Breast Cancer in Younger Women

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Holly's Story

2

How Young is "Too Young"?

- Most medical journals and scientific papers regarding breast cancer in younger women refer to women between the ages of 15-39; others may refer to up to age 45.
- Information regarding the term "young women" is subjective.

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Breast Cancer in Younger Women is Becoming More Common

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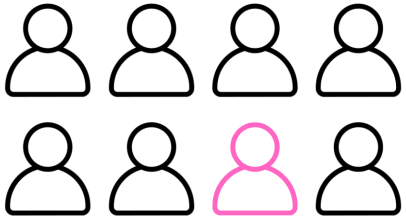
Statistics: Breast Cancer in Young Women



1 in 8 women will be diagnosed with breast cancer in their lifetime.

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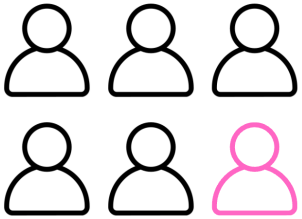
Statistics: Breast Cancer in Young Women



1 in 6 women aged 40-49 will be diagnosed with breast cancer.

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Statistics: Breast Cancer in Young Women

- Each year, approximately 85,980 men and women ages 15 to 39 are diagnosed with cancer in the US.
- In this age group (15-39), breast cancer is the most common cancer diagnosed.

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Statistics: Breast Cancer in Young Women

- About 9% of all new cases of breast cancer occur in women **under 45.**
- Those **under 35** at the time of their original breast cancer diagnosis, face a higher risk of breast cancer recurrence.

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Statistics: Breast Cancer in Young Women

- In the **US** between 2010 and 2019:
  - Breast cancer among people aged 30 to 39 increased 19.4%
  - Breast cancer among people aged 20 to 29 increased 5.3%
- In **Canada**:
  - From 1984 to 2019, there was a relative increase of 18% in breast cancer found in women between the ages of 30 to 39

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Statistics: Breast Cancer in Young Women

- Compared to older women, young women generally face more aggressive cancers and lower survival rates.
- Breast cancer found in a younger woman is more likely to be hereditary than breast cancer found in older women.
- Nearly 80% of young adults discover a sign or symptom of breast cancer themselves.

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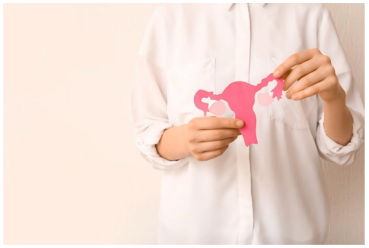
Factors Contributing to Risk

Greatest risks:

- Sex (female)
  - Reproductive hormones
  - Decreasing average age of menstruation (US: 11; Canada: 12)



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Factors Contributing to Risk

- Ethnicity and overall breast cancer incidence
- Age at first pregnancy
- Genetic mutations

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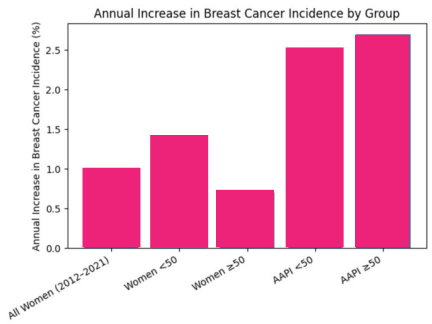
Ethnicity and Overall Breast Cancer Incidence



Source: American Cancer Society, 2024-2025

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Ethnicity and Overall Breast Cancer Incidence

- Incidence rates of breast cancer among non-Hispanic white patients are just slightly higher than non-Hispanic black patients; overall similar.
- Black women have 40% higher breast cancer death rates than white women despite lower incidence rates.

Race and ethnicity	Lifetime risk of breast cancer
Non-Hispanic White	14%
Non-Hispanic Black	12%

Source: American Cancer Society, 2024-2025

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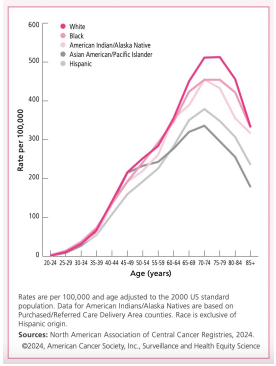
Ethnicity and Breast Cancer Incidence



Source: American Cancer Society, 2024-2025

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Ethnicity and Breast Cancer Mortality

- In the US alone, there is estimated to be over 42,000 breast cancer related deaths (all ethnic backgrounds).
- Among women under 50, the disparity is even greaterhile young women have a higher incidence of aggressive cancers, young black women have double the mortality rate of young white women.

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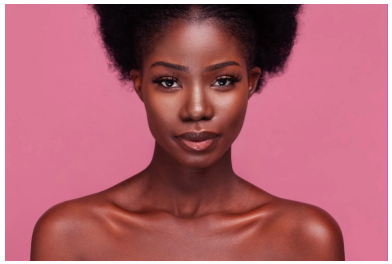
Ethnicity and Breast Cancer Mortality

Black women have a higher risk of triple-negative breast cancer, more than any other racial or ethnic group.



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Breast Cancer and Pregnancy

- Pregnancy for the first time at age 35 or later.
- More women are delaying their first pregnancy.
- Breast cancer occurs 1 in every 3,000 pregnancies.

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Source: National Cancer Institute

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Breast Cancer and Pregnancy

- Breast cancer is the most common form of cancer in women who are pregnant or have recently given birth.
- Estimated 30% or more of breast cancer in young women is diagnosed in the few years after a woman has had a baby.

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Genetic Mutations

- If the patient has BRCA1 or BRCA2 genetic mutations, or had close relatives with these genetic mutations, even if patient hasn't been tested
- Other genetic mutations: TP53, PTEN, STK11, PALB2 and CDHI, other TBD

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Other Factors Contributing to Risk

- Immediate family member diagnosed with breast cancer before age 45
- When patient has more than one close relative diagnosed with breast cancer
- Male relative diagnosed with breast cancer

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Other Factors Contributing to Risk

- Patient has a close relative diagnosed with ovarian cancer
- Ashkenazi Jewish heritage
- Radiation therapy to the breast or chest during childhood or early adulthood

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Other Factors Contributing to Risk

- Personal history of breast cancer or certain other breast abnormalities: LCIS, DCIS, ADH, or ALH
- Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or have had a first-degree relatives with one of these syndromes
- Dense breast tissue

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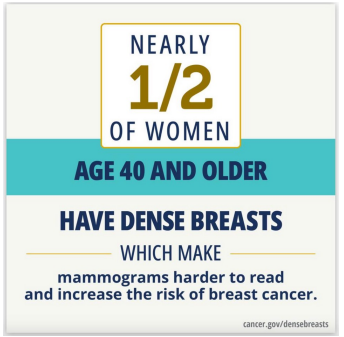
Dense Breast Tissue



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Dense Breast Tissue

More and more patients are learning about dense breast tissue and they may already know that they have it. However, they don't often know exactly what it is or what it means in terms of breast cancer screening.

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Dense Breast Tissue

Talk to your patients about breast density – it is often inherited, but other factors can influence it.

↑ Hormone therapy and a low BMI

↓ Increased age and having children

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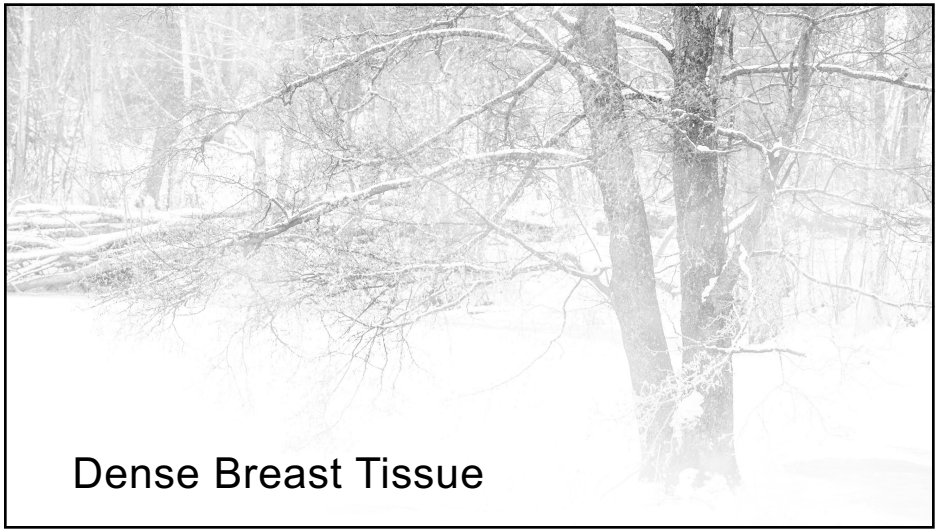

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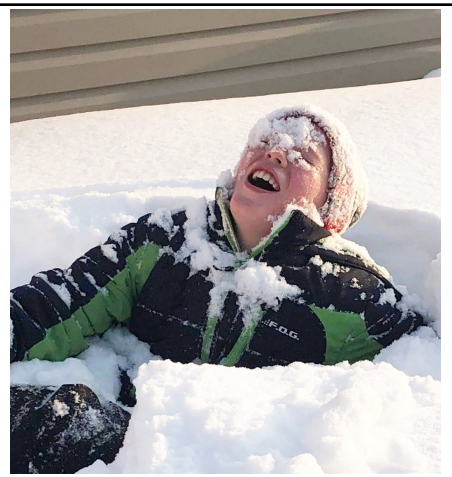

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Breast Cancer in 2026

Non-invasive breast cancer:

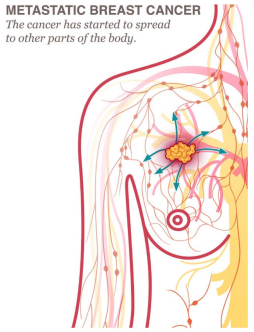
- DCIS – 60, 730 new cases
- LCIS – women have 7-12 times higher risk of developing invasive cancer in either breast

Breast Cancer in 2026

- Invasive Breast Cancer:
  - 321,910 new cases expected in 2026 in the US
  - IDC Most common type of breast cancer
  - 8 out of 10 breast cancers are IDC
- Invasive Lobular Carcinoma (ILC):
  - 2nd most diagnosed cancer, after IDC, representing 10-15% of invasive breast cancer

Breast Cancer in 2025

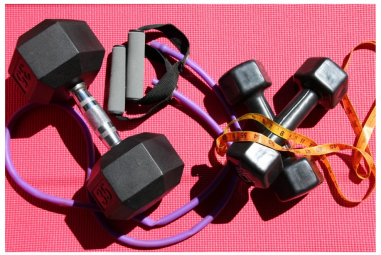
- Triple Negative Breast Cancer (TNBC)
- Metastatic Breast Cancer



Source: National Breast Cancer Organization

Breast Cancer Risk Factors We CAN Control

- Maintain a healthy weight
- Exercise
- Limit alcohol
- Plant-forward diet
- First child before age 30
- Breastfeed
- Minimize Toxicity



Breast Cancer Risk Factors We CAN'T Control

- Being female
- Getting older
- Family history
- Genetic mutations
- Dense breast tissue
- Personal history of breast cancer, or ADH, LCIS
- Chest wall radiation for childhood cancers

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Understanding Population-Based Risk and Individual-Based Risk

- Population-Based Risk:
  - US Preventative Services Task Force (USPSTF)
  - American Cancer Society (ACS)
- Individual-Based Risk:
  - Gail Model
  - Tyrer-Cuzick
  - Genetic Testing

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What is "High Risk"?

Lifetime risk of breast cancer of 20% - 25% or greater.

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Assessing Breast Cancer Risk

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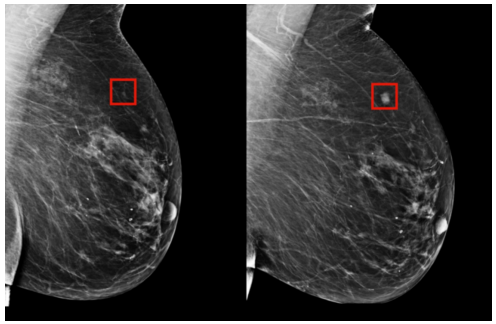
Assessing Breast Cancer Risk

- EMR
- Risk Assessment
- AI



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ACR Recommendations on Risk Assessment

Updated May 3, 2023:

*"**All women** especially Black and Ashkenazi Jewish women who are considered high risk, **should have a breast cancer risk assessment by the of age 25** to determine if they need to start regular screening earlier than age 40."*

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Source: American College of Radiology

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Current Screening Guidelines

Group	Start/Frequency	End
ACR & SBI	Risk Assessment by 25 / screening annually at age 40	No end, as long as in good health
NCCN	Risk Assessment by 25 / screening annually at age 40	No end, as long as in good health
ACOG	Start age 40 / screening 1-2 years	Until at least age 75
ACS	Start btwn 40-44, annual option, 45-54 annually, 55+ screen1-2 years	Healthy w/ life expectancy 10+ yrs
USPSTF	40 / screen every 2 years	74

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Current Screening Guidelines

Annual screen mammograms at age 40:

- American College of Radiology (ACR)
- Society of Breast Imaging (SBI)
- Canadian Association of Radiologists (CAR)

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Current Screening Guidelines

May 2023: United States Preventive Services Task Force (USPSTF) updated recommendations to screening mammography at age 40, rather than 50.

- USPSTF has not amended current recommendation for screening frequency (yet)
- Current recommendation is screening every 2 years

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Current Screening Guidelines

- Based on risk factors such as personal history, breast density and others.
- Your patient may benefit from starting screening mammography, US, MRI, etc. earlier than age 40!

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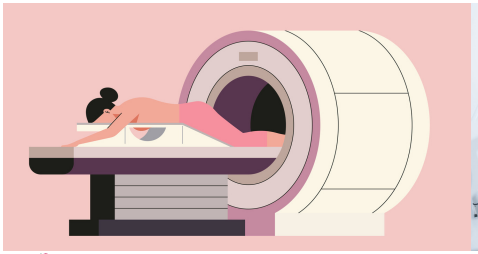
Imaging Options for Screening and/or Diagnostic Patients



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3 Commonly Used Risk Assessment Models

- Gail
- Tyrer-Cuzick
- Breast Cancer Surveillance Consortium (BCSC)

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Gail Model

- Uses personal medical and reproductive history
- History of first-degree relatives
- Able to estimate the risk of developing invasive breast cancer over the next 5 years and up to age 90

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Tyrer-Cuzick

- Uses personal and family history to determine risk
- Results display 10-year risk and lifetime risk scores
- Risk scores:
  - Average (less than 15%)
  - Intermediate (15-19%)
  - High (over 20%)

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Risk Models

Model	Gail	Claus/Ford[a]	Tyrer–Cuzick/manual
	Age Reproductive Age menarche Age first live birth	Age Reproductive None	Age Reproductive Age menarche Age menopause Age first live birth
	Personal history biopsy ADH[b]	Personal history None	Personal history Biopsy Atypical hyperplasia LCIS
	Family history First degree relative	Family history First degree relative Second degree relative Age of onset Ovarian cancer (Ford) Male breast cancer (Ford)	Family history First degree relative Second degree relative Age of onset Ovarian cancer Male breast cancer (Manual)
	Lifestyle None	Lifestyle None	Lifestyle BMI[c] (Tyrer–Cuzick)

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Source: Thompson et al., 2008

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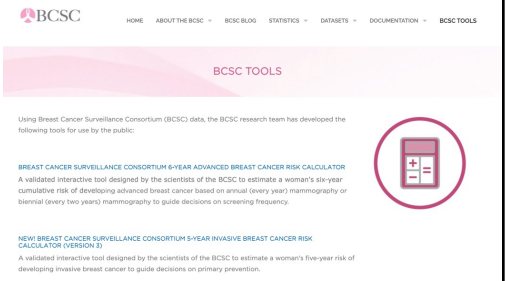
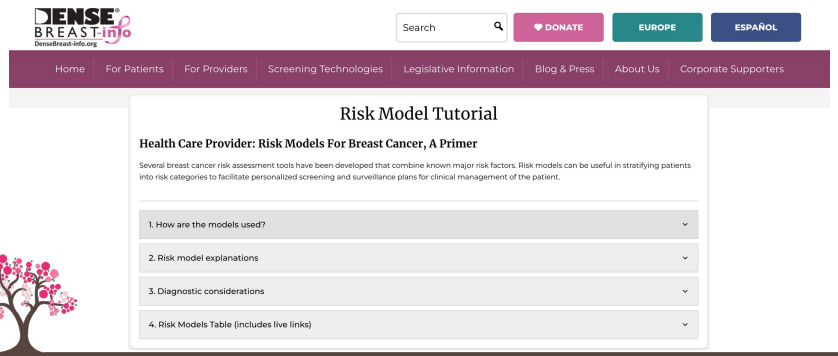
Breast Cancer Surveillance Consortium (BCSC)

- Offers 5 and 6 year risk calculations
- Not effective in measuring risk of women under 35 or with a previous dx of breast cancer



Risk Models



Risk Reporting in Electronic Medical Record (EMR)

- Not a 100% accurate method of determining risk
- Ensures accuracy in risk-related history questions
- Ensures accuracy in documentation
- Inaccuracies may contribute to erroneous risk rates

Limited Research and Underrepresentation

- Younger women remain underrepresented in many research studies
- Breast cancer occurs at a much lower rate among young adults than in our older counterparts

How Can You Help?

- Get educated:
  - Know and understand how recommendations and guidelines have changed
  - Ensure your facility remains up to date in reporting requirements
- Be an advocate:
  - Talk to your family, friends, patients and colleagues about breast cancer risk factors, signs and symptoms

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Advocacy

Mammography Technologists have a responsibility to their patients and physicians:

- Responsibility that shouldn't be taken lightly
- Relationship w/ patients is built upon trust in such a sensitive exam
- Be an advocate for your patients, friends, and family

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How Can You Help?

- Bust the myths!
- Know your facility's resources
- Support organizations

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Perspectives
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Perspectives

Correcting Decades of Misinformation About Breast Cancer Screening: An Open Letter to Women and Those Who Advise Them About Screening for Breast Cancer

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Myth vs. Fact

If you don't tell your patient, they may never hear the facts… before it's too late:

- Discuss screening guidelines
- Talk about risk assessment, what it means to have dense breasts, and the importance of self Breast Exams (SBE)
- No family history does not mean your patient isn't at risk
- 85-90% of patients with breast cancer diagnosis have no known family history

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Educational Materials

- Educate yourself on what materials your facility offers or needs
- Create educational content in multiple patient languages
- Education on breast density
- Ensure your facility offers information on Risk Assessment

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Support Organizations for Young Adults

- Supportorgs.cancer.gov
- StupidCancer.org
- Young Survival Coalition
- Cactus Cancer Society
- Living Beyond Breast Cancer
- Social Media Groups
- Annual Conferences, retreats and YA recreational activities

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Additional Resources

- Commercial Laboratories: Myriad, Invitae, Natera, Quest Diagnostics, Foundation of Medicine
- NSGC Directory: National Society of Genetic Counselors
- FORCE Helpline: 866-288-RISK (ext. 704) Facing Our Risk of Cancer Empowered
- City of Hope
- NCI-Designated Cancer Centers
- Academic Medical Centers

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So How Young is “Too Young”?

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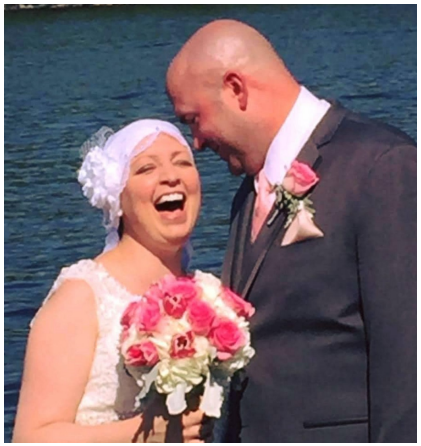

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Key Takeaways

- Don’t assume low risk, under age 40.
- Encourage patients to talk with their doctor.
- Promote self-knowledge and early recognition of changes.

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Thank You!

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