Gynecologic Care of Breast Cancer Survivors

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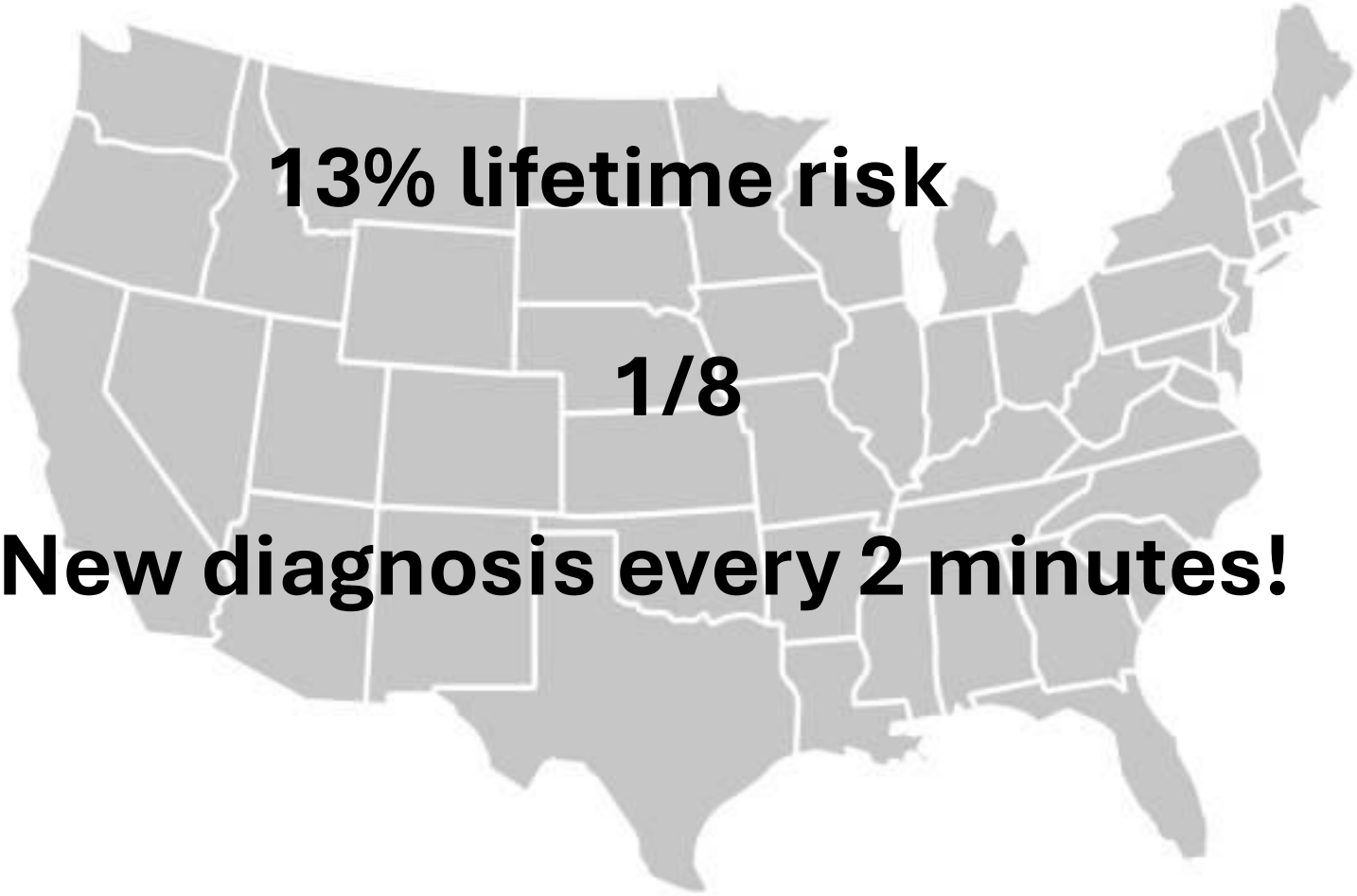
Disclosures

- I am owner of and consultant for Pleasant Consulting, LLC.
  - Client: AtlasMed

Objectives

1. To learn basic GYN care of breast cancer survivors
2. To understand treatment side effects & considerations
3. To address common questions from breast cancer survivors

Breast Cancer Risk



13% lifetime risk

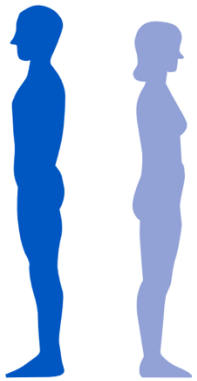
1/8

New diagnosis every 2 minutes!

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2025 Estimates

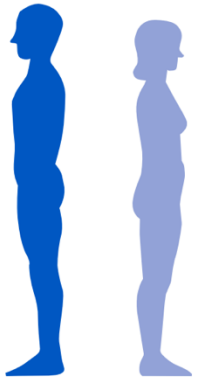
Estimated New Cases

Male			Female		
Prostate	313,780	30%	Breast	316,950	32%
Lung & bronchus	110,680	11%	Lung & bronchus	115,970	12%
Colon & rectum	82,460	8%	Colon & rectum	71,810	7%
Urinary bladder	65,080	6%	Uterine corpus	69,120	7%
Melanoma of the skin	60,550	6%	Melanoma of the skin	44,410	4%
Kidney & renal pelvis	52,410	5%	Non-Hodgkin lymphoma	35,210	4%
Non-Hodgkin lymphoma	45,140	4%	Pancreas	32,490	3%
Oral cavity & pharynx	42,500	4%	Thyroid	31,350	3%
Leukemia	38,720	4%	Kidney & renal pelvis	28,570	3%
Pancreas	34,950	3%	Leukemia	28,170	3%
All sites	**1,053,250**		**All sites**	**988,660**	



Estimated Deaths

Male			Female		
Lung & bronchus	64,190	20%	Lung & bronchus	60,540	21%
Prostate	35,770	11%	Breast	42,170	14%
Colon & rectum	28,900	9%	Pancreas	24,930	8%
Pancreas	27,050	8%	Colon & rectum	24,000	8%
Liver & intrahepatic bile duct	19,250	6%	Uterine corpus	13,860	5%
Leukemia	13,500	4%	Ovary	12,730	4%
Esophagus	12,940	4%	Liver & intrahepatic bile duct	10,840	4%
Urinary bladder	12,640	4%	Leukemia	10,040	3%
Non-Hodgkin lymphoma	11,060	3%	Non-Hodgkin lymphoma	8,330	3%
Brain & other nervous system	10,170	3%	Brain & other nervous system	8,160	3%
All sites	**323,900**		**All sites**	**294,220**	

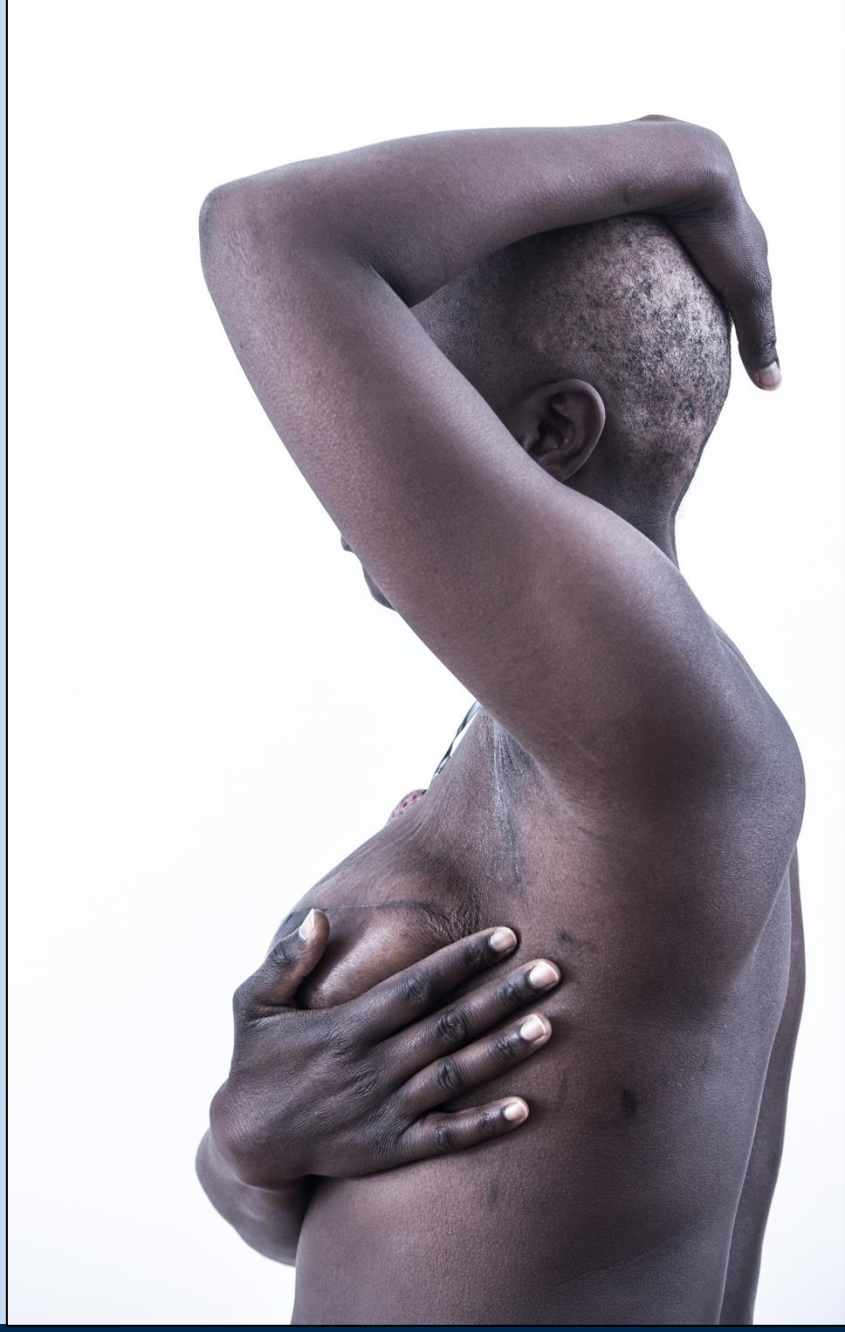


Estimates exclude US territories and are rounded to the nearest 10; cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Ranking is based on modeled projections and may differ from observed data.

https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2025/2025-cancer-facts-and-figures-acs.pdf

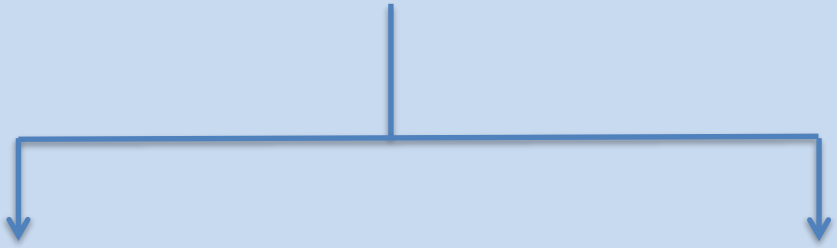
Breast Cancer Treatments:

Side Effects & Considerations



Breast Cancer Treatment

1. Surgery
2. Chemotherapy
3. Radiation
4. Endocrine Therapy



Tamoxifen

Aromatase Inhibitors

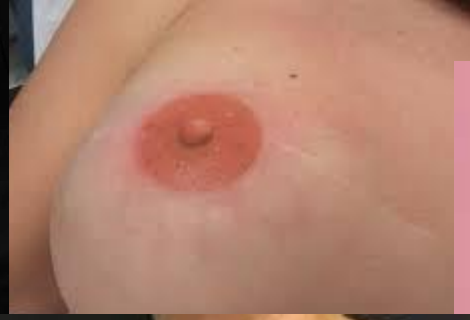
- Anastrozole
- Exemestane
- Letrozole

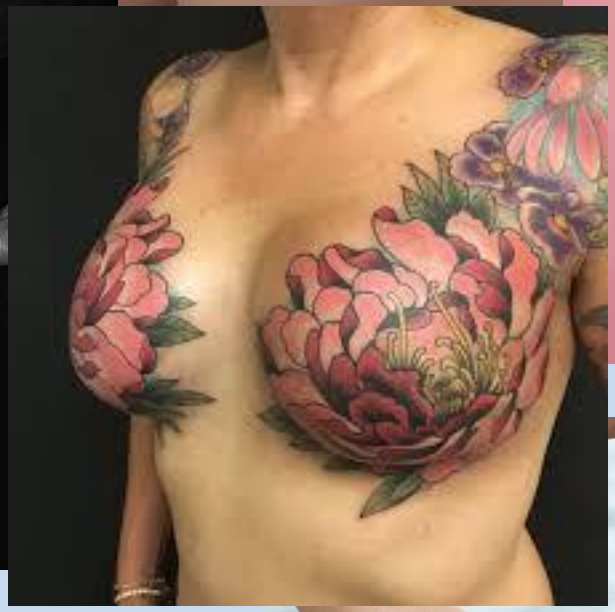
Breast Screening

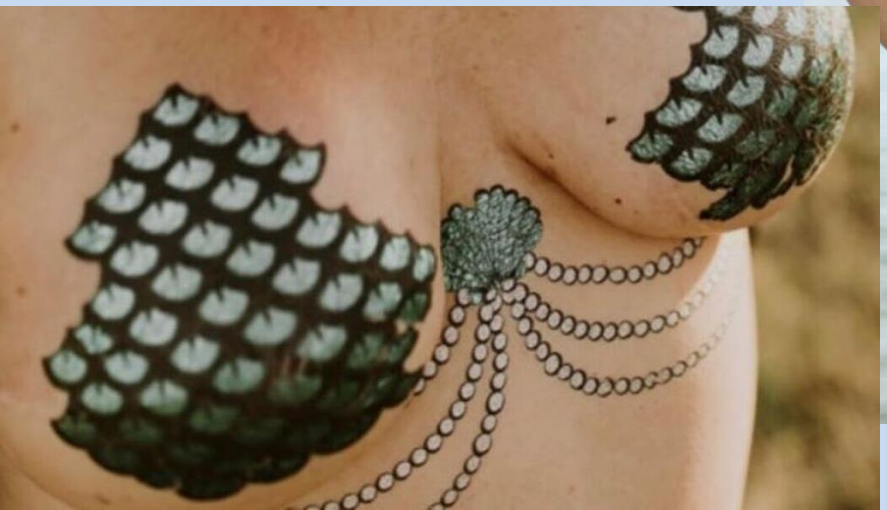
- Continue annual screening mammogram (if breast tissue intact)

Bilateral Mastectomies

- Annual breast/chest wall exam (for all reconstruction)
- **No screening imaging after bilateral mastectomies**
- Diagnostic imaging may be indicated
  - Mammogram for native tissue (“TRAMmogram”)
  - MRI for implants
  - Ask radiology if unsure

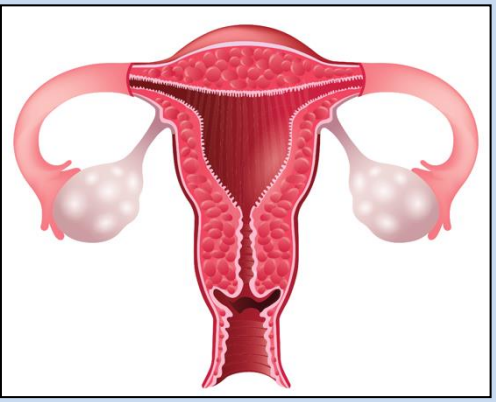






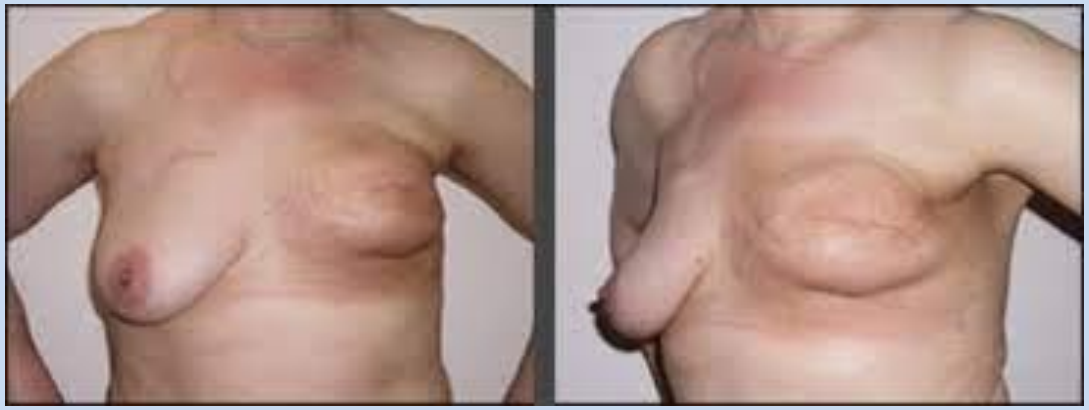
Effects of Chemotherapy

- Cardiotoxic agents:
  - Adriamycin
  - Herceptin (trastuzumab) for HER2+



- Gonadotoxic agents:
  - Cyclophosphamide→ temporary or permanent menopause
  - Lupron for those that may desire future fertility

Effects of Radiation



https://www.melbournebreastcancersurgery.com.au/breast-reconstruction-and-post-mastectomy-radiotherapy-pmrt.html

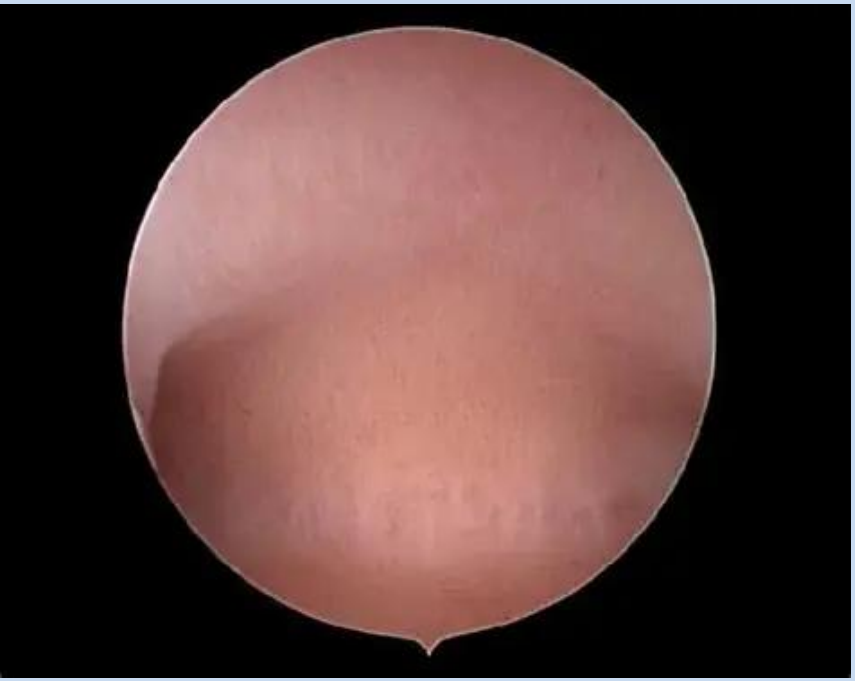
- Lymphedema
- Pain
- Contractures
- Evaluate if imaging indicated
- Refer to PT/OT
- Refer to medical oncology or plastics

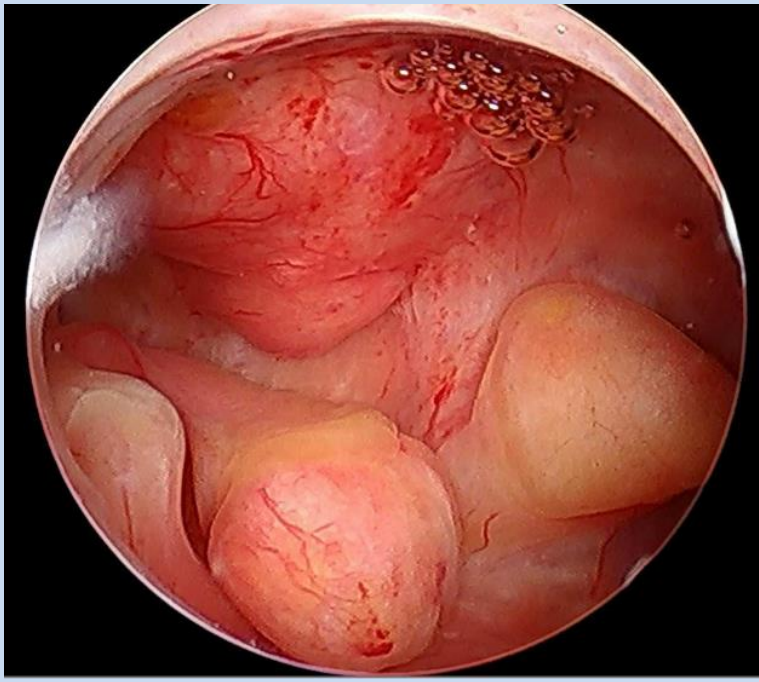
Tamoxifen

- Selective estrogen receptor modulator (SERM)

- <u>Partial agonist/antagonist on endometrium:</u>
  1. Regular menses
  2. Amenorrhea
  3. AUB

- SE: Hot flashes, VTE, stroke, cataracts, vaginal discharge, ovarian cysts, AUB, uterine polyps, **endometrial cancer in postmenopausal**





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Remember: there is **NO** routine screening for patients on tamoxifen!
Just monitor symptoms.

Aromatase Inhibitors

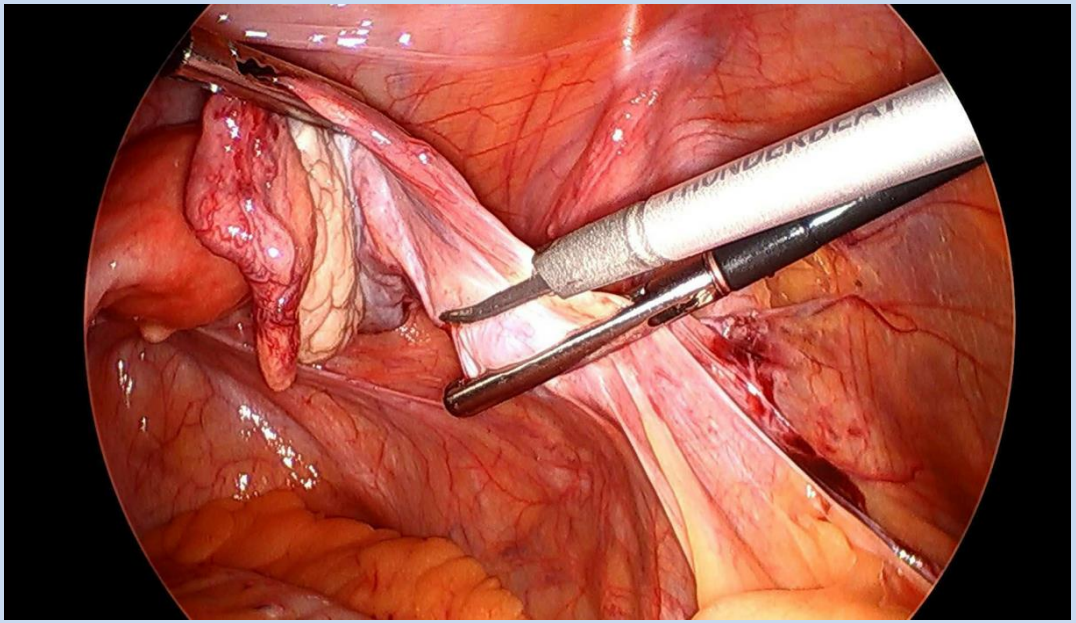
- Blocks systemic conversion of androgens to estrogen via aromatase enzyme

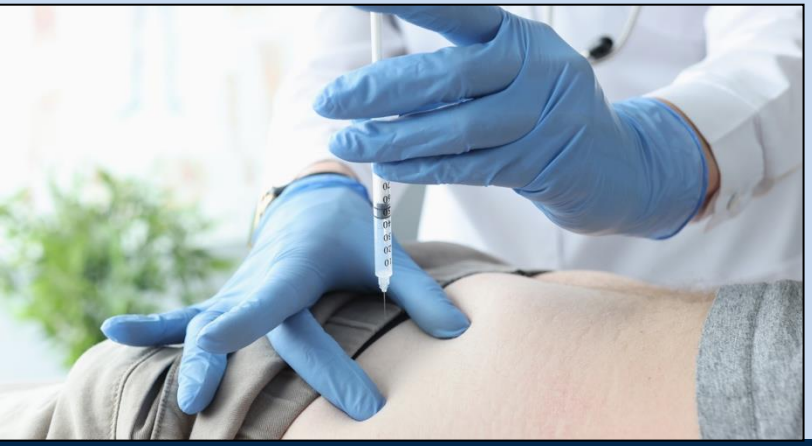
- SE: bone pain, arthralgias, stiffness, hot flashes, vaginal dryness, dyspareunia, increase in bone loss and fracture rates

Aromatase Inhibitors

Must be menopausal to take:

1. Natural
2. Medical (GnRH agonist)
3. Surgical (oophorectomy)





Common Patient Questions

“I have hot flashes that are driving me crazy!”

Menopausal symptoms

- Chemotherapy-induced
- GnRH use for ovarian protection
  - In preparation for chemo
- GnRH use for ovarian suppression
  - To take endocrine therapy
- s/p BSO for ovarian ablation
- s/p BSO for risk-reduction
- Side effects (tamoxifen or AI)
- Natural menopause…

Vasomotor Symptoms

Behavioral changes:

- Layering clothes
- Keep room cold
- Avoiding dietary triggers (caffeine, alcohol, spicy)

Non-hormonal treatments Moderate or Severe Hot Flashes

Compared to Estrogen that has 80-95% ↓:

- SSRI/SNRI: 40-65% ↓
- Oxybutynin: up to 70% ↓
- Gabapentin: 50-65 ↓
- Clonidine: 50% ↓
- Fezolinetant: 50-60% ↓

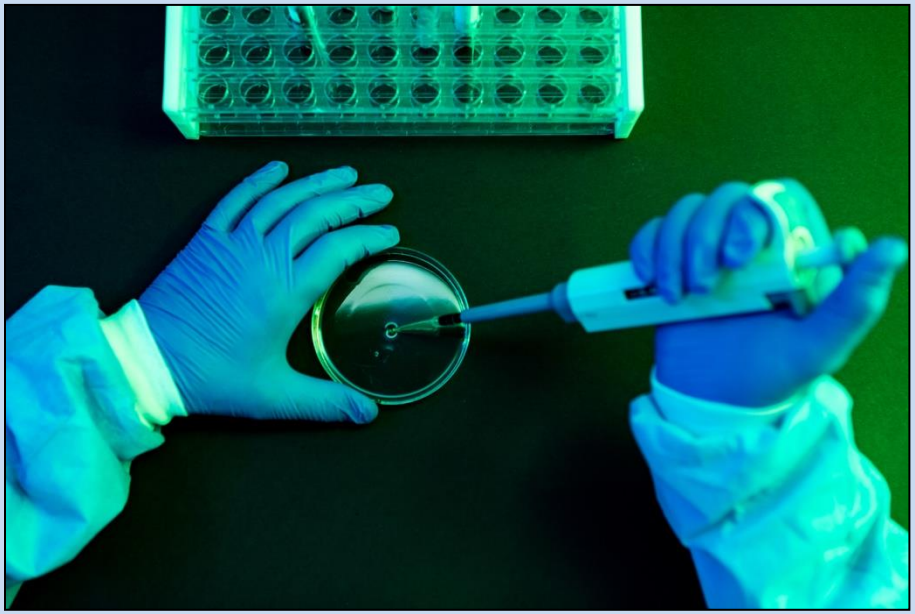
"What about family planning?"

Contraception for Breast Cancer Survivors

- Non-hormonal options:
  - **Barrier:**
    - Condoms, spermicide, cervical cap, diaphragm
  - **LARC:**
    - Copper IUD (ParaGard)
  - **Permanent:**
    - Bilateral tubal ligation
    - Bilateral salpingectomy
    - Vasectomy

Reproductive Options

- Oocyte cryopreservation
- Pre-implantation genetic testing (PGT)



“My sex drive is gone! How do I get the spark back?”

Low Libido

Possible Causes:

- Hormonal changes
- Medications
- Vaginal atrophy
- Changes in self-image
- Stress

Considerations:

- Safe discontinuation of SSRI?
- Address vaginal atrophy
- Dilators
- Pelvic floor physical therapy
- Sexual health counseling
- Flibanserin

“I have so much vaginal dryness. Sex is painful.”

Genitourinary Syndrome of Menopause

- Vaginal itching, burning, pain, dyspareunia, frequent UTI, urinary symptoms
- Vaginal atrophy
- Systemic HT contraindicated in breast cancer survivors
- **Vaginal estrogen generally safe**

Table 1. Nonhormonal and Hormonal Treatment Options

Formulation	Composition	Dosages
Nonhormonal options		
Lubricants	Water-, silicone-, and polycarbophil-based products	See product labeling
Moisturizers	Hyaluronic acid Polyacrylic acid Polycarbophil-based vaginal moisturizer	5 mg daily for 2 weeks, then 3–5 times per week 3 g daily 2.5 g 3 times/week
Vaginal suppositories	Vitamin E Vitamin D	30–200 international units 1,000 international units
Lidocaine	4% aqueous lidocaine	Fully saturated cotton ball applied to the vulvar vestibule for 3 minutes
Hormonal options		
Vaginal insert	Prasterone*	One 6.5-mg vaginal insert once daily
Vaginal cream	17β-estradiol†	The usual dosage range is 1 to 4 g (marked on the applicator) daily for 1 or 2 weeks, then gradually reduced to one-half initial dosage for a similar period; a maintenance dosage of 1 g, 1 to 3 times a week, may be used after restoration of the vaginal mucosa has been achieved‡
Vaginal cream	Conjugated equine estrogen	• Evidence-based regimen: twice weekly administration of 0.5 g intravaginally (eg, Monday and Thursday) for treatment of moderate-to-severe dyspareunia • Dosage regimens of 1 g every night for 2 weeks, then twice a week or 0.5 g twice a week are commonly used‡§
Vaginal ring	17β-estradiol	7.5 micrograms/day for 90 days
Vaginal tablet or insert	Estradiol hemihydrate	• 10 micrograms/day for 2 weeks, then 10 micrograms/day 2 times a week • A vaginal insert containing 4 micrograms is available, although not used in included studies
Vaginal cream	Testosterone	• 300 micrograms or 150 micrograms applied daily for 28 days • 300 micrograms or 150 micrograms applied daily for 2 weeks, then 3 times a week

*The product label contains the following warning and precaution for those with a current or past history of breast cancer: "Estrogen is a metabolite of prasterone. Use of exogenous estrogen is contraindicated in women with a known or suspected history of breast cancer. [It] has not been studied in women with a history of breast cancer." Additional data have been published on this population since the U.S. Food and Drug Administration approval of this medication.

†Known, suspected, or history of breast cancer is listed as a contraindication in the product label.

‡U.S. Food and Drug Administration–approved dosages of conjugated estrogen and estradiol creams may be higher than dosages commonly used in clinical practice.

§Study protocol: cyclic administration of 0.5 g intravaginally (daily for 21 days then off for 7 days) for treatment of moderate-to-severe dyspareunia, a symptom of vulvar and vaginal atrophy, due to menopause.

Research

JAMA Oncology | Brief Report

Vaginal Estrogen Therapy Use and Survival in Females With Breast Cancer

Lauren McVicker, PhD; Alexander M. Labeit, PhD; Carol A. C. Coupland, PhD; Blánaid Hicks, PhD; Carmel Hughes, PhD; Úna McMenamin, PhD; Stuart A. McIntosh, PhD; Peter Murchie, MD; Chris R. Cardwell, PhD

- No evidence of higher risk of breast cancer-specific mortality between vaginal estrogen and no HT
  - HR 0.77; 95% CI 0.63-0.94
- No increased risk with:
  - ER+ (HR=0.88; 95%CI 0.62-1.25)
  - AI users (HR=0.72; 95%CI 0.58-0.91)

OXFORD

JNCI J Natl Cancer Inst (2022) 114(10): djac112

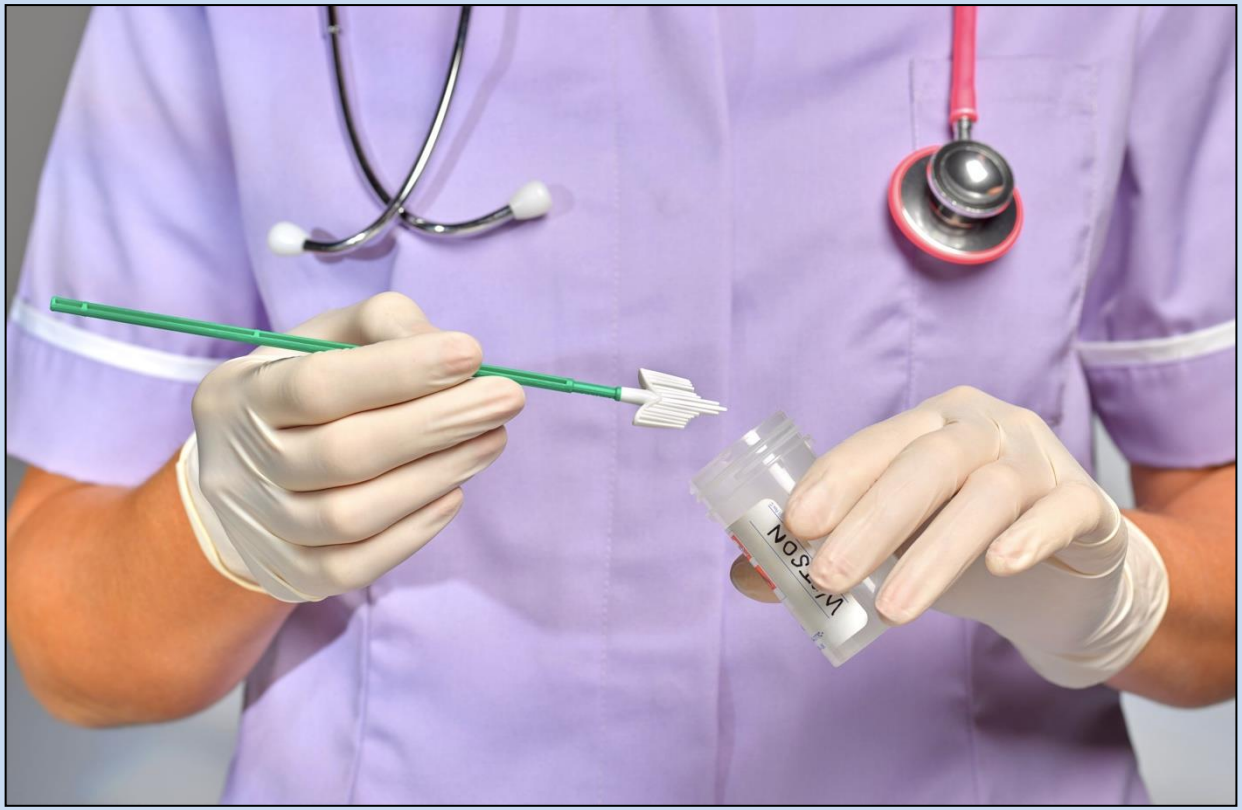
https://doi.org/10.1093/jnci/djac112
First published online July 20, 2022
Article

Systemic or Vaginal Hormone Therapy After Early Breast Cancer: A Danish Observational Cohort Study

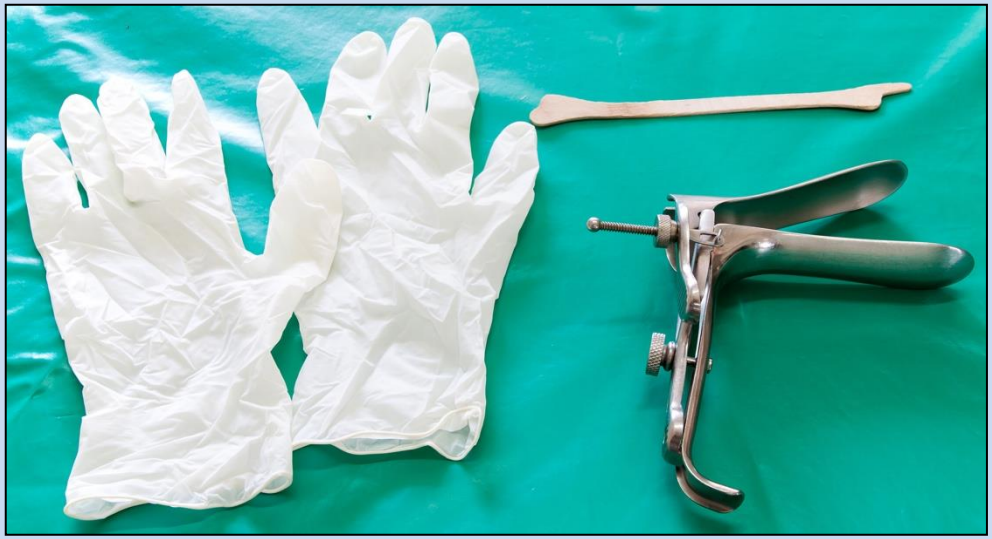
Søren Cold, MD [1,*] Frederik Cold, MD [1] Maj-Britt Jensen, MSc [2] Deirdre Cronin-Fenton, PhD [3]
Peer Christiansen, MD [4] Bent Ejlertsen, MD [2,5]

- Recurrence elevated in vaginal estrogen users on AI
  - **HR=1.39**; 95%CI 1.04-1.85
- No statistically significant differences in survival or mortality

“I’m terrified to get another cancer. I’m at increased risk for cervical cancer because I had breast cancer, right?”

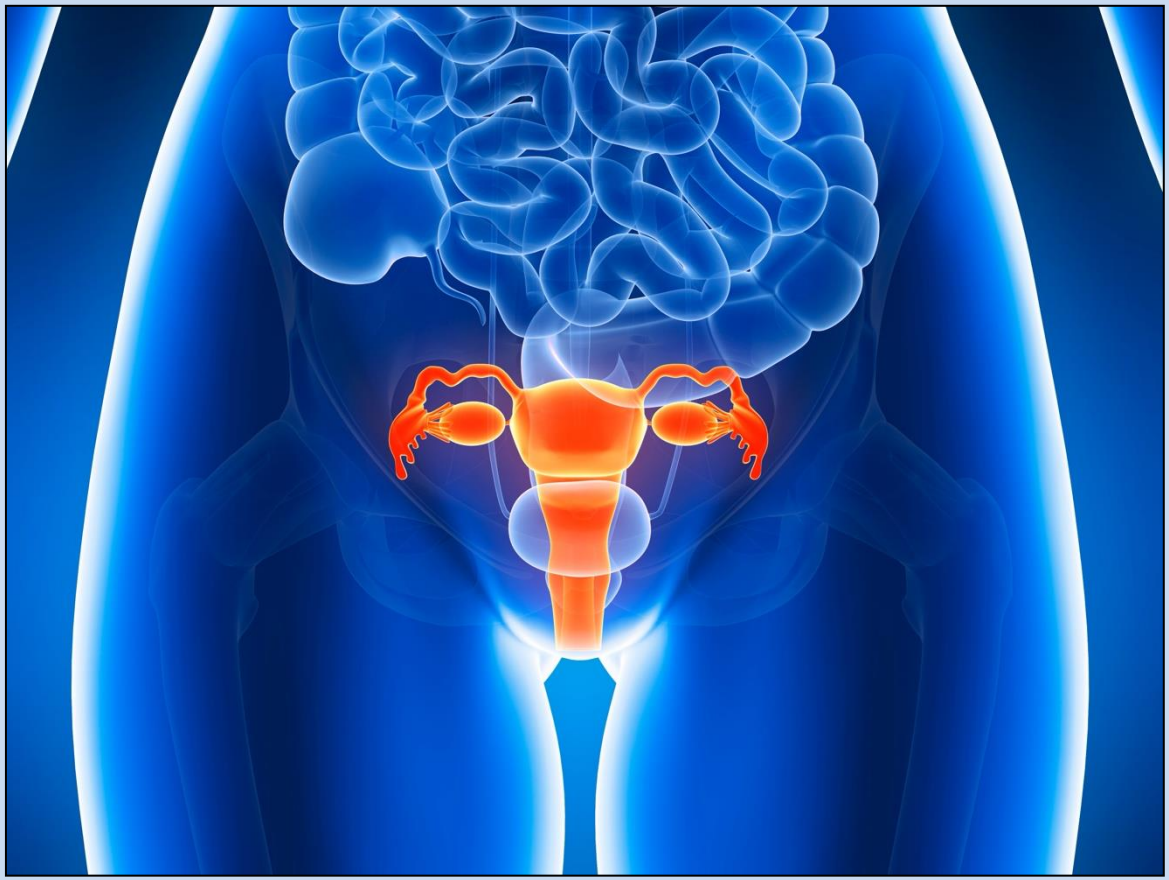


No! Cervical cancer should be performed at the same intervals.

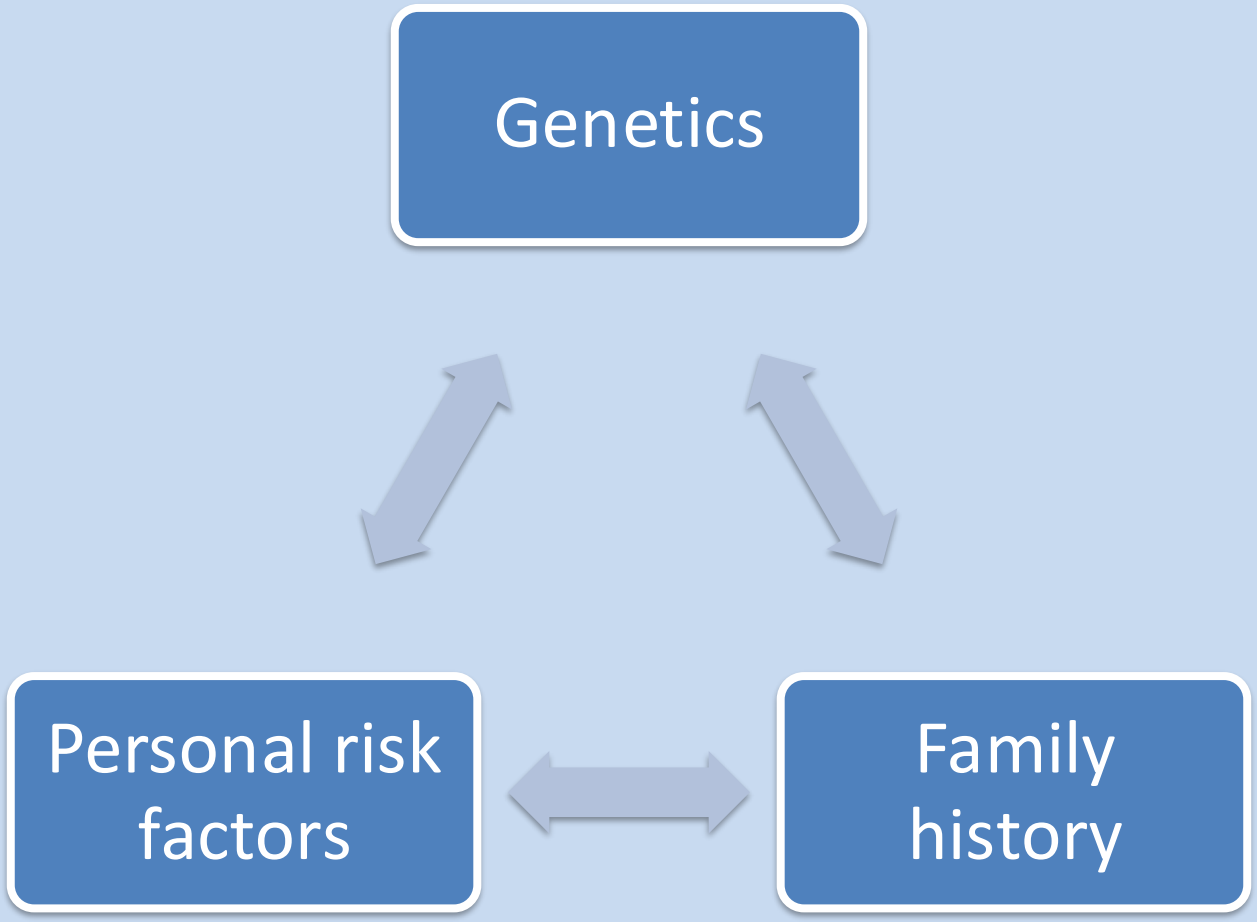


Note: Some results may be abnormal during chemotherapy.

“What about other GYN cancers? Let’s just do a full hysterectomy!”



Everyone's risk is different



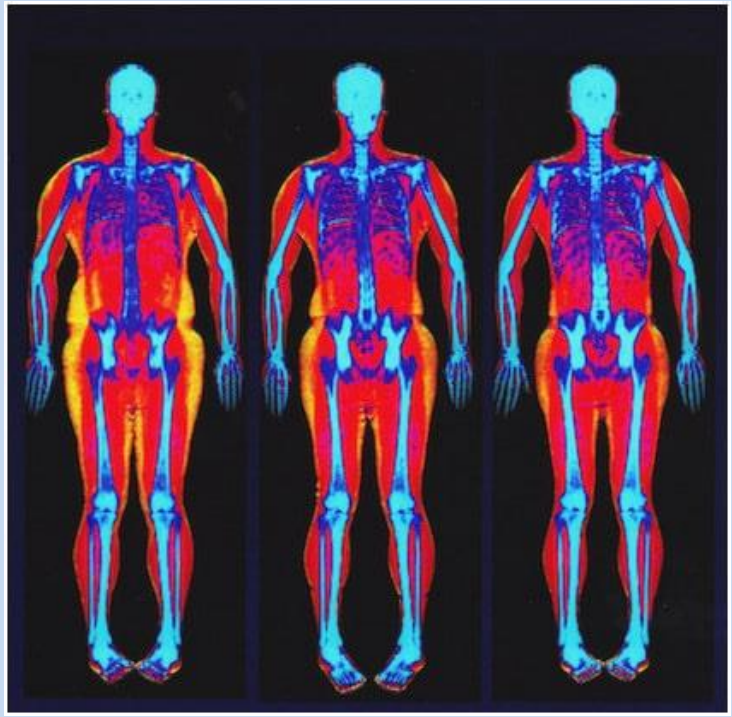
Genetic Testing

- Gather a family history
- Refer to genetic counselor

“I’m worried about my bone health. What can I do to make my bones stronger?”

Bone Health

- Bone health:
  - **Calcium & Vitamin D**
  - **Weight-bearing exercises**
  - Dual-energy X-ray absorptiometry (DEXA)
  - Consult endocrine if osteoporosis

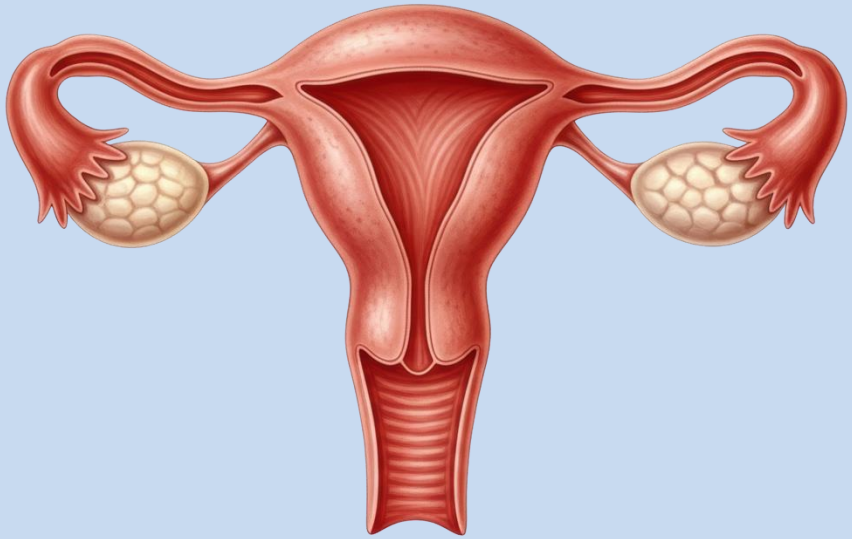


https://www.lamkinclinic.com/dexa-scans-and-their-health-benefits/

“My periods are all out of whack since my breast cancer diagnosis. What do I do?”

Abnormal Uterine Bleeding

- Depends on etiology, symptoms, age
- Limited options as hormonal therapy generally contraindicated
- Medical:
  - NSAIDS, TXA, Lupron
- Surgical:
  - Endometrial ablation, hysterectomy, BSO?



Can breast cancer survivors get hormones?

VIEWPOINT

What Systemic Hormone Therapy Black Box Removal Means for Breast Cancer Survivors

Versha Pleasant, MD, MPH; Kari Ring, MD

On November 10, 2025, the US Department of Health and Human Services announced that the US Food and Drug Administration would begin removal of black box warnings for menopausal hormone therapy (MHT). This pivot follows a significant period of trepidation toward MHT after the Women's Health Initiative findings that demonstrated increased breast cancer risk (6 additional breast cancer cases annually per 10 000 person-years for ages 50-59 years)[1] with combined conjugated equine estrogen and medroxyprogesterone acetate. (Although the term *MHT* is often broadly used, the focus of this article is on systemic hormone therapy [combined estrogen plus progesterone and estrogen alone] as opposed to localized hormone therapy [specifically vaginal estrogen].) Warnings persisted even when studies published since the early Women's Health Initiative publications demonstrated discrepancies in risk based on factors such as combined estrogen plus progesterone vs estrogen alone (where estrogen alone did not increase breast cancer risk, with 5 fewer breast cancers per 10 000 person-years for ages 50-59 years),[1] formulation (medroxyprogesterone acetate carrying higher risk than micronized progesterone[2]), and age at MHT initiation (with initiation before age 60 years or within 10 years of menopause possibly providing more benefit and less risk).[3] These subsequent data allow for improved clinical stratification for which risk remains for certain patients, and benefits could outweigh risks for others. Benefits could include decreased vasomotor symptoms, decreased bone fracture risk, possible decreased cardiovascular risk, and possible improvement in quality of life. With the removal of MHT black box warnings, a lingering question still remains: what does this mean for current breast cancer survivors or the 1 in 8 women who will develop breast cancer in their lifetime?

With a lifetime risk of 13.1%, invasive breast cancer is the most common cancer among women in the US. As of January 2025, there are 4.3 million women nationwide living with a history of breast cancer; this is anticipated to increase to 5.3 million by 2035.[4] There is also an increasing trend toward early-onset breast cancer among women 50 years or younger. Most breast cancers are diagnosed at stage I and carry 91% 5-year survival, reflecting a combination of early detection through screening mammography, widespread community breast cancer awareness and advocacy, and improved breast cancer treatments. Although these data are incredibly promising, they also highlight a patient population for whom MHT is generally contraindicated, despite potential benefits. Up to 10% of breast cancers are associated with germline pathogenic variants in moderate- or high-risk cancer genes. Some patients have a concurrent increased lifetime risk of ovarian cancer, with recommendation for risk-reducing salpingo-oophorectomy prior to age 50 years. Some individuals experience early menopause for a variety of reasons, including temporary or permanent chemotherapy-induced menopause, medically induced menopause for ovarian suppression, or surgical ovarian ablation.

A review of more than 20 studies published from 1980 to 2013, ranging from retrospective to prospective randomized clinical trials, overwhelmingly showed no elevated risk of new breast cancer events, recurrences, or mortality among breast cancer survivors taking MHT.[5] Some studies from this review even demonstrate a decreased risk of breast cancer events and reduced mortality with MHT in this population. Additionally, a systematic review and meta-analysis of MHT in breast cancer survivors showed no significant differences in tumor recurrence with combined MHT or tibolone in analysis of the 3 randomized clinical trials (relative risk [RR], 1.46 [95% CI, 0.99-2.24]). In the combined analysis of all studies, there was no increased risk of recurrence (RR, 0.85 [95% CI, 0.54-1.33]) or death (RR, 0.91 [95% CI, 0.38-2.19]).[6]

The Hormonal Replacement Therapy After Breast Cancer—Is It Safe? (HABITS) trial, a prospective, randomized, noninferiority trial initiated in 1997, was terminated early after demonstrating an increased risk of local recurrence or a contralateral breast cancer following the administration of MHT among breast cancer survivors (26 of 174 [15%] vs 8 of 171 [5%]). Numerous limitations to the study included possible discrepancies of MHT formulations across institutions, MHT exposure in the non-MHT group, and a high proportion of participants with unknown hormone receptor status. The follow-up 2008 study showed a statistically significant increased risk of breast cancer events for those who took MHT (hazard risk, 2.4 [95% CI, 1.3-4.2]), with no statistically significant difference in survival ($P = .51$).[7] However, a combined 10-year follow-up analysis of the Stockholm trial (a similar study with the goal of minimizing the use of progestin with estrogen in breast cancer survivors) and the HABITS trial did not show a significant difference between new breast cancer events in the MHT vs the control group (hazard ratio, 1.3 [95% CI, 0.9-1.9]) and no differences in mortality.[8] Fahlén et al suggest that the increased risk of recurrence in HABITS could have been attributed to higher progesterone exposure in this trial and that early termination of both studies does not allow for appropriate conclusions to be made.[8]

Hormone receptor–negative breast cancer is also an important subgroup in the broader discussion of MHT. These subtypes account for 15% to 20% of all breast cancer cases and are more commonly diagnosed in women who are premenopausal. Although there are no prospective studies in hormone receptor–negative cancers specifically, these patients are represented in larger studies of MHT. For instance, in the HABITS trial, there was no significant increase in risk of recurrence in the hormone receptor–negative cohort.[7] Interestingly, there is evidence that estrogen-alone MHT may decrease the risk or recurrence of a second primary breast cancer in

Conclusions

- Some gynecologic care may be specific to breast cancer—but some can be routine!
- Breast cancer history ≠ high risk for all cancers
- Look at patient holistically!

BRCA and Breast Cancer Survivorship Workshop

April 23-25, 2026
Ann Arbor, MI

Registration: https://umich.cloud-cme.com/course/courseoverview?P=5&EID=81007

Workshop summary:
Participants in the 2026 BRCA and Breast Cancer Survivorship Workshop will leave the workshop with an updated skill set tailored to the evolving landscape of cancer genetics and breast health, ultimately translating into better patient care and outcomes.

Who should attend:
- Ob/Gyn Physicians/APPs
- Family Medicine Physicians/APPs
- Internal Medicine Physicians/APPs

Workshop Agenda

Day 1
- Taking a Family History, Understanding Genetic Testing
- Caring for the BRCA 1/2 Patient
- Lynch Syndrome
- Menopause
- Hormone Therapy for High-Risk Patients

Day 2
- Ovarian Cancer Risk Based on Family History
- Breast Cancer Risk Assessment
- Genitourinary Symptoms of Menopause
- Chemoprevention (Tamoxifen and AIs)
- Fertility, Preimplantation Genetic Testing, and Cancer Risk
- Contraception and Breast Cancer Risk
- Clinical Cases

Day 3
- Interview with a Breast Cancer Survivor
- GYN Care of the Breast Cancer Survivor
- Breast Screening Tools
- Non-Hormonal Treatment of Vasomotor Symptoms

Conference Location:
DoubleTree by Hilton Ann Arbor North
3600 Plymouth Road, Ann Arbor, MI 48105

Hotel Registration: https://www.hilton.com/en/attend-my-event/uofmobgynconference2026/

Registration fee:
- Physicians/APPs: $550
- Residents: $300

Registration includes conference, breakfast on Thursday, Friday, and Saturday, and lunches on Thursday and Friday.

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ICHIGAN HEALTH

Thank you!
vershap@med.umich.edu

References

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