



WHAT'S THIS MENOPAUSE STUFF ALL ABOUT?

- ◆ Perimenopause
- ◆ Menopause
- ◆ Postmenopause
- ◆ Induced menopause
- ◆ Surgical menopause
- ◆ Premature menopause

MENOPAUSE

- ◆ **“A normal physiological event, defined as the final menstrual period (FMP) and reflecting loss of ovarian follicular function”**
- ◆ **Spontaneous/Natural Menopause** – Diagnosed retrospectively after 12 months of amenorrhea.
 - ◆ Can occur between 40 - 58 years of age
 - ◆ Average age: 51
- ◆ **Induced Menopause** – Cessation of menses following surgery (oophorectomy) or iatrogenic ablation of ovarian function (chemotherapy, pelvic radiation)

MENOPAUSE

- ◆ **Premature Menopause**– Definitive cases of menopause prior to age 40 (i.e. surgical removal of ovaries)
- ◆ Early Menopause – Menopause occurring between the ages 40-45. (5% of women experience)
- ◆ **Primary Ovarian Insufficiency**– Transient or permanent loss of ovarian function leading to amenorrhea in women less than 40 years of age. (affects 1% of women).

LET'S TALK ABOUT "PERIMENOPAUSE"

- ◆ Recently termed Menopause Transition
- ◆ Physical signs and symptoms preceding the final menstrual period (FMP)
- ◆ These are physiological changes that are related to menopause.

POST MENOPAUSE

- ◆ All the years following menopause (more than one year from last menstrual)

MENOPAUSAL SYMPTOMS

VASOMOTOR SYMPTOMS

The sudden onset of intense heat sensation in the upper body.

Usually affects the face, chest & neck

VAGINAL SYMPTOMS

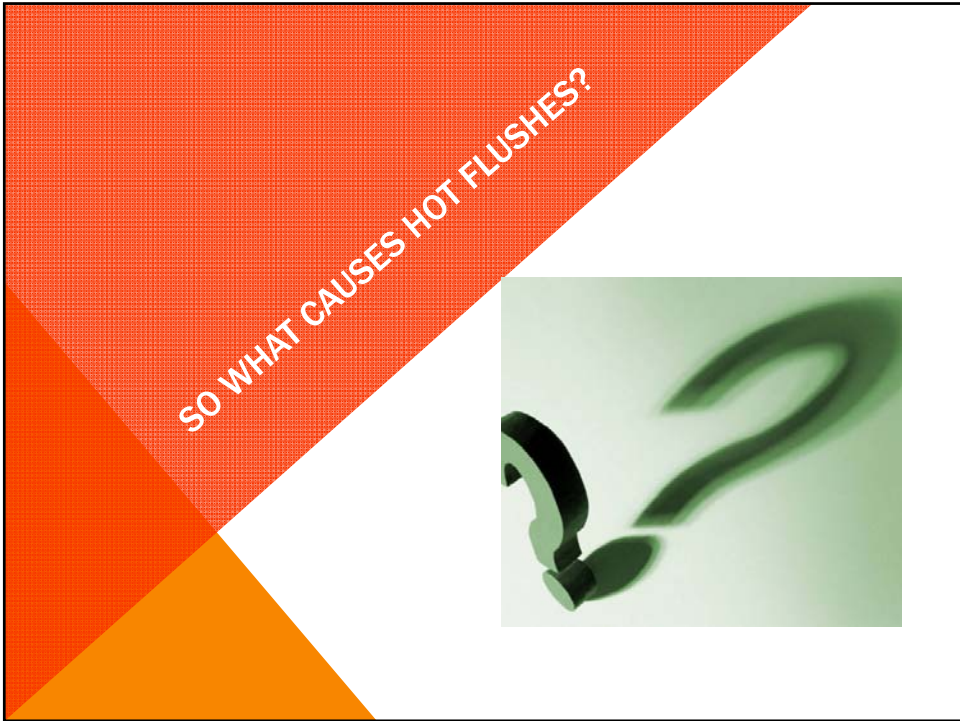
Multiple symptoms that are associated with the hypoestrogenic state arising from the natural physiological changes of menopause and aging

- *Vaginal discharge, itching, burning*
- *Dyspareunia*
- *Postcoital bleeding*
- *Vaginal or vulvar dryness*




VASOMOTOR SYMPTOMS

- Ⓢ Hot flushes
- Ⓢ Night sweats
- Ⓢ Perspiration
- Ⓢ Chills
- Ⓢ Clamminess
- Ⓢ Severity related to:
 - Ⓢ *Ethnicity & race*
 - Ⓢ *High BMI*
 - Ⓢ *Smoking*
 - Ⓢ *Lack of physical activity*



THE HOT FLASH



- ✧ Initiated from a specific part of the brain – hypothalamus
- ✧ Involves increase in core & skin temperature
- ✧ Involves increase metabolic rate

THE HOT FLASH



- ✧ Enlargement of blood vessels in skin
- ✧ Sweating
- ✧ Increased heart rate

SO HOW DO WE TREAT THESE
HOT FLASHES?

HOW DO WE BEAT THE HEAT?



WAYS TO “BEAT THE HEAT”

Most Effective Treatment for Vasomotor Symptoms

Hormone therapy

- Estrogen therapy alone
- Combination estrogen-progestin therapy

HORMONE REPLACEMENT THERAPY – THEN & NOW

1960's – Estrogen replacement therapy is born as treatment for vasomotor symptoms.

1970's – Concept of “Remaining Feminine Forever” is established by Dr. Robert Wilson

mid- 1970's – Estrogen use declines from its link to endometrial cancer

1980's – Combination hormone therapy is born. Estrogen therapy increases from addition of progesterone -(protective)

-Osteoporosis prevention determined to be benefit of HRT

-Decrease in Coronary Heart Disease determined by studies

2002 – Significant decrease in HRT secondary to WHI Trial

-Increase heart attack & breast cancer revealed in studies

SO WHERE ARE WE NOW WITH HRT?

- ♥ HRT does not prevent coronary heart disease in healthy women
- ♥ Risk of coronary heart disease is primarily increased in older women on HRT
- ♥ Risk of coronary heart disease is primarily increased in women many years beyond menopause
- ♥ No increase risk of coronary heart disease revealed in women ages 50-59 yrs or women within 10 yrs of menopause
- ♥ Stroke increased with hormone therapy, however risk is minimal in young women

Shifren and Schiff, Hormone Therapy,
Obstetrics & Gynecology, Vol 115, No. 4, April 2010

SO WHERE ARE WE NOW: THE WHI TRIAL SUMMARY

INCREASE RISK OF:

- Breast cancer
- Coronary heart disease
- Stroke
- VTE

DECREASE RISK OF:

- Fractures
- Colon cancer

SO WHERE ARE WE NOW WITH HRT?

- **Reanalysis of the WHI results in younger women**
 - Women were < 60 years old
 - Women were within 10 years of menopause
 - **Results:**
 - HRT may be cardioprotective in this group
 - A follow up study with 13 years of data later concluded that the risks of the conjugated equine estrogen and medroxyprogesterone acetate outweighed the benefit
 - A 2012 Cochrane review of HRT (based upon 23 studies of more than 42,000 women concluded that: HT should not be used for primary or secondary disease prevention due to the risks outweighing the benefits

WAYS TO “BEAT THE HEAT”

Table 1. Treatment Options for Menopausal Vasomotor Symptoms

Treatment	Dosage/Regimen	Evidence of Benefit*	FDA Approved
Hormonal			
Estrogen-alone or combined with progestin			
• Standard Dose	Conjugated estrogen 0.625 mg/d	Yes	Yes
	Micronized estradiol-17β 1 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.0375–0.05 mg/d	Yes	Yes
• Low Dose	Conjugated estrogen 0.3–0.45 mg/d	Yes	Yes
	Micronized estradiol-17β 0.5 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.025 mg/d	Yes	Yes
• Ultra-Low Dose	Micronized estradiol-17β 0.25 mg/d	Mixed	No
	Transdermal estradiol-17β 0.014 mg/d	Mixed	No
Estrogen combined with estrogen agonist/antagonist	Conjugated estrogen 0.45 mg/d and bazedoxifene 20 mg/d	Yes	Yes
Progestin	Depot medroxyprogesterone acetate	Yes	No
Testosterone		No	No
Tibolone	2.5 mg/d	Yes	No
Compounded bioidentical hormones		No	No

WAYS TO “BEAT THE HEAT” OPTIONS FOR THE TREATMENT OF VASOMOTOR SYMPTOMS

		Nonhormonal	
SSRIs and SSNRIs		No	No
Paroxetine	7.5 mg/d	Yes	Yes
Clonidine	0.1 mg/d	Yes	No
Gabapentin	600–900 mg/d	Yes	No
Phytoestrogens		No	No
Herbal Remedies		No	No
Vitamins		No	No
Exercise		No	No
Acupuncture		No	No
Reflexology		No	No
Stellate-ganglion block		Yes	No

Abbreviations: FDA, U.S. Food and Drug Administration; SSRIs, selective serotonin reuptake inhibitors; SSNRIs, selective serotonin norepinephrine reuptake inhibitors.
*Compared with placebo.

TREATMENT OPTIONS

- Lifestyle Changes
- Alternative Medicine (nonhormonal)
- Acupuncture
- Exercise

WAYS TO “BEAT THE HEAT”

Reasonable Options for the Treatment of Vasomotor Symptoms

Life style changes

- Reducing body temperature
- Consuming cool drinks
- Layer clothing
- Avoid caffeinated drinks and alcohol

WAYS TO “BEAT THE HEAT”

Options for the Treatment of Vasomotor Symptoms

Nonprescription medications

- Isoflavone supplements – No evidence of benefit
- Soy products
- Black Cohosh – Insufficient data to recommend use of this or other herbal remedies
- Vitamin E – Limited data on effectiveness

WAYS TO BEAT THE HEAT TREATMENT OF VAGINAL SYMPTOMS

Table 2. Treatment Options for Menopausal Vaginal Symptoms ↔

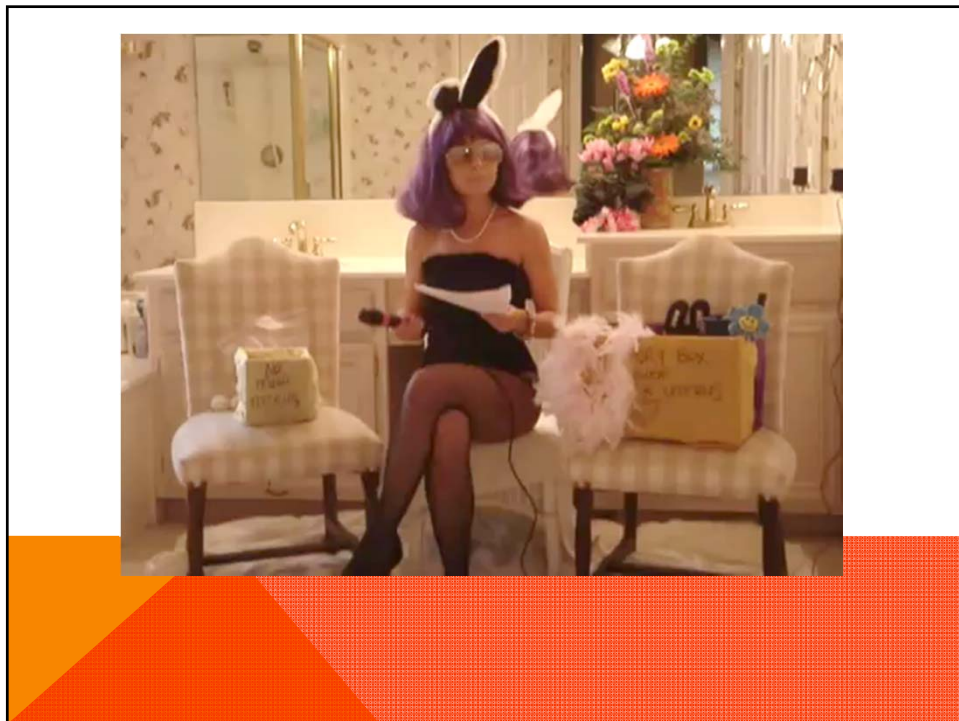
Treatment	Dosage	Evidence of Benefit*	FDA Approved
Hormonal			
Estrogen			
Systemic			
• Standard Dose	Conjugated estrogen 0.625 mg/d	Yes	Yes
	Micronized estradiol-17β 1 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.0375–0.05 mg/d	Yes	Yes
• Low Dose	Conjugated estrogen 0.3–0.45 mg/d	Yes	Yes
	Micronized estradiol-17β 0.5 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.025 mg/d	Yes	Yes
• Ultra-Low Dose	Micronized estradiol-17β 0.25 mg/d	Mixed	No
	Transdermal estradiol-17β 0.014 mg/d	Mixed	No
Vaginal/Local			
	Estradiol-17β ring 7.5 micrograms/d	Yes	Yes
	Estradiol vaginal tablet 25 micrograms/d	Yes	Yes
	Estradiol ring 0.05 mg/d	Yes	
	Estradiol-17β cream 2 g/d	Yes	
	Conjugated estrogen cream 0.5–2 g/d	Yes	

WAYS TO BEAT THE HEAT TREATMENT OF VAGINAL SYMPTOMS

Nonhormonal			
Estrogen agonists–antagonists			
• Raloxifene and tamoxifen		No	No
	• Ospemifene 60 mg/d	Yes	Yes
Vaginal lubricants			
		Yes	No
Vaginal moisturizers			
		Yes	No
Herbal remedies and soy products			
		No	No

Abbreviation: FDA, U.S. Food and Drug Administration.

*Compared with placebo.



THE END!

