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- No relationships to disclose

Hormone Therapy for the Busy Physician

Perimenopause and Menopause

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Learning Objectives

After this session you will be able to:

- Identify candidates for menopausal hormone therapy (MHT) and contraceptive hormone therapy (CHT)
- Select appropriate formulations and routes of administration
- Counsel patients on individualized risks and benefits
- Initiate and manage MHT in primary care

Glossary of Abbreviations:

MHT = Menopause Hormone Therapy

CHT = Contraceptive Hormone Therapy

GSM = Genitourinary Syndrome of Menopause

EPT = Estrogen Progestogen Therapy

CEE = Conjugated Equine Estrogens (Premarin)

POP = Progestin only pill (“mini=pill”, Nora-BE)

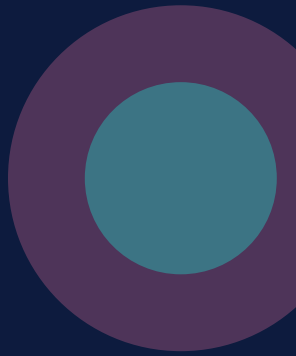
LNG-IUS = Hormonal IUD

FMP = Final Menstrual Period

TDE = Transdermal Estrogen (patch, gel, spray)

SECTION 1

The Menopause Transition: Definitions & Physiology



Key Definitions

Perimenopause

Transition period before final menstrual period (FMP)
Irregular cycles, hormonal fluctuations; lasts 4–10 years

Menopause

12 consecutive months of amenorrhea after FMP
Median age 51–52 in North America

Early Postmenopause

First 5–6 years after FMP
Highest symptom burden; optimal window for MHT initiation

Late Postmenopause

> 5–6 years post-FMP
Less favorable risk:benefit ratio for new MHT initiation

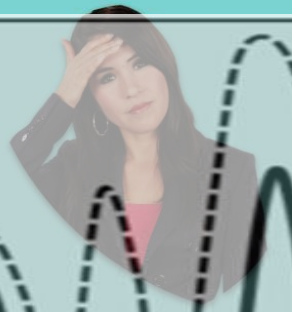
STRAW+10 Reproductive Staging

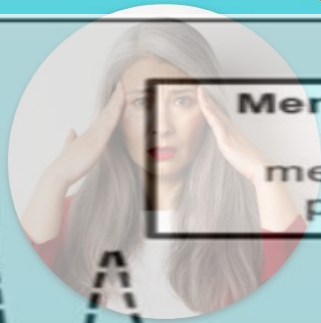
Standardized framework for characterizing the menopausal transition



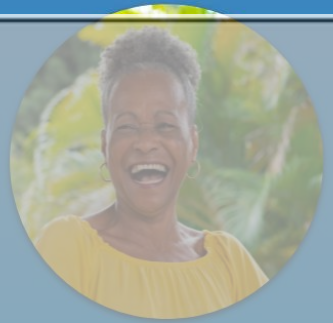
- Key clinical markers: cycle length variability ≥7 days (early transition); ≥2 skipped cycles (late transition)
- FSH ≥ 25 IU/L on cycle day 2–5 supports late transition / early postmenopause
- AMH, antral follicle count: not routine but useful in early surgical/chemotherapy-induced menopause

FMP









Menopause
final menstrual period

Early Perimenopause

- Increased PMS
- Insomnia
- Memory problems
- Increased anxiety and depression
- Subtle changes in cycles

Late Perimenopause

- Early Perimenopause symptoms AND
- Hot flushes symptoms likely
- Vaginal dryness likely
- 2 or more skipped cycles and greater than 60 days amenorrhea

Early Postmenopause

4years

- Begins at 12 months of amenorrhea
- Increased hot flushes
- Increased night sweats
- Increased vaginal dryness
- Increased sleep disturbances

Late Postmenopause

- GSM
- Incontinence
- Osteoporosis
- CVD
- Vasomotor symptoms can linger

Perimenopause

Onset 40-50's

Early-to-late Postmenopause

Until Demise

Who Benefits from MHT?

MHT is the most effective treatment for menopausal symptoms | *TMS 2022, ACOG PB 141*

Vasomotor Symptoms (VMS)

- Hot flashes & night sweats — primary indication
- Moderate-to-severe: first-line therapy
- Effective in 80–90% of women (TMS 2022)

Genitourinary Syndrome (GSM)

- Vaginal dryness, dyspareunia, recurrent UTIs
- Local vaginal estrogen: preferred for isolated GSM
- Systemic MHT also treats GSM effectively

Sleep & Mood Disturbance

- Night sweat-related sleep disruption responds to MHT
- Perimenopausal depression: estrogen has antidepressant effect
- Not a standalone treatment for clinical MDD

Bone Health

- Prevents bone loss and fractures (FDA-approved)
- Especially valuable for premature menopause (<45 y)
- Canadian guidelines: first-line for GSF prevention <60 y

Cardiovascular (Timing)

- Cardioprotective when started <60 y or <10 y post-FMP
- 'Timing hypothesis' — WHI reanalysis supports this
- Does not treat established CVD

Premature Menopause (POI)

- MHT until at least average menopause age (51–52)
- Reduces long-term CVD, osteoporosis, dementia risk
- OCP alternative if contraception needed

The Timing Window (Critical Opportunity Principle)

TMS 2022 | ACOG PB 141 Reaffirmed 2024 | Canadian Menopause Society CMAJ 2023

OPTIMAL WINDOW	INTERMEDIATE	LATE INITIATION
Age < 60 OR < 10 yrs post-FMP	Age 60–65 OR 10–20 yrs post-FMP	Age > 65 OR > 20 yrs post-FMP
Benefits outweigh risks for most healthy women	Individualize; caution for CVD/cognitive risk	Less favorable benefit:risk Not recommended de novo

- WHI study limitations: mean age 63, average 12 yrs post-FMP — NOT representative of newly menopausal women
- Healthy women 50–59 in WHI CEE-alone arm showed reduced MI and total mortality
- Duration of therapy: individualize; no arbitrary upper limit for symptomatic women within optimal window

Contraindications to Systemic MHT

ABSOLUTE CONTRAINDICATIONS

- Known / suspected breast cancer (active)
- Other hormone-sensitive malignancies (endometrial, ovarian — context-dependent)
- Unexplained vaginal bleeding (investigate first)
- Active VTE / PE (recent)
- Active arterial thromboembolic disease (ACS, stroke)
- Known thrombophilia with high thrombotic risk
- Active liver disease (severe)

RELATIVE / INDIVIDUALIZE

- Personal history of breast cancer — discuss with oncology; vaginal estrogen may be acceptable
- Elevated cardiovascular risk — prefer transdermal E2 + micronized P4
- Migraine with aura — transdermal preferred; avoid oral E2 fluctuations
- Hypertriglyceridemia (TG >400) — avoid oral estrogen; use transdermal
- Prior VTE / family history — consider thrombophilia screen; transdermal route preferred

Estrogen: Types & Formulations

17β-Estradiol (E2) is preferred — bioidentical, FDA-approved | TMS 2022

17β-Estradiol (E2) ★ PREFERRED

- Bioidentical — structurally identical to endogenous estrogen
- Available: oral, patch, gel, spray, vaginal ring
- Lower VTE risk vs. CEE (transdermal route)

Conjugated Equine Estrogen (CEE)

- Premarin® — mixture of estrogens from equine sources
- WHI formulation — robust long-term safety data
- Only Estrogen clinically proven to reduce breast cancer risk
- Higher VTE/stroke risk than transdermal E2

Estriol (E3)

- Weak estrogen; used vaginally in some countries
- Not FDA-approved for systemic use in North America
- Available compounded; limited efficacy data vs E2

Estrone (E1)

- Dominant postmenopausal estrogen
- Not used therapeutically as primary agent
- Oral E2 converts substantially to E1 via hepatic first-pass

Routes of Administration

Route matters — transdermal Estrogen avoids hepatic first-pass, reducing VTE and stroke risk in at risk women

Route	Examples	Advantages	Considerations
Oral	Estradiol 0.5–2 mg/d CEE 0.3–0.625 mg/d	✓ Easy, familiar, low cost	⚠ First-pass liver effect → ↑VTE, ↑TG, ↑SHBG; avoid with migraine with aura, HTG, high DVT risk
Transdermal Patch	Estradiol 0.025–0.1 mg/d (worn 2×/wk or wkly)	✓ Avoids hepatic first-pass, stable levels, preferred route	⚠ Skin irritation; patch adhesion issues; must be rotated; supply issues
Transdermal Gel/Spray	EstroGel® 0.75 mg/pump Evamist® 1.53 mg/spray	✓ Flexible dosing; avoids patch adhesion issues	⚠ Transfer risk; daily application required
Vaginal (Local)	Estradiol cream, ring (Estring®) E3 cream, Vagifem® tablets 10 mcg	✓ Treats GSM with minimal systemic absorption; safe in most patients	⚠ Progestogen not required for endometrial protection (low-dose local E2)

Progestogens: Endometrial Protection

Required for all women with a uterus receiving systemic estrogen | *TMS 2022, ACOG PB 141*

Micronized Progesterone
(Prometrium® / Utrogestan®) ★ PREFERRED

Dose: 200 mg/night (cyclic)
100 mg/night (continuous)

Bioidentical; favorable breast safety profile vs. MPA; may improve sleep; associated with lower VTE risk vs. synthetic progestins

Medroxyprogesterone Acetate
(MPA / Provera®)

Dose: 2.5–5 mg/day (continuous)
5–10 mg/day ×12–14 d (cyclic)

WHI progestogen; associated with ↑breast cancer risk and unfavorable lipid profile; less preferred per TMS 2022

Levonorgestrel-IUD (LNG-IUS)
(Mirena® / Liletta®) ★ ALTERNATIVE

Dose: 52 mg LNG-IUS

Excellent endometrial protection; minimal systemic progestogen exposure; useful in perimenopausal women needing contraception (CMAJ 2023)

Norethindrone Acetate
(NETA / Activella® combos)

Dose: 0.5–1 mg/day (continuous)

Androgenic progestin; available in combo patches; may worsen lipid profile and mood in some women. Good short term alternative for women with Abnormal Uterine Bleeding.

Choosing a Regimen: Cyclic vs. Continuous

Regimen choice depends on menopausal status and patient preference

Regimen	Who	Details
Cyclic / Sequential	Perimenopausal women Still having periods	Estrogen daily + progestogen 12–14 days/month → withdrawal bleed expected
Continuous Combined	Postmenopausal women (≥12 mo amenorrhea)	Estrogen + progestogen daily → aim for no bleeding. Breakthrough bleed in first 3–6 mo common — investigate if persists
Estrogen Alone (ET)	Women post-hysterectomy	No progestogen needed. Oral E2 or transdermal E2 at lowest effective dose
Local Vaginal Estrogen	Isolated GSM; any menopausal status; can use alongside systemic MHT	Ultra-low-dose: Vagifem® 10 mcg, Estring® ring; no endometrial protection needed at these doses

Hormone Dosing:
Regimen that treats 80% of women

1 mg oral micronized 17 beta estradiol (Estradiol)

0.05mg transdermal 17 beta- estradiol (Climara)

0.625mg conjugated equine estrogen (Premarin)

Micronized Progesterone 100-200mg (uterus present)

+

Estradiol Vaginal Cream 1gram (GSM)

Benefits of MHT: Summary of Evidence

Vasomotor Symptoms [Level A]

80–90% reduction in hot flash frequency/severity

Genitourinary Health [Level A]

Reverses vaginal atrophy, reduces dyspareunia, decreases recurrent UTIs

Bone Health [Level A]

Prevents bone loss; reduces vertebral and non-vertebral fractures (FDA-approved indication)

Sleep [Level B]

Improved sleep quality secondary to VMS reduction; some direct CNS effect

Cardiovascular (Timing) [Level B]

↓ MI risk in women <60 y or <10 y post-FMP; no benefit or harm if started later

Diabetes Prevention [Level B]

MHT reduces incidence of type 2 diabetes in postmenopausal women

Cognitive / Dementia [Level C]

Critical window: may reduce Alzheimer's risk if initiated at menopause; late initiation may ↑ risk

Quality of Life [Level B]

Improved mood, energy, sexual function — beyond VMS relief

Breast Cancer: Putting Risk in Context

TMS 2022 | ACOG PB 141 | Canadian Menopause Society CMAJ 2023

< 1 in 1000

Additional breast cancers per year with E2 + MPA (WHI E+P arm) comparable to 1–2 glasses wine/night or BMI > 30

Key Evidence Points

- Estrogen alone (post-hysterectomy): WHI showed REDUCED breast cancer risk at 7 yrs (HR 0.77)
- E2 + MPA: small increased risk after 5 yrs; E2 + micronized progesterone: lower risk than E2 + MPA (E3N cohort)
- Duration matters: < 5 yrs use does not meaningfully increase risk
- Lifestyle factors (obesity, alcohol, inactivity) confer equivalent or greater breast cancer risk
- Local vaginal estrogen: no increased breast cancer risk even in survivors (per ACOG, ISSWSH)
- Counsel with absolute risk numbers, not just relative risk — context is everything

Cardiovascular Risk: The Timing Hypothesis

WHI re-analysis | TMS 2022 | ACOG PB 141

FAVORABLE	NEUTRAL / CAUTION	AVOID NEW MHT
< 60 yrs **< 10 yrs post-FMP**	**60–69 yrs** **10–20 yrs**	**> 69 yrs** **> 20 yrs**
↓ MI risk no ↑ stroke (transdermal E2)	Neutral CVD effect Small ↑ stroke (oral E2)	↑ CVD events ↑ Stroke, CHD

- Use transdermal E2 to minimize stroke/VTE risk — avoids hepatic coagulation factor synthesis
- Use micronized progesterone (not MPA) to minimize adverse lipid/metabolic effects
- Screen: BP, fasting lipids, glucose, BMI before initiation and annually
- MHT does not treat or prevent CVD in women with established coronary artery disease

Venous Thromboembolism (VTE) Risk

Route of estrogen delivery is the key determinant | TMS 2022

Regimen	Relative Risk	Absolute Risk / Comment
Baseline (no MHT)	1.0×	~1–2 per 1,000/yr
Oral CEE or oral E2	2–3×	~2–4 per 1,000/yr
Transdermal E2 ≤50 mcg	~1.0×	No significant increase
Oral E2 + MPA	3–4×	Higher vs. E2 + MP
Transdermal E2 + MP	~1.0×	Preferred regimen for thrombophilia risk

- Screen for personal/family history of clotting; consider thrombophilia panel if indicated
- Thrombophilia (factor V Leiden, prothrombin mutation): transdermal route preferred — discuss with hematology
- Pregnancy history of VTE is NOT a contraindication if using transdermal route (individualize)

Prescribing Cheat Sheet: Starting Doses

Start low, titrate based on symptom response at 6–8 weeks | TMS 2022, CMAJ 2023

Agent	Starting Dose	Standard Dose	Notes
Transdermal E2 Patch	0.025 mg/d	0.05–0.1 mg/d	Preferred route; change 2× /wk or weekly per product. Titrate up after 8-12 weeks
Estradiol Gel (EstroGel®)	0.75 mg (1 pump)	0.75–1.5 mg/d	Apply inner arm; avoid transfer; daily
Oral Estradiol	0.5 mg/d	1–2 mg/d	Avoid if ↑TG, migraine with aura, or VTE risk
Micronized Progesterone (continuous)	100 mg HS	100–200 mg HS	Preferred progestogen; sedating — take at bedtime
Micronized Progesterone (cyclic)	200 mg HS ×12 d/mo	200 mg	For perimenopausal women; produces scheduled withdrawal bleed
Vaginal E2 (Vagifem® / generic)	10 mcg nightly ×2 wks	10 mcg 2×/wk	GSM only; no progestogen needed; safe even in CA survivors (discuss)
Testosterone Gel 1% (off-label)	2.5mg	5mg	HSDD only; monitor T levels; **avoid pellets**

Managing Common Side Effects of MHT

Most side effects are dose-dependent, formulation-related, and manageable without stopping therapy | TMS 2022, ACOG PB 141

Breast Tenderness

Cause: Excess estrogen stimulation; common in first 1-3 months

- Reduce estrogen dose (e.g., patch 0.05 to 0.025 mg/d)
- Switch from oral to transdermal -- more stable levels
- Change progestogen: switch MPA to micronized progesterone (lower breast stimulation)
- If persistent >3 months: reassess dose; ensure mammogram is current
- Evening primrose oil (1-3 g/d): modest evidence for cyclical breast pain

Mood Changes / Irritability

Cause: Progestogen sensitivity (especially synthetic progestins); may mimic PMS/PMDD

- Switch to micronized progesterone 100 mg HS -- most neuronally-inert progestogen
- Consider LNG-IUS (Mirena) -- minimal systemic progestogen exposure
- Switch cyclic to continuous regimen to eliminate monthly 'swings'
- Rule out: undertreated depression, thyroid disease, sleep disruption from VMS

Bloating & Fluid Retention

Cause: Progestogen effect (especially MPA) or excess estrogen; worse with oral formulations

- Switch progestogen: MPA to micronized progesterone -- less fluid retention
- Switch to transdermal estrogen (avoids hepatic renin-angiotensin activation)
- Reduce continuous progestogen to lowest endometrial-protective dose
- Dietary: reduce sodium; regular aerobic exercise; reassess at 8-12 weeks

Breakthrough Bleeding

Cause: Common in first 3-6 months on continuous regimen; endometrial adjustment phase

- Reassure: expected in first 3-6 months on continuous therapy -- observe if light
- Ensure correct progestogen dose and timing (adherence check)
- Persistent or heavy bleeding: TVUS +/- endometrial biopsy to exclude pathology
- Switch cyclic or continuous regimen to eliminate scheduled withdrawal bleeds
- Consider LNG-IUS: eliminates bleeding in most women

Duration of Therapy & When to Stop

No mandatory time limit for symptomatic women in the optimal window | TMS 2022, Canadian Menopause Society 2023

Reasons to Continue MHT

- Ongoing bothersome symptoms (VMS, GSM) — QoL justification
- Bone protection: women with osteoporosis/high fracture risk (alternative: bisphosphonate)
- Premature ovarian insufficiency (POI): continue until age 51–52 at minimum
- Patient preference after informed discussion — 'no arbitrary stopping age' — TMS 2022

- **Age >65yo and duration of use >5years is not a reason to discontinue**

Reasons to Discontinue MHT

- New absolute contraindication develops (VTE, breast cancer diagnosis)
- Patient no longer desires therapy after reevaluation
- Risk:benefit profile shifts unfavorably (side effects, new CVD risk factors)
- How to stop: taper gradually vs. abrupt — both acceptable; tapering may reduce rebound VMS
- Recurrence of symptoms post-stop: restart is an option after reassessment (within 2 years)

Special Populations

Premature Ovarian Insufficiency (POI)

MHT mandatory until age 51–52 unless contraindicated. Higher dose typically needed vs. natural menopause. OCP alternative for contraception. Monitor bone density, cardiovascular, cognitive health.

Surgical Menopause

Abrupt loss of estrogen AND testosterone. Earlier, often more severe symptoms. ET alone (no progestogen) after hysterectomy. Consider testosterone for libido. Initiate MHT immediately post-op.

Breast Cancer Survivors

Systemic MHT: generally contraindicated (esp. ER+). Vaginal low-dose estrogen: may be acceptable — discuss with oncology (ISSWSH, ACOG). Non-hormonal alternatives first (SSNRIs, gabapentin, fezolinetant).

Women with Cardiovascular Risk

Individualize. Transdermal E2 + micronized P4 preferred. Avoid if CAD/stroke history. Optimize CVD risk factors first. No benefit for secondary CVD prevention.

Perimenopausal with Contraception Need

Combined OCP provides MHT + contraception. LNG-IUS + transdermal E2: excellent option. MHT alone is NOT contraceptive — ovulation possible in perimenopause.

Transgender & Gender-Diverse Patients

For transwomen: feminizing HRT may overlap with menopausal hormone concerns. Individualize based on gonads present, surgical history, and current therapy regimen.

Non-Hormonal Alternatives for VMS

For women with contraindications to MHT or personal preference | TMS 2023 Non-Hormone Position Statement

Agent	Class	Efficacy	Notes
Fezolinetant (Veozah®)	**NK3 receptor antagonist**	★★★★★ FDA-approved 2023	First non-hormonal CNS-acting drug for VMS; monitor LFTs; avoid if CYP1A2 inhibitors
Elinzanetant (investigational)	**NK3 receptor antagonist**	★★★★ FDA-approved 2025	Dual NK1/NK3 antagonist; OASIS 1 & 2 showed significant VMS reduction + improved sleep
Venlafaxine / Desvenlafaxine	SNRI	★★★★ (off-label)	37.5–75 mg; useful if depression comorbid; avoid with tamoxifen (venlafaxine preferred)
Paroxetine (Brisdelle® 7.5 mg)	SSRI	★★★ FDA-approved for VMS	Only SSRI FDA-approved for VMS; AVOID with tamoxifen (CYP2D6 inhibition)
Gabapentin	Alpha-2-delta ligand	★★★ (off-label)	300 mg TID; useful for night sweats + sleep; sedating; useful in breast cancer survivors
Oxybutynin	Anticholinergic	★★★ (off-label)	2.5–5 mg BID; emerging evidence for VMS; caution: cognitive effects in older adults
CBT / Mindfulness / Weight Loss	Behavioral	★★ Modest effect	Proven benefit for symptom perception, QoL; weight loss reduces VMS in obese women

Testosterone Therapy in Women

ISSWSH CPG 2021 | TMS Position Statement | Off-label use — shared decision-making required

Indication: HSDD (Hypoactive Sexual Desire Disorder)

- Diagnose HSDD: distressing loss of sexual desire, after excluding other causes (relationship, medication, mood)
- Rule out: low mood, relationship issues, pain disorders, medication effects (SSRIs, OCP), thyroid disease
- Total testosterone ≠ diagnostic — use as baseline only; ISSWSH 2021
- Evidence: multiple RCTs demonstrate improved sexual desire, arousal, and satisfaction
- Long-term safety (>24 months): data still limited — counsel patients accordingly
- No quality data to support Testosterone therapy for energy, mood, muscle, or cognition.

Dosing & Monitoring

- Dose: 1/10th of male dose
- Transdermal testosterone 1% gel 0.5 mL/day (e.g., AndroGel® 1% off-label)
- Baseline total testosterone before starting
- Recheck T at 3–6 wks, then q3–6 months
- **Target: premenopausal physiologic range (~30-60**
- Monitor for virilization: acne, hair growth, voice changes
- NO pellets!! — supraphysiologic levels, no reversal

Hormone Therapy by Menopause Transition Stage

Late Reproductive	Early Perimenopause	Late Perimenopause	Menopause	Late start Post-Menopause(<65yo)
OCPs - continuous MP - cyclic	OCPs (DSP) LNG-IUS+TDE POP + TDE	OCPs (til 55yo) LNG-IUS + TDE POP + TDE MHT – oral > tde	MHT – oral = TDE LNG-IUS + TDE POP + TDE	TDE + MP Vaginal ET
	VAGINAL ESTROGEN			

Key Takeaways

1. MHT is safe and effective for most healthy, symptomatic women < 60 y or within 10 yrs of FMP

2. Transdermal 17β-E2 + micronized progesterone = preferred regimen for safety profile

3. No arbitrary time limit -- individualize duration based on ongoing symptoms and risk:benefit

4. WHI was conducted in older, later postmenopausal women -- do not extrapolate to newly menopausal patients

5. Always screen, document, and revisit contraindications annually

6. Non-hormonal options exist -- fezolinetant and elinzanetant (NK3 antagonists) are New non-hormonal VMS treatments

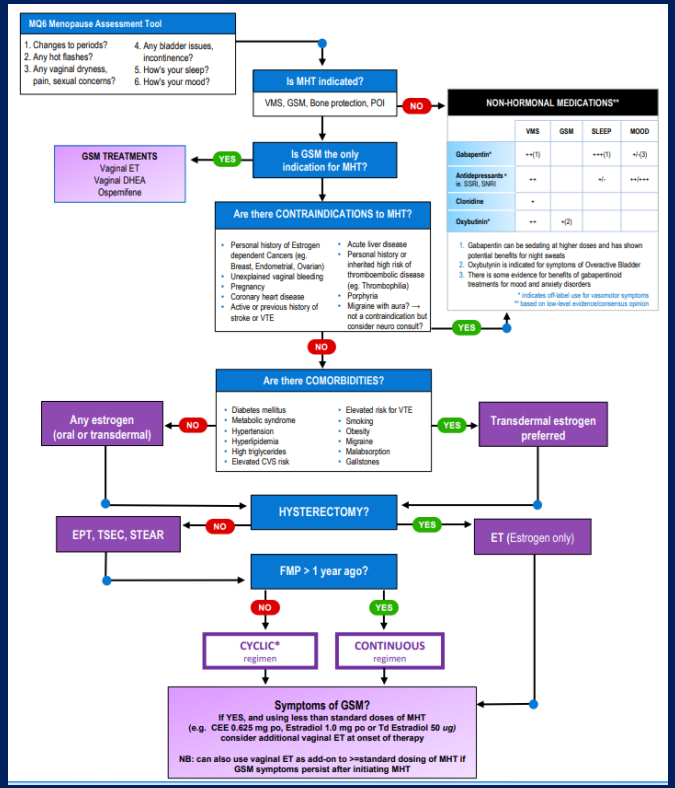
- Vaginal estrogen is safe to start at any age and in almost every woman

MQ 6 – Online menopause Assessment Tool and Treatment Algorithm

ASSESSING THE MENOPAUSAL PATIENT: THE MENOPAUSE QUICK 6 SCREEN (MQ6)

Key questions to ask perimenopausal and menopausal women in assessing their need for treatment.

1. Any changes in your periods?
2. Are you having any hot flashes?
3. Any vaginal dryness or pain or sexual concerns?
4. Any bladder issues or incontinence?
5. How is your sleep?
6. How is your mood?



MQ6 Assessment Tool – MQ6 Menopause Management Tools

CBT for Menopause Symptoms: Level 1 Evidence

Cognitive Behavioral Therapy (CBT) is the only non-pharmacological intervention with Level 1 evidence for VMS and menopause-related quality of life | TMS 2023

45–50%

Reduction in hot flash problem rating (MENOS trials)

Level 1

Evidence grade per TMS 2023 & NICE guidelines

RCT-proven

Benefits maintained at 6-month follow-up

Key RCT Evidence

- Group CBT reduced VMS problem rating and improved sleep; Psychosom Med
- Self-help CBT booklet RCT — significant improvement in hot flash problem rating; Menopause
- Supported by NICE Menopause Guideline (2015, updated 2019) as first-line non-hormonal option

What CBT Addresses & Delivery

- Targets: hot flash beliefs, catastrophizing, sleep disturbance, low mood, anxiety — the 'problem rating', not just frequency
- Techniques: paced breathing, cognitive restructuring, sleep hygiene, behavioral activation
- Referral: psychologist, CBT therapist, or menopause-trained nurse; also available via app

Key Non-Negotiables

Prioritize Sleep Hygiene

Consistent, quality sleep is foundational. Consistent sleep/wake times. Cool, dark and quiet environment. Screen and treat sleep apnea

Mindfulness/Stress Management

CBT, breathwork, yoga and meditation all can reduce severity of vasomotor symptoms, anxiety, and brain fog.

Resistance Training

Mitigate sarcopenia, build bone density, and improve insulin sensitivity. Exercise induced myokines can improve mood, cognition and memory.

Zone 2 Cardiovascular Exercise

150+ minutes protects against increased in CVD risk that comes with late perimenopause. Additionally, it helps with VMS.

Targeted Nutritional Changes

Increased protein: 1.2-1.6g/kg of body weight to counter accelerated muscle loss.
Increased fiber 25-35g/day to support the microbiome and regulate cholesterol.

Minimizing Alcohol

Alcohol triggers hot flashes, causes fragmented sleep, increases breast cancer risk, and accelerates bone loss – risks that compound post-menopause.

Thank you!
Questions?

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References & Resources

- The Menopause Society (TMS) 2022 Hormone Therapy Position Statement. Menopause 2022;29(7):767-794
- TMS 2023 Nonhormone Therapy Position Statement. Menopause 2023;30(6):573-590
- ACOG Practice Bulletin No. 141: Management of Menopausal Symptoms. Reaffirmed 2024
- ISSWSH Clinical Practice Guideline for Systemic Testosterone for HSDD. J Sex Med 2021;18(5):849-867
- Hunter MS et al. MENOS 1 RCT: CBT for hot flushes. Psychosom Med 2011;73(6):539-545
- Ayers B et al. MENOS 2 RCT: self-help CBT. Menopause 2012;19(7):749-759
- Wolfman W et al. A pragmatic approach to the management of menopause. CMAJ 2023;195(19):E677-E693
- Manson JE et al. Menopausal Hormone Therapy and Cardiovascular Disease. N Engl J Med 2016
- Collaborative Group on Hormonal Factors in Breast Cancer. Lancet 2019
- menopause.org | acog.org | isswsh.org | sogc.org

Books & Podcasts

- Menopause Manifesto by Jen Gunter MD (also has a substack: The Vagenda)
- Estrogen Interrupted by Dinsmoor-Su MD & Voedisch MD (also have a podcast: Ovary Active)
- The Menopause Brain by Lisa Mosconi PhD
- The Menopocalypse by Amanda Thebe
- The Woman’s Guide to Overcoming Insomnia by Shelby Harris MD
- Dr. Streicher’s Inside information Podcast by Lauran Streicher MD (also has a substack)

Managing Unscheduled / Abnormal Uterine Bleeding on MHT

Persistent unscheduled bleeding always warrants endometrial evaluation

Urgency	Scenario	Recommended Action
LOW	Breakthrough bleeding in first 3–6 months (continuous regimen)	Expected — counsel patient; observe if light and diminishing; ensure adherence
MODERATE	Bleeding persists > 6 months (continuous regimen)	Endometrial biopsy ± transvaginal ultrasound; Enough progesterone?, consider regimen change
MODERATE	Bleeding between withdrawal periods (cyclic regimen)	Ensure correct progestogen timing; consider switching to continuous or LNG-IUS
HIGH	Heavy, prolonged, or postmenopausal bleeding (off MHT)	Endometrial biopsy mandatory; TVUS ≤4 mm stripe generally reassuring but biopsy still recommended in symptomatic women

DUAVEE® — Conjugated Estrogens / Bazedoxifene (CE/BZA)

FDA-approved 2013 | TMS 2022 | ACOG PB 141 | Tissue-Selective Estrogen Complex (TSEC)

What Is DUAVEE?

- Combination of Conjugated Estrogens (CE) 0.45 mg + Bazedoxifene (BZA) 20 mg
- Bazedoxifene is a Selective Estrogen Receptor Modulator (SERM) — replaces progestogen for endometrial protection
- Classified as a Tissue-Selective Estrogen Complex (TSEC): estrogen activity in bone, brain, vasculature; SERM-antagonism in uterus and breast
- Oral tablet, once daily
- FDA-approved for: moderate-to-severe VMS AND prevention of postmenopausal osteoporosis

Clinical Use & Key Points

- IDEAL PATIENT: Symptomatic postmenopausal woman with intact uterus who cannot tolerate or prefers to avoid progestogen
- Avoids progestogen side effects: bloating, mood changes, breast tenderness
- No endometrial biopsy data suggesting increased endometrial cancer risk vs. placebo (SMART trials)
- Breast: neutral-to-favorable profile; lower mammographic breast density vs. CEE + MPA
- NOT for women post-hysterectomy (no advantage over estrogen alone)
- Contraindications: similar to standard estrogen MHT; also avoid with known protein C/S deficiency
- VTE risk: consistent with oral estrogen class — prefer in women without VTE risk factors

Follow-Up & Monitoring Schedule

Baseline

- Full Hx + PE
- Labs: FSH, E2, TSH, lipids, glucose
- Mammogram if due
- Baseline T if HSDD
- Set expectations: 4–8 wks for full effect for systemic therapy; 12 weeks for vaginal estrogen

6–8 Weeks

- Symptom response: VMS frequency/severity scale
- Breakthrough bleeding?
- Adverse effects: headache, breast tenderness, bloating
- Dose adjustment if suboptimal response
- T level if testosterone initiated

3–6 Months

- Confirm symptom control
- BP check
- Review tolerance and adherence
- Endometrial assessment if unscheduled bleeding
- T monitoring if applicable

Annually

- Annual PE + BP + weight
- Mammogram (per ACOG/CMS schedule)
- Fasting lipids + glucose
- Reevaluate risk:benefit
- Reassess need for continued MHT

Pre-Treatment Evaluation

History, exam, and risk stratification before initiating MHT

History

- Menopausal symptoms: VMS severity, GSM, mood, sleep, libido
- Menstrual history — when periods stopped; prior cycle irregularity
- Personal: breast cancer, VTE, CVD, stroke, liver disease, migraines with aura
- Family: breast cancer, VTE, thrombophilia, CVD
- Medications: antiepileptics, corticosteroids, SSRIs, anticoagulants
- Contraception needs (perimenopausal patients)

Physical Exam

- Blood pressure — essential
- BMI / waist circumference
- Breast exam (or confirm recent mammogram)
- Pelvic exam if GSM symptoms present
- Thyroid palpation

Lab Work

- FSH + E2 (confirm menopause if unclear, esp. <45 y)
- TSH (common confounder)
- Fasting lipid panel + glucose
- Baseline testosterone if HSDD planned
- Mammogram (if due)
- Pap + HPV testing (per guidelines)
- Thrombophilia screen if indicated