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CONCIERGE PERSONALIZED CARE
GYNECOLOGY • HORMONE THERAPY
INTEGRATIVE MEDICINE

Menopause vs. Healthcare System

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What happened?

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As women transition from their reproductive years to the perimenopausal, and menopausal phase of their lives significant changes are taking place in their body. Estrogen (primarily estradiol) blood levels can fluctuate widely as their ovaries cease functioning. This transition can last for several years before a woman completely stops menstruating. Menopause is defined as the absence of distal periods for one year, indicating a complete loss of ovarian hormonal function.

Until the 1920s the average life expectancy for a woman was 49 years of age. It has only been in the last century that the issue surrounding menopause had become more prevalent for the average woman living past 50 years. In 1942 Premarin (conjugated equine estrogen or CCE) was approved by the FDA for the treatment of menopausal symptoms of hot flashes and night sweats and the prevention of osteoporosis. By the 1990s and early 2000s Premarin was the most widely prescribed medication in the U.S. It was the "standard of care" for menopausal women.

That changed in 2002 when the infamous *"Women's Health Initiative"* (WHI) Study was published stating "Estrogen was associated with an INCREASED risk for Breast Cancer and Heart Attacks" and was reported in the world press before being published in the medical literature for proper peer review. The impact of this announcement was felt worldwide.

- Fear caused women to stop taking their HRT.
- "Hot Flash Hell" occurred for women who were taking estrogen since they started menopause and had never experienced these symptoms.
- Physicians stopped prescribing estrogen
- Medical schools and residency programs stopped teaching the importance of menopause and the role of hormone replacement for women.
- Result in the **U.S.A.**:
  - Rx's for estrogen decreased from 61 million in 2001 to 21 million in 2004!
  - *40 million women* had stopped or forced to stop their hormone therapy!
  - Since 2002 an additional 40 million women have turned 50 years of age and virtually all have been denied the benefit estrogen hormone therapy. *Multiply this worldwide*.

What do we know?

Estrogen is necessary for the normal development of the secondary sexual characteristics of a girl when she enters puberty. It is well established as to estrogen' necessary role in ovulation in women during her reproductive years. A woman's ovaries normally produces estrogen until she approaches menopause (average age 51 yrs), after which time her blood levels approach zero.

It is important to understand why estrogen is just as vital to a woman's body *after* menopause and how its absence impacts her lifetime health. Within *every cell* of *every organ* in a woman's body there are *estrogen receptors*; (not just her reproductive organs). Estrogen receptors require the presence of estrogen to be activated for optimal cellular function.

In the absence of estrogen, estrogen receptor activation no longer occurs, resulting in significant cellular changes within every organ in a women's body. Without estrogen the body's cell will not function as optimally as it did in the reproductive years of a woman's life. This results in both *Symptomatic* and *Asymptomatic* changes, including:

- ***Symptomatic*** *(physical, mental and emotional changes may be experienced):*
  - **Vasomotor Symptoms:**
    - Hot flashes
    - Increased Perspiration optimally
    - Night Sweats
  - **Physical Symptoms:**
    - Palpitations of the heart
    - Sexual function (vaginal dryness, irritation, painful intercourse)
    - Over-active bladder
    - Frequent urinary tract (bladder) infections
    - Skin changes
    - Joint pain (arthralgia)
    - Muscle pain (myalgia)
    - Dry eyes
    - Fatigue
  - **Cerebral (Brain) Symptoms:**
    - Irritability
    - Lethargy – Lack of Mental Energy
    - Anxiety
    - Mood Swings – Unpredictable
    - Tension & Irritability
    - Difficulty Concentrating / Lack of Focus
    - Brain Fog
    - Short-Term Memory Loss
    - Insomnia / Lack of Sleep
    - Depression
    - Decreased Libido (sex drive)

- ***Asymptomatic*** *(physical, mental and emotional changes that are <u>not</u> symptomatic until years later, when the risk of damages may become* ***symptomatic),*** *including****:***
  - **Neuro-Degenerative Diseases**:
    - Stroke (CVA or cerebral vascular accident)
    - Parkinson's Disease
    - Dementia, including Alzheimer Disease
    - Multiple Sclerosis
  - **Cardiovascular Disease** – Heart Attacks. Strokes, Peripheral Vascular Disease
  - **Insulin Resistance / Type II Diabetes**
  - **Auto-Immune Disease** (Lupus Erythematosus)
  - **Central Obesity**
  - **Osteoporosis** (Bone loss and fracture risks)
  - **Cancer** (Uterine, Colorectal and Breast)

What are the Symptomatic BENEFITS of HRT in Women? "RELIEF"

- Vasomotor (Hot Flashes & Night Sweats): ⬇⬇ Dose related / Blood-Brain Barrier
- Sleep Disturbance - ⬇ – REM sleep improved
- Anxiety/Depressive Symptoms – ⬇
- Cognition & Short-Term Memory Loss - ⬇ ("*Windex to My World*" = Mental Clarity)
- Atrophic Genital Changes – ⬇⬇
- Lower Urinary Tract – Urinary tract infection, Urinary incontinence, OAB - ⬇⬇

What are the Long-Term BENEFITS of HRT in Women?

- CVD: Heart Attack - ⬇ **50%**; Stroke – Neutral to slight ⬇
- Type II Diabetes - ⬇
- Breast Cancer – WHI: Neutral to ⬇ & (**21- 40%** in multiple follow-up studies)
- Colorectal Cancer – WHI: slightly ⬇
- Endometrial Cancer – ⬇ (Preventable w/ progesterone or bazedoxifene-*DuaVee)*
- Ovarian Cancer – WHI: Neutral
- Osteoporosis (Bone Loss & Fracture) - ⬇⬇
- Blood Clots (VT/PE) – 2X ⬆ with ***oral estrogen ONLY*** (Role of Factor V & VII Mutations)
- Dementia & Alzheimer's - ⬇ **30-50%**
- All-Cause Mortality - ⬇ **30-60%**

When a Patient Considers the Option of HRT, What Do I Recommend?

STEP 1: It is Important to Know a Patient's Medical History:

- Prior Hysterectomy?
- Prior Cancers?
- BRAC 1 or 2 Carrier (Breast Cancer genetic risk)?
- Endometriosis
- Date of Last Menstrual Period
- Heart or Vascular Disease & Metabolic Risks (e.g. Diabetes)

STEP 2: Create a Symptom List (see page 1).

List all symptoms under these three categories, plus any other symptoms not listed.

- Vasomotor
- Physical
- Cerebral

STEP 3: Keep a Menstrual and Symptom Calendar

- Print a copy of this Calendar from my website: https://gordongunnmd.com/pdf/articles/Menstrual-Pain-Calendar.pdf
- Fill in recent menstruation (use codes at bottom of sheet) and any future bleeding
- Indicate the dates that Estrogen and, if needed, Progesterone is taken

STEP 4: Hormone Blood Levels

- Obtain for baseline at lab prior to initiating Step 5.

STEP 5: Trial of One Month Estrogen Replacement

- **Estradiol** is the active bio-identical estrogen that attaches to estrogen receptors.
- Estrogen is the only effective therapy for:
    - Eliminating significant **vasomotor symptoms** due to dysregulation of the brain's thermoregulatory center (**hot flashes, night sweats, palpitations**).
    - **Vaginal atrophy** (thinning of the vaginal wall),
    - **Painful intercourse** due to vaginal and vulvar thinning,
    - **Over-active bladder** (OAB) symptoms,
    - Frequent **urinary tract infections** (UTI's).
- Estrogen frequently improves many of the symptoms due to changes in brain metabolism (listed under **Cerebral** (page 1).

- If any of these symptoms are interfering with the quality of a woman's life, a trial of estrogen will determine if they are, in fact, DUE to estrogen deficiency.
- I recommend using an initial low-dose *estradiol patch* which is applied to either the left or right lower abdominal skin surface and alternate sides with a new patch twice weekly. This avoids any issue of G.I. absorption and insures a steady level of circulating estrogen.
- Progesterone is not required for the initial one-month trial. (See STEP 7 below)

STEP 6: Revisit the Symptom List

- At the end of the one-month estrogen trial refer to the initial list of specific menopausal symptoms.
- **Highlight** any of the **vasomotor symptoms** that are *no longer present* or are *significantly improved*.
- This effectively separates the original list into **two** parts, those that appear to be estrogen related and those that are not.
- Symptoms that do not appear to be estrogen related can then be separately addressed
- **Blood Brain Barrier**: There is a threshold for all substances circulating in the blood stream that must be achieved to cross over and enter the brain. These thresholds vary among all persons. For estradiol this circulating level can vary widely. There is no way to determine this level, but fortunately, women know their bodies and can gage the degree of improvement for any of her symptoms. For example, if her vasomotor symptoms are improved, but are not 100% gone, a second trial at a higher dose is used. The goal is 100% relief and that is the dosage she will need to be on.

STEP 7: Initiating a Hormone Replacement Treatment (HRT) Program

- After the dosage level of estrogen replacement has been established for complete control of symptoms and if the decision is made to initiate an HRT Program, the answers in **STEP 1** become important as to how to proceed next.
- **Background**:
  - **Perimenopause:**
    - Usually occurs when a woman is in her late 40s.
    - Manifested by unpredictable and variable amounts of menstrual bleeding.
    - Ovulation may occur periodically, causing a more normal menstrual cycle.
    - Estrogen levels can vary widely, making symptoms unpredictable.
  - **Normal Menstrual Cycle:**
    - Estrogen normally stimulates the endometrium (lining) of the uterus to grow in preparation for a pregnancy.
    - After ovulation progesterone is produced and matures the endometrium for pregnancy.

- When pregnancy does not occur the hormone levels drop causing the lining to slough off, resulting in a menstrual period.
- This regular monthly cycle continues as long as ovulation occurs.
- If there is no ovulation, there's no regular or normal menstrual cycle and irregular bleeding may occur depending on the circulating estrogen level.
- To avoid excessive buildup of the endometrial lining and unpredictable bleeding, bioidentical progesterone is used to substitute for the absence of ovulation and progesterone production.

- **Prior Hysterectomy:** If she has had a hysterectomy, she may continue using her estradiol patch, *indefinitely.* Click on link: https://www.gordongunnmd.com/pdf/articles/HRT-in-Woman-on-Medicare-65-Years-Summary-WEB-ARTICLE.pdf
- **Uterus Intact:** Menstrual Calendar becomes a valuable tool to chart the days of progesterone usage (insert a "P" on each day that progesterone is taken)
  - **"Continuous" HRT**
    - Used when **Post-Menopausal** with **NO** menstrual periods for a year:
    - **Estrogen:**
      - Apply the estradiol patch as directed above
      - Use **continuously**, to maintain a regular level of circulating estrogen.
    - **Progesterone:**
      - I recommend **Prometrium,** which is a bioidentical natural progesterone.
      - I recommend taking at bedtime, as it is taken orally and is partially converted to GABA, a natural brain hormone which enhances sleep.
      - Dosage depends on the dose of estradiol:
      - Estradiol 0.5 mg or under: Use 100 mg Prometrium
      - Estradiol 0.75 mg or higher: Use 200 mg Prometrium
      - Use **continuously,** every night.
      - **NOTE: If** any breakthrough menstrual bleeding occurs:
        - Stop the Prometrium and notify your physician.
        - Indicate on the Menstrual Calendar using the symbols, if any "pre-menstrual" symptoms occurred prior to the onset of bleeding.
  - **"Cyclical" HRT**
    - Used when **Peri-Menopausal** with **irregular** menstrual periods.
    - During the perimenopausal years when menstrual periods occur unpredictively, the goal of progesterone therapy is to mature any endometrial lining and create a predictable withdrawal menstrual period.
    - **Goal:** To have a menstrual period at least every two months, either spontaneously or by using cyclical progesterone, describe below.

- **Estrogen:**
  - Apply the estradiol patch as directed above
  - Use **continuously** to maintain a steady level of circulating estrogen.
- **Progesterone:**
  - I recommend **Prometrium,** which is a bioidentical natural progesterone.
  - I recommend taking at bedtime, as it is taken orally and is partially converted to GABA, a natural brain hormone which enhances sleep.
  - Dosage depends on the dose of estradiol:
    - Estradiol 0.5 mg or under: Use 100 mg Prometrium
    - Estradiol 0.75 mg or higher: Use 200 mg Prometrium
  - Using the menstrual calendar on the first day of each calendar month ask yourself: "Did I have a menstrual period the prior month?
    - If yes, do **not** take any Prometrium during that month.
    - If no, **start** taking your Prometrium each evening for the first 10 days of the calendar month and then stop.
    - If there is any endometrial lining, menstrual bleeding should occur.
    - If no menstrual bleeding occurs, ask the same question the following calendar month.
    - When several months of no withdrawal bleeding occurs, then the HRT can usually be converted to a continuous program.

NOTE: For a review of all available alternative estrogen and progesterone products, including bioidentical and naturopathic formulations, please review the article on "**Alternative Estrogen & Progesterone Products, including Bioidentical and Naturopathic Formulations**

NOTE: For a review of the most recent comprehensive research on the question of the safety of estrogen hormone therapy, please review the articles under the title: **"Is Estrogen Therapy Safe?"**

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