



Creating a Cancer-free World. One Person, One Discovery at a Time.

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WEXNER MEDICAL CENTER

## Breast Cancer Prevention, Screening and Detection

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**October 14<sup>th</sup> 2025**



The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute

# What we will be talking about today

- What is breast cancer?
- What are the risk factors?
- Steps to take to reduce your risk of cancer
- Explain how to prevent and screen for breast cancer
- Resources

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## A resource for you

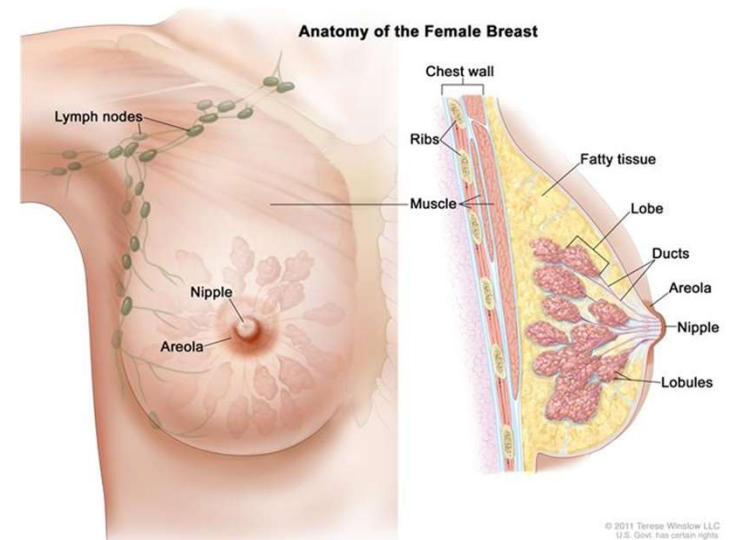
- Our content in our presentation today is also covered in our community education video on breast cancer prevention, screening and detection in English and in Spanish.
- You can find these videos by going to [cancer.osu.edu/breasthealth](http://cancer.osu.edu/breasthealth)

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# Breast Cancer

- Disease in which cells in the breast grow out of control
- There are different kinds of breast cancer
  - Triple Negative is 1 type that is more common in Black Americans



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# How common is breast cancer



- Breast cancer is the most commonly diagnosed cancer in U.S. women (1/8)
  - Every 3 minutes a female in U.S. diagnosed
- The American Cancer Society's estimates for breast cancer in the United States for 2023 are:
  - About 310,720 new cases of invasive breast cancer will be diagnosed in women
  - About 42,250 women will die from breast cancer.

# Male breast cancer

- 1% of breast cancers occur in men
- About 2,790 new cases of invasive breast cancer are expected to be diagnosed in men in 2024
- A man's lifetime risk of breast cancer is about 1 in 1,000



Mr. Mathew Knowles, breast cancer survivor, with his daughter, Beyoncé



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American Cancer Society Facts and Figures, 2024



# Racial differences in breast cancer

- Black and Hispanic women develop cancer less often
- However they are...
  - diagnosed at younger ages
  - more likely to present with later stage disease
  - more likely to die of cancer
- Mortality is 40% higher in African American women than in white women
- Black women <50 years have a death rate more double that of white women



Desantis, CE, et al., Breast Cancer Statistics, 2019; American Cancer Society, 2024; Hendrick, et al., 2021

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# Steps to breast health

- ☐ Find a provider you trust and see them once a year for a check up, including a breast exam
- ☐ Know your risk
- ☐ Check your breasts for changes and if present, see your provider
- ☐ Have a mammogram yearly starting at age 40
- ☐ Adopt preventative strategies
- ☐ Share the link to the education video found on the education cards I have shared today on social media, in group events, at health fairs, etc.

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# Know Your Risk – risk factors

- Never having children/Having your first child after age 30
- High bone density
- Early menarche (age less than 12)
- Use of hormonal contraceptives or hormone replacement therapy (estrogen with progesterone) to reduce hot flashes
- Alcohol intake
- Weight gain after age 18 or having excess body weight
- Physical inactivity

*Breastfeeding your baby for a year  
Decreases risk of breast cancer*

American Cancer Society Facts and Figures, 2024

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# Know Your Risk – risk factors

- Being female
- Older age
- Having a mutation in the BRCA1 or BRCA2 breast cancer genes
- A family history of breast cancer
- Having high breast density on a mammogram
- A personal history of breast or ovarian cancer
- A personal history of ADH, DCIS, LCIS, radiation to the chest before age 30
- Starting menopause after age 55

# Hereditary breast cancer

- Very few breast cancers are related to a gene a person has, less than 6%
- Two genes which are risk factors for breast cancer are BRCA-1 and BRCA-2
- Estimated lifetime risk for breast cancer is up to 85%



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# Hereditary breast cancer

- 1 out of 10 breast cancers are associated with an inherited gene (Sessa, 2023)
- It is important to ask your provider to assess your personal risk of breast cancer
- If your risk is high, your provider and you can make a plan that is acceptable to you which may include:
  - An individualized screening plan
  - genetic counseling
  - Surgery to lower risk
  - Medication to lower risk
- Think you are at risk? - A high-risk clinic is available at The James

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# Can breast cancer be prevented?

- There is no sure way to prevent breast cancer but there are ways to reduce your risk of breast cancer or cancer in general
- Screening is looking for cancer before a person has any symptoms
- There are things women can do that might reduce their risk and help increase their chance of survival if they get breast cancer
- When abnormal tissue or cancer is found early through screening, it may be easier to treat

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# Breast cancer screening - mammograms

- Mammograms, checking & reporting changes in your breasts to your provider and an annual breast exam by a provider decreases the risk of death from breast cancer
- Mammograms often find breast cancer early, when it's most treatable
- Some lumps are found during a provider exam or when a woman checks for changes – annual checkups with a breast exam are critical



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# Breast cancer screening - mammograms

- Women should have mammograms every year starting at age 40
- Women who have been told by a provider they are at higher risk of breast cancer may start their mammograms at an earlier age
  - If available, a 3-dimensional mammogram is a more sensitive type of mammogram to have if you have a history of dense breasts
  - Other tests such as ultrasounds or MRIs may be used for screening in women at higher risk

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# I have been told I have dense breasts, what now?

- If you have dense breasts find out if you have the option of having a 3 dimensional mammogram for your screening visits
- Ask your provider if additional breast screening tests should be done as well as mammograms
- Learn more about 3 dimensional (3D) mammograms by visiting this patient centered education website which discusses 3-D mammograms, also called tomosynthesis
  - <https://www.radiologyinfo.org/en/info/tomosynthesis>

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# Tips for getting a mammogram

- A mammogram takes only a few minutes and the discomfort is over soon
- Try not to have your mammogram the week before you get your period or during your period
- On the day of your mammogram, do not wear deodorant, perfume, or powder
- Some women prefer to wear a top with a skirt or pants, instead of a dress



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# Breast cancer screening – self - check for changes

## Things you should not ignore

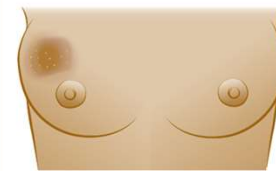


Refer to your breast shower card

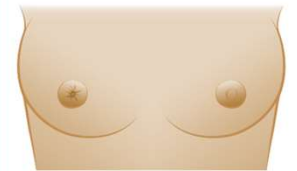
- Lump, hard knot or thickening inside the breast or underarm area



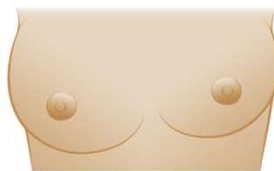
- Swelling, warmth, redness or darkening of the breast



- Pulling in of your nipple or other parts of the breast



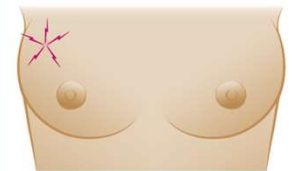
- Change in the size or shape of the breast



- Dimpling or puckering of the skin



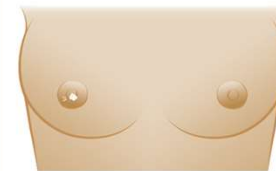
- New pain in one spot that does not go away



- Nipple discharge that starts suddenly



- Itchy, scaly sore or rash on the nipple



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# Survival rates from early detection

## Breast Cancer Survival Rates



Breast cancers that have spread to other parts of the body are more difficult to treat and tend to have a poorer outlook.



Still, there are often many treatment options available for women with this stage of breast cancer<sup>[2]</sup>.

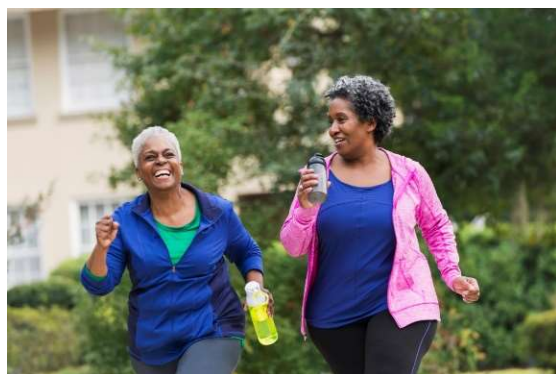
Relative survival compares survival rates for people with breast cancer to survival rates for people in the general population.

[1] <https://www.cancer.org/cancer/breast-cancer/understanding-a-breast-cancer-diagnosis/breast-cancer-survival-rates.html>

[2] American Cancer Society, December 20, 2017, <https://www.cancer.org/cancer/breast-cancer/understanding-a-breast-cancer-diagnosis/breast-cancer-survival-rates.html>

# Prevention of cancer or lowering risk

Leading a healthy lifestyle can help reduce your risk of death from breast cancer or other chronic conditions, e.g. Hypertension and Diabetes.



Exercise 150 min/week &  
Do 2 (30 minute) sessions  
of strength training



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# Prevention through Healthy Eating

Eating what stands on one leg (plants) is better than eating what stands on two legs (poultry), which is better than eating what stands on four legs (mammals).



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# Prevention through Healthy Eating

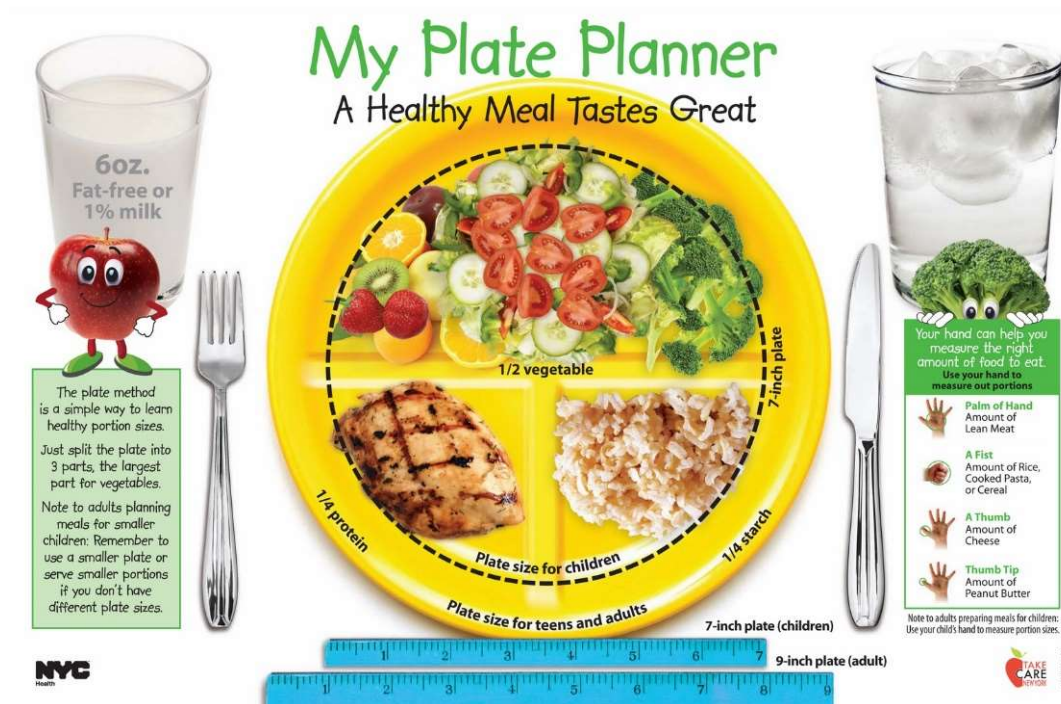
- Aim for a plate with
  - ½ plants - vegetables or fruit in a variety of colors
  - ¼ whole grains or complex carbohydrates
    - Brown rice>white rice
    - Whole grain bread>white bread
    - Quinoa, oats, bulghar, wild rice...
  - ¼ protein – focus on fish, poultry and plant based protein
    - Eat less or no red meat (pork, beef) and cured meats (jerky, sausage, lunch meat, etc.)
- Use a minimal amount of healthy fat
  - Olive oil>lard, butter

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# Eat your colors



# Portion Control



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# Healthy Eating



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## Prevention through Tobacco Tobacco and Vaping Cessation



- Women who are current smokers and have been smoking for more than 10 years appear to have about a 10 percent higher risk of breast cancer than women who've never smoked.
- Tobacco use is linked to an increased risk of many other types of cancer, including cancers of the lung, kidney and pancreas.

Bjerkaas E, et al., 2013

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# Prevention through avoiding alcohol

It is best not to drink alcohol.

Women who have 1 alcoholic drink a day have a small (about 7% to 10%) increase in risk of breast cancer compared with non-drinkers.

Women who have 2 to 3 drinks a day have about a 20% higher risk than non-drinkers. Alcohol is linked to an increased risk of other types of cancer, too.



<https://www.cancer.org/cancer/breast-cancer/risk-and-prevention/lifestyle-related-breast-cancer-risk-factors.html>

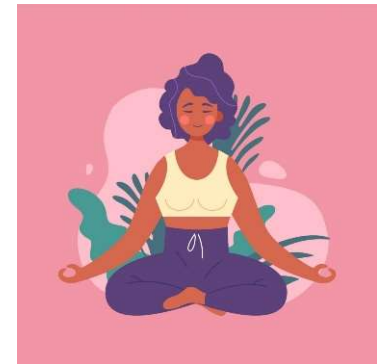
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# Take Home Messages

1. Know your risk
2. Check your breasts - know what is normal for you & report changes to your provider
3. Get screened with a mammogram
4. See your provider once a year
5. Make healthy lifestyle choices



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# Website resources

- Sisters Network – [www.sistersnetworkinc.org](http://www.sistersnetworkinc.org)
- Susan Komen - <http://www5.komen.org/>
- American Cancer Society – [www.cancer.org](http://www.cancer.org)
- National Cancer Institute – [www.cancer.gov](http://www.cancer.gov)
- The James: Turning the Page on Breast Cancer  
<https://endbreastcancerohio.org/>



TURNING THE PAGE  
ON BREAST CANCER

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# Thank You

To learn more about Ohio State's cancer program, please visit **cancer.osu.edu** or follow us in social media:



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## references

- Hendrick RE, Monticciolo DL, Biggs KW, Malak SF. Age distributions of breast cancer diagnosis and mortality by race and ethnicity in US women. *Cancer*. 2021 Dec 1;127(23):4384-4392. doi: 10.1002/cncr.33846. Epub 2021 Aug 24. PMID: 34427920.
- Sessa C, Balmaña J, Bober SL, et al. Risk reduction and screening of cancer in hereditary breast-ovarian cancer syndromes: ESMO Clinical Practice Guideline. *Ann Oncol*. 2023;34(1):33-47. doi:10.1016/j.annonc.2022.10.004

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# Presentation Title

Speaker name  
Aug. 25, 2016



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building faded in background

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# Agenda

Agenda Item One

Agenda Item Two

Agenda Item Three

Agenda Item Four

Agenda Item Five

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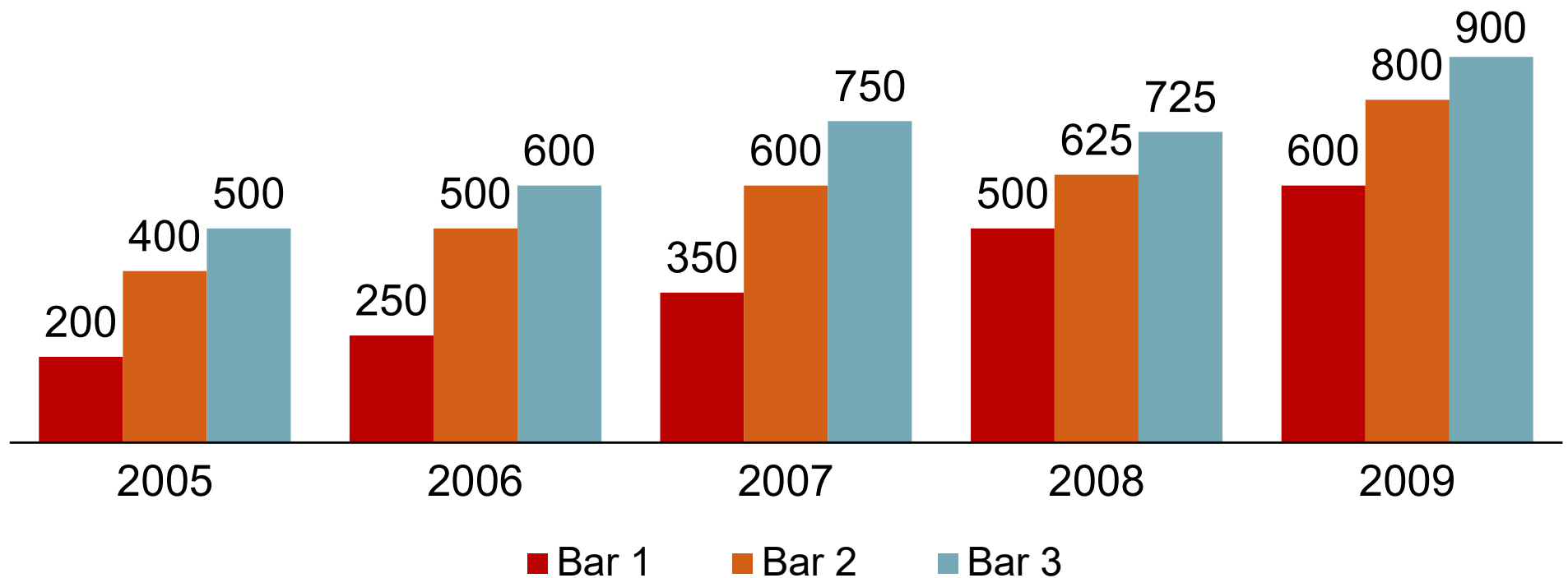
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# Thank You

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