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 can’t 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.
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
  - Breast cancer risk is slightly higher among white women than African American women.
  - 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 lower breast cancer risk.
Breast cancer risk factors

- **Physical activity**
  More active $\rightarrow$ lowers risk

- **Overweight**
  Obesity $\rightarrow$ raises risk of having breast cancer 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:
  - Birth control options that don’t use hormones
  - 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 that are found because they can be felt:
    - Tend to be larger
    - Are more likely to have already spread beyond the breast
  - 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).
Ways to screen for breast cancer

✓ Mammogram
✓ Breast awareness
✓ Breast MRI (magnetic resonance imaging)

- Mammograms can show breast cancers that are too small to be felt but can be seen on the mammogram pictures.
- All women should know how their breasts normally look and feel and report any breast changes to a health care provider right away.
- 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.
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

For women at average risk for breast cancer

- **Women ages 40 to 44** should be able to start annual breast cancer screening if they wish to do so.
- **Women ages 45 to 54** should get mammograms every year.
- **Women age 55 and older** should switch to mammograms every 2 years, or can continue yearly screening.
- Screening should continue as long as a woman is in good health and is expected to live at least 10 more years.
ACS Recommendations for Early Breast Cancer Detection

For women at **high risk** for breast cancer

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 help 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 40 or older, talk to a health care provider about the breast cancer screening plan that’s best for you.
- Also talk with a provider about your breast cancer risk. Review 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.

Or call 1-800-227-2345 to talk with one of our Cancer Information Specialists.
Thank you!