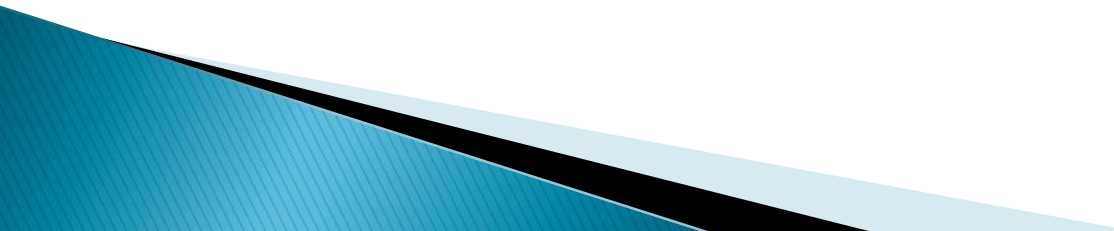


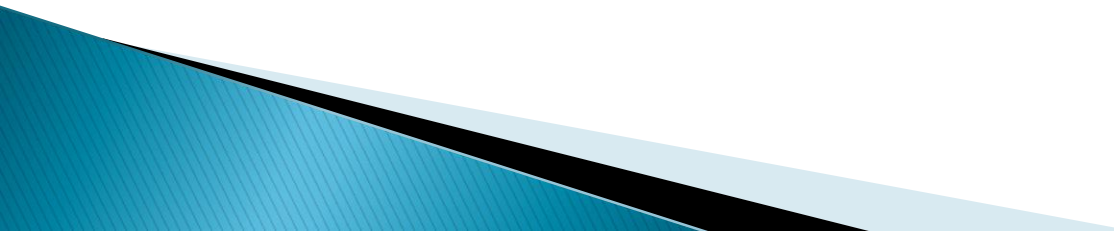
# Natural Hormonal Health for Women with or without Breast Cancer

Dr. Dixie Mills  
Breast Cancer Options  
April 3, 2011

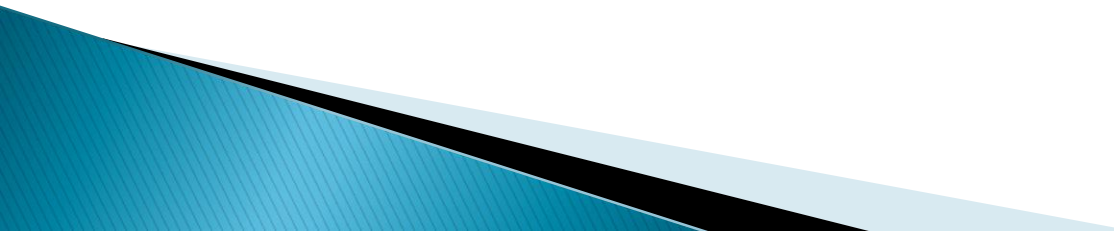
# What I Hope to Cover

- ▶ Definitions of terms
  - ▶ What we know or think we know about hormonal health
  - ▶ Review of current “synthetic” and “natural” options
  - ▶ What we don’t know about hormones
  - ▶ Individualized risk/benefit ratios
  - ▶ Time for questions and comments
- 

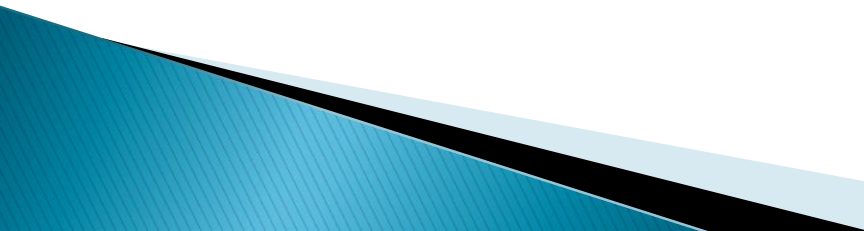
# My biases

- ▶ Have no financial arrangement with a pharmaceutical company
  - ▶ Have a preference for non-pharmaceutical management of conditions
  - ▶ Am not a gynecologist so do not see women routinely for pelvic exams
  - ▶ Am fortunate to have had a relatively easy menopause
- 

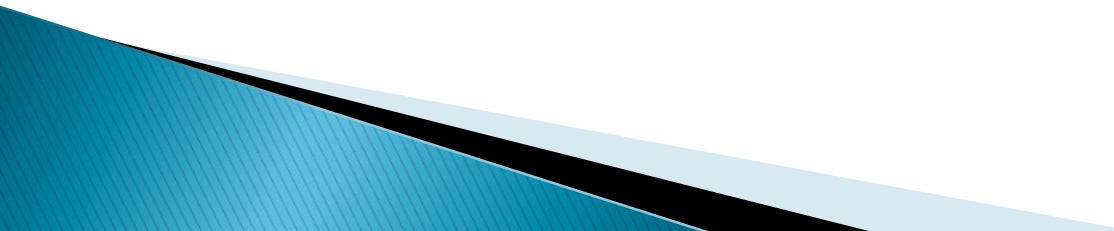
# Your biases

- ▶ Never touch that stuff (HT) – it's a poison
  - ▶ Rather take my chances with HT
  - ▶ Definitely going to take some type of HT
  - ▶ Won't give it up.
  - ▶ Only take something natural
- 

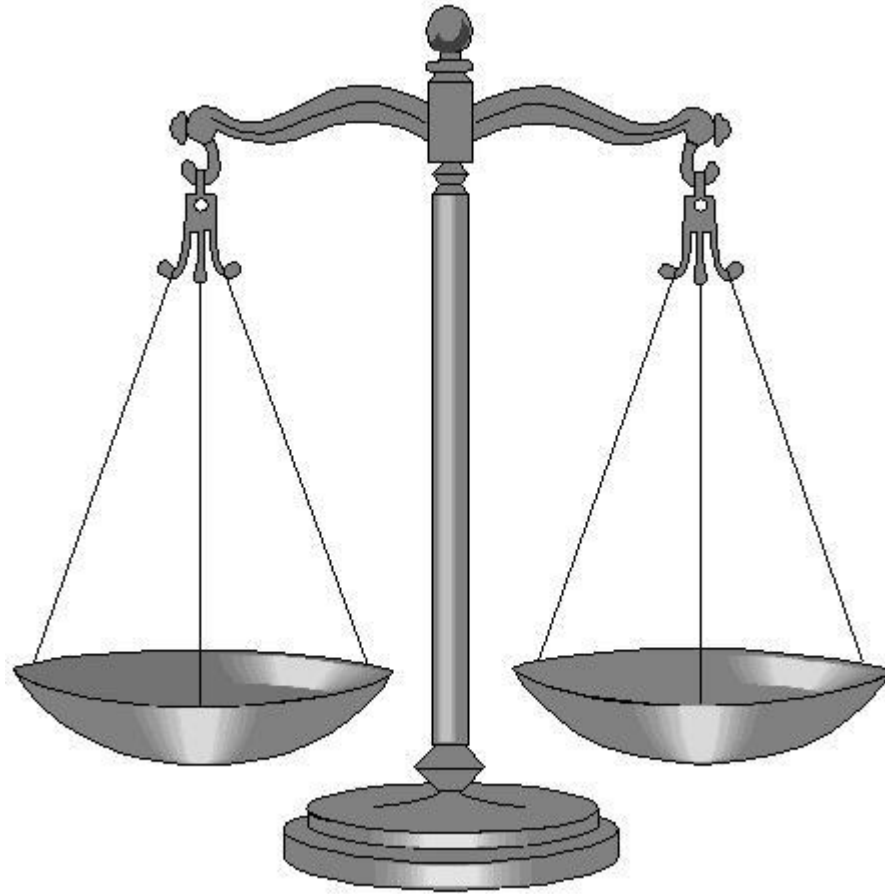
# What is natural?

- ▶ Present in or produced by nature: a natural pearl.
  - ▶ Of, relating to, or concerning nature: a natural environment.
  - ▶ Conforming to the usual or ordinary course of nature: a natural death.
  - ▶ Not altered, treated, or disguised: natural coloring; natural produce.
  - ▶ Faithfully representing nature or life
  - ▶ Being in a state regarded as primitive, uncivilized, or unregenerate.
- 

# What is synthetic?

- ▶ Relating to, involving, or of the nature of synthesis.
  - ▶ *Chemistry* Produced by synthesis, especially not of *natural* origin
  - ▶ Not natural or genuine; artificial or contrived: "counterfeit rhetoric that flourishes when passions are synthetic" (George F. Will).
  - ▶ Prepared or made artificially
- 

# What is hormonal balance?







SHORTLY AFTER THE INTRODUCTION  
OF THE FIRST UNDERWIRE BRA,  
VALIUM® WAS INVENTED. COINCIDENCE?



*For as long as there have been underwire bras, there have been women trying to escape the pain they inflict. Finally, there's an over-the-counter remedy. Magic Ring, the first true wireless support bra by Lovable.*



**Magic  
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Wearing is believing.™

*Comfort Panels™ stitched into the garment run from cup to shoulder. Embracing you in fabric. Instead of steel. So now you can get stylish support and elegant shaping. And safely operate heavy machinery, too.*

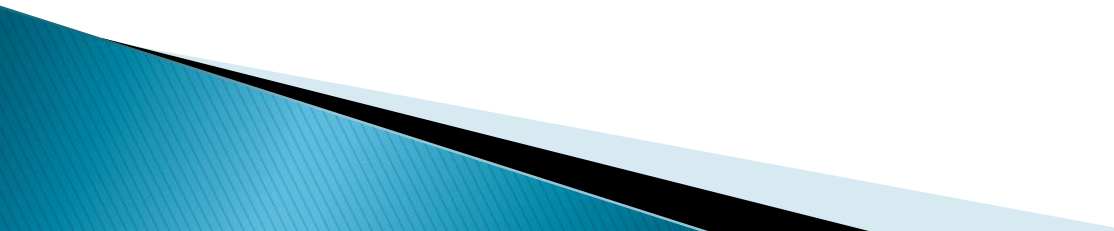
# Risk Factors for Breast Cancer

- ▶ Early menarche
- ▶ Late menopause
- ▶ Nulliparity
- ▶ Late age at 1<sup>st</sup> pregnancy
- ▶ Never breast fed
- ▶ Recent OCP use
- ▶ Recent and long term HRT use
- ▶ Obesity(post-menopausal)
- ▶ High bone density (post-menopausal)
- ▶ Increasing age
- ▶ Genetic mutation (BRCA1, 2)
- ▶ Family history
- ▶ High dose radiation to chest
- ▶ High socioeconomic status
- ▶ Jewish heritage
- ▶ History of breast biopsies
- ▶ Dense mammograms

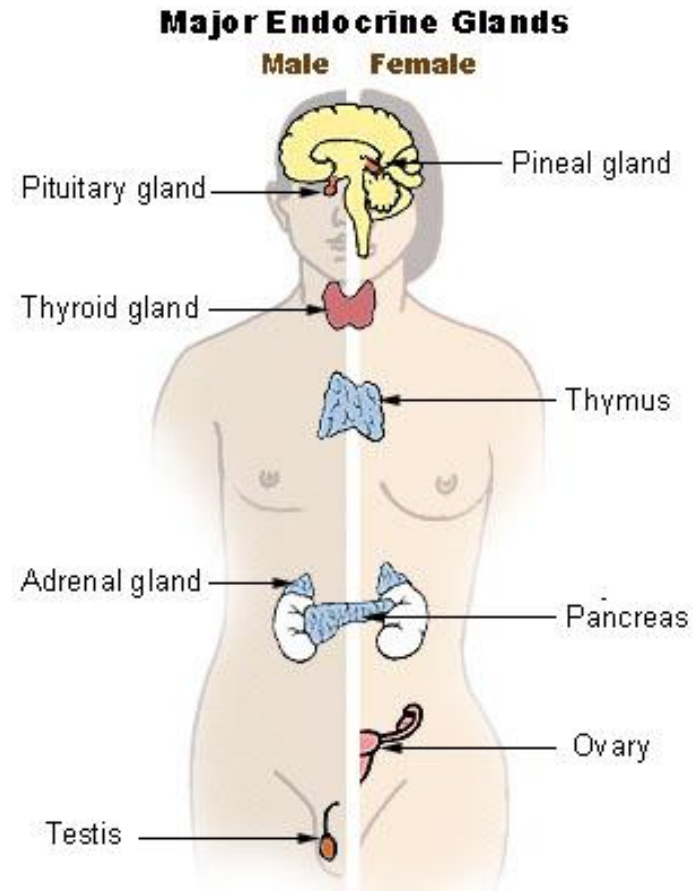
Hormonal

Non-Hormonal

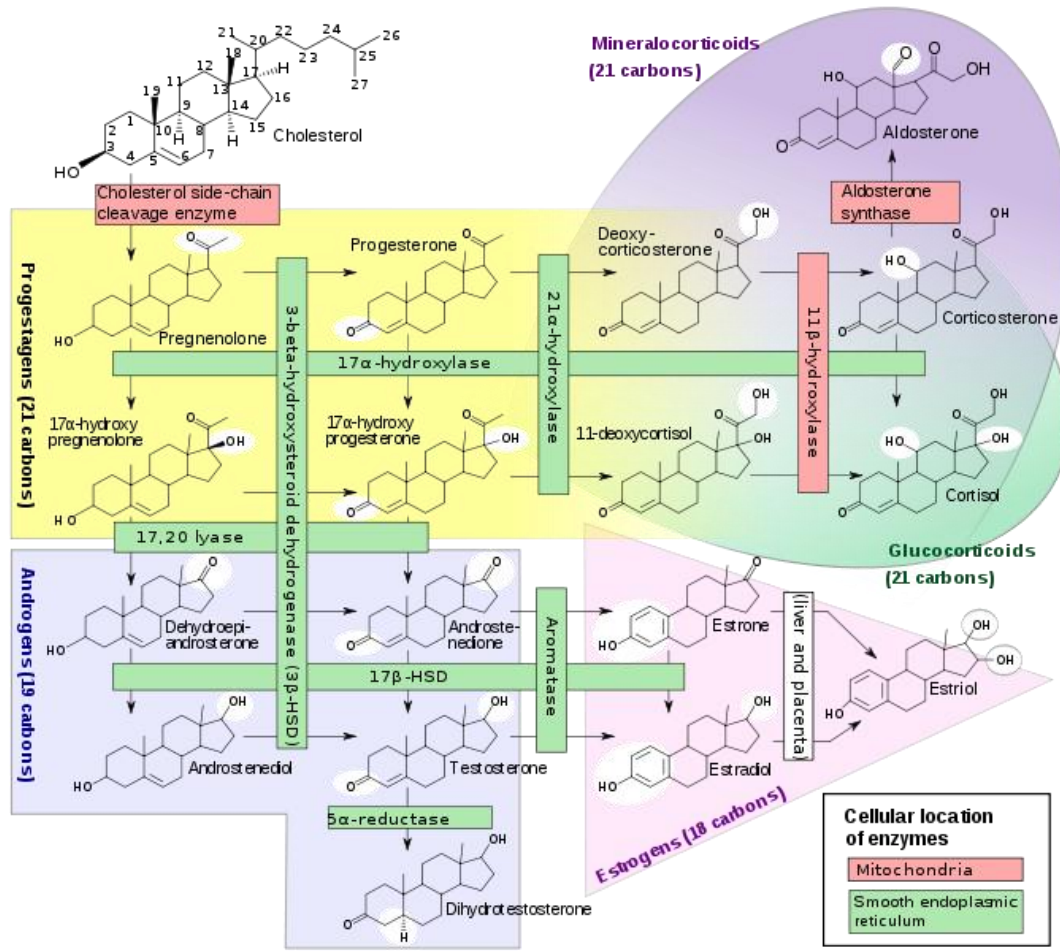
# Major Assumptions

- ▶ Reducing circulating estrogens is an important if not essential part of treatment for ER+ BC
  - ▶ Estrogen makes a major contribution to breast cancer
  - ▶ Estrogen is equal through-out the body
  - ▶ All menopausal symptoms can be treated the same way in most women
  - ▶ What happens in mice is the same as in women
  - ▶ The placebo response is significant in most menopausal symptom treatment trials
- 

# Hormone sources



# Hormone/steroid pathway



# Why take hormones?

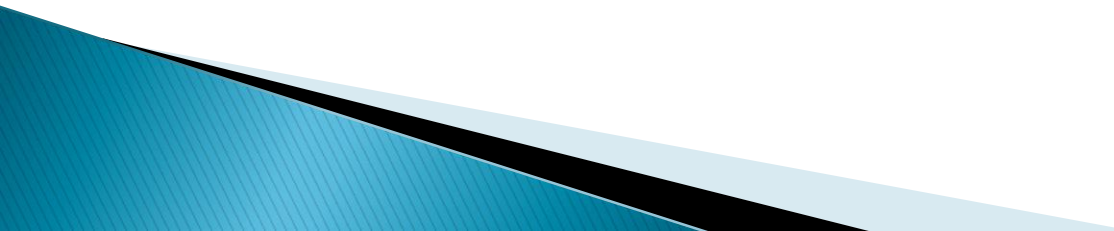
- ▶ Prevent illness
- ▶ Stop aging
- ▶ Feel better
- ▶ Relieve a symptom
- ▶ Spend money



# Brief History

- ▶ Progesterone discovered in 1927 (in rabbits)
- ▶ DES synthesized in 1936, first recommended for menopause
- ▶ 1939 Nobel Prize in Chemistry given for discovery of sex hormones
- ▶ Premarin patented in 1942
- ▶ Feminine Forever by Robert Wilson published in 1966
- ▶ Observational studies noted that older women on hormones appeared to be healthier
- ▶ Estrogen linked to uterine cancer, prescriptions plummeted, progestins added to HT for uterine protection
- ▶ Pervasive industry advertising strongly promotes HRT, number of prescriptions rises exponentially in the 1990's
- ▶ WHI started in 1993 to see if HRT did in fact help and prevent cardiovascular disease
- ▶ WHI stopped in 2002 early due to the risks exceeding any benefit
- ▶ Dramatic decrease in ER+breast cancer in postmenopausal women

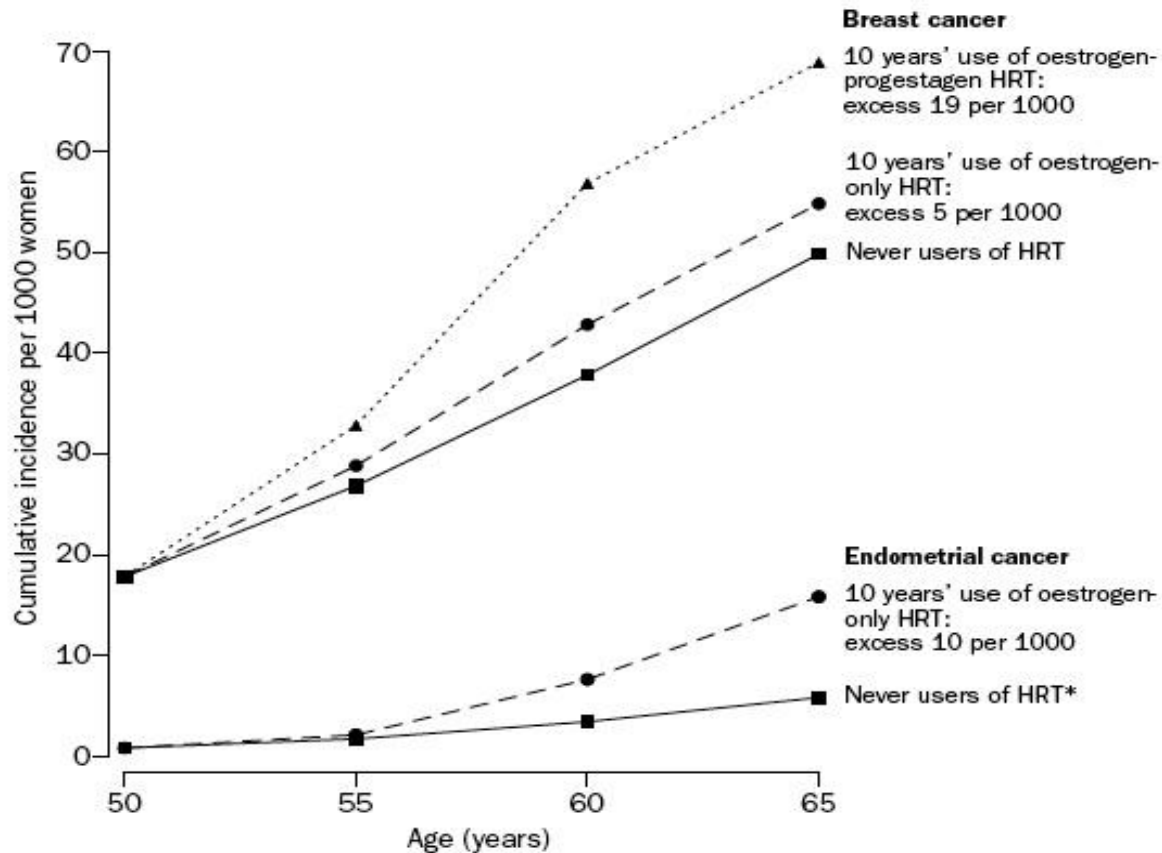
# WHI

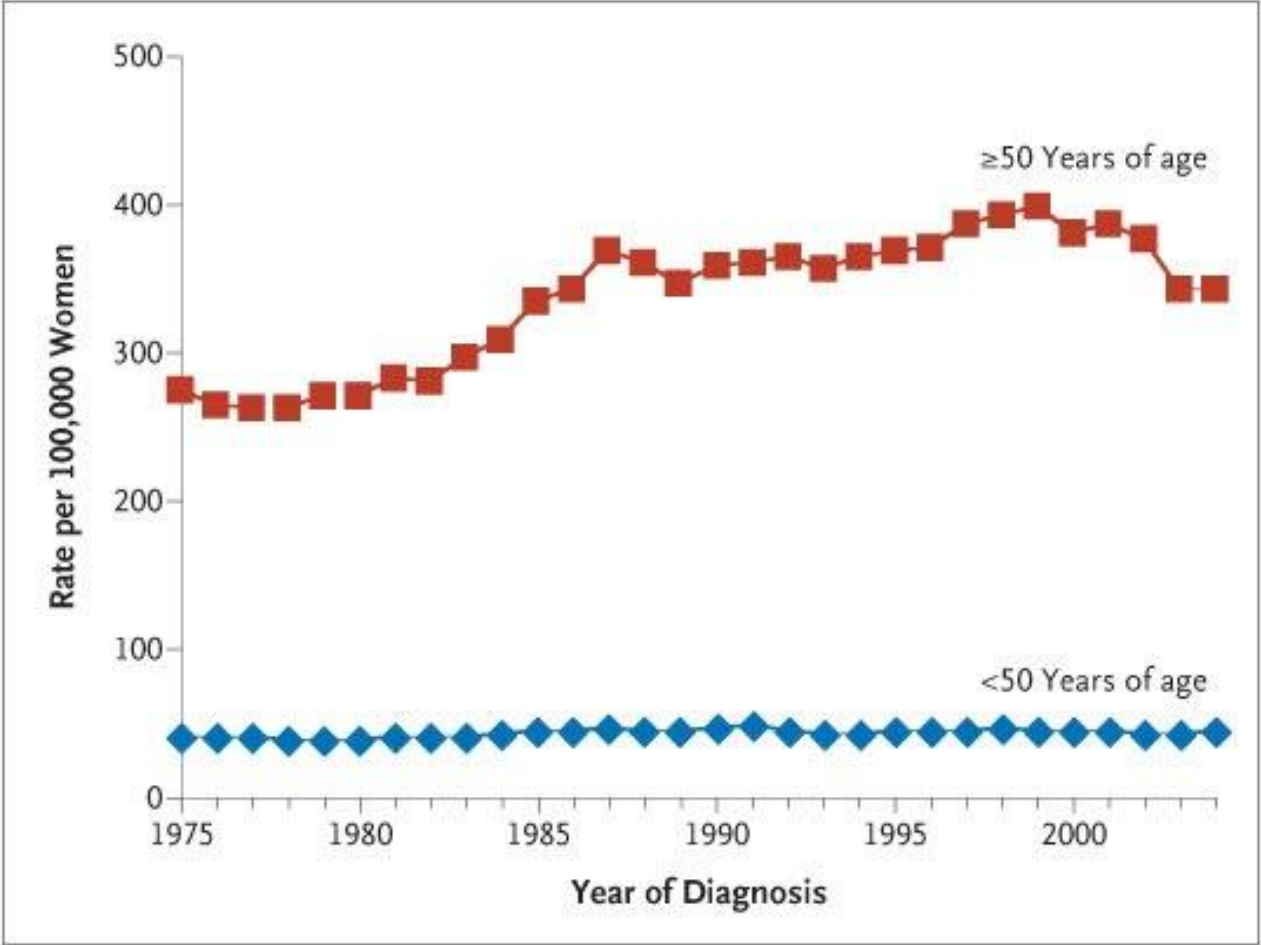
- ▶ Started recruiting in 1993, expected to conclude in 2005
  - ▶ Recruited 27,347 women to participate in the hormone study (E vs. placebo, E/P vs. placebo)
  - ▶ Total of 68,132 women recruited for all hormone, observational, diet studies
  - ▶ Ages 50–79, average age 64years
  - ▶ Largely Caucasian
- 

# Overall conclusions from WHI Trial

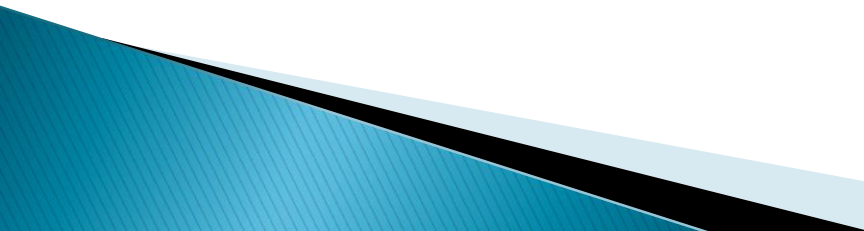
	E/P Treatment	Placebo	Hazard Risk
Total Women	8,506	8,102	---
Invasive BC	166	124	1.26
Noninvasive BC	40	33	1.13 (NS)
CHD	164	122	1.29
CHD deaths	33	26	1.18
Stroke	127	85	1.41
Pulmonary Emboli	70	31	2.31
DVT	115	52	2.07

# Million Women's Study, Lancet 2003





# Where are we 6 years later?

- ▶ HRT for short term (<5 years) use for relief of symptoms may still be beneficial and outweigh the risks– **however how do women go off and what if the symptoms come back?**
  - ▶ Other routes of administration may be more acceptable and are being studied
  - ▶ Other progestins may be safer or less frequent use may be encouraged
  - ▶ Providers and women are looking at individual benefit/risk ratios
- 

I DREAMED  
I MADE SWEET MUSIC IN MY NEW MAIDENFORM\* BRA!



~sweet music\*~

The bra that was born to be worn  
with the new "Empire Look"!

Sweetest bra this side of heaven...*new* Sweet Music by Maidenform! Specially stitched cups with *figure-shaping* under-cups bring out curves you never knew you had. Embroidered bands outline the cups... an elastic band under the cups makes this bra fit like a custom-made. You try it! 2.50

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7

# Current available HT-

## Synthetics

- ▶ Premarin – *natural to a horse*
- ▶ Cenestin
- ▶ Menest
- ▶ Ortho-Est
- ▶ Ogen

## Combinations

- ▶ Prempro/Premphrase
- ▶ Femhrt
- ▶ Activella – E2
- ▶ Ortho-prefest – E2
- ▶ Combipatch – E2
- ▶ Estratab

## Natural – made from yams

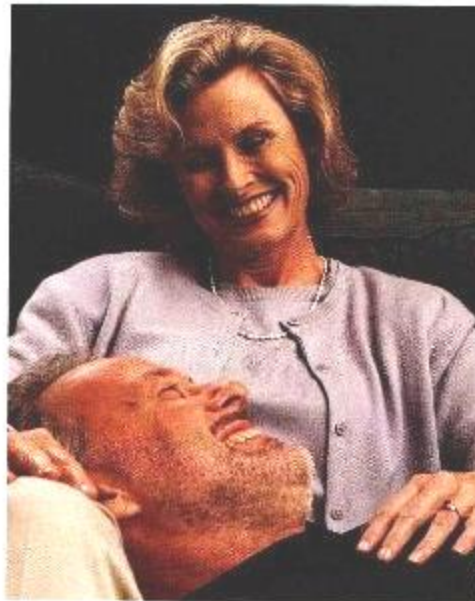
- ▶ Estrace
- ▶ Prometrium (*peanut oil*)
- ▶ Estring
- ▶ Vagifem

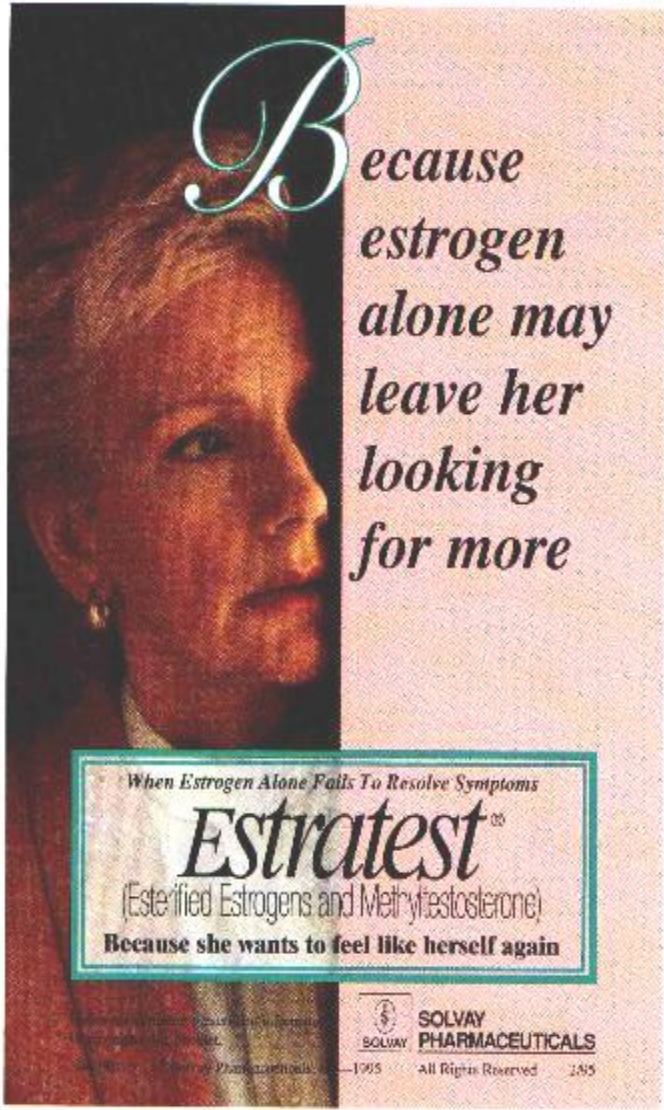
## Patches

- ▶ Climara
- ▶ Esclim
- ▶ Vivelle and Vivelle dot
- ▶ Estrogel
- ▶ Estrasorb



**C**limara can put  
you back in control  
of your life.





*Because  
estrogen  
alone may  
leave her  
looking  
for more*

*When Estrogen Alone Fails To Resolve Symptoms*

***Estratest***<sup>OS</sup>

*(Esterified Estrogens and Methyltestosterone)*

**Because she wants to feel like herself again**

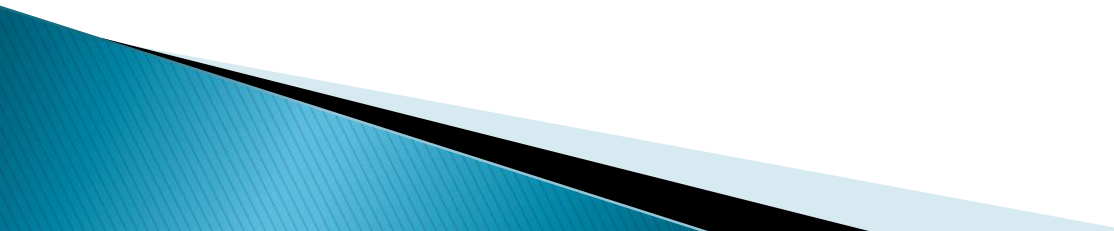
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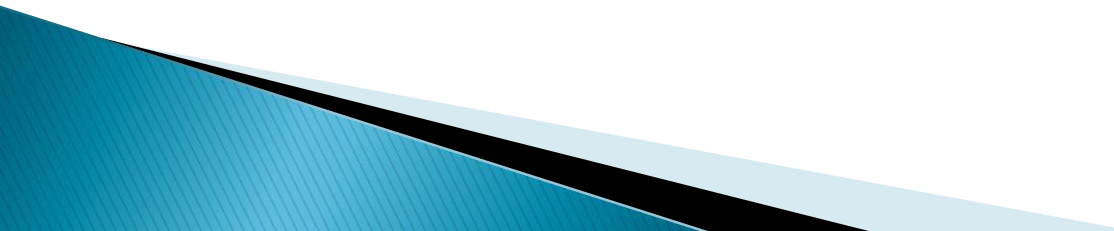
**SOLVAY  
PHARMACEUTICALS**

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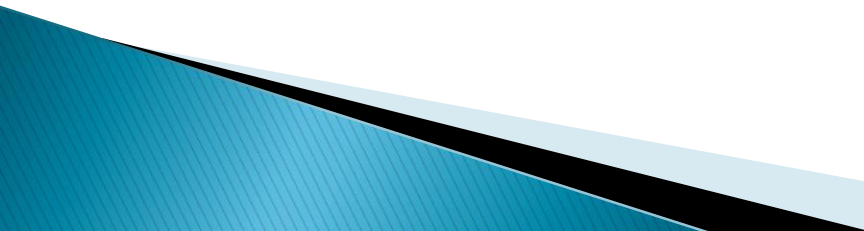
# Compounding Pharmacies

- ▶ Specialize in bioidentical hormones
  - ▶ Biest
  - ▶ Triest
  - ▶ Estriol
  - ▶ DHEA (oral or vaginal)
  - ▶ Individualized compounds based on salivary levels
  - ▶ Can provide various routes of administration
  - ▶ Addition of testosterone, DHEA-S
  - ▶ Find a trusted, accredited provider
- 

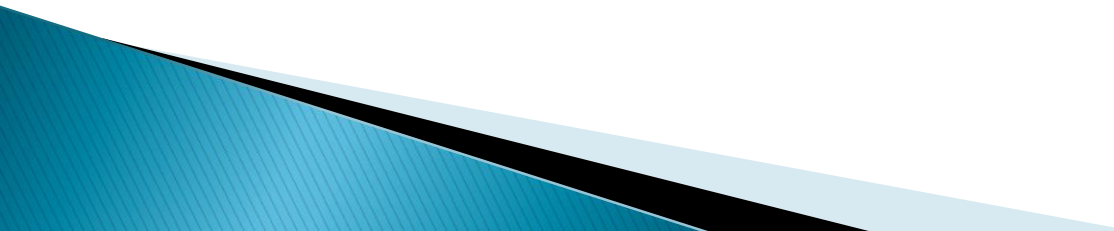
# Studies with Bioidentical hormones

- ▶ Mayo Clinic – 40 women – comparing Biest, Vivelle-dot for pharmacokinetic evaluation
  - ▶ University of Kansas– 40 women – comparing Prempro to E2P4
  - ▶ University of Texas – CHOICE Study – 3 year study of 150 women looking at cardiovascular biomarkers of transdermal bioidentical hormones
- 

# Are bioidentical hormones safer?

- ▶ What is a bioidentical hormone? – progesterone, estradiol, estrone and estriol are the formulas secreted by the human ovary
  - ▶ Prometrium, Estrace, Climara are all bioidentical
  - ▶ Compounding pharmacies can formulate different mixtures or single bioidentical hormones
  - ▶ No study has compared BIH to CEE or other synthetic hormones
  - ▶ Some European studies have compared progestins to progesterone and found a difference
- 

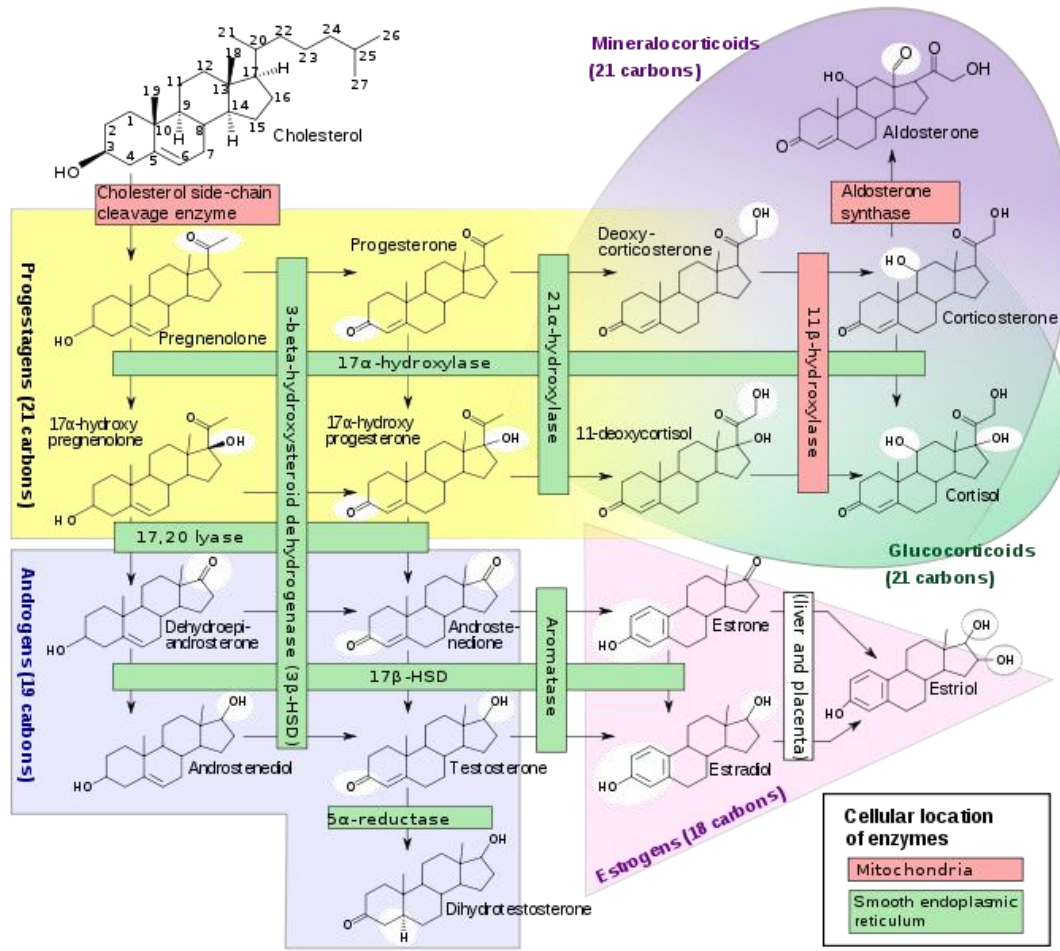
# Problems

- ▶ Unclear physiological standard levels
  - ▶ Unclear differentiation among different metabolizers
  - ▶ No bearing given to other aspects of the “host woman”
  - ▶ Whom to believe
- 

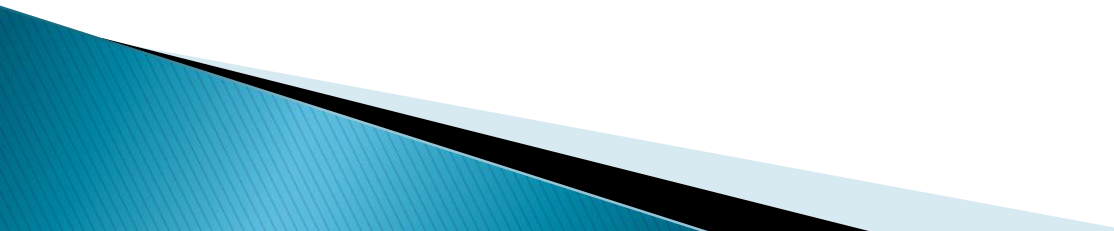
# Standard reference levels – blood

Hormone	Premenopausal	Postmenopausal	Male
Estrone, estriol			
Estradiol	110–410pm/ml <i>at ovulation</i>	< 35pg/ml	14–55pg/ml
FSH	5–26 IU/L <i>at ovulation</i>	30–118 IU/L	1–8 IU/L
Progesterone <i>Mid-luteal</i>	6–29 ng/ml		
Testosterone	20–85 ng/dL		230–1000ng/dL
Source– Wikipedia			

# Hormone/steroid pathway



# Key Points

- ▶ No size fits all
  - ▶ We are all different
  - ▶ We may have very different reactions to the same experience or same drug
- 

# What else complicates things?

## Xenoestrogens

- ▶ **Xenoestrogens** are industrially made and widely used in the last decades compounds such as PCB, **BPA** and **Phthalates**, they differ chemically from the naturally occurring estrogenic substances internally produced by their **endocrine system**.
- ▶ Its name derives from the **Greek** words ξένο (xeno), meaning "foreign" and the word estrogen, the **hormone** which giving fertility to the female mammals (for "estrus" -Greek οίστρος- meaning sexual desire and "gene" -Greek γόνο- for "to generate").
- ▶ It literally means foreign, not coming from within **female**
- ▶ "EDC" (for Endocrine disrupting compounds) and most scientists that had study the phenomenon agree that there are **hormone disruption effects** both on wildlife and humans.
- ▶ Xenoestrogens have been introduced into the environment by industrial, agricultural and chemical companies and consumers only in the last 70 years or so

Click to **LOOK INSIDE!**

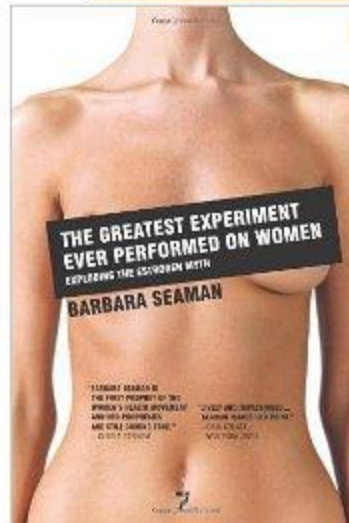
"Barbara Seaman is the first prophet of the women's health movement and her prophecies are still coming true." — Gloria Steinem  
"Lively and impassioned... [Seaman] certainly makes her point."  
—Michelle Kusanagi, *NYC* (New York Times)

# THE GREATEST EXPERIMENT EVER PERFORMED ON WOMEN

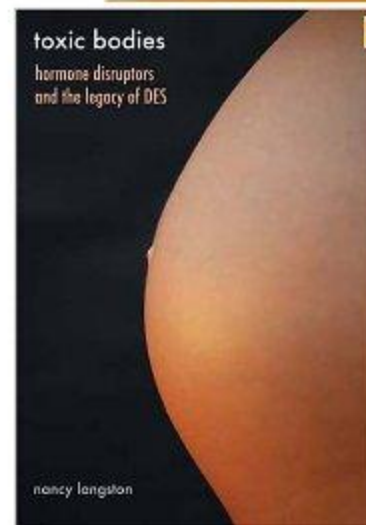
EXPLODING THE  
ESTROGEN MYTH

BARBARA SEAMAN

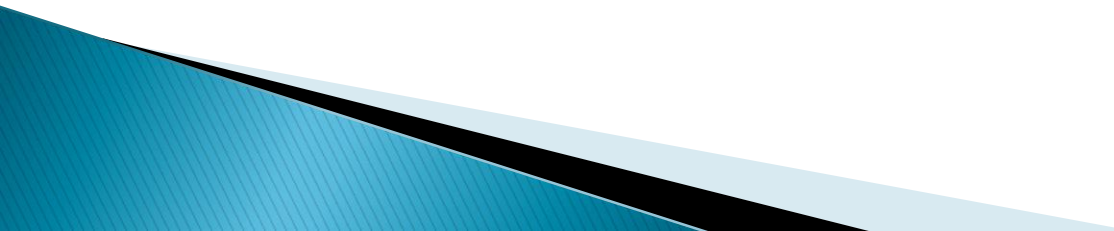
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# What are the options for menopausal symptoms?

- ▶ Grin and bear it
  - ▶ Take traditional HRT for less than 5 years
  - ▶ Use a topical HRT
  - ▶ Use other pharmaceutical drugs
  - ▶ Use supplements
  - ▶ Try diet changes
  - ▶ Use lifestyle maneuvers
- 

# Pharmacological therapies for vasomotor symptoms

- ▶ SSRI's
  - Paroxetine, fluoxetine, citalopram
  - Superior to placebo, but not as effective as E2
  - Moderate side effects but do have withdrawal symptoms
- ▶ SNRI's
- ▶ Gabapentin (Neurontin) – 900mg/day
- ▶ Clonidine – .1 mg/day transdermal or oral
- ▶ Estrogen

# Non-hormonal therapies

- ▶ Yoga – recent study showed benefit
  - ▶ Acupuncture
  - ▶ Qigong, Tai Chi, Relaxation Response, Meditation, Hypnosis
  - ▶ Diet – Careful attention to glycemic index of foods, increase greens, fiber, limit processed foods and alcohol
  - ▶ Sleep in dark
  - ▶ Black cohosh – non-estrogenic, may have neurobiological effects or placebo
  - ▶ Red clover, soy, other phytoestrogens
- 

# Other measures

- ▶ Cleanses / detoxify (physical and emotional)
- ▶ Increase Vitamin D (orally and with sun)
- ▶ Increase Iodine – patch test
- ▶ Adaptogen herbs
  - Ashwagandha (*Withania somnifera*)
  - Eleuthero / Siberian ginseng (*Eleutherococcus senticosus*)
  - Phosphatidylserine
  - Licorice root (*Glycyrrhiza glabra*)
  - Extra B vitamins (B-complex)
- ▶ Avoid xenoestrogens (BPA, BHA, etc, etc)
- ▶ Filter water

# MENOPAUSE

*It's a natural change...make the natural choice*

- Rely on **Remifemin™**—nutritional support for women experiencing menopause.
- Remifemin is a unique, natural, standardized extract of black cohosh—the clinically studied *black cohosh*.
  - Backed by 40 years of research.
  - No synthetic substances. No artificial ingredients.
  - Just 40 mg daily, as recommended by the German Kommission E.
  - Most women notice dramatic benefits within 4 to 8 weeks.

## Approved by health care experts

Remifemin is highly recommended by respected health care professionals such as Jan de Vries, Ph.D., Michael Murray, N.D., and Varro Tyler, Ph.D.

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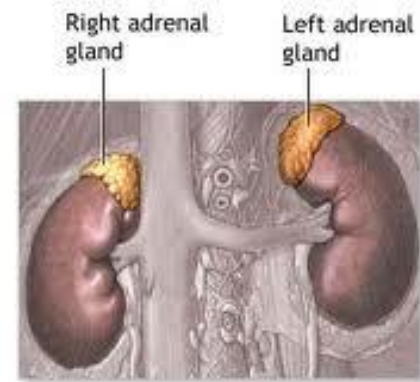
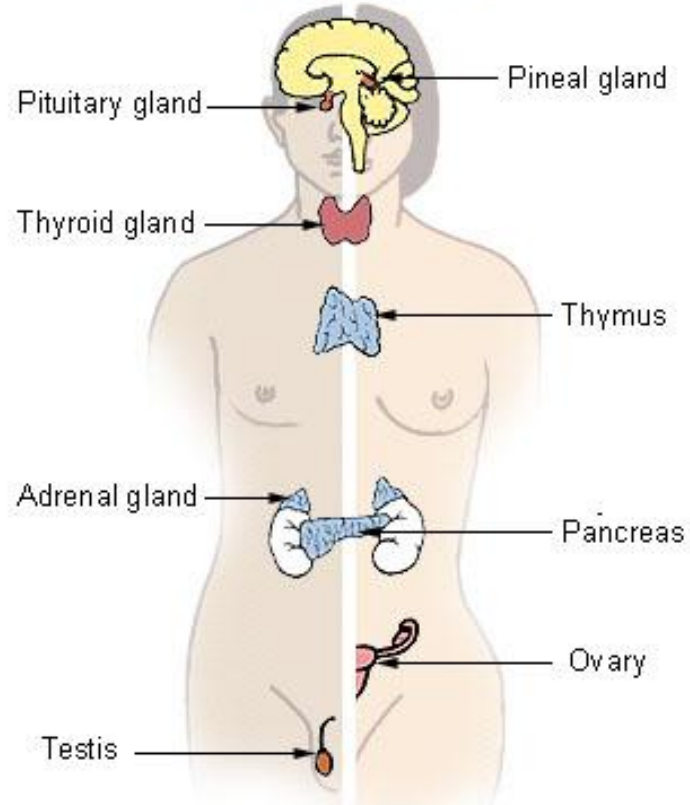
NUTRITIONAL SUPPORT FOR WOMEN EXPERIENCING MENOPAUSE

Natural Remifemin™

# Hormone sources

## Major Endocrine Glands

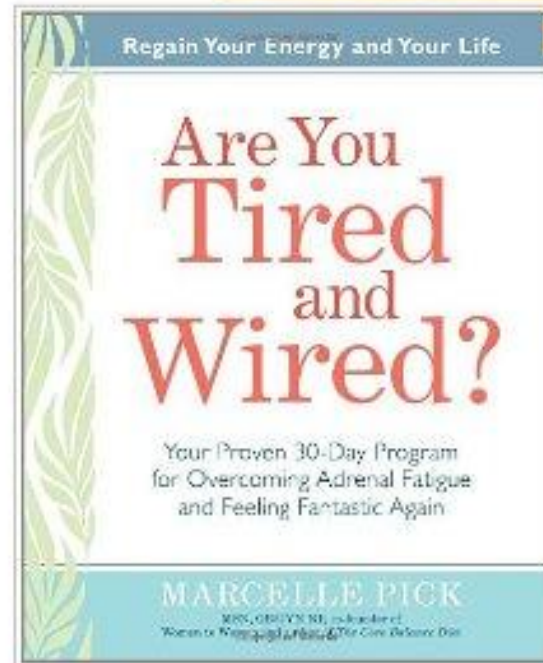
Male Female



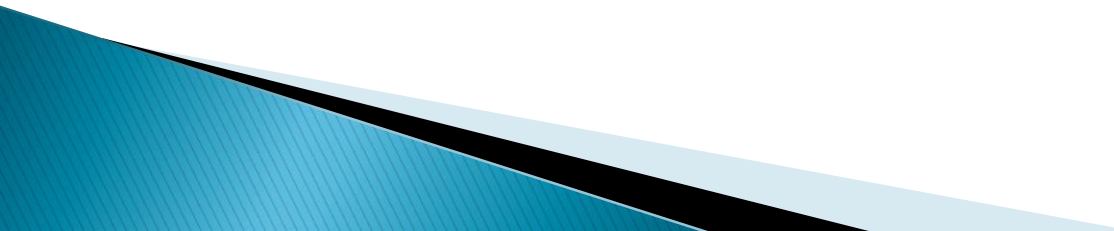
ADAM

# Plug for ADRENAL HEALTH

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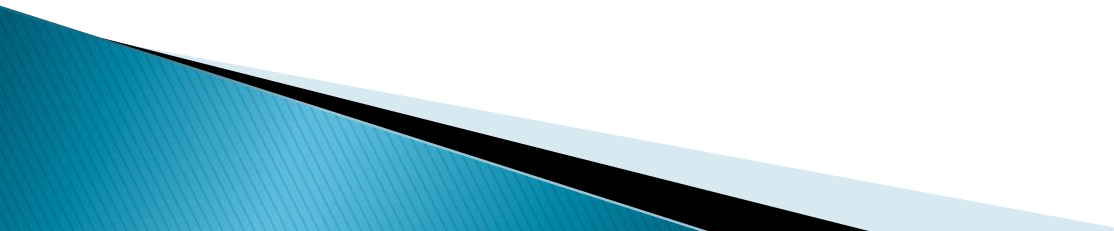
# Current Recommendations

- ▶ Referral to a specialist menopause service
  - ▶ Assessment of symptoms and patient preferences and quality of life
  - ▶ Establish woman's desires and expectations
  - ▶ Provide information on symptoms and possible treatments with known risks and benefits
  - ▶ Review a woman's lifestyle and environment – cultural context
- 

# Sexuality/Sensuality – *Changes but isn't dead*

- ▶ Gender differences
- ▶ Women are much more relational/context oriented
- ▶ Erotic stimuli/books/visuals/sex toys
- ▶ Libido/arousal enhancers–
  - Oxytocin lozenges
  - Xestra botanical oil
  - Arginmax capsules
  - Testosterone topically

# Vaginal Dryness

- ▶ Lubricants and Moisturizers such as KY Liquid Beads, Replens, Astroglide, Sylk, Me Again, Crème de la Femme and Emerita products
  - ▶ Graduated Vaginal Dilators
  - ▶ Vibrators
  - ▶ Pelvic floor physical therapy
  - ▶ Diazepam suppository – muscle relaxant
  - ▶ Regular intercourse
- 

# More....

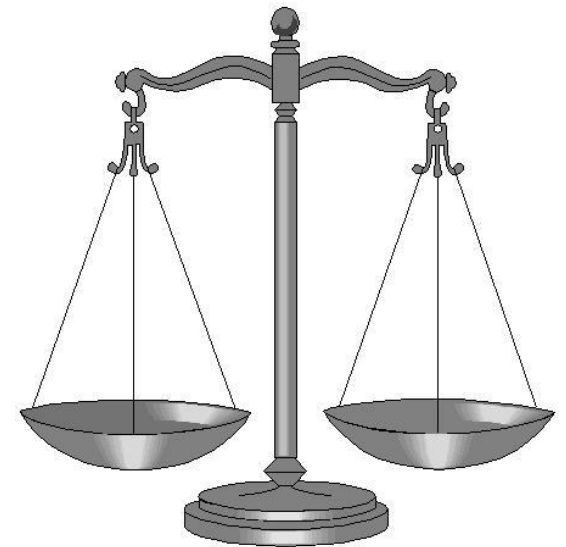
- ▶ Estring – vaginal rings
- ▶ Vagifem tablets
- ▶ Estrogen – Premarin, Estrace creams
- ▶ Estriol – Ovestin from Canadian on-line pharmacy
- ▶ Bezwecken – E3 suppositories
- ▶ DHEA vaginal suppositories
- ▶ Testosterone topically
- ▶ R/O dermatological disorder

And of course talk to your health care provider

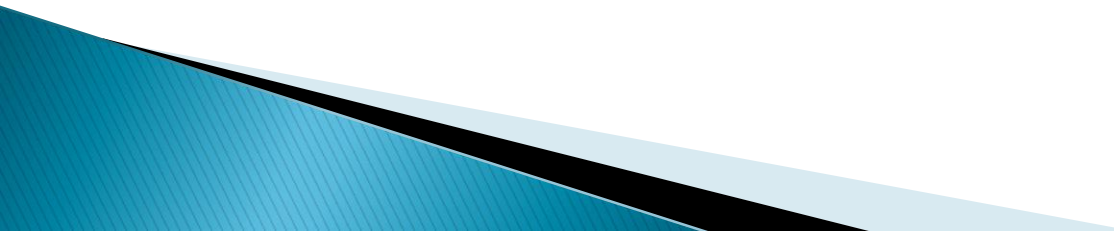


# So what do you do?

- ▶ Take time to collect information from books, friends, doctors, etc....
- ▶ Do some self examination
- ▶ Make a risk/ benefit chart for yourself
- ▶ Try out something
- ▶ Discard something
- ▶ Keep an open mind
- ▶ Be aware of new developments



# Future Directions

- ▶ What are we going to do as the Baby Boomers approach their 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> decades?
  - ▶ What are we going to do to help developing countries deal with menopause and breast cancer?
  - ▶ Where does prostate cancer fit in?
- 



**FIND A CURE  
BEFORE I GROW BOOBS.**

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