Breast Health and Menopause: Screening Guidelines and Risk Assessment

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Session Objectives

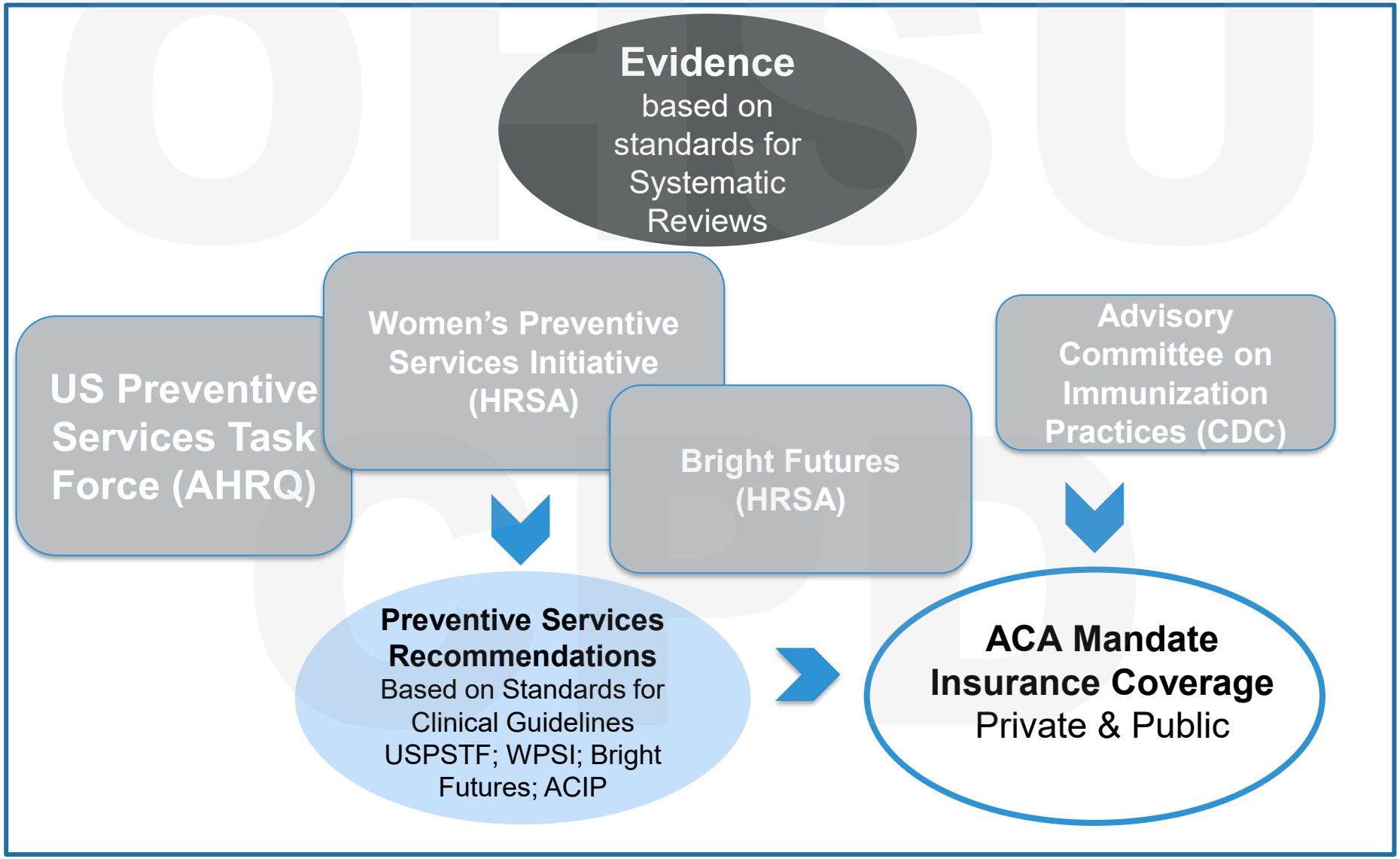
- Review current breast cancer screening recommendations.
- Identify patients at average versus high-risk.
- Understand strategies for risk stratification, referral or follow up.
- Understand interaction between MHT and breast cancer risk.
- Review strategies for discussing risk with patients.

Breast Cancer Screening Clinical Guidelines

Breast Cancer Screening Recommendations

	ACOG 2024	Am College of Radiology, 2021	NCCN, 2024	Am Cancer Society, 2023	USPSTF, 2024	WPSI, 2024
Age 40-49	Universal screening	Universal screening	Universal screening	Selective 40-44 Universal 45-49	Universal screening	Selective screening
Age 50-74	Universal screening	Universal screening	Universal screening	Universal screening	Universal screening	Universal screening
Age >74	Screen while healthy	Universal screening	Insufficient evidence	Screen while healthy	Insufficient evidence	Age alone should not be the basis to discontinue screening
Interval	Annual or Biennial	Annual	Annual	Annual 45-54 Biennial >54	Biennial	Annual or Biennial
Other	None	DBT optional	Both DM and DBT recommended	None	Insufficient evidence: Modality Breast density	Insufficient evidence: Modality Breast density

Federal Guideline Groups for Clinical Preventive Services



U.S. Preventive Services Task Force

- An *independent, non-governmental* panel of experts in primary care and prevention.
- Develops recommendations for clinical preventive services for primary care clinical practice.
- Based on standardized methodology and rigorous review of peer-reviewed evidence.
- Recommended preventive services include:
  - Screening tests
  - Counseling
  - Preventive medications
- *A and B recommendations are covered services under the ACA*

Breast Cancer Screening Guidelines
U.S. Preventive Services Task Force, 2024

Age, *y*	Recommendation
40 to 74	Screen every 2 years (B)
75 and older	Insufficient (I)
Women with Dense Breasts	Insufficient (I)

Practice Considerations

- Digital breast *tomosynthesis* (DBT) or digital mammography as a primary screening method.
- Insufficient evidence for *supplemental screening* in women with *dense breasts* using breast ultrasonography, magnetic resonance imaging, DBT, or other methods.

US Preventive Services Task Force. Screening for Breast Cancer: US Preventive Services Task Force Recommendation Statement. *JAMA.* 2024;331(22):1918–1930. doi:10.1001/jama.2024.5534

- Launched in 2016 to continue the work of the IOM
- Supported by HRSA, led by ACOG, 2016 to 2025*
- Target preventive health service *gaps*:
  - Not addressed by the U.S. Preventive Health Services Task Force (USPSTF) or Bright Futures
  - Research is limited or currently inconclusive
- Informs coverage of women's preventive services under the ACA.

MEMBERS OF THE ADVISORY PANEL SUPPORT THE WPSI

AMERICAN ACADEMY OF FAMILY PHYSICIANS
STRONG MEDICINE FOR AMERICA

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

ACP
American College of Physicians
Leading Internal Medicine, Improving Lives

NPWH
NURSE PRACTITIONERS IN WOMEN'S HEALTH
Caring for Women

Program ended February 2026.

WPSI/HRSA Recommendation, 2024

Breast Cancer Screening for Women at Average-risk

- Initiate mammography screening no earlier than age 40 and no later than age 50.
- Screening mammography should occur at least biennially and as frequently as annually.
- Screening should continue through at least age 74 and age alone should not be the basis to discontinue screening.
- Women at increased risk should also undergo periodic mammography screening, however, recommendations for additional services are beyond the scope of this recommendation.

Health Resources and Services Administration (HRSA). Update to the Health Resources and Services Administration-Supported Women's Preventive Services Guidelines. 2024;89(249):106522-106525.

WPSI
Women's Preventive Services Initiative

WPSI/HRSA Recommendation, 2024

WPSI Conclusion: Data suggest that screening effectiveness could be improved with better delivery and coverage of prevention services that are already recommended by existing guidelines.

Breast Cancer Screening for Women at Average-risk

- Women may require additional imaging to complete the screening process or to address findings on the initial screening mammography. If additional imaging (e.g., MRI, ultrasound, mammography) and pathology exams are indicated, these services are also recommended to complete the screening process for malignancies.

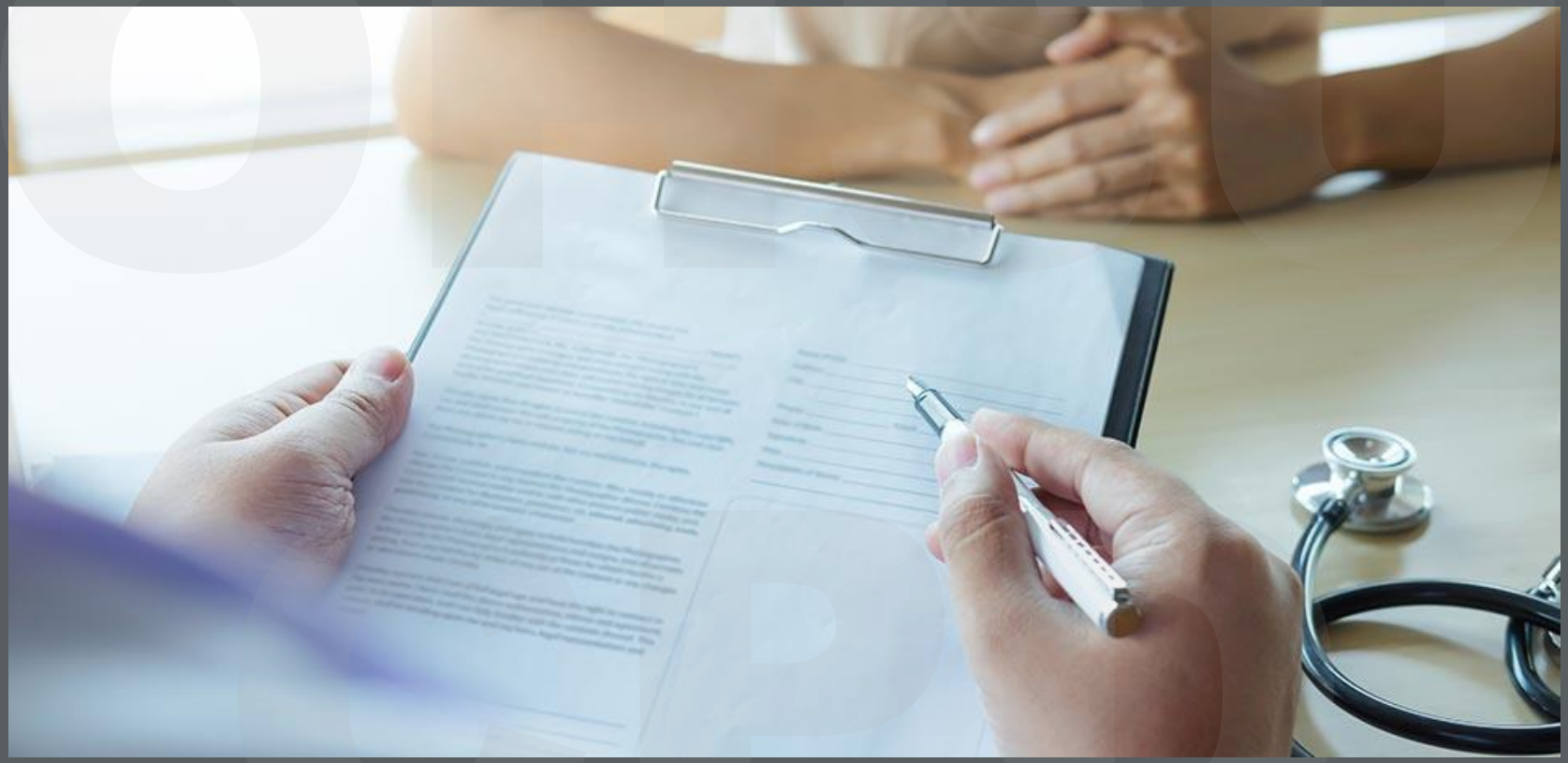
Health Resources and Services Administration (HRSA). Update to the Health Resources and Services Administration-supported Women's Preventive Services Guidelines. 2024;89(249):106522-106525.

Guidelines versus Clinical Practice

- Clinical practice guidelines do not tell clinicians what to do in a specific patient encounter.
- Shared decision-making recommended for patient-centered care decisions to consider the best scientific evidence alongside a patient's values.
- Guidelines are valuable for informing one part of that process—reviewing the best medical evidence.

Armstrong MJ, Gronseth GS. Approach to assessing and using clinical practice guidelines. Neurol Clin Pract. 2018 Feb;8(1):58-61. doi: 10.1212/CPJ.0000000000000417. PMID: 29517067; PMCID: PMC5839679.

Evaluating Risk



Breast Cancer Screening Eligibility

Population

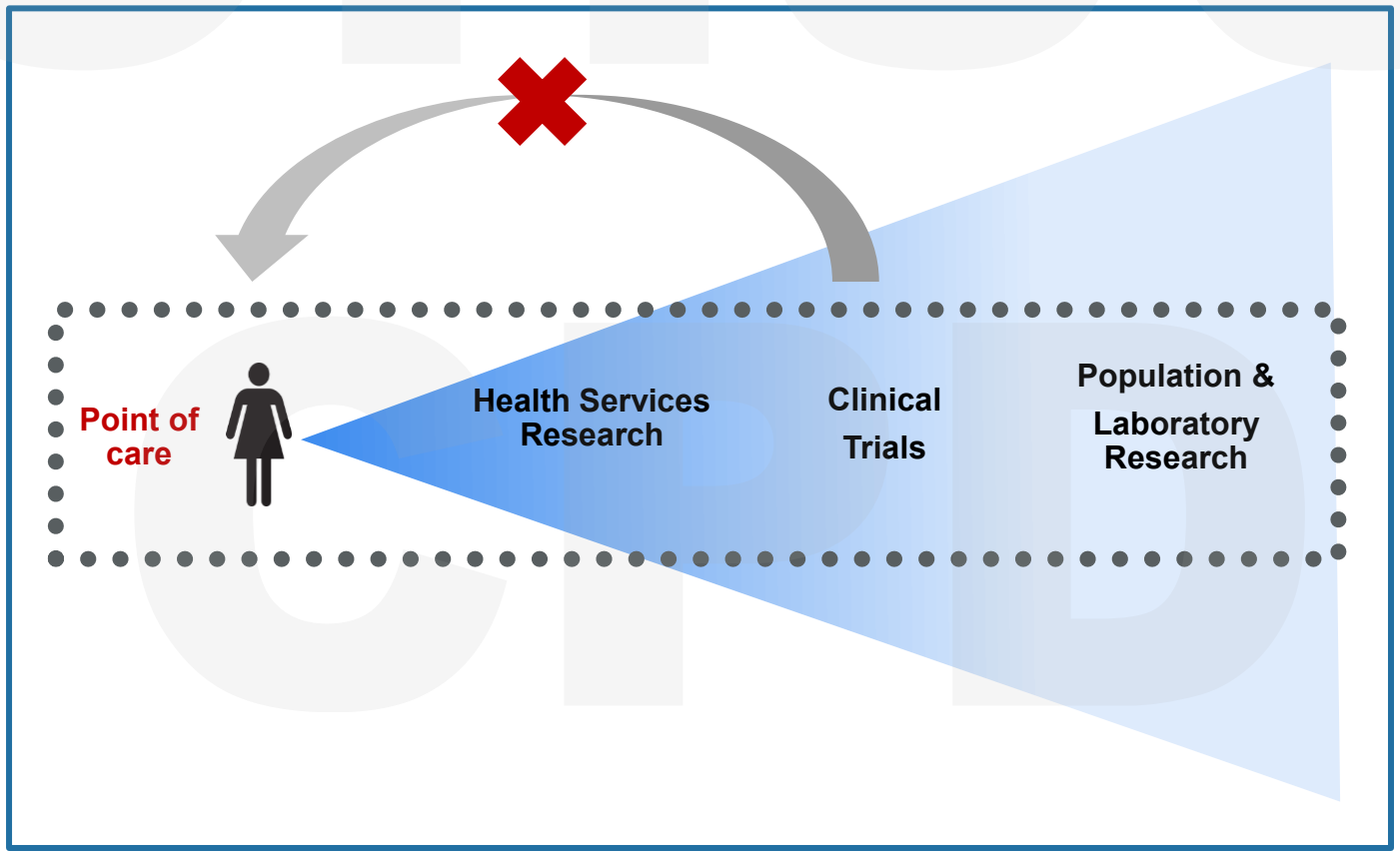
Women aged 40 and older

Screening Pool
Average-risk women with no previous or current breast abnormalities

Not in Screening Pool
- Current physical finding
- Previous breast cancer or breast abnormality (DCIS, LCIS, ADH, ALH)
- BRCA deleterious mutation
- Strong family history (>15% risk)
- Familial cancer syndromes
- Extensive chest radiation

Population vs Individual Risk

Average risk: 12.8% lifetime risk of breast cancer (1:8 women)
Moderate risk: 15-20% lifetime risk
High risk: >20% lifetime risk



Defining Risk – Minor Risk (RR<2.0)

Modifiable and Non-modifiable	Risk estimate (Relative risk)
Lifestyle	
○ Alcohol use (>2 drinks/day)	RR 1.2
○ Smoking	RR 1.1 (NS)
○ Physical activity	RR 0.62-0.82
○ Dietary patterns – high fat diet	RR 1.2
BMI	
○ Decreased risk: overweight/obese *before* menopause	RR 0.9
○ Increased risk: obese/overweight *after* menopause	RR 1.5
Reproductive Factors	RR 1.0-1.5
○ Menarche age <12	
○ Menopause age >55	
○ Nulliparity; birth of first child age >30	
○ Breastfeeding	RR 0.8
Menopausal Hormone Therapy*	
○ E+P	RR 1.2
○ E only	RR 0.8

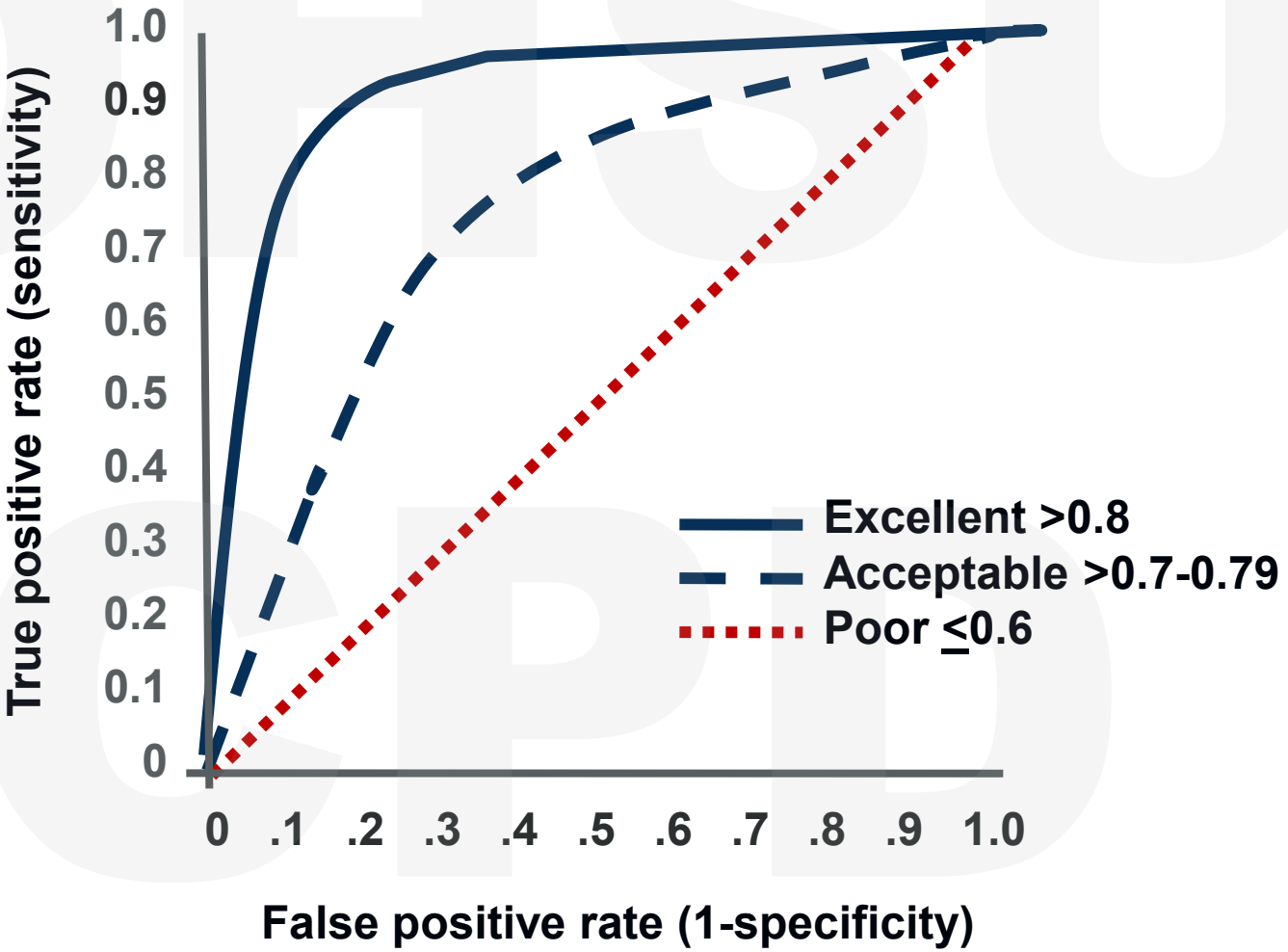
*synthetic progestins

- Nelson HD, Zakher B, Cantor A, et al. Risk factors for breast cancer for women aged 40 to 49 years: a systematic review and meta-analysis. Ann Intern Med. 2012 May 1;156(9):635-48. doi: 10.7326/0003-4819-156-9-201205010-00006.
- Collaborative Group on Hormonal Factors in Breast Cancer. Menarche, menopause, and breast cancer risk: individual participant meta-analysis. Lancet Oncol. 2012 Nov;13(11):1141-51. doi: 10.1016/S1470-2045(12)70425-4.

Defining Risk – Moderate and High Risk

Non-Modifiable	Risk estimate (Relative risk)
Genetic risk: 25% cases, 60,000 cases/year (>20% lifetime risk)	
• BRCA1/2: 5-10% of cancers (55-72% lifetime risk)	RR 10
• Other genetic variants: 10-15% of cancers	
Family History	
• 1st, 2nd degree relatives	RR 1.4-1.5
• 1-2 1st degree relatives with breast cancer	RR 2.0-3.5
• ≥3 1st degree relatives with breast cancer	RR 12
High risk breast lesions (15-20% lifetime risk):	
• ADH, ALH (35% lifetime risk)*	RR 4.0
• LCIS*	RR 5-8
• DCIS	
Benign dx:	RR 1.5-2.0
• Prior breast biopsy	RR 1.4-1.8
Breast Density	
• Heterogeneously dense	RR 1.2-1.6
• Extremely dense	RR 2.1

Evaluating Risk Models:
Discriminatory Accuracy



Primary Care Approaches for Risk Based Evaluation

The New York Times

What a Breast Cancer Risk Calculator Can and Can't Tell You

- **Gail model** – 5 questions; 1st degree relatives only; missing key risk factors (eg, density, other relatives); AUC 0.58-0.64
- **BCSC calculator** – includes density; 1st deg relatives only; AUC 0.63-0.68
- **Tyrer-Cuzick** (IBIS tool), V8 – includes FH and breast density, biopsy history; AUC 0.76

https://bcrisktool.cancer.gov/
https://tools.bcsc-scc.ucdavis.edu/BC5yearRisk/#/
https://magview.com/ibis-risk-calculator/

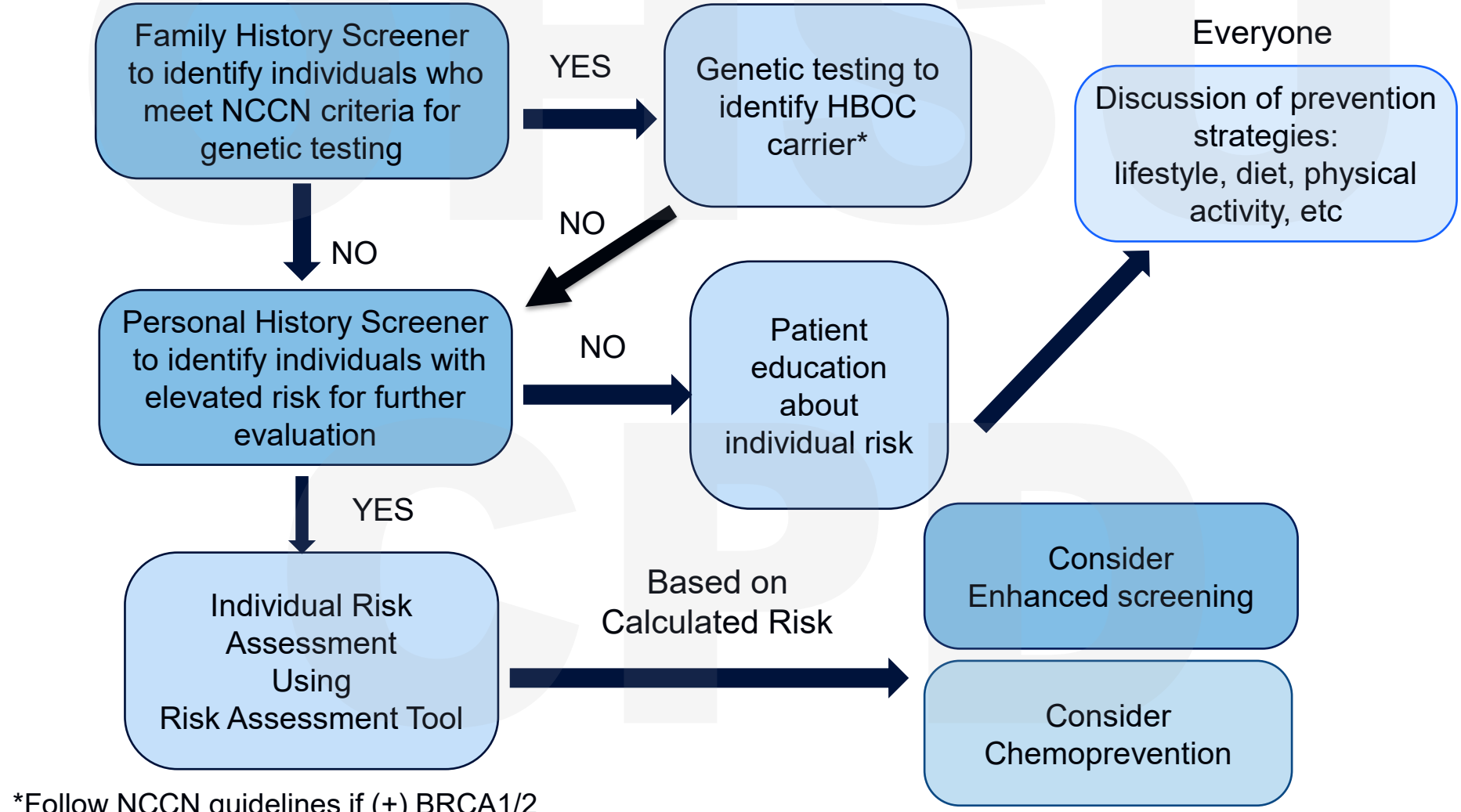
Identifying Risk in a Short Visit

Key Indicators:

- Strong family history (multiple relatives, young diagnoses)
- Personal history of atypical hyperplasia, LCIS
- History of chest radiation therapy
- Pathogenic genetic variant carriers (BRCA1/2, PALB2, etc.)

Bottom line: Start with family and personal history and consider risk calculators

Risk Assessment In Clinical Practice



*Follow NCCN guidelines if (+) BRCA1/2

Management Guidelines for Women with Increased Risk

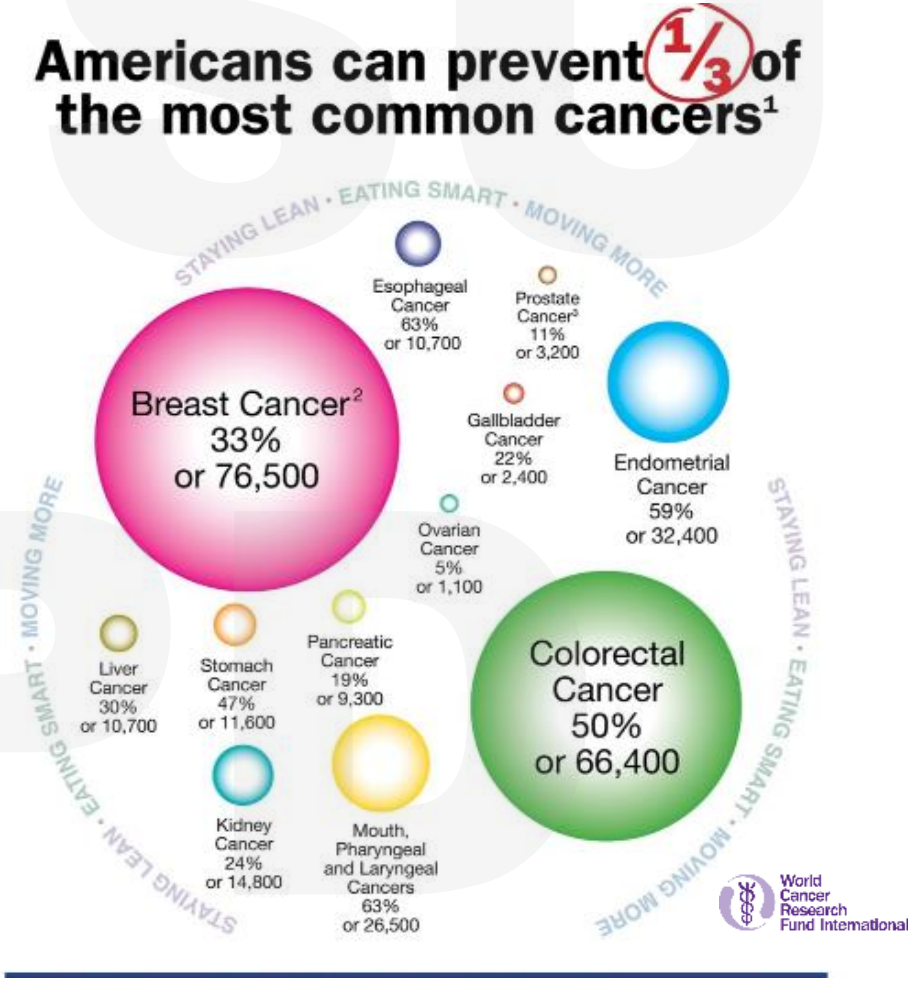
High and Moderate Risk

- Genetic counseling and testing if appropriate.
- Enhanced screening: earlier and more frequent mammography.
- Monitoring: use of additional technologies, such as MRI and ultrasound.
- Consider risk reducing medications (chemoprevention) for breast cancer.
- Careful physical examinations.

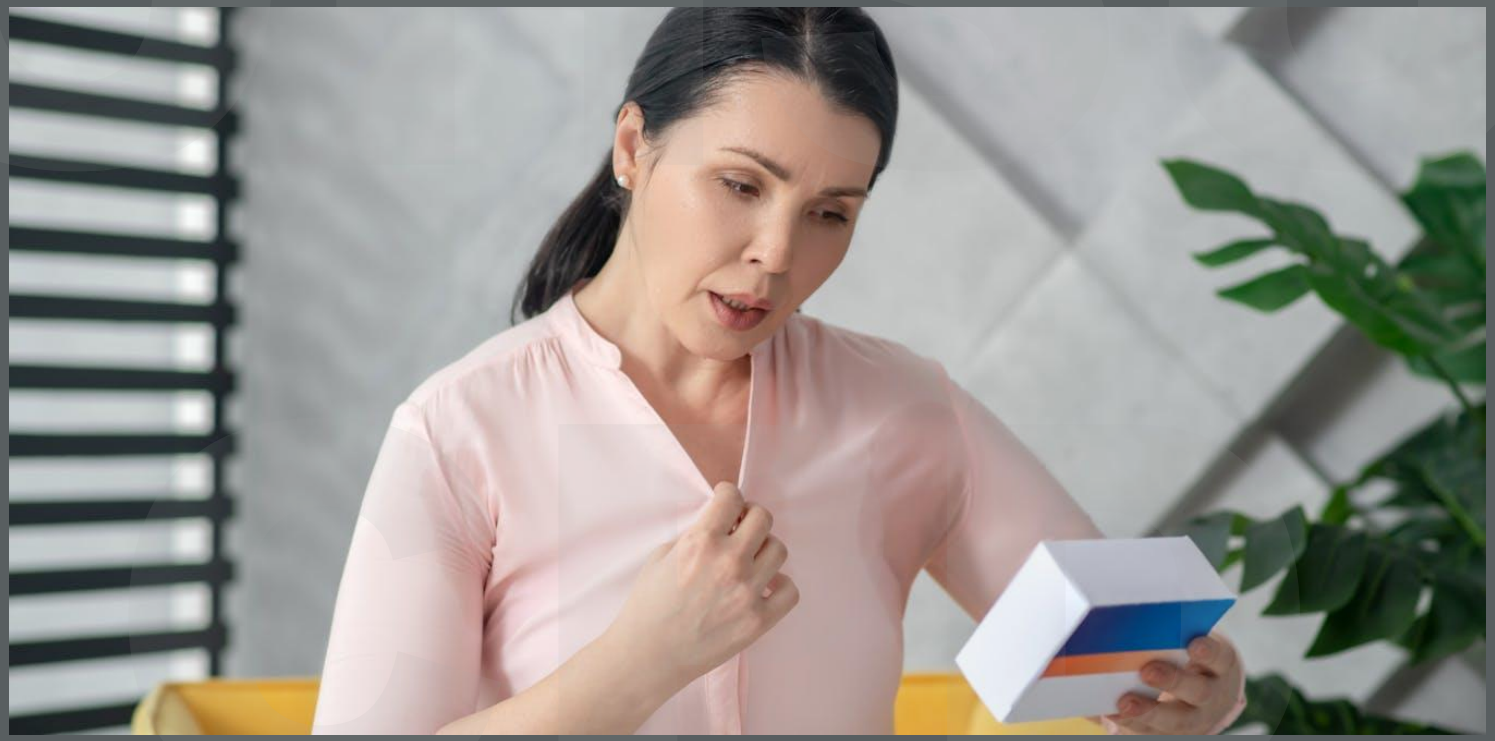
https://www.nccn.org/professionals/physician_gls/pdf/breast_risk.pdf

Modifying Cancer Risk

- **Nutrition**: Mediterranean; high in fresh fruits and vegetables, fiber, nuts, whole grains and fish
- **Physical Activity:** > 150 minutes/week moderate intensity; 2-3 strength sessions/week
- **Ideal BMI**: BMI <25; lose weight if obese
- **Avoid smoking**
- **Minimize alcohol intake**



MHT and Breast Cancer Risk



Framing the Clinical Problem: MHT and Breast Cancer Risk

- Most effective and indicated for symptom management.
- Breast cancer risk drives hesitation.
- Need absolute risk framing for MHT and breast cancer, in general.
- The risk of breast cancer associated with MHT varies with both an individual's baseline risk and the type of hormonal treatment.

Relative Risk vs. Absolute Risk

WHI Findings of Total Cohort
Ages 50-79 at enrollment

Event	E+P		E alone	
	Relative Risk	Absolute Risk (per 10,000 women)	Relative Risk	Absolute Risk (per 10,000 women)
CHD	**1.29***	**7 more**	0.91	5 fewer
Stroke	**1.41***	**8 more**	**1.39***	**12 more**
VTE	**2.11***	**18 more**	1.33	7 more
Breast CA	1.26	8 more	0.77	7 fewer
Colorectal CA	**0.63***	**6 fewer**	1.08	1 more
Hip Fracture	**0.66***	**5 fewer**	**0.61***	**6 fewer**
Death	0.98	1 less	1.04	3 more
Global Index	**1.15***	**19 more**	1.01	2 more

*Statistically significant in primary analysis, $p<0.05$

JAMA 2002, 288:3, p321-333, Risk/benefits E+P in healthy postmenopausal women.

JAMA 2004, 291:14, p 1701-12, Effects of CEE in health postmenopausal women.

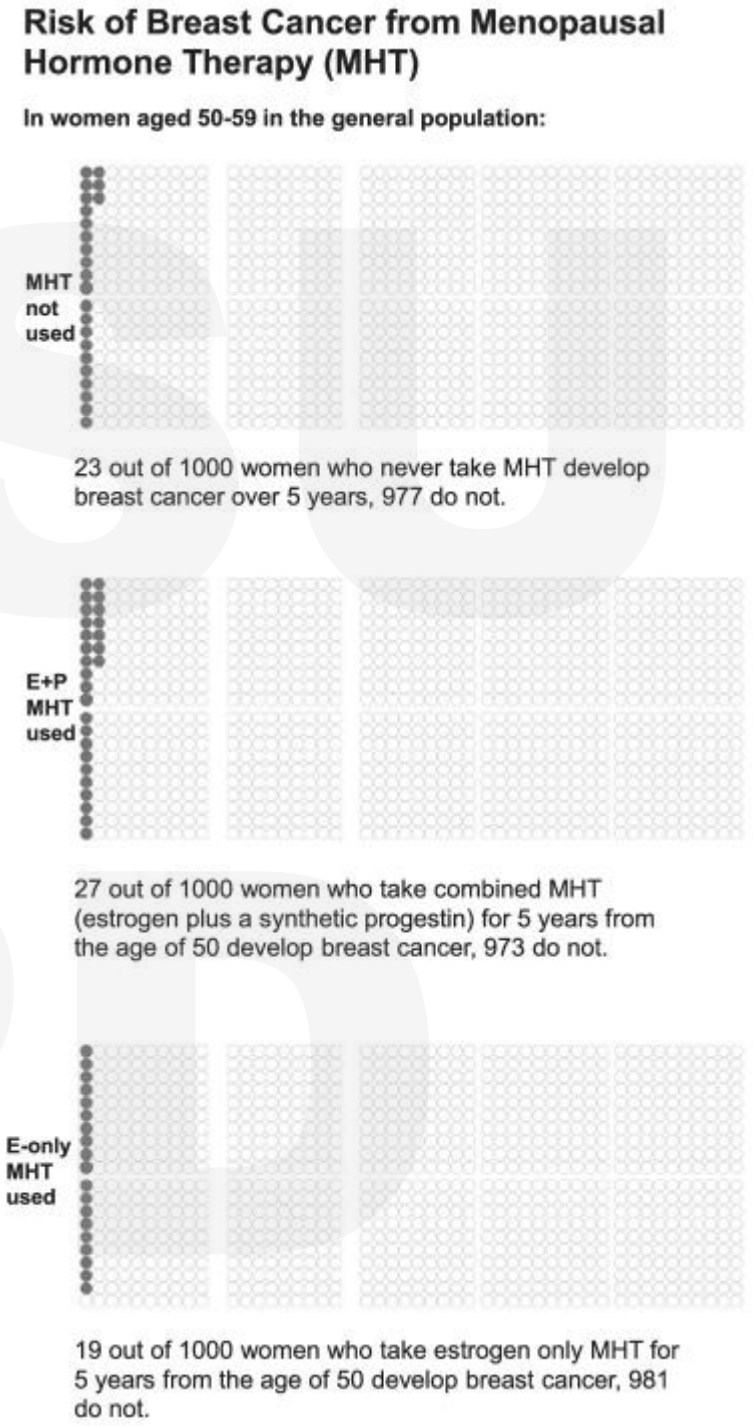

JAMA | Review | WOMEN'S HEALTH

The Women's Health Initiative Randomized Trials and Clinical Practice
A Review

JoAnn E. Manson, MD, DrPH; Carolyn J. Crandall, MD, MS; Jacques E. Rossouw, MD; Rowan T. Chlebowski, MD, PhD; Garnet L. Anderson, PhD; Marcia L. Stefanick, PhD; Aaron K. Aragaki, MS; Jane A. Cauley, DrPH; Gretchen L. Wells, MD, PhD; Andrea Z. LaCroix, PhD; Cynthia A. Thomson, PhD, RD; Marian L. Neuhouser, PhD; Linda Van Horn, PhD; Charles Kooperberg, PhD; Barbara V. Howard, PhD; Lesley F. Tinker, PhD; Jean Wactawski-Wende, PhD; Sally A. Shumaker, PhD; Ross L. Prentice, PhD

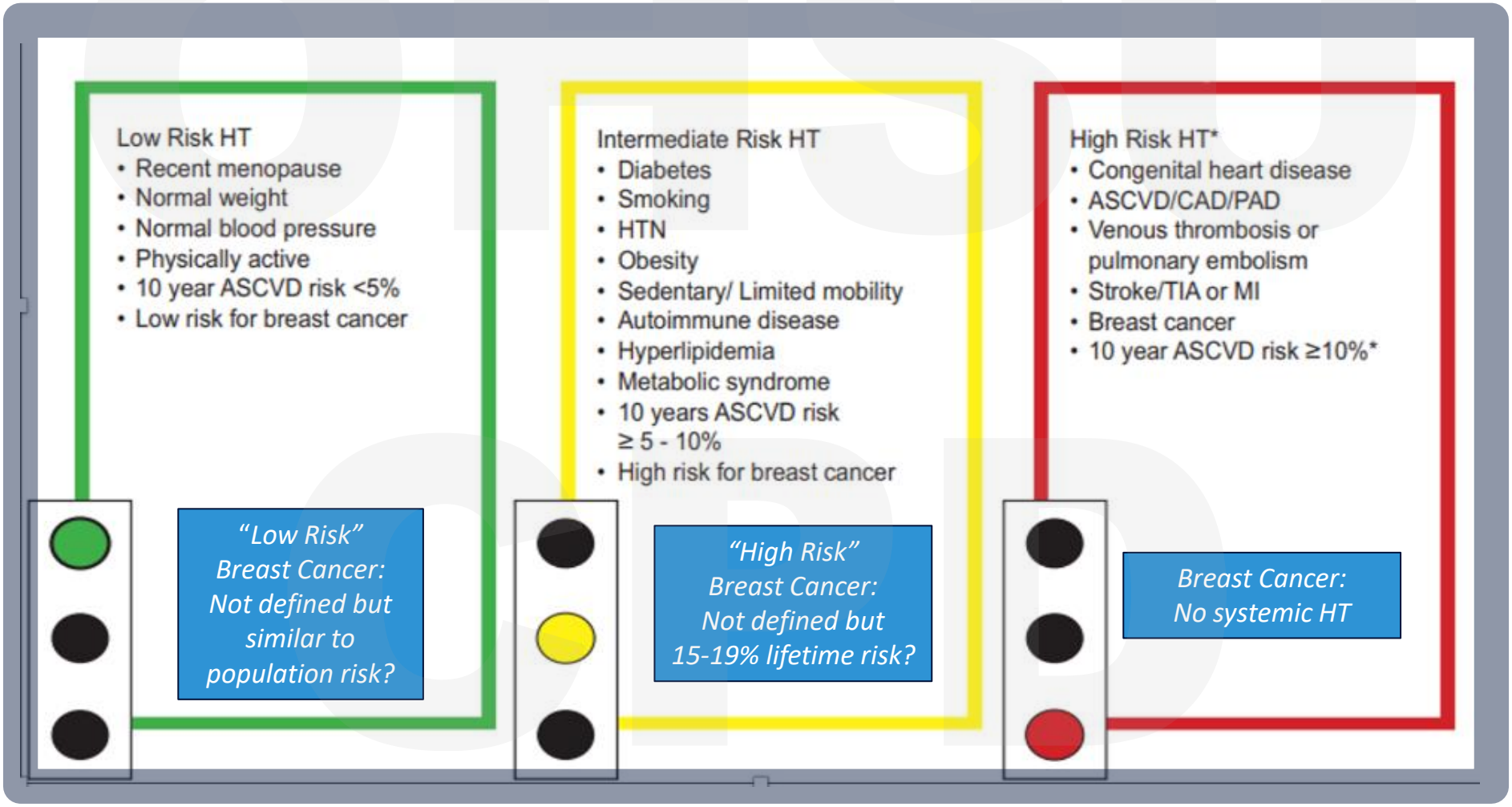
Will MHT cause Breast Cancer?

- Modest increase, *not* causation
- ~2% absolute increase (combined)
- Comparable to lifestyle risks associated with breast cancer
- Formulation matters



Glynne, Sarah et al. Menopausal hormone therapy for breast cancer patients: what is the current evidence?. Menopause 33(1):p 88-117, January 2026. | DOI: 10.1097/GME.0000000000002627

Menopausal Hormone Therapy: Which Patient?



Cho L, Kaunitz AM, Faubion SS, Hayes SN, Lau ES, Pristera N, Scott N, Shifren JL, Shufelt CL, Stuenkel CA, Lindley KJ; ACC CVD in Women Committee. Rethinking Menopausal Hormone Therapy: For Whom, What, When, and How Long? Circulation. 2023 Feb 14;147(7):597-610. doi: 10.1161/CIRCULATIONAHA.122.061559. Epub 2023 Feb 13. PMID: 36780393.

MHT in Women with Elevated Risk (non-genetic)

- No large RCT has specifically addressed MHT use in elevated-risk women without a cancer history.
- Evaluate baseline risk of breast cancer before prescribing MHT, educate about modifiable risk factors.
- MHT interaction with modifiable risk factors (BMI, alcohol, physical activity) is clinically meaningful → can inform shared decision-making.
- Risk stratification tools (e.g., Tyrer-Cuzick, BCSC 5-year risk) should guide counseling before MHT initiation.
- Hysterectomy? Estrogen alone may lower BC risk.

MHT in Women with Breast Cancer History

- Although MHT is effective for menopausal symptoms, concern over breast cancer recurrence limits its use.
- Aromatase inhibitors used for breast cancer treatment suppress endogenous estrogen levels to near zero and *increase risk of GSM.*
- Systemic estrogen contraindicated.
- QOL impaired due to menopausal symptoms.
- Non-hormonal therapies provide evidence-based options.
- Lifestyle modifications as first line therapies.
- Risk of recurrence varies according to stage of cancer at diagnosis, estrogen receptor status, and time since diagnosis.

MHT and Density

- **MHT increases breast density and can affect mammography performance.**
- MHT associated with increased breast density in women >50; can decrease mammographic sensitivity/specificity.
- No guideline currently recommends specifically different screening intervals for MHT users, but density-triggered supplemental screening is relevant and applies to MHT users who develop or maintain dense breast tissue.
- Use clinical judgment and consider pausing MHT for 3–6 months before repeating a callback mammogram, rather than immediately initiating a stepwise workup

1. Azam S, Lange T, Huynh S, et al. Hormone replacement therapy, mammographic density, and breast cancer risk: a cohort study. Cancer Causes Control. 2018;29:495–505. doi: 10.1007/s10552-018-1033-0.
2. Koninckx PR, Ussia A, Page G. Breast cancer screening in women taking hormone replacement therapy needs updating. Facts Views Vis Obgyn. 2024 Mar;16(1):5-8. doi: 10.52054/FVVO.16.1.001. PMID: 38551470; PMCID: PMC11198888.

Treating GSM in Breast CA Survivors

- Lubricants and moisturizers are first line treatment.
- 4% Aqueous lidocaine + silicone lubricant effective for dyspareunia.
- Lowest-dose vaginal estrogen products have limited systemic absorption and may be considered in consultation with oncologist.
- Low-dose vaginal estrogen use of greater concern for women using aromatase inhibitors.

First Line Therapy-
Vaginal Lubricants and Moisturizers (examples)

Lubricants – For sexual activity			Moisturizers
Water-based	**Silicone-based**	**Oil-based**	Replens
Astroglide	Astroglide X	Elegance	Luvena
Good Clean Love	ID Millennium	Yes OB	Me Again
K-Y Jelly	Pink	Olive Oil	Feminease
Slippery Stuff	Pjur Eros		K-Y SILK-E
Yes WB	Uberlube		Hyalo-gyn
. . .	. . .		

GSM Prescription Therapy Options

Product name	Maintenance Schedule	Weekly estradiol dose	Estradiol level (pg/mL)
Premarin cream	0.5 gr twice/wk	N/A	Variable
Estrace cream	0.5 gr twice/wk	100 µg /wk	Variable
Estring	q 90 days	52.5 µg /wk	8
Vagifem, Yuvafem	1 tablet twice/wk	20 µg /wk	5.5
Imvexxy	1 insert twice/wk (10 µg, 4 µg)	20 µg /wk 8 µg /wk	4.6 (10 µg) 3.6 (4 µg)
Non-estrogen options			
Intrarosa	1 insert/day	N/A	5
Osphena	1 oral tablet/day	N/A	N/A

Note: Femring provides systemic estrogen dosing, not low-dose as with Estring

Ongoing Risk Assessment and Shared-Decision Making

- Counseling on role of HT on breast cancer risk (E+P more so)
- CVD risk assessment
- Dexa scan
- VTE risk discussion

Menopause Symptom Management

NON-HORMONE MANAGEMENT

Nutrition

- A Mediterranean diet (with fruits, vegetables, whole grains, and healthy fats) is good for your heart and blood
- Losing weight can help with hot flashes and night sweats

Exercise

- Exercise can help you sleep better and improve your mood
- It also keeps your heart and bones healthy
- Pelvic floor exercises can help with urine leaks

Alcohol and Smoking

- Drinking alcohol and smoking can worsen hot flashes, night sweats, and mood swings
- Cutting back can help you feel better and keep your heart and blood vessels healthy

Sleep Habits

- Sleep with a fan if you feel hot at night
- Try to use phones and screens less before bed
- Limit naps during daytime

Mental Health

- Talking to a counselor can help with mood symptoms
- Joining a support group can help you feel less alone

Medications

- You can take pills that help with hot flashes and night sweats
- There are creams, gels, and pills that help with vaginal dryness and urine problems

Infographic credit: Emily Modlin, MD

Translating Evidence into Patient Care

OHSU

Midlife: An Opportunity for Prevention

- Hormone Fluctuations
- Metabolism, Body Composition, CVD risk
- Bone Health and Strength
- Energy and Mood
- Sleep
- Cognition

Breast Cancer Screening Summary

- Routine screening mammography for average risk women:
  - No earlier than age 40 and no later than age 50
  - At least biennially and as frequently as annually
  - Should continue through at least age 74; age alone should not be the basis to discontinue screening.
- Women may require additional imaging to complete the screening process or to address findings on the initial screening mammography.
- Risk factors: increased breast density, presence of proliferative breast disease, family history of breast cancer, personal history.
- Prevention strategies for modifiable risks.
- Pathogenic variants in *BRCA1/2* substantially increase risk of breast cancer; consider referral to genetics after reviewing family history.

Which Screening Method to Choose?

- Mammography: for women at average-risk
- Tomosynthesis: when breast cancer risk is increased (i.e. density)*
- MRI: lack of evidence for effectiveness in average-risk women, because of excessive false-positives, high cost; insufficient evidence for dense breasts
- Ultrasonography: no evidence it improves results over mammography screening for average-risk women; insufficient for dense breasts
- Breast self-exam: instructing average-risk women does not improve mortality, causes excess benign biopsies

*3D tomosynthesis is the OHSU standard of care

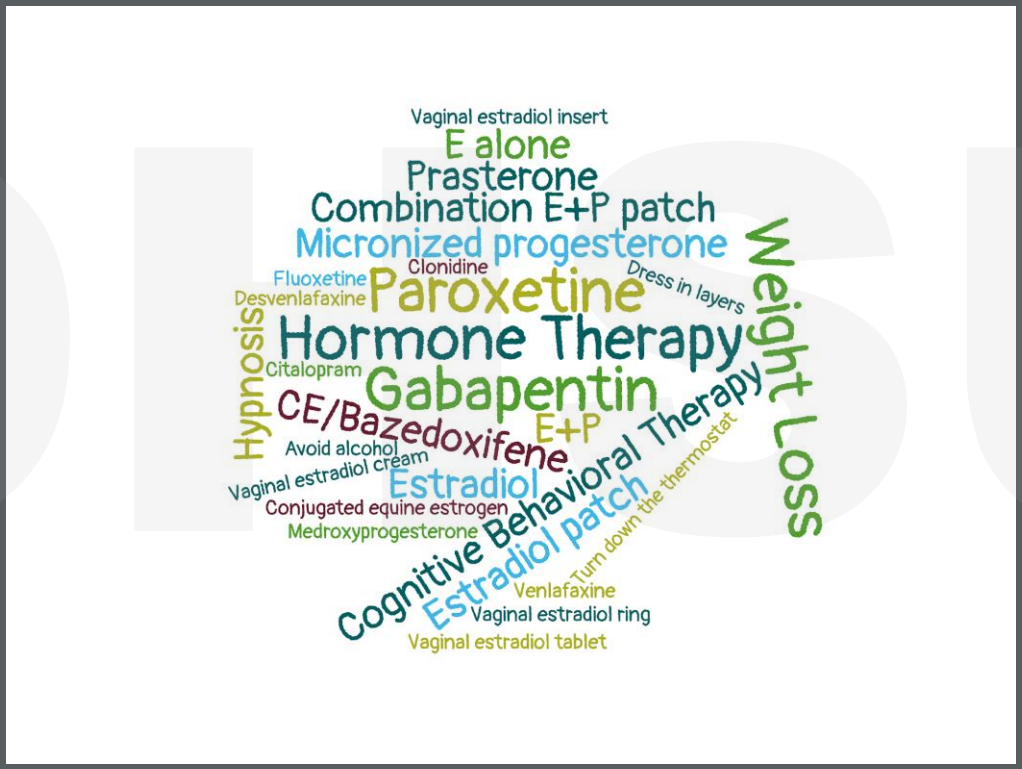
Managing Breast Cancer Risk in a Short Visit

Everyone

- Educate about individual risk
- Discuss preventive strategies for modifiable risks (nutrition, physical activity, ETOH, smoking, etc)

Based on Calculated Risk:

- Consider Genetic counseling and testing
- Consider enhanced screening
- Consider chemoprevention



Questions?

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