

THE  
**BREAST  
HEALTH**  
*Guide*



TIPS, FACTS, AND  
COMPREHENSIVE INFORMATION  
YOU SHOULD KNOW



NATIONAL  
BREAST  
CANCER  
FOUNDATION, INC.®

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### **BREAST CANCER BASICS**

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# Breast Health Basics

## Healthy Habits

Leading a healthy lifestyle is recommended to protect your overall health and may help reduce your risk for certain cancers.

**Here are a few tips to follow:**



- Eat five or more servings of fruits and vegetables each day.
- Get regular physical activity.
- Maintain a healthy weight.
- Limit alcohol intake to no more than one drink per day.
- Do not smoke. Or, quit smoking.

Want to learn more about healthy living? Subscribe to our weekly healthy living tips that will be delivered to your email inbox.

## Assessing Your Personal Risk

A risk factor is a characteristic that increases the likelihood of developing cancer.

### **Below are just a few breast cancer risk factors:**

- I am a woman aged 40 or above:  
Yes   No
- I have been previously diagnosed with breast cancer or ovarian cancer:  
Yes   No
- My mother, sister, and/or daughter has had breast cancer:  
Yes   No
- My mother, sister, and/or daughter has tested positive for a gene mutation that is associated with higher risk of breast cancer (i.e. BRCA1 or BRCA2):  
Yes   No
- I have tested positive for a gene mutation that is associated with higher risk of breast cancer (i.e. BRCA1 or BRCA2):  
Yes   No

If you answered “yes” to any of these questions, or if you’d like to view a more comprehensive list of risk factors, please explore the Breast Cancer Risk Assessment Tool from National Cancer Institute. Click here to go to that assessment: [Cancer.gov/bcrisktool](https://www.cancer.gov/bcrisktool)

Talk to your doctor about any concerns you have. If you answered “yes” to any of the above questions, you may specifically want to talk to your doctor about genetic counseling or if genetic testing is right for you.

## Signs & Symptoms

### BREAST CANCER SYMPTOM CHECKLIST

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Many of the symptoms of breast cancer are invisible and not noticeable without a professional screening like a mammogram or ultrasound. There are other symptoms, however, that can be felt or observed when you are being proactive about your breast health. This guide will help you know what to look for and help you take note of the important information to provide your healthcare provider to guide him or her in their professional evaluation of your breast health and required screenings.

Complete this checklist if you have noticed any changes in your breast. This will help you discuss the changes with your healthcare provider.

#### I have noticed these breast changes:

- A lump or thickening in or near the breast or in the underarm area  
Left Breast    Right Breast    Date first noticed:
- A change in the size or shape of the breast  
Left Breast    Right Breast    Date first noticed:
- Dimpling or puckering in the skin of the breast  
Left Breast    Right Breast    Date first noticed:
- A nipple turned inward into the breast  
Left Breast    Right Breast    Date first noticed:
- Discharge (fluid) from the nipple  
Left Breast    Right Breast    Date first noticed:
- Scaly, red, or swollen skin on the breast, nipple, or areola (the dark area of skin at the center of the breast)  
Left Breast    Right Breast    Date first noticed:
- Other changes:

**If you have noticed any changes in your breasts, use this worksheet to describe what has happened. This will help you discuss these changes with your healthcare provider:**

These are the breast changes or problems I have noticed:

This is what the breast change looks or feels like: (Is the lump hard or soft? Does your breast feel tender or swollen? How big is the lump? What color is the nipple discharge?)

This is where the breast change is: (What part of the breast feels different? Do both breasts feel different or only one?)

This is when I first noticed the breast change:

Since then, this is the change I've noticed: (Has it stayed the same or gotten worse?)

## Document your personal medical history

I've had the following breast problems in the past:

These are the breast exams and tests that I have had:

My last mammogram was on this date:

My last menstrual period began on this date:

Right now, I:

Have breast implants

Am pregnant

Am breastfeeding

I've had the following type(s) of cancer before:

## Early Detection

Early detection means finding the cancer before it spreads. Breast cancer cannot be prevented, but early detection provides the greatest possibility of successful treatment. By following these three steps, you will help increase your chance of detecting breast cancer early.

### 1. BREAST SELF-AWARENESS



Breast self-awareness can help you become familiar with how your breasts normally look and feel. Knowing this will help you identify any changes in your breasts that should be reported to your health care professional promptly. If you find a lump, schedule an appointment with your doctor, but don't panic – most lumps are not cancer.

#### Changes to look for include:

- A lump or thickening in or near the breast or in the underarm area
- A change in the size or shape of the breast
- Dimpling or puckering in the skin of the breast
- A nipple turned inward into the breast
- Discharge (fluid) from the nipple
- Scaly, red, or swollen skin on the breast, nipple, or areola (the dark area of skin at the center of the breast)

You should see your health care provider about any of these symptoms. Often these symptoms are not due to cancer, but if you notice any changes in your body, tell your health care provider immediately so that the problems can be diagnosed and treated.

## 2. WELL-WOMAN EXAM



It is recommended that women visit their family physician or gynecologist each year for a Well-Woman Exam. In addition to a routine pelvic exam and pap smear, the doctor may perform a brief breast exam to check for abnormalities. The Well-Woman Exam is a great opportunity for you to discuss with your health care provider any questions or concerns you have regarding your breast health. For example, your doctor may help you determine the most appropriate personalized frequency for your early detection steps.

## 3. MAMMOGRAM



In its early stages, breast cancer doesn't usually cause symptoms. NBCF recommends that women ages 40 and older get a mammogram every year. A mammogram is an X-ray of the breast. It is a safe way to detect cancerous tumors and other abnormal breast conditions, and women who have screening mammograms have a lower chance of dying from breast cancer than women who do not have screening mammograms. Mammograms can detect cancer or other problems before a lump becomes large enough to be detected by touch. They provide an effective way to find breast cancer in its early stages when treatment is usually the most successful. Mammograms are considered safe, quick, and relatively painless.

## SCREENING SCHEDULE

Below you will find some general guidelines for breast cancer early detection methods. You should always consult with your doctor to create a screening schedule that is most appropriate for you.

| EXAM                  | AGE | FREQUENCY         |
|-----------------------|-----|-------------------|
| Breast Self-Awareness | 18+ | Regularly/Monthly |
| Well-Woman Exam       | 21+ | Yearly            |
| Mammogram             | 40+ | Yearly            |

# Breast Cancer Basics

## What Is Cancer?

### UNDERSTANDING BREAST CANCER

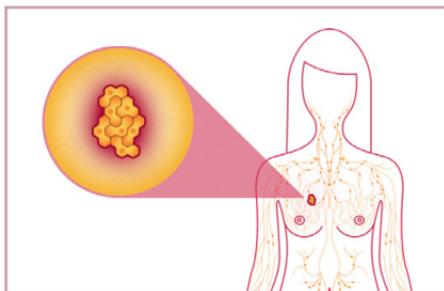
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Cancer is a broad term for a class of diseases characterized by abnormal cells that grow and invade healthy cells in the body. Breast cancer starts in the cells of the breast as a group of cancer cells that can then invade surrounding tissues or spread (metastasize) to other areas of the body.

### WHAT CAUSES CANCER TO DEVELOP?

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Cancer begins in the cells which are the basic building blocks that make up tissue. Tissue is found in the breast and other parts of the body. Sometimes, the process of cell growth goes wrong and new cells form when the body doesn't need them and old or damaged cells do not die as they should. When this occurs, a build up of cells often forms a mass of tissue called a lump, growth, or tumor.



Breast cancer occurs when malignant (cancerous) tumors develop in the breast. These cells can spread by breaking away from the original tumor and entering blood vessels or lymph vessels, which branch into tissues throughout the body. When cancer cells travel to other parts of the body and begin damaging other tissues and organs, the process is called metastasis.

## FACTS ABOUT BREAST CANCER IN THE UNITED STATES

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- One in eight women in the United States will be diagnosed with breast cancer in her lifetime.
- Breast cancer is the most commonly diagnosed cancer in women.
- Breast cancer is the second leading cause of cancer death among women.
- Each year it is estimated that over 252,710 women in the United States will be diagnosed with breast cancer and more than 40,500 will die.
- Although breast cancer in men is rare, an estimated 2,470 men will be diagnosed with breast cancer and approximately 460 will die each year.
- On average, every 2 minutes a woman is diagnosed with breast cancer and 1 woman will die of breast cancer every 13 minutes.
- Over 3.3 million breast cancer survivors are alive in the United States today.

## What Are Tumors?

A tumor is a mass of abnormal tissue. There are two types of breast cancer tumors: those that are non-cancerous, or 'benign', and those that are cancerous, which are 'malignant'.

### TYPES OF TUMORS:

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#### Benign Tumors

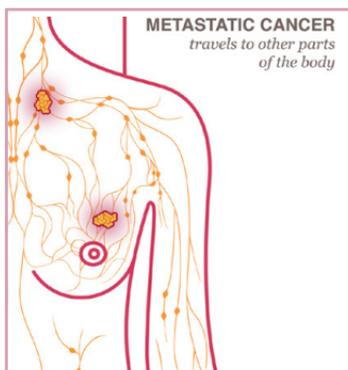
When a tumor is diagnosed as benign, doctors will usually leave it alone rather than remove it. Even though these tumors are not generally aggressive toward surrounding tissue, occasionally they may continue to grow, pressing on organs and causing pain or other problems. In these situations, the tumor is removed, allowing pain or complications to subside.

#### Malignant Tumors

Malignant tumors are cancerous and aggressive because they invade and damage surrounding tissue. When a tumor is suspected to be malignant, the doctor will perform a biopsy to determine the severity or aggressiveness of the tumor.

## Metastatic Cancer

Metastatic cancer is when cancer cells of a malignant tumor spread to other parts of the body, usually through the lymph system, and form a secondary tumor.



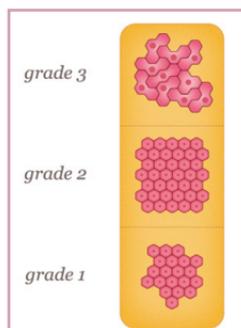
## TUMOR GRADES

Tumor grading is a system used to classify a malignant breast cancer tumor based upon the severity of the mutation and the likelihood that it will spread. The breast cancer cells are examined under a microscope to determine, among other factors, how closely the breast cancer cells resemble the healthy cells (called the histologic grade) and the shape and size of the tumor cells' nuclei (called the nuclear grade) as well as how rapidly those cells divide and multiply.

When dealing with breast cancer, tumors are often graded based on a scale of one to three indicating how aggressive the cancerous cells are:

|                        |                           |
|------------------------|---------------------------|
| Low grade (1)          | Well-differentiated       |
| Intermediate grade (2) | Moderately differentiated |
| High grade (3)         | Poorly differentiated     |

Low grade tumors look more like normal tissue under the microscope. High-grade tumors look abnormal and less like normal tissue and tend to be more aggressive.



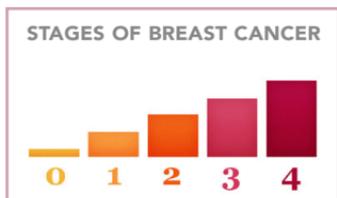
Breast cancer tumor grades are not to be confused with cancer stages. Tumor grades help to determine the best treatment plan, and in general, a lower grade tumor means a better chance for a full recovery. However, there are individuals who make full recoveries at every stage and with even the highest grades of aggressive tumors.

## Stages of Breast Cancer

Once a person is determined to have a malignant tumor or the diagnosis of breast cancer, the healthcare team will determine staging to communicate how far the disease has progressed.

### Why is the breast cancer stage important?

Determining the stage helps determine the best way to contain and eliminate the breast cancer.



### How is the stage determined?

The stage is based on the following factors:

- The size of the tumor within the breast
- The number of lymph nodes affected
- The nearest lymph nodes are found under the arm, known as the axillary area
- Signs indicating whether or not the breast cancer has invaded other organs within the body

If breast cancer has spread, or metastasized, evidence be may found in the bones, liver, lungs, or brain.

### Stage 0 & 1

These lowest numbered stages represent the earliest detection of breast cancer development. At Stage 0 and 1, the cancer cells are confined to a very limited area.

### Stage 2 (II) & Stage 2A (IIA)

Stage 2 breast cancer is still in the earlier stages, but there is evidence that the cancer has begun to grow or spread. It is still contained to the breast area and is generally very effectively treated.

### Stage 3 (III) A, B & C

Stage 3 breast cancer is considered advanced cancer with evidence of cancer invading surrounding tissues near the breast.

### Stage 4 (IV)

Stage 4 breast cancer indicates that cancer has spread beyond the breast to other areas of the body.

## STAGE 0 & 1

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### What does it mean to have Stage 1 breast cancer?

In Stage 1 breast cancer, cancer is evident, but it is contained to only the area where the first abnormal cells began to develop. The breast cancer has been detected in the early stages and can be very effectively treated.

Stage 1 can be divided into Stage 1A and Stage 1B. The difference is determined by the size of the tumor and the lymph nodes with evidence of cancer.

### Stage 1A breast cancer means the following description applies:

The tumor is smaller than the approximate size of a peanut (2 centimeters or smaller) AND has not spread to the lymph nodes.

**Stage 1B breast cancer means one of the following descriptions applies:**

Lymph nodes have cancer evidence with small clusters of cells between the approximate size of a pinprick to the approximate width of a grain of rice (.2mm to 2.0 mm).

**AND EITHER**

No actual tumor is found in the breast.

**OR**

The tumor is smaller than the approximate size of a peanut (2 centimeters or smaller).

Similar to stage 0, breast cancer at this stage is very treatable and survivable. When breast cancer is detected early, and is in the localized stage, the 5-year relative survival rate is almost 100%.

**STAGE 2****What does it mean to have Stage 2 breast cancer?**

Stage 2 means the breast cancer is growing, but it is still contained in the breast or growth has only extended to the nearby lymph nodes.



This stage is divided into groups: Stage 2A and Stage 2B. The difference is determined by the size of the tumor and whether the breast cancer has spread to the lymph nodes.

## STAGE 2A BREAST CANCER MEANS ONE OF THE FOLLOWING DESCRIPTIONS APPLIES.

### Either:

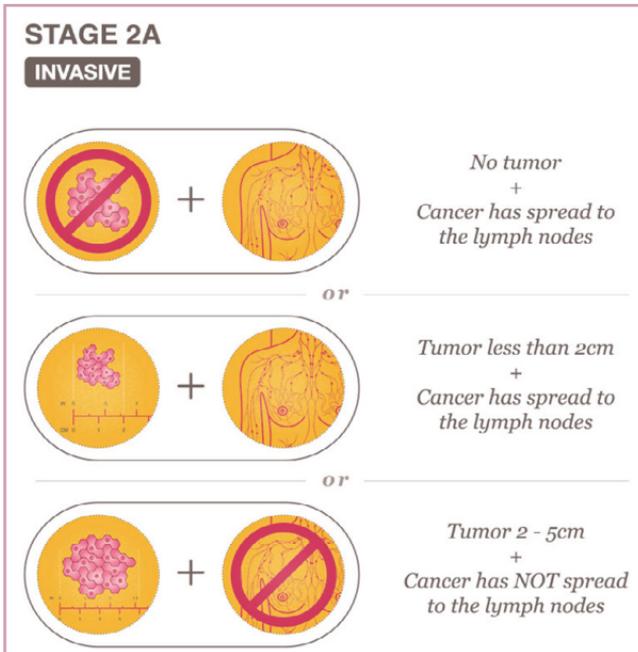
No actual tumor is associated with the cancerous cells and less than four auxiliary lymph nodes have cancer cells present.

### OR

The tumor is less than 2 centimeters and less than four auxiliary lymph nodes have cancer cells present.

### OR

The tumor is between 2 and 5 centimeters and has not yet spread to the lymph nodes.



## STAGE 2B BREAST CANCER MEANS ONE OF THE FOLLOWING DESCRIPTIONS APPLIES.

### Either:

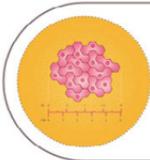
The tumor is between the 2 and 5 centimeters and has spread to less than four axillary lymph nodes.

### OR

The tumor is larger than five centimeters, but has not spread to any axillary lymph nodes.

**STAGE 2B**

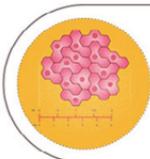
**INVASIVE**



+



*or*



+



*Tumor is 2 - 5 cm*  
+  
*Cancer has spread to the lymph nodes*

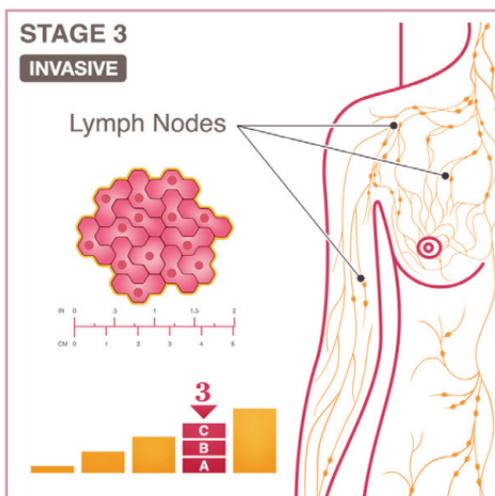
*Tumor larger than 5cm*  
+  
*Cancer has NOT spread to the lymph nodes*

## STAGE 3

### What does it mean to have Stage 3 breast cancer?

Stage 3 cancer means the breast cancer has extended to beyond the immediate region of the tumor and may have invaded nearby lymph nodes and muscles, but has not spread to distant organs. Although this stage is considered to be advanced, there are a growing number of effective treatment options.

This stage is divided into three groups: Stage 3A, Stage 3B, and Stage 3C. The difference is determined by the size of the tumor and whether cancer has spread to the lymph nodes and surrounding tissue.



**Stage 3A breast cancer means one of the following descriptions applies:**

**Either:**

No actual tumor is associated with the cancerous cells or the tumor may be any size, AND the nearby lymph nodes (4 or more nodes with as many as 9 affected) contain cancer.

**Or**

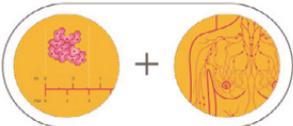
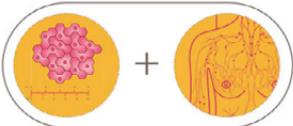
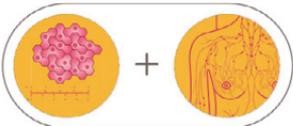
The tumor is larger than the approximate size of a small lime (more than 5 centimeters), AND small clusters of breast cancer cells are found in the lymph nodes between the approximate size of a pinprick and the width of a grain of rice. (.2mm - 2.0mm.)

**Or**

The tumor is larger than the approximate size of a small lime (over 5 centimeters), AND the cancer has spread to 1, 2, or 3 lymph nodes under the arm or near the breastbone.

**STAGE 3A**

**INVASIVE**

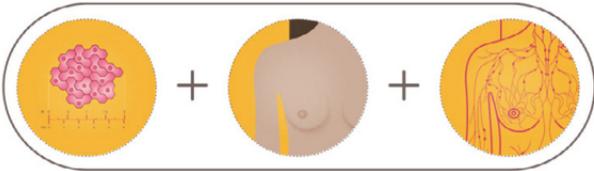
|   |   |
|---|---|
|   | <p><i>Tumor is less than 2cm</i></p> <p style="text-align: center;">+</p> <p><i>Cancer has spread to 4-9 lymph nodes</i></p>                            |
| <i>or</i>   |   |
|  | <p><i>Tumor larger than 5cm</i></p> <p style="text-align: center;">+</p> <p><i>Cancer clusters found in the lymph nodes</i></p>                         |
| <i>or</i>   |   |
|  | <p><i>Tumor larger than 5cm</i></p> <p style="text-align: center;">+</p> <p><i>Cancer has spread to lymph nodes near the breastbone or underarm</i></p> |

**Stage 3B breast cancer means the following description applies:**

The tumor may be any size, AND cancer has invaded the chest wall or breast skin with evidence of swelling, inflammation, or ulcers (such as with cases like inflammatory breast cancer). The breast cancer may also have invaded up to 9 nearby lymph nodes.

**STAGE 3B**

**INVASIVE**



*Tumor can be any size*

+

*Cancer has spread to the chest wall  
or breast skin*

+

*Cancer has spread to  
the lymph nodes*

**Stage 3C breast cancer means one of the following descriptions applies:**

**Either:**

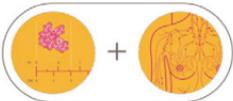
No actual tumor is found in the breast (such as with cases like inflammatory breast cancer) or the tumor may be any size, AND cancer may have invaded the chest wall or breast skin with evidence of swelling, inflammation, or ulcers and cancer has also invaded 10 or more lymph nodes under the arm

**OR**

No actual tumor is found in the breast or the tumor may be any size AND lymph nodes extending to the collarbone area are found to contain cancer.

**OR**

No actual tumor is found in the breast or the tumor may be any size AND lymph nodes under the arm and near the breastbone are found to contain cancer.

| <b>STAGE 3C</b>   |  |
|---|--|
| <b>INVASIVE</b>   |  |
|   | <p><i>No tumor or a tumor of any size<br/>+<br/>Cancer has spread to 10+ lymph nodes</i></p>                         |
| <b>or</b>   |  |
|  | <p><i>No tumor or a tumor of any size<br/>+<br/>Cancer has spread to lymph nodes near collar bone</i></p>            |
| <b>or</b>   |  |
|  | <p><i>No tumor or a tumor of any size<br/>+<br/>Cancer has spread to lymph nodes near underarm or breastbone</i></p> |

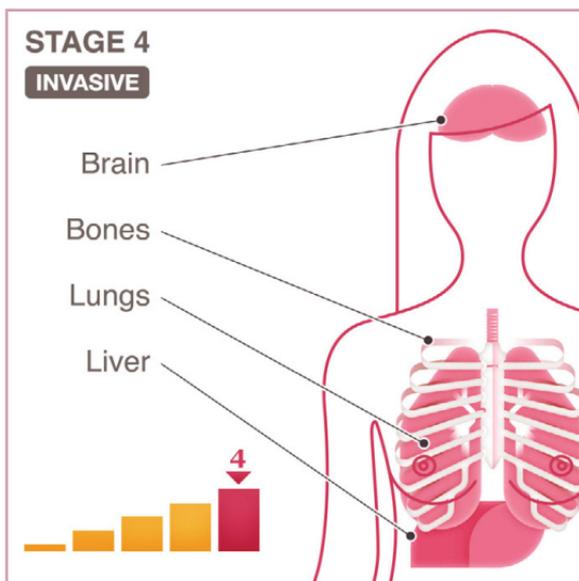
## STAGE 4

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### What does it mean to have Stage 4 breast cancer?

Stage 4 breast cancer means that the cancer has spread to other areas of the body, such as the brain, bones, lung and liver.

Although Stage 4 breast cancer is considered incurable, current advances in research and medical technology mean that more and more women are living longer by treating the disease as a chronic condition. With excellent care and support, as well as personal motivation, Stage 4 breast cancer may respond to a number of treatment options that can extend your life for several years.



## Types of Breast Cancer

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

Most breast cancers are carcinomas. These cancers start in the cells that line organs and tissues. 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.

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 cancer has spread into the surrounding breast tissue.

Common types of breast cancer include:

### **DUCTAL CARCINOMA IN SITU**

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Ductal Carcinoma in Situ (DCIS) is a non-invasive breast cancer where abnormal cells have been contained in the lining of the breast milk duct.

### **LOBULAR CARCINOMA IN SITU**

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Lobular Carcinoma In Situ (LCIS) is a breast change, not a cancer. 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 DUCTAL CARCINOMA

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Invasive Ductal Carcinoma means that abnormal cells that originated in the lining of the breast milk duct have invaded surrounding tissue. This is the most common type of breast cancer.

- IDC is the most common type of breast cancer, making up nearly 70- 80% of all breast cancer diagnoses.
- IDC is also the type of breast cancer that can most commonly affects men.

## INVASIVE LOBULAR CARCINOMA

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Invasive Lobular Carcinoma starts in the milk-producing glands (lobules). Like Invasive Ductal Carcinoma, it can spread to other parts of the body.

## SUB-TYPES OF INVASIVE CARCINOMA

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- Adenoid cystic (or adenocystic) carcinoma
- Low-grade adenosquamos (type of metaplastic carcinoma)
- Medullary carcinoma
  - » The tumor usually shows up on a mammogram, but does not always feel like a lump. At times, it feels like a spongy change of breast tissue.
- Mucinous (or colloid) carcinoma
- Papillary carcinoma
- Tubular carcinoma
  - » Typically this type of breast cancer is found in women aged 50 and above and usually responds well to hormone therapy.
- Metaplastic carcinoma
- Micropapillary carcinoma
- Mixed carcinoma (has features of both invasive ductal and lobular)

## **LESS COMMON TYPES OF BREAST CANCER INCLUDE:**

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### **Inflammatory Breast Cancer**

Inflammatory breast cancer is a less common form of breast cancer that may not develop a tumor and often affects the skin.

It often produces no distinct tumor or lump that can be felt and isolated within the breast. But when the lymph vessels become blocked by the breast cancer cells, symptoms begin to appear.

Early IBC symptoms may include persistent itching and the appearance of a rash or small irritation similar to an insect bite. The breast typically becomes red, swollen, and warm. The skin may appear pitted like an orange peel, and nipple changes such as inversion, flattening, or dimpling may occur.

### **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 1% of all cases of breast cancer.

Paget disease is frequently misdiagnosed at first because the first noticeable symptoms can easily be confused with more common skin conditions affecting the nipple.

### **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.

### **Breast Cancer During Pregnancy**

Women who are diagnosed with breast cancer during pregnancy may face tremendous additional strain due to concern for the safety of the unborn child.

*Source: American Cancer Society*