The Facts About Menopause

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About Me

**Education**
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Educational Goals

- Dispel Common Myths Surrounding Menopause
- Review Normal Menstrual Cycle
- Discuss the Physiology of Menopause
- Discuss the Common Symptoms of Menopause
- Discuss Treatment Options
Fact or Fiction?

“You can’t get pregnant during menopause”
- Fiction

Oldest recorded natural conception was a 59 year old woman

Twin pregnancy more common with increasing age

It is possible to become pregnant until one year has elapsed since your last period
Fact or Fiction?

“Your sex drive goes down in menopause”

Fiction

Some women have a resurgence of their sex life with less household demands and more time to focus on their partner/relationship
Fact or Fiction?

- “Menopause causes weight gain”
  - Fiction

- Baseline metabolism decreases with age, but does not appear to be related to estrogen levels

- Body composition does change with decreased estrogen: decreased muscle mass, increased central fat distribution
Fact or Fiction?

- “I will go through menopause at the same time my mom did”
  - Fact

- The age of menopause is often genetic and your age of menopause will likely be similar to your mother’s and older sister’s
“Men don’t go through menopause”

Fact

Men continue to produce sperm throughout life, whereas women have all the eggs they will ever have at birth

Testosterone levels do gradually decline in men with age (about 1% per year after age 30)

Can cause symptoms in some men: decreased libido, reduced muscle mass, insomnia and fatigue
Normal Menstrual Cycle

- The menstrual cycle is the body’s monthly preparation of an egg for possible pregnancy
- Begins at average age of 11.5
- Ends at average age of 51
- Occurs every 28 days
- Ovulation occurs at the mid point, cycle day 14
Normal Menstrual Cycle

1) Pituitary gland (Brain) makes FSH (follicle stimulating hormone) tells the ovary to prepare an egg

2) The developing egg (Maturing follicle) produces estrogen to thicken uterine lining

3) Estrogen thickens uterine lining and tells the brain to release LH (luteinizing hormone) which releases the mature egg (Ovulation)

4) The follicle from which the egg is released (Corpus Luteum) produces progesterone

5) If the egg is not fertilized, progesterone levels drop and signal the uterine lining to shed (Menstruation)

6) If the egg is fertilized, pregnancy hormone (hCG) signals the corpus luteum to continue making estrogen and progesterone
What is Perimenopause

- You are born with all of the follicles you will ever have
  - Some follicles degenerate without every ovulating
  - Some follicles are lost through ovulation

- As the number of follicles you have decreases, it takes more FSH to stimulate ovulation

- Because your FSH is elevated, the odds of releasing more than one egg per cycle increases

- Because the number of follicles is lower, some months no egg is released (non-ovulatory cycle)
What is Perimenopause?

- As menopause nears, you begin to make less estrogen
- Changes in menstrual pattern
  - Longer/heavier cycles
  - Skipped periods
- Hot flashes/night sweats may occur
- Insomnia
- Menstrual migraines (when estrogen is at its lowest point of the month, some women are prone to migraines)
What is Menopause?

- The complete cessation of menstrual cycle for 1 year
  - Marks the end of reproductive years
  - Decreased production of ovarian estrogen
    - Estrogen level gets low enough that uterine lining is no longer thickened

- Average age is 51

- Menopause prior to 40 is a medical condition and requires treatment

- Can occur with removal of ovaries at the time of surgery
Symptoms of Menopause

- Last from Months to Years
- Hot Flashes/Night Sweats
- Vaginal dryness and painful intercourse
- Decreased libido
- Urinary urgency, Urinary Tract changes
- Insomnia
- Weight gain
- Other symptoms
  - Fatigue, Headache, Skin/Hair Changes, Forgetfulness, Depression/Mood Changes, Joint Pain
Symptoms of Menopause

Hot Flashes

- The most common symptom of menopause
- Experienced by 75% of menopausal women
- Sudden feeling of heat, especially in upper body, chest, face and neck
- Last from seconds to a few minutes
- Can occur more frequently at night and disrupt sleep (Night Sweats)
Symptoms of Menopause

Vaginal Dryness

- Vaginal tissue has many estrogen receptors
- Before menopause, the tissue is thick, moist and has folds (rugae) that allow for stretching during sex
- Vaginal tissue thins and becomes dryer after menopause
- Can cause sexual discomfort due to dryness and tearing of the thin tissue
- More likely to get vaginal infections (discharge, odor, itching/burning)
Symptoms of Menopause

Decreased Libido

- Multifactorial
  - Mood/self esteem changes associated with aging
  - Sexual discomfort
  - Underlying relationship conflict
  - Other health problems
- One of the most common complaints at annual exam (even in women in 20s and 30s)
  1. Decreased desire → Most Common
  2. Decreased arousal
  3. Inability to achieve orgasm
Symptoms of Menopause

Urinary Tract Changes

* Urethra (tube that carries urine out of the bladder) thins and can become irritated

* Can cause urinary frequency, or Overactive Bladder (OAB)

* Can increase risk of urinary tract infections

* These changes may worsen previously existing Urge Incontinence (leakage with cough, laugh, sneeze, exercise)
Symptoms of Menopause

Insomnia/Sleep Disorders

- Sleep problems are reported by nearly 50% of menopausal women
- Factors that negatively influence sleep during menopause
  - Hot flashes and night sweats
  - Nocturia (waking to urinate)
  - Depression/stress
  - Reduction in ovarian hormones
Symptoms of Menopause

Weight Gain

- Average weight gain of women in menopause 5lbs
- More likely related to aging/lifestyle changes than menopause
- Decreased estrogen leads to increased abdominal fat storage
- Osteoporosis leads to kyphosis/loss of height
  - Appearance of increased waist size
Long Term Consequences of Menopause

- Increased rate of bone loss and Osteoporosis
- Decreased mobility
- Increased fracture risk
- Increased fall risk
- Number one cause of Emergency Visits in people 65+
- Loss of height
- Chronic back pain
Long Term Consequences of Menopause

- Risk of Heart Disease Increases
  - Number 1 cause of death age 65+
- Risk of Dementia Increases
- These risks are not reduced with HRT
Treatment Options

- Non-medical treatments
- Targeted therapy for symptom relief
- Hormone Therapy
  - Systemic Hormone Therapy
  - Localized Hormone Therapy (treatment of vulvovaginal symptoms only)
Non Medical Treatment

- Study proven Non Medical ways to treat menopause symptoms yourself
  - Hot Flashes/Night Sweats
    - Dressing in Layers
    - Avoiding alcohol/caffeine
    - Decreasing ambient temperature
    - Deep breathing during hot flashes
  - Vaginal Dryness/Pain
    - Vaginal Moisturizers/Lubricant
  - Mood/Sleep Problems
    - Aerobic exercise
    - Sleep hygiene
  - Decreased Libido
    - Aerobic exercise
    - Increased quality time with partner (especially trying new/adventurous things)
    - Sex Therapy
  - Osteoporosis
    - Aerobic and weight bearing exercise
    - Diet adequate in Calcium/Vit D
Targeted Therapy

Targeted therapy is non-hormonal therapy directed at a specific symptom of menopause

- Hot Flashes
  - Antidepressants (Lexapro™, Zoloft™)
  - Clonidine
- Insomnia
  - Sleep aids
- Osteoporosis medications
  - Calcium/Vit D Supplementation
  - Bisphosphonates
  - SERMs
  - Calcitonin
Hormone Therapy

* Localized Treatment
  * Topical estrogen cream, pill or ring
  * Used for treatment of:
    * Vaginal atrophy
    * Vaginal drynes
    * Painful intercourse
    * Recurrent bladder infections
  * Systemic Hormone treatment does not usually relieve vaginal symptoms
Hormone Therapy

As previously discussed, there are two female hormones: Estrogen and

- **Estrogen**
  - Thickens uterine lining
  - Its decrease is responsible for most menopause symptoms

- **Progesterone**
  - Keeps uterine lining thin
  - Has more breast tissue receptors than estrogen
  - Has a minor roll in menopause symptoms
Hormone Therapy

- Women who still have their uterus require combined estrogen and progesterone therapy
  - Progesterone reduces the risk of endometrial thickening (hyperplasia), that can lead to endometrial cancer
- Women who have undergone hysterectomy may be treated with Estrogen only
Hormone Therapy

- Women’s Health Initiative Study 2002
  - Raised concerns about increased risk of heart disease, stroke, blood clots and breast cancer with HT
  - Average age of women in the study was 64
  - Risks are not the same for perimenopausal/menopausal women <59
  - Follow up studies show that risks differ depending on age of patient and length of treatment
Hormone Therapy
Benefits and Risks of Estrogen Only

**Benefits**
* Most effective therapy for perimenopause/menopause symptoms
* Prevents bone loss and fractures
* Local treatment relieves vaginal dryness
* Local treatment decreases bladder infection occurrence
* Decreases risk of breast cancer (with <7 years use)

**Risks**
* Increases risk of stroke, blood clots
* Increases risk of gallbladder disease
* Increases risk of endometrial cancer
* Does not prevent heart disease
Hormone Therapy
Benefits and Risks of Combined Estrogen/Progesterone

**Benefits**
- Most effective therapy for perimenopause/menopause symptoms
- Prevents bone loss and fractures

**Risks**
- Increases risk of stroke, blood clots
- Increases risk of gallbladder disease
- Increases risk of breast cancer with >5 years use (sooner with genetic predisposition)
Hormone Therapy

- Multiple Preparations
  - Estrogen only and combined preparations available in
    - Pill
    - Patch
    - Topical spray/cream
    - Vaginal cream, suppository, tablet
  - The particular type of estrogen or progesterone may have different associated risks
Hormone Therapy

- ACOG and North American Menopause Society (NAMS) statement on “Bioidentical” Hormones
  - Plant derived hormones similar to those produced by the ovaries
  - Several available FDA approved forms
    - Oral or vaginal progesterone
    - Oral or transdermal Estradiol
  - Also used to describe “compounded” hormones obtained from compounding pharmacies
    - These have not been tested for effectiveness, safety, dose accuracy or absence of contaminants
- Both ACOG and NAMS do not recommend use of compounded hormones
- Evidence of superiority in symptom relief or safety is lacking
Hormone Therapy
New Developments

- SERM = Selective Estrogen Receptor Modulator
  - Act to stimulate estrogen receptors at certain tissues and inactivate receptors at other tissues
  - Estrogen receptors in: Brain, Breasts, Bone, Liver, Uterus, Ovaries, Vaginal tissue, Cardiovascular system
  - First SERM used Tamoxifen
    - Blocks estrogen receptors at breast
    - Used to reduce risk of recurrence of breast cancer in women previously diagnosed with ER positive breast cancer
    - Used to reduce risk of breast cancer in high risk women
    - Side effect ➔ Stimulates endometrial estrogen receptors (can increase risk of endometrial cancer)
Hormone Therapy
New Developments

* Duavee™
  * First FDA approved estrogen plus SERM for treatment of menopause symptoms in women with a uterus
  * SERM blocks estrogen stimulation of endometrium → avoids need for progesterone
  * May decrease risk of breast cancer by avoiding progesterone
  * NO ACOG or NAMS opinion on this new medication yet
Looking Forward ➔ Could develop a SERM to treat all menopause sx while eliminating the HRT risks
Hormone Therapy

- American College of Obstetricians and Gynecologists (ACOG) Statement
  - HRT is appropriate therapy for menopause symptoms and osteoporosis prevention in healthy women
  - Use the lowest effective dose for the shortest amount of time possible
  - Is not appropriate for women with history of blood clot, stroke, cardiovascular disease, estrogen related cancers or liver disease
Resources

- American College of Obstetricians and Gynecologists Frequently Asked Questions Menopause (FAQ047, February 2013)
- American College of Obstetricians and Gynecologists Patient Education Fact Sheet Hormone Therapy (PFS003: Hormone Therapy, April 2013)
- The North American Menopause Society www.menopause.org