



# Breast Cancer

## American Cancer Society

Reviewed February 2017





# What we'll be talking about

- How common is breast cancer?
- What is breast cancer?
- What causes it?
- What are the risk factors?
- Can breast cancer be prevented?
- Tests to find breast cancer early
- What you can do
- More information



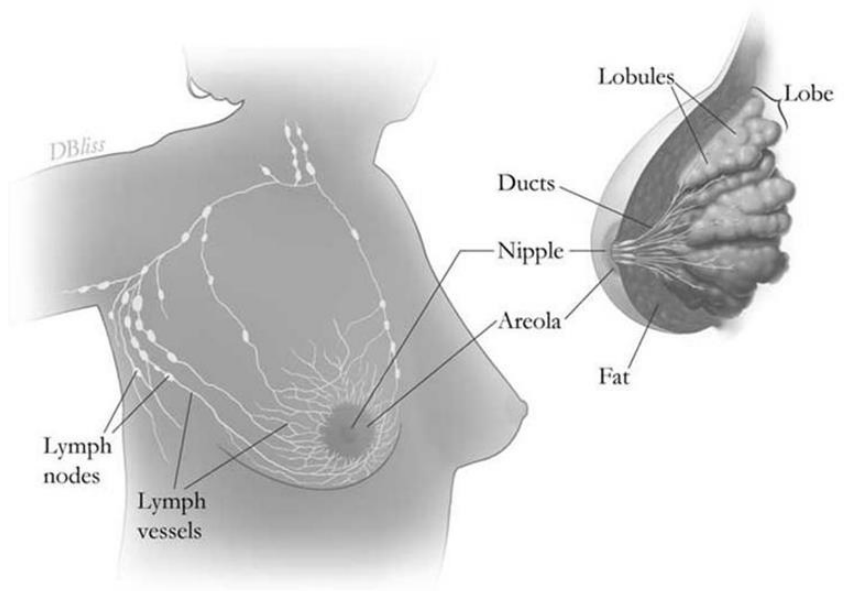
# Breast cancer: How common is it?

- The most common cancer in women in the U.S.
- 2nd leading cause of cancer-related death in women in the U.S.
- Death rates have been steadily going down since 1989.

# What is breast cancer?

The female breast is made up mainly of:

- **Lobules** – the milk-producing glands
- **Ducts** – tiny tubes that carry the milk from the lobules to the nipple
- **Stroma** – fatty tissue and connective tissue surrounding the ducts and lobules, blood vessels, and lymphatic vessels



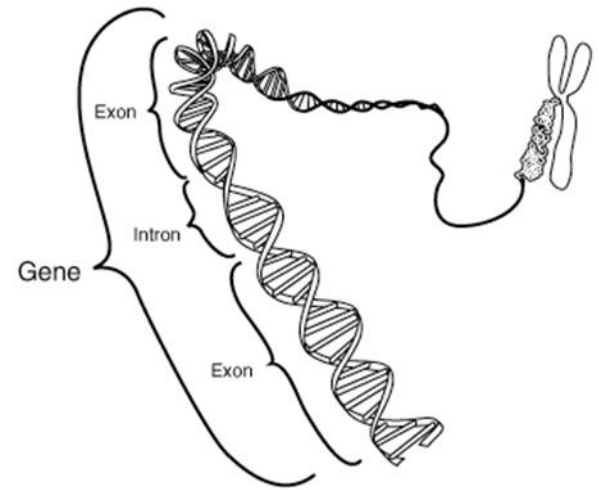


# What is breast cancer?

- Cancer is the growth of abnormal cells.
- The cells can invade and damage normal tissue.
- Breast cancer can start in any part of the breast.
  - Invasive (or infiltrating) ductal carcinoma or IDC
  - Invasive (or infiltrating) lobular carcinoma or ILC

# Causes of breast cancer

- We do not know the cause of most breast cancers.
- Most likely cause is related to changes in the genetic material (DNA) in our cells.
- DNA changes are often related to our lifestyle, but some can be due to age and other factors.





# Breast cancer risk factors

Risk factors are anything that can increase or decrease a person's chance of getting a disease, such as cancer.

There are many known risk factors for breast cancer. Some of these cannot be changed, but some can...

# Breast cancer risk factors

- Gender
  - Being a woman is the main risk factor for developing breast cancer
- Aging
  - Breast cancer risk increases as a woman gets older







# Breast cancer risk factors

- Genetic risk factors
  - About 5% to 10% of breast cancer cases are thought to be hereditary, caused by gene changes (mutations) inherited from a parent.
    - Inherited mutations in BRCA1 or BRCA2 are the most common cause of hereditary breast cancer.
      - Women with BRCA mutations have a high risk of developing breast cancer during their lifetime. When they do develop it, they are often younger than other women with breast cancer who are not born with one of these gene mutations.
    - Mutations in other genes are less common causes of inherited breast cancer.



# Breast cancer risk factors

- Family history of breast cancer
  - Women who have a close blood relative with this disease have a higher risk for breast cancer.
- Personal history of breast cancer
  - A woman with cancer in one breast has an increased risk of developing a new cancer in the other breast or in another part of the same breast.

# Breast cancer risk factors

- Certain non-cancer breast problems
- Previous chest radiation
  - Women who had radiation to the chest for another cancer as a child or young adult are at a much higher risk than those who did not.



# Breast cancer risk factors

- Post-menopausal hormone therapy (PHT)
  - Increased risk in women who use or recently used combined PHT for many years
- DES exposure
  - Slightly increases risk
- Recent use of hormonal contraceptives
  - Slightly higher risk than in women who never used them, but this goes down after use stops





# Breast cancer risk factors

- Race
  - African American women are more likely to die of this cancer.
- Dense breast tissue
  - Women with denser breast tissue (as seen on a mammogram) have a higher risk of breast cancer.



# Breast cancer risk factors

- Not having children or having them later in life (after age 30) puts a woman at slightly higher risk
- More menstrual cycles
  - Slightly higher risk if a woman started menstruation early or went through menopause late
- Not breastfeeding
  - Some studies suggest that breastfeeding may slightly lower breast cancer risk.

# Breast cancer risk factors

- Physical activity
  - More active → lowers risk
- Overweight
  - Obesity → raises risk of having breast cancer, especially for women after menopause
- Alcohol use
  - Clearly linked to increased risk
  - Risk goes up with the amount of alcohol you drink





# Preventing breast cancer

- How all women can lower risk:
  - Get to and stay at a healthy weight
  - Be physically active
  - Limit alcohol use
- Some women can also think about things like:
  - Breastfeeding
  - Not using hormone therapy to deal with the symptoms of menopause





# Preventing breast cancer

- If a woman is known to be at increased risk (due to personal or family history, or known gene mutations) there are some things she can consider to decrease her chances of breast cancer:
  - Chemoprevention—the use of drugs to reduce the risk of breast cancer
  - Preventive surgery for women with very high breast cancer risk



# Preventing breast cancer

There is no sure way to prevent breast cancer.

But there are things all women can do that might reduce their risk and help increase the odds that if they do get breast cancer, it's found at an early, more treatable stage...



# Breast cancer screening

- Screening is testing to find cancer, or other diseases, early in people who have no symptoms.
- Screening can help find cancers when they are small and have not spread – when they have a better chance of being cured.
- Breast cancer screening is done with
  - Mammograms
  - In some cases, breast MRI



# Breast cancer screening

- Why screen for breast cancer?
  - Breast cancers found during screening exams are more likely to be small and still confined to the breast.
  - The size of a breast cancer and how far it has spread are important factors in predicting the prognosis (survival outlook).



# Screening for breast cancer

## ✓ Mammogram

In some cases, Breast MRI (magnetic resonance imaging)

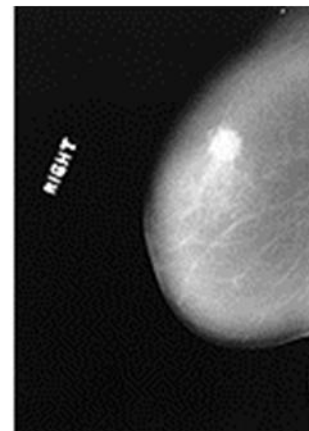
- For women at high risk of breast cancer based on certain factors, both MRI and mammogram exams of the breast are recommended.

# Mammogram

A mammogram is an x-ray of the breast.

For a mammogram, the breast is pressed between 2 plates to flatten and spread the tissue.

It produces a picture of the breast tissue.



# Clinical breast exam



- A clinical breast exam (CBE) is an exam of your breasts by yourself or health care professional
- Research has not shown a clear benefit of physical breast exams done by either a health professional or by yourself for breast cancer screening



# Breast MRI

(magnetic resonance imaging)

- For certain women at high risk for breast cancer, a screening MRI is recommended along with a yearly mammogram.
- MRI scans use magnets and radio waves (instead of x-rays) to make detailed, cross-sectional pictures.
- MRI has a higher false-positive rate (where the test finds something that turns out not to be cancer), which results in more recalls and biopsies.





# ACS Recommendations for Early Breast Cancer Detection

- Women age 45 – 54 should have a screening mammogram every year
- Women ages 55+ should have biennial screening or continue annual screening.
  - Women should be told about the benefits, limitations, and potential harms linked with regular screening.
  - Mammograms for older women should be based on the individual, her health, and other serious illnesses she might have.



# ACS Recommendations for Early Breast Cancer Detection

Women at high risk for breast cancer based on certain factors should get an MRI and a mammogram every year.

At this time, there's not enough evidence to make a recommendation for or against yearly MRI screening for women who have a moderately increased risk of breast cancer or who are high risk based on other factors.

So what can you do to  
prevent and beat  
breast cancer?

What you can do

**Change those risk factors that you can control.**

- Get to and stay at a healthy weight throughout life





# What you can do

- Be physically active
  - Adults should engage in at least 150 minutes of moderate intensity or 75 minutes of vigorous intensity activity each week, or an equivalent combination, preferably spread throughout the week.
- Limit sedentary behavior
- Limit alcohol
  - Have no more than 1 drink a day for women (2 drinks a day for men)



# What you can do

## Get screened.

- If you are age 45 or older, get your yearly breast cancer screening tests.
- Talk with a doctor about your breast cancer risk.
- Talk with a doctor about your medical history and your family history to find out if you need to start testing earlier or have MRIs done along with your mammograms.



# More information

You can get more information about breast cancer on our website, [www.cancer.org](http://www.cancer.org), or call 1-800-227-2345 to talk with one of our Cancer Information Specialists.

**Thank you!**