer that starts in the cells that line blood vessels or lymph vessels. It very rarely occurs in people who had breast radiation to treat breast cancer. It can cause skin changes and/or a lump in the breast.

## How is angiosarcoma treated?

Angiosarcomas tend to grow and spread quickly. Treatment usually includes [surgery](#) to remove the breast (mastectomy), and is generally the same as for other sarcomas. For more information on sarcomas, see [soft tissue sarcomas](#).

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## Paget Disease of the Nipple

Paget disease of the nipple is a rare type of breast cancer involving the skin of the nipple. Paget disease starts in the breast ducts and spreads to the skin of the nipple and then to the areola, the dark circle around the nipple. Paget disease usually affects only one nipple. It's almost always linked to either ductal carcinoma in situ (DCIS) or infiltrating ductal carcinoma.

## What are the signs and symptoms of Paget disease of the nipple?

The skin of the nipple and areola often looks crusted, scaly, and red. There may be blood or yellow fluid coming out of the nipple. Sometimes the nipple looks flat. It also might burn or itch.

## How is Paget disease of the nipple diagnosed?

Most people with Paget disease of the nipple also have tumors in the same breast. One or more of the following imaging tests may be done to check for other breast changes:

- [Diagnostic mammogram](#)
- [Breast ultrasound](#)
- [MRI \(magnetic resonance imaging\) scan](#)

Paget disease of the nipple is diagnosed by a [biopsy](#), removing a small piece of the breast tissue and looking at it under a microscope. In some cases, the entire nipple may be removed. Only a biopsy can tell for sure that cancer is present.

## How is Paget disease of the nipple treated?

Paget disease is often treated by removing the entire breast ([mastectomy](#)). [Breast-conserving surgery](#) followed by whole-breast [radiation therapy](#) is another option for some women who do not have tumors in the breast.

If no lump is felt in the breast tissue, and your biopsy results show the cancer has not spread, the outlook (prognosis) is excellent.

If the cancer has spread (is invasive), the outlook is not as good, and the cancer will be [staged](#) and treated like any other [invasive ductal carcinoma](#).

## Breast Cancer Hormone Receptor Status

Cancer cells taken out during a [biopsy](#) or [surgery](#) will be tested to see if they have estrogen or progesterone receptors. When the hormones estrogen and progesterone attach to these receptors, they fuel the cancer growth. Cancers are called hormone receptor-positive or hormone receptor-negative based on whether or not they have these receptors. Knowing the hormone receptor status is important in deciding treatment options.

## What are estrogen and progesterone receptors?

Receptors are proteins in or on cells that can attach to certain substances in the blood. Normal breast cells and some breast cancer cells have receptors that attach to estrogen and progesterone and depend on these hormones to grow.

Breast cancer cells may have neither, one, or both of these receptors.



- **ER-positive:** Breast cancers that have estrogen receptors are called *ER-positive* (or ER+) cancers.
- **PR-positive:** Breast cancers with progesterone receptors are called *PR-positive* (or PR+) cancers.

Keeping these receptors from attaching to the hormones can help keep the cancer from growing and spreading. There are drugs that can be used to do this.

## Why is knowing hormone receptor status important?

Certain drugs are used to treat breast cancers that have one or both of these receptors. Most types of hormone therapy for breast cancer either lower estrogen levels or stop estrogen from acting on breast cancer cells. This kind of treatment is helpful for hormone receptor-positive breast cancers, but it doesn't work on tumors that are hormone receptor-negative (both ER- and PR-negative).

All invasive breast cancers should be tested for both of these hormone receptors either on the biopsy sample or when the tumor is removed with surgery. About 2 of 3 breast cancers have at least one of these receptors. This percentage is higher in older women than in younger women. DCIS should be checked for estrogen receptors, too.

## How are breast tumors tested for estrogen and progesterone?

A test called an [immunohistochemistry or IHC](#) is used most often to find out if cancer cells have estrogen and progesterone receptors. Special markers are used to label the hormone receptors so they can be seen under a microscope.

## What do the test results mean?

The test results will help guide you and your cancer care team in making the best treatment decisions.

Test results will give you your hormone receptor status. It will say a tumor is hormone receptor-positive if at least 1% of the cells tested have estrogen and/or progesterone receptors. Otherwise the test will say the tumor is hormone receptor-negative.

**Hormone receptor-positive** (or hormone-positive) breast cancer cells have either estrogen (ER) or progesterone (PR) receptors. These breast cancers can be treated

with hormone therapy drugs that lower estrogen levels or block estrogen receptors. This includes cancers that are ER-negative but PR-positive. Hormone receptor-positive cancers tend to grow more slowly than those that are hormone receptor-negative. Women with hormone receptor-positive cancers tend to have a better outlook in the short-term, but these cancers can sometimes come back many years after treatment. Hormone receptor-positive cancers are more common in women after menopause.

**Hormone receptor-negative** (or hormone-negative) breast cancers have neither estrogen nor progesterone receptors. Treatment with hormone therapy drugs is not helpful for these cancers. These cancers tend to grow faster than hormone receptor-positive cancers. If they come back after treatment, it's often in the first few years. Hormone receptor-negative cancers are more common in women who have not yet gone through menopause.

**Triple-negative** breast cancer cells don't have estrogen or progesterone receptors and also don't have too much of the protein called **HER2**. These cancers tend to be more common in younger women and in women who are African-American or Hispanic/Latina. Triple-negative breast cancers grow and spread faster than most other types of breast cancer. Because the cancer cells don't have hormone receptors, hormone therapy is not helpful in treating these cancers. And because they don't have too much HER2, drugs that target HER2 aren't helpful, either. Chemotherapy can still be useful.

**Triple-positive** cancers are ER-positive, PR-positive, and HER2-positive. These cancers can be treated with hormone drugs as well as drugs that target HER2.

## Questions to ask your doctor about hormone receptors

These are some questions that would be good to have on hand when talking to your doctor about your breast cancer test results:

- Has my tumor been tested for hormone receptors?
- What's my hormone receptor status? Positive or negative?
- How does my hormone receptor status affect my treatment plan?
- [References](#)

American Society of Clinical Oncology. Estrogen and Progesterone Receptor Testing for Breast Cancer. April 19, 2010. Accessed at <http://www.cancer.net/research-and-advocacy/asco-care-and-treatment-recommendations-patients/estrogen-and-progesterone-receptor-testing-breast-cancer> on September 25, 2015.

# Breast Cancer HER2 Status

Some women have breast tumors with higher levels of a protein known as HER2 – these are called HER2-positive breast cancers. HER2-positive breast cancers tend to grow and spread faster than other breast cancers. Finding out the HER2 status of your breast tumor is important because there are treatments targeted at HER2-positive breast cancers.

## What is HER2/neu and what does it mean?

**HER2/neu (often just shortened to HER2) is a growth-promoting protein on the outside of all breast cells.** Breast cancer cells with higher than normal levels of HER2 are called HER2-positive. These cancers tend to grow and spread faster than other breast cancers. Women newly diagnosed with invasive breast cancers should be tested for HER2. It's important to know your "HER2 status" because HER2-positive cancers are much more likely to benefit from treatment with drugs that target the HER2 protein, such as trastuzumab (Herceptin<sup>®</sup>). Ask your doctor about your HER2 status and what it means for you.

## How are breast tumors tested for HER2?

A biopsy or surgery sample of the cancer is usually tested with one of the following:

- **Immunohistochemical stains (IHC):** In this test, special markers are used that identify the HER2 protein. If many copies of HER2 are present, the cells will change color. This color change can be seen under a microscope.
- **Fluorescent in situ hybridization (FISH):** This test uses fluorescent pieces of DNA that stick to copies of the *HER2/neu* gene inside the cells, which can then be counted under a special microscope. (The *HER2/neu* gene makes the HER2 protein.)
- A newer type of test, known as **chromogenic in situ hybridization (CISH)**, works much like FISH, by using small DNA probes to count the number of *HER2/neu* genes in breast cancer cells. But this test looks for color changes (not fluorescence)

and doesn't require a special microscope. This may make it less expensive. But right now it's not being used as much as IHC or FISH.

Read about [testing biopsy and cytology specimens](#) for cancer to get more details about these tests.

## What do the test results mean?

The results of HER2 testing will guide you and your cancer care team in making the best treatment decisions.

Often the IHC test is done first. The results come back as 0, 1+, 2+, or 3+.

- If the results are 0 or 1+, the cancer is HER2-negative.
- When the IHC result is 2+, the HER2 status of the tumor is not clear. This usually leads to retesting with FISH. FISH results come back as positive or negative for excess HER2.
- If the test comes back 3+, the cancer is HER2-positive. But sometimes the FISH test is used to confirm HER2 status that is found to be 3+ by an IHC test.

**HER2-positive** breast tumors have too much HER2 protein or extra copies of the HER2 gene. They can and should be treated with drugs that target HER2.

**HER2-negative** breast tumors don't have excess HER2. They do not respond to treatment with drugs that target HER2.

**Triple-negative** breast tumors don't have too much HER2 and also don't have estrogen or progesterone receptors. They are HER2-, ER-, and PR-negative. These cancers tend to be found in younger women and in African-American or Hispanic/Latina women. Triple-negative breast cancers grow and spread more quickly than most other types of breast cancer. Because the cancer cells don't have hormone receptors, hormone therapy is not helpful in treating these cancers. Because they don't have too much HER2, drugs that target HER2 aren't helpful, either. Chemotherapy can still be useful, though.

**Triple-positive** breast tumors are HER2-, ER-, and PR-positive. These cancers are treated with hormone drugs as well as drugs that target HER2.

## Questions to ask your doctor about HER2

These are some questions that would be good to have on hand when talking to your

doctor about your breast cancer test results:

- Has my tumor been tested for HER2?
- What's my HER2 status?
- Was the test clear or should another test be done?
- How does my HER2 status affect my treatment plan?
- [References](#)

American Society of Clinical Oncology. HER2 Testing for Breast Cancer. October 7, 2013. Accessed at <http://www.cancer.net/research-and-advocacy/asco-care-and-treatment-recommendations-patients/her2-testing-breast-cancer> on September 25, 2015.

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## Breast Cancer Gene Expression Tests

Tests that look at the patterns of certain genes (sometimes called *gene expression profiling*) can help predict if some early-stage (stage 1 or 2) breast cancers are likely to come back after initial treatment. This is information doctors can use to know which women will most likely benefit from chemotherapy after breast surgery.

### What are gene expression tests?

Looking at the patterns of a number of different genes at the same time can help predict if certain stage 1 or 2 breast cancers are likely to come back after initial treatment. Tests like these are part of what's being called "personalized medicine" – learning more about your cancer cells to specially tailor your treatment.

The **Oncotype DX**<sup>®</sup> and the **MammaPrint**<sup>®</sup> are examples of tests that look at different sets of breast cancer genes. And there are more tests in development.

It's important to know that these tests can cost a lot and aren't always covered by insurance.

### How are the tests done?

**Oncotype DX<sup>®</sup>:** The Oncotype DX test is used for small hormone receptor-positive tumors (1 cm or less) that have not spread to lymph nodes, but it may be used for more advanced tumors, too. It also can be used for DCIS (ductal carcinoma in situ or stage 0 breast cancer).

This test looks at a set of 21 genes in cells from tumor biopsy samples to get a “recurrence score,” which is a number between 0 and 100. The score reflects the risk of the breast cancer coming back (recurring) in the next 10 years and how likely you will benefit from getting chemotherapy.

- **A lower score means a low risk of recurrence.** Women with low-recurrence scores would probably not benefit from chemotherapy.
- **A high score means a high risk of recurrence.** Women with high-recurrence scores are likely to benefit from chemotherapy to help decrease the chance of the cancer coming back.

**MammaPrint<sup>®</sup>:** This test can be used to help determine how likely breast cancers are to recur in a distant part of the body after treatment. It can be used in any type of breast cancer that’s small (stage 1 or 2) and has spread to no more than 3 lymph nodes. Hormone and HER2 status are assessed as part of this test.

The test looks at 70 different genes to determine if the cancer is at low risk or high risk of coming back (recurring) in the next 10 years. The test results come back as either “low risk” or “high risk.”

## What do the test results mean?

Gene expression testing (gene profiling) can help predict which women will most likely benefit from [chemotherapy](#) after breast surgery. (This is called adjuvant chemotherapy.) [Hormone therapy](#) is a standard treatment for hormone receptor-positive breast cancers, but it’s not always clear when to use chemotherapy. These tests can help guide that decision.

Still, these tests cannot tell any one woman for certain if her cancer will come back with or without chemotherapy. Many doctors use these tests (along with other information) to help make decisions about offering chemotherapy. Keep in mind that these tests aren’t needed in all cases. For instance, if you have a fast-growing or a stage 4 breast cancer, you don’t need these tests because you should get chemotherapy as part of standard treatment.

These tests are now being looked at in large clinical trials to better understand how and

when to best use them. In the meantime, women might want to ask their doctors if these tests might be useful for them.

- [References](#)

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## Breast Cancer: Ploidy and Cell Proliferation

These tests provide information about the DNA in the breast cancer cells, and can be used to help predict how fast the cancer cells are dividing and growing.

### What is ploidy and what does it mean?

The ploidy of cancer cells refers to the amount of DNA they contain.

- If there's a normal amount of DNA in the cells, they are said to be *diploid*. These

cancers tend to grow and spread more slowly.

- If the amount of DNA is abnormal, then the cells are called *aneuploid*. These cancers tend to be more aggressive. (They tend to grow and spread faster.)

Tests of ploidy may help figure out long-term outcomes, but they rarely change treatment and are considered optional. They are not usually recommended as part of a routine breast cancer work-up.

## What is cell proliferation?

Cell proliferation is how quickly a cancer cell copies its DNA and divides into 2 cells. If the cancer cells are dividing more rapidly, it means the cancer is faster growing or more aggressive.

The rate of cancer cell division can be estimated by doing a **Ki-67 test**. The *S-phase fraction* is the percentage of cells in a sample that are copying their DNA. DNA is copied when the cell is getting ready to divide into 2 new cells. If the S-phase fraction or Ki-67 labeling index is high, it means that the cancer cells are dividing more rapidly.

In some cases, Ki-67 testing to measure cell proliferation may be used to help to plan treatment or estimate treatment outcomes. But test results vary depending on things like the lab doing the testing, the testing method, and what part of the tumor is tested. Still, there's a lot of interest in measuring tumor proliferation and standardizing testing methods, so this test is being used more often.

## Questions to ask your doctor

These are some questions that would be good to have on hand when talking to your doctor about your breast cancer test results:

- Will ploidy and/or cell proliferation tests be done on my cancer?
- If so, what do my test results mean?
- How will they affect my treatment plan?
- [References](#)

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# Breast Cancer Grades

Knowing a breast cancer's grade is important in order to figure out how fast it's likely to grow and spread.

## What is a breast cancer's grade?

Cancer cells are given a **grade**. Cancer cells removed from the breast are checked under a microscope. The **grade is based on how much the cancer cells look like normal cells**.

**A lower grade number (1) usually means the cancer is slower-growing and less likely to spread.**

**A higher number (3) means a faster-growing cancer** that's more likely to spread. The grade is used to help predict your outcome (prognosis) and help figure out what treatments might work best.

## What is a histologic grade?

Three histologic features are examined and each is assigned a score to determine the histologic grade. The scores are then added. This sum between 3 and 9 is used to get a grade 1, 2, or 3, which is noted on your pathology report. Sometimes words (well differentiated, moderately differentiated, and poorly differentiated) are used to describe the grade instead of numbers:

- **Grade 1 or well differentiated** (score 3, 4, or 5). The cells are slower-growing, and look more like normal breast tissue.
- **Grade 2 or moderately differentiated** (score 6, 7). The cells are growing at a speed of and look like cells somewhere between grades 1 and 3.
- **Grade 3 or poorly differentiated** (score 8, 9) . The cancer cells look very different from normal cells and will probably grow and spread faster.

Our information about [pathology reports](#) can help you understand details about your breast cancer.

## Grading ductal carcinoma in situ (DCIS)

DCIS is graded only on how abnormal the cancer cells look. **Necrosis** (areas of dead or dying cancer cells) is also noted. If there is necrosis, it means the tumor is growing quickly.

The term **comedocarcinoma** is often used to describe DCIS with a lot of necrosis. If a breast duct is filled with a plug of dead and dying cells, the term **comedonecrosis** may be used. Comedocarcinoma and comedonecrosis are linked to a higher grade of DCIS.

[Understanding Your Pathology Report: Ductal Carcinoma In Situ](#) has more on how DCIS is described.

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## Stages of Breast Cancer

After a woman is diagnosed with breast cancer, doctors will figure out whether it has spread, and if so, how far. This is called *staging*. The stage of a cancer helps determine how serious the cancer is and how best to [treat](#) it.

### What is staging?

Staging is the process of finding out how widespread the cancer is when it is found. **The stage is the most important factor in deciding how to treat the cancer and determining how successful treatment might be.**

To determine the cancer's stage after a breast cancer diagnosis, doctors must answer these questions:

- Is the cancer invasive or non-invasive?
- How big is the breast tumor? Has it grown into nearby areas?
- Has the cancer spread to nearby lymph nodes? If so, how many are involved?
- Has the cancer spread to other parts of the body?

Depending on the results of your physical exam and biopsy, you might need more tests to help determine the stage, such as a chest x-ray, mammograms of both breasts, bone scans, CT scans, MRI, and/or PET scans. Blood tests may also be done to evaluate your overall health or to check for spread to certain organs.

After looking at your test results, your doctor will tell you the stage of your cancer. The earliest stage cancers are called stage 0 (carcinoma in situ), and then range from stages I (1) through IV (4). Some of the stages have sub stages with the letters A, B, and C.

As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means a more advanced cancer. And within a stage, an earlier letter means a lower (and often better) stage. Cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

## Understanding your breast cancer stage

Breast cancer is staged using the American Joint Committee on Cancer (AJCC) **TNM** system, which is based on:

- The size of the breast tumor (**T**) and if it has grown into nearby areas
- Whether the cancer has reached nearby lymph nodes (**N**)
- Whether the cancer has metastasized (spread to other parts of the body) (**M**)

Once the T, N, and M categories for your cancer have been determined, your doctor will combine the information to find the stage of the cancer. This process is called *stage grouping*. Cancers with similar stages tend to have a similar outlook and are often treated in a similar way.

<b>Stage 0</b>	<b>Tis, N0, M0</b>	This is <i>ductal carcinoma in situ (DCIS)</i> , a pre-cancer of the breast. Many consider DCIS the earliest form of breast cancer. In DCIS, cancer cells are still within a duct and have not invaded deeper into the surrounding fatty breast tissue. <i>Lobular carcinoma in situ (LCIS)</i> sometimes also is classified as stage 0 breast cancer, but most oncologists believe it is not a true cancer or pre-cancer. Paget disease of the nipple (without an underlying tumor mass) is also stage 0. In all cases the cancer has not spread to lymph nodes or distant sites.
<b>Stage IA</b>	<b>T1, N0, M0</b>	The tumor is 2 cm (about 3/4 of an inch) or less across (T1) and has not spread to lymph nodes (N0) or distant sites (M0).
<b>Stage IB</b>	<b>T0 or T1, N1mi,</b>	The tumor is 2 cm or less across (or is not found)

	<b>M0</b>	(T0 or T1) with micrometastases in 1 to 3 axillary lymph nodes (the cancer in the underarm lymph nodes is greater than 0.2mm across and/or more than 200 cells but is not larger than 2 mm)(N1mi). The cancer has not spread to distant sites (M0).
<b>Stage IIA</b>	<b>T0 or T1, N1 (but not N1mi), M0:</b>	The tumor is 2 cm or less across (or is not found) (T1 or T0) and either: It has spread to 1 to 3 axillary (underarm) lymph nodes, with the cancer in the lymph nodes larger than 2 mm across (N1a), OR Tiny amounts of cancer are found in internal mammary lymph nodes (nodes near the breast bone) on sentinel lymph node biopsy (N1b), OR It has spread to 1 to 3 axillary lymph nodes and to internal mammary lymph nodes (found on sentinel lymph node biopsy) (N1c). The cancer has not spread to distant sites (M0).
	<b>OR</b>	
	<b>T2, N0, M0</b>	The tumor is larger than 2 cm but less than 5 cm (about 2 inches) across (T2) but hasn't spread to the lymph nodes (N0). The cancer has not spread to distant sites (M0).
<b>Stage IIB</b>	<b>T2, N1, M0</b>	The tumor is larger than 2 cm but less than 5 cm across (T2). It has spread to 1 to 3 axillary lymph nodes and/or tiny amounts of cancer are found in internal mammary lymph nodes on sentinel lymph node biopsy (N1). The cancer hasn't spread to distant sites (M0).
	<b>OR</b>	
	<b>T3, N0, M0</b>	The tumor is larger than 5 cm across but does not grow into the chest wall or skin (T3). The cancer has not spread to the lymph nodes (N0) or to distant sites (M0).
<b>Stage IIIA</b>	<b>T0 to T2, N2, M0</b>	The tumor is not more than 5 cm across (or cannot be found) (T0 to T2). It has spread to 4 to 9 axillary lymph nodes, or it has enlarged the internal mammary lymph nodes (N2). The cancer hasn't spread to distant sites (M0).
	<b>OR</b>	

	<b>T3, N1 or N2, M0</b>	The tumor is larger than 5 cm across but does not grow into the chest wall or skin (T3). It has spread to 1 to 9 axillary nodes, or to internal mammary nodes (N1 or N2). The cancer hasn't spread to distant sites (M0).
<b>Stage IIIB</b>	<b>T4, N0 to N2, M0</b>	The tumor has grown into the chest wall or skin (T4), and one of the following applies: <ul style="list-style-type: none"> <li>• It has not spread to the lymph nodes (N0).</li> <li>• It has spread to 1 to 3 axillary lymph nodes and/or tiny amounts of cancer are found in internal mammary lymph nodes on sentinel lymph node biopsy (N1).</li> <li>• It has spread to 4 to 9 axillary lymph nodes, or it has enlarged the internal mammary lymph nodes (N2).</li> </ul> The cancer hasn't spread to distant sites (M0). <b>Inflammatory breast cancer</b> is classified as T4d and is at least stage IIIB. If it has spread to many nearby lymph nodes (N3) it could be stage IIIC, and if it has spread to distant lymph nodes or organs (M1) it would be stage IV.
<b>Stage IIIC</b>	<b>any T, N3, M0</b>	The tumor is any size (or can't be found), and one of the following applies: <ul style="list-style-type: none"> <li>• Cancer has spread to 10 or more axillary lymph nodes (N3).</li> <li>• Cancer has spread to the lymph nodes under the collar bone (infraclavicular nodes) (N3).</li> <li>• Cancer has spread to the lymph nodes above the collar bone (supraclavicular nodes) (N3).</li> <li>• Cancer involves axillary lymph nodes and has enlarged the internal mammary lymph nodes (N3).</li> <li>• Cancer has spread to 4 or more axillary lymph nodes, and tiny amounts of cancer are found in internal mammary lymph nodes on sentinel lymph node biopsy (N3).</li> </ul> The cancer hasn't spread to distant sites (M0).
<b>Stage IV</b>	<b>any T, any N, M1</b>	The cancer can be any size (any T) and may or may not have spread to nearby lymph nodes (any N). It has spread to distant organs or to lymph

		nodes far from the breast (M1). The most common sites of spread are the bones, liver, brain, or lungs.
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The staging system in this chart uses the *pathologic stage*. It is based on the results of physical exam, biopsy, imaging tests, and the results of surgery, when the breast mass and nearby lymph nodes have been looked at under a microscope. This is likely to be more accurate than *clinical staging*, which only takes into account the tests done *before* surgery.

If you have any questions about the stage of your cancer and what it might mean in your case, be sure to ask your doctor.

## Details of the TNM staging system

The TNM staging system classifies cancers based on 3 areas called the T, N, and M categories:

### T (primary tumor) categories

The letter T followed by a number from 0 to 4 describes the main (primary) tumor's size and spread to the skin or to the chest wall under the breast. Higher T numbers mean a larger tumor and/or wider spread to tissues near the breast.

**TX:** Primary tumor cannot be assessed.

**T0:** No evidence of primary tumor.

**Tis:** Carcinoma in situ (DCIS, LCIS, or Paget disease of the nipple with no associated tumor mass)

**T1** (includes T1a, T1b, and T1c): Tumor is 2 cm (3/4 of an inch) or less across.

**T2:** Tumor is more than 2 cm but not more than 5 cm (2 inches) across.

**T3:** Tumor is more than 5 cm across.

**T4** (includes T4a, T4b, T4c, and T4d): Tumor of any size growing into the chest wall or skin. This includes inflammatory breast cancer.

## N (nearby lymph node) categories

The letter N followed by a number from 0 to 3 indicates whether the cancer has spread to lymph nodes near the breast and, if so, how many lymph nodes are affected.

Lymph node staging for breast cancer is based on how the nodes look under the microscope, and has changed as technology has evolved. Newer methods have made it possible to find smaller and smaller deposits of cancer cells, but experts haven't been sure how much these tiny deposits of cancer cells affect outlook.

It's not yet clear how much cancer in the lymph node is needed to see a change in outlook or treatment. This is still being studied, but for now, a deposit of cancer cells must contain at least 200 cells or be at least 0.2 mm across (less than 1/100 of an inch) for it to change the N stage. An area of cancer spread that is smaller than 0.2 mm (or fewer than 200 cells) doesn't change the stage, but is recorded with abbreviations (i+ or mol+) that indicate the type of special test used to find the spread.

If the area of cancer spread is at least 0.2 mm (or 200 cells), but still not larger than 2 mm, it is called a *micrometastasis* (one mm is about the size of the width of a grain of rice). Micrometastases are counted only if there aren't any larger areas of cancer spread. Areas of cancer spread larger than 2 mm are known to affect outlook and do change the N stage. These larger areas are sometimes called *macrometastases*, but are more often just called *metastases*.

**NX:** Nearby lymph nodes cannot be assessed (for example, if they were removed previously).

**N0:** Cancer has not spread to nearby lymph nodes.

**N0(i+):** The area of cancer spread contains less than 200 cells and is smaller than 0.2 mm. The abbreviation "i+" means that a small number of cancer cells (called *isolated tumor cells*) were seen in routine stains or when a special type of staining technique, called *immunohistochemistry*, was used.

**N0(mol+):** Cancer cells cannot be seen in underarm lymph nodes (even using special stains), but traces of cancer cells were detected using a technique called *RT-PCR*. RT-PCR is a molecular test that can find very small numbers of cells. (This test is not often used for finding breast cancer cells in lymph nodes because the results do not influence treatment decisions.)

**N1:** Cancer has spread to 1 to 3 axillary (underarm) lymph node(s), and/or tiny amounts of cancer are found in internal mammary lymph nodes (those near the breast bone) on

sentinel lymph node biopsy.

**N1mi:** Micrometastases (tiny areas of cancer spread) in 1 to 3 lymph nodes under the arm. The areas of cancer spread in the lymph nodes are 2 mm or less across (but at least 200 cancer cells or 0.2mm across).

**N1a:** Cancer has spread to 1 to 3 lymph nodes under the arm with at least one area of cancer spread greater than 2 mm across.

**N1b:** Cancer has spread to internal mammary lymph nodes, but this spread could only be found on sentinel lymph node biopsy (it did not cause the lymph nodes to become enlarged).

**N1c:** Both N1a and N1b apply.

**N2:** Cancer has spread to 4 to 9 lymph nodes under the arm, or cancer has enlarged the internal mammary lymph nodes (either N2a or N2b, but not both).

**N2a:** Cancer has spread to 4 to 9 lymph nodes under the arm, with at least one area of cancer spread larger than 2 mm.

**N2b:** Cancer has spread to one or more internal mammary lymph nodes, causing them to become enlarged.

**N3:** Any of the following:

**N3a:** either:

Cancer has spread to 10 or more axillary lymph nodes, with at least one area of cancer spread greater than 2mm, OR

Cancer has spread to the lymph nodes under the collar bone (infraclavicular nodes), with at least one area of cancer spread greater than 2mm.

**N3b:** either:

Cancer is found in at least one axillary lymph node (with at least one area of cancer spread greater than 2 mm) and has enlarged the internal mammary lymph nodes, OR

Cancer has spread to 4 or more axillary lymph nodes (with at least one area of cancer spread greater than 2 mm), and tiny amounts of cancer are found



in internal mammary lymph nodes on sentinel lymph node biopsy.

**N3c:** Cancer has spread to the lymph nodes above the collar bone (supraclavicular nodes) with at least one area of cancer spread greater than 2mm.

## **M (metastasis) categories**

The letter M followed by a 0 or 1 indicates whether the cancer has spread to distant organs -- for example, the lungs or bones.

**MX:** Distant spread (metastasis) cannot be assessed.

**M0:** No distant spread is found on x-rays (or other imaging tests) or by physical exam.

**cM0(i+):** Small numbers of cancer cells are found in blood or bone marrow (found only by special tests), or tiny areas of cancer spread (no larger than 0.2 mm) are found in lymph nodes away from the breast.

**M1:** Cancer has spread to distant organs (most often to the bones, lungs, brain, or liver).

- [References](#)

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## **Breast Cancer Survival Rates**

Survival rates tell you what portion of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding about the outlook. Some people will want to know the survival rates for their cancer type and stage, and some people won't.

Survival rates are often used by doctors as a standard way of discussing a person's outlook (prognosis). Some women with breast cancer might want to know the survival statistics for people in similar situations, while others might not find the numbers helpful,

or might even not want to know them.

## What is a 5-year survival rate?

Statistics on the outlook for a certain type and stage of cancer are often given as 5-year survival rates, but many people live longer – often much longer – than 5 years. **The 5-year survival rate is the percentage of people who live at least 5 years after being diagnosed with cancer.** For example, a 5-year survival rate of 90% means that an estimated 90 out of 100 people who have that cancer are still alive 5 years after being diagnosed.

**Relative survival rates are a more accurate way to estimate the effect of cancer on survival. These rates compare women with breast cancer to women in the overall population.** For example, if the 5-year relative survival rate for a specific type of cancer is 90%, it means that people who have that cancer are, on average, about 90% as likely as people who don't have that cancer to live for at least 5 years after being diagnosed.

But remember, the 5-year relative survival rates are estimates – your outlook can vary based on a number of factors specific to you.

## Survival rates don't tell the whole story

Survival rates are often based on previous outcomes of large numbers of people who had the disease, but they can't predict what will happen in any particular person's case. There are a number of limitations to remember:

- The numbers below are among the most current available. But to get 5-year survival rates, doctors have to look at people who were treated at least 5 years ago. As treatments are improving over time, women who are now being diagnosed with breast cancer may have a better outlook than these statistics show.
- The available statistics for breast cancer do not divide survival rates by all of the sub stages, such as IA and IB. The rates for these substages are likely to be close to the rate for the overall stage. For example, the survival rate for stage IA is likely to be slightly higher than that listed for stage I, while the survival rate for stage IB would be expected to be slightly lower.
- These statistics are based on the stage of the cancer when it was first diagnosed. They do not apply to cancers that later come back or spread, for example.
- Many other factors affect a person's outlook, such as age and health, the presence of hormone receptors on the cancer cells, the treatment received, and how well the

cancer responds to treatment.

Your doctor can tell you how these numbers may apply to you, as he or she is familiar with your particular situation.

## **5-year relative survival rates for breast cancer, by stage**

The outlook for women with breast cancer varies by the stage (extent) of the cancer. In general, the survival rates are higher for women with earlier stage cancers. But remember, the outlook for each woman is specific to her circumstances.

- The 5-year relative survival rate for women with stage 0 or stage I breast cancer is close to 100%.
- For women with stage II breast cancer, the 5-year relative survival rate is about 93%.
- The 5-year relative survival rate for stage III breast cancers is about 72%. But often, women with these breast cancers can be successfully treated.
- Breast cancers that have spread to other parts of the body are more difficult to treat and tend to have a poorer outlook. Metastatic, or stage IV breast cancers, have a 5-year relative survival rate of about 22%. Still, there are often many treatment options available for women with this stage of breast cancer.

Remember, these survival rates are only estimates – they can't predict what will happen to anyone. We understand that these statistics can be confusing and may lead you to have more questions. Talk to your doctor to better understand your specific situation.

*Please note that these statistics come from the National Cancer Institute's SEER database. They are based on the previous version of AJCC staging. In that version stage II also included patients that would now be considered stage IB.*

- [References](#)

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# Questions to Ask Your Doctor About Breast Cancer

The doctors, nurses, and other members of your cancer care team are the best source of information about your cancer. They will explain your diagnosis, treatment options, and progress. But not all women want the same amount of information or have the same questions. You can take an active role in your care by learning about your cancer and its treatment and by asking questions.

It's important for you to be able to talk openly and honestly with your cancer care team. They want to answer all of your questions, no matter how minor they might seem to you. But it helps if you know what to ask.

Here are some questions that you can use to help you better understand your cancer and your treatment options. Don't be afraid to take notes and tell the doctors or nurses when you don't understand what they're saying. You might want to bring another person with you when you see your doctors, and/or ask if it's OK to record your conversation to help you remember what was said.

Not all of these questions will apply to you, but they should help get you started.

## When you're told you have breast cancer

- Exactly what [type of breast cancer](#) do I have?
- How big is the cancer? Where exactly is it?
- Has the cancer spread to my lymph nodes or other organs?
- What's the [stage](#) of the cancer? What does that mean?
- Will I need any other tests before we can decide on treatment?
- Do I need to see any other doctors or health professionals?
- What is the [hormone receptor status](#) of my cancer? What does this mean?
- What is the [HER2 status](#) of my cancer? What does this mean?
- How do these factors affect my treatment options and long-term outlook (prognosis)?
- What are my chances of survival, based on my cancer as you see it?
- Should I think about [genetic testing](#)? What would the pros and cons of testing be?
- How do I get a copy of my pathology report?
- If I'm concerned about the costs and [insurance coverage](#) for my diagnosis and

treatment, who can help me?

## When deciding on a treatment plan

- How much experience do you have treating this type of cancer?
- Should I get a [second opinion](#)? How do I do that?
- What are my [treatment](#) choices?
- What treatment do you recommend and why?
- Should I think about taking part in a [clinical trial](#)?
- What would the goal of the treatment be?
- How soon do I need to start treatment?
- How long will treatment last? What will it be like? Where will it be done?
- Will any of the treatment be done by other doctors?
- What should I do to get ready for treatment?
- What risks and [side effects](#) should I expect?
- What can I do to reduce the side effects of the treatment?
- Should I change what I eat or make other lifestyle changes?
- How will treatment affect my daily activities?
- Will I be able to work during treatment?
- Will I lose my hair? If so, what can I do about it?
- Will I go through menopause as a result of the treatment? Will I be able to have children after treatment? Would I be able to breastfeed?
- What are the chances the cancer will come back after this treatment?
- What would we do if the treatment doesn't work or if the cancer comes back?

## If you need surgery

- Is [breast-conserving surgery](#) (lumpectomy) an option for me? Why or why not?
- What are the pros and cons of breast-conserving surgery versus mastectomy?
- How many surgeries like mine have you done?
- Will you have to take out lymph nodes? If so, would you advise a sentinel lymph node biopsy? Why or why not?
- What side effects might lymph node removal cause?
- How long will I be in the hospital?
- Will I have stitches or staples at the surgery site? Will there be a drain (tube) coming out of the site?
- How do I care for the surgery site? Will I need someone to help me?

- What will my breasts look and feel like after my treatment? Will I have normal feeling in them?
- What will the scar look like?
- Is [breast reconstruction surgery](#) an option if I want it? What would it mean in my case?
- Can I have reconstruction at the same time as the surgery to remove the cancer? What are the pros and cons of having it done right away or waiting until later?
- What types of reconstruction might be options for me?
- Should I speak with a plastic surgeon about reconstruction options?
- Will I need a breast form (prosthesis), and if so, where can I get one?
- Do I need to stop taking any medications or supplements before surgery?
- When will I need to return for a follow-up visit?
- When should I call your office if I'm having side effects?

## During treatment

Once treatment begins, you'll need to know what to expect and what to look for. Not all of these questions may apply to you, but asking the ones that do may be helpful.

- How will we know if the treatment is working?
- Is there anything I can do to help manage side effects?
- What symptoms or side effects should I tell you about right away?
- How can I reach you on nights, holidays, or weekends?
- Will I need to change what I eat during treatment?
- Are there any limits on what I can do?
- What kind of exercise should I do, and how often?
- Can you suggest a mental health professional I can see if I start to feel overwhelmed, depressed, or distressed?
- Will I need special tests, such as imaging scans or blood tests? How often?

## After treatment

- Will I need a special diet after treatment?
- Are there any limits on what I can do?
- Am I at risk for lymphedema?
- What can I do to reduce my risk for lymphedema?
- What should I do if I notice swelling?

- What other symptoms should I watch for? What kind of exercise should I do now?
- What type of follow-up will I need after treatment?
- How often will I need to have follow-up exams and imaging tests?
- Will I need any blood tests?
- How will we know if the cancer has come back? What should I watch for?
- What would my options be if the cancer comes back?

## Other questions

Be sure to write down any other questions you think of. For instance, you might want specific information about recovery times so that you can plan your work schedule. Or you may want to ask about nearby or online support groups where you can talk with other women going through similar situations.

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