

# Breast Cancer: Things You Should Know

There are things you should know to understand what breast cancer is, know your chances for getting it, and how to find it early. Finding breast cancer early is critical because when it is found early, it is easier to treat. Read to learn more about the common symptoms of breast cancer and the best way many women find breast cancer early.

### What is breast cancer?

Breast cancer is the second most common cancer among women, after skin cancer. It is a disease in which cells in the breast grow out of control.

Cancer cells can also spread, or *metastasize*, to other parts of the body.



### What symptoms should I look for?

Some warning signs of breast cancer are:

- New lump in the breast or underarm (armpit).
- Thickening or swelling of part of the breast.
- Irritation or dimpling of breast skin.
- Redness or flaky skin in the nipple area or the breast.
- Pulling in of the nipple.
- Nipple discharge other than breast milk, including blood.
- Any change in the size or shape of the breast.
- Pain in the breast.

These symptoms can happen with other conditions that are not cancer. If you notice any of these symptoms, talk to your health care provider right away.

### What can I do to find breast cancer early?

**Breast cancer screening** involves checking a woman's breasts for cancer before there are signs or symptoms of the disease.

A mammogram is an X-ray picture of the breast. Doctors use a mammogram to look for early signs of breast cancer. The United States Preventive Services Task Force (USPSTF) recommends that most women who are at average risk and are 50 to 74 years old get one every 2 years. USPSTF



recommendations state that women with a parent, sibling, or child with breast cancer are at a higher risk for breast cancer and may benefit from beginning screening in their 40s. Weighing the benefits and risks of screening is important when considering your screening options. If you're 40 to 49 years old, talk to your health care provider about when to start screening.



## Are you concerned that you cannot afford to have a mammogram?

Most health insurance plans cover the cost of screening mammograms. If you have a low income or do not have insurance, you may qualify for a free or low-cost mammogram through CDC's National Breast and Cervical Cancer Early Detection Program.



National Breast and Cervical Cancer Early Detection Program

To learn more about the program, call (800) CDC-INFO or visit www.cdc.gov/cancer/nbccedp/.

### What can I do to lower my chance of getting breast cancer?

One of the most important things you can do to lower your risk of breast cancer is to know your risk of breast cancer. Talk to your doctor about what that means for you.

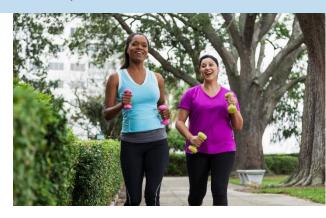
Your doctor will consider factors that cannot be changed, like:

- Your personal history of breast problems.
- Your family's history of breast cancer.
- Your breast density (the amount of connective and fatty tissue in your breasts).
- Your age. Most breast cancers are found after age 50.
- Your menstrual and childbirth history.
- Your history of radiation treatment therapy to the chest or breasts.
- If you took the drug diethylstilbestrol (DES), which was given to some pregnant women in the United States between 1940 and 1971 to prevent miscarriage, you have a higher risk. Women whose mothers took DES while pregnant with them are also at higher risk.
- If you or close family members have known mutations (changes) in your breast cancer genes (BRCA1 or BRCA2). Women who have inherited these genetic changes are at higher risk of breast and ovarian cancer. You will only know if you have a mutation if you have had genetic testing. Even in the absence of having abnormal genes when tested, it is important to know your family history; we don't know all the genes that cause breast cancer.

Your doctor will also consider factors that can be changed, like any hormone replacement use.

## Here are some things you can do to reduce your chance of getting breast cancer:

- Keep a healthy weight.
- Engage in regular physical activity.
- Don't drink alcohol, or limit alcoholic drinks to no more than one per day.



To learn more about breast cancer, visit www.cdc.gov/cancer/breast/.

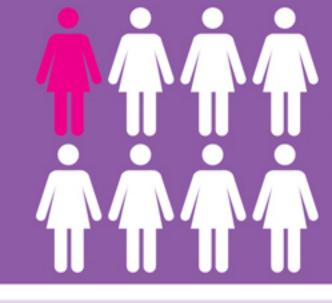




# **WHAT EVERY WOMAN** SHOULD KNOW

# ABOUT BREAST CANCER

Breast cancer is the most common non-skin cancer among American women. Advances in breast cancer treatment mean many women today can expect to beat the disease and maintain their physical appearance.



1 in 8 women will develop invasive breast cancer during

her lifetime.



62,930

About

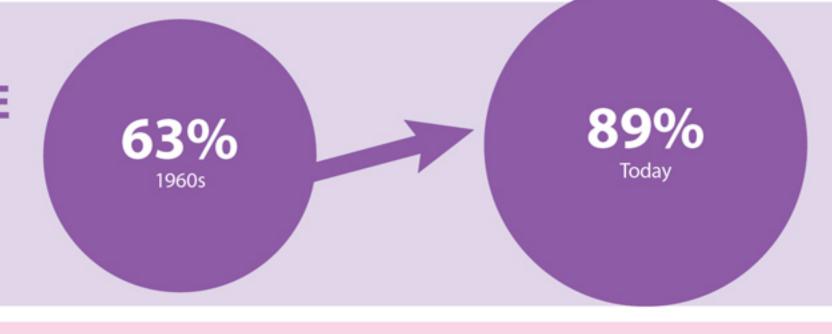
new cases of non-invasive carcinoma in situ, the earliest form of breast cancer, will be diagnosed in 2019.

About

268,600

new cases of invasive breast cancer will be diagnosed in 2019.

5-YEAR **SURVIVAL RATE FOR WOMEN WITH BREAST CANCER** 



# **RISK FACTORS**



are found in women ages

Most invasive breast cancers

55 or older.



Breast cancer is

# 100 times

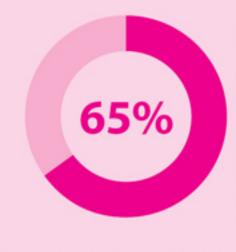
2,670 men will be diagnosed with invasive breast cancer in 2019.

more common in women than men. About



Women with an immediate blood relative, such as a mother or sister, who has had breast cancer are

### twice as likely to develop the disease.



Women with a mutated BRCA1 gene have about a

55-65 percent

lifetime risk of developing breast cancer. The average woman's lifetime risk is 12%.



more glandular and fibrous tissue may be at **higher risk for** developing breast cancer.

Women with less fatty tissue and



Fat tissue may contribute to increases in estrogen levels, and

high levels of estrogen may increase the risk of breast cancer.



Alcohol use is linked

to an increased risk of developing breast cancer. The risk increases with the amount of alcohol consumed.

LOBULES

LOBES

DUCTS

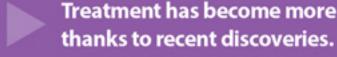
# TREATMENT OPTIONS



significantly in the past 30 years. Most women today do not need a mastectomy and can be treated just as

Treating breast cancer has advanced

effectively with a lumpectomy. Modern radiation techniques are better at avoiding damage to healthy tissue and chemotherapy has less serious side effects. Treatment has become more personalized



Researchers have identified estrogen receptor-positive (ER+) breast cancer and the link between the human epidermal growth factor receptor 2 (HER2) protein

and breast cancer growth. An understanding of the biological type of breast cancer informs treatment options today. Healthy breast cells contain receptors for the hormones estrogen and progesterone. They also contain receptors for a protein called HER2, which stimulates normal cell growth.



### INVASIVE DUCTAL

CARCINOMA is the most

common type of breast cancer. It may spread to other parts of the body

> infiltrating, ductal carcinoma begins in a milk duct and grows into the fatty tissue of the breast.



through the blood and lymph systems. Invasive, or



receptors for estrogen

and progesterone.





## of all breast cancers

do not contain receptors for estrogen, progesterone, or HER2. This type of breast cancer is triple-negative.



### Surgery The type of surgery you have depends on your

 Lumpectomy: Only the tumor is removed. It's also known as breast conservation therapy.

individual case. Surgical options include:

- Mastectomy: All breast tissue is removed. In many cases, breast skin and the nipple can be spared.
- Breast reconstruction: The breast is rebuilt after a total mastectomy.
- Oncoplastic: The tumor is removed and breast is reshaped to prevent contour deformities.



### Typically used to treat patients with locally advanced or metastatic breast cancer. Women with early stage disease may

have chemotherapy:

Chemotherapy

 Before surgery (neo-adjuvant): To reduce the size of large tumors and destroy cancer cells

and prevent the disease from spreading

After surgery (adjuvant): To destroy remaining cancer cells

**Radiation therapy** 



Used to shrink a large tumor before surgery or destroy cancer cells that remain after breast-sparing surgery.

Advanced radiation therapy techniques and technologies can target the tumor while sparing healthy tissue. These include: intensity modulated radiation therapy and high-dose rate (HDR) brachytherapy.



Targeted therapy

Prevents cancer cells from dividing or destroys cancer cells



**directly.** The drug Herceptin® is a targeted therapy for tumors that produce too much of the HER2 protein.



- Adds, blocks or removes hormones from the body to slow or stop the growth of cancer cells. Two common types of hormone therapy are:
- Selective estrogen receptor modulators: Drugs that block estrogen from reaching cancer cells. Tamoxifen is a commonly used hormone therapy to prevent breast cancer recurrence.
- Aromatase inhibitors: Drugs that block estrogen production to starve cancer cells of estrogen that fuels cell growth.

# UNDERSTANDING THE DISEASE

Breast cancer forms in tissues of the

breast. About 1 in 5 new breast cancer cases are ductal carcinoma in situ. This type of breast cancer begins in the milk ducts, the tubes that carry breast milk from the lobules to the nipple. Nearly all women treated at this early stage can expect to be cancer-free. Common breast cancer

### Skin changes, Nipple discharge such as swelling other than

signs and symptoms:

 An increase in size or change in shape of

the breast(s)

and redness

 General pain in/on any part of

the breast

the breast

breast milk

 Changes in the appearance of one

or both nipples

- Lumps or nodes felt on or inside of
- Symptoms specific to

invasive breast cancer

breast color Increase in breast

Change in

Irritated or

itchy breasts

size or shape over a short period of time

thickening

In 2009, the U.S.

A breast lump or

the nipple skin Redness or pitting of the breast skin

orange)

(like the skin of an

Changes in touch

tender or warm)

Peeling or flaking of

(may feel hard,

**PREVENTION** 

AND SCREENING **GUIDELINES** 

Preventive Services Task Force recommended that women begin routine mammograms at age 50,

The American Cancer Society and many physicians say women still should begin annual mammograms at age 40. Women at higher risk for breast cancer, such as those with a family history,

and then get the test every two years.

should discuss the most appropriate

screening plan with their doctor.



of America Winning the fight against cancer, every day."