

**Featured Topic: DIM  
(8 slides)**

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# Hormone Review: Both men and women have the same sex hormones, just in different ratios

**Estrogen.** Female sex characteristics; libido, erectile function and sperm formation in men

**Progesterone.** Triggers thickening of the uterine lining for implantation of the embryo; precursor to testosterone in men

**Testosterone.** Increase in muscle mass, bone density, and sex trait development

# When hormone levels change

#1: Hormone levels naturally decline with age

#2: Hormone disruptors [xenoestrogens] (BPA, dioxin, phthalates, and more) are chemicals that can:

- Increase production of some hormones while decreasing production of others
  - Act like hormones themselves and trigger hormone receptors
  - Turn one hormone into another
  - Interfere with hormone signaling
- **Where are hormone disruptors hiding?** Thermal paper receipts, plastic bottles, cosmetics and shampoos, tap water, even the lining of food packages

# Some symptoms associated with disrupted sex hormone levels

## **Women (estrogen dominance)**

- Hot flashes
- Night sweats
- Bloating
- Weight gain
- Infertility
- Headaches
- Depression and mood swings

## **Men (low testosterone)**

- Depression
- Reduced muscle mass
- Increased body fat
- Moobs (man boobs)
- Erectile dysfunction
- Infertility
- Fatigue

# DIM – help for your hormones

- Diindolylmethane or DIM
  - Active form of a compound (indole-3-carbinole) found in cruciferous vegetables, including broccoli and cabbage
- How it works
  - Prevents estrogen and testosterone from converting to forms that can be harmful
  - In postmenopausal women, DIM improved the ratio of estrogen in its beneficial form to estrogen in its harmful forms by 47%

# DIM and Cancer

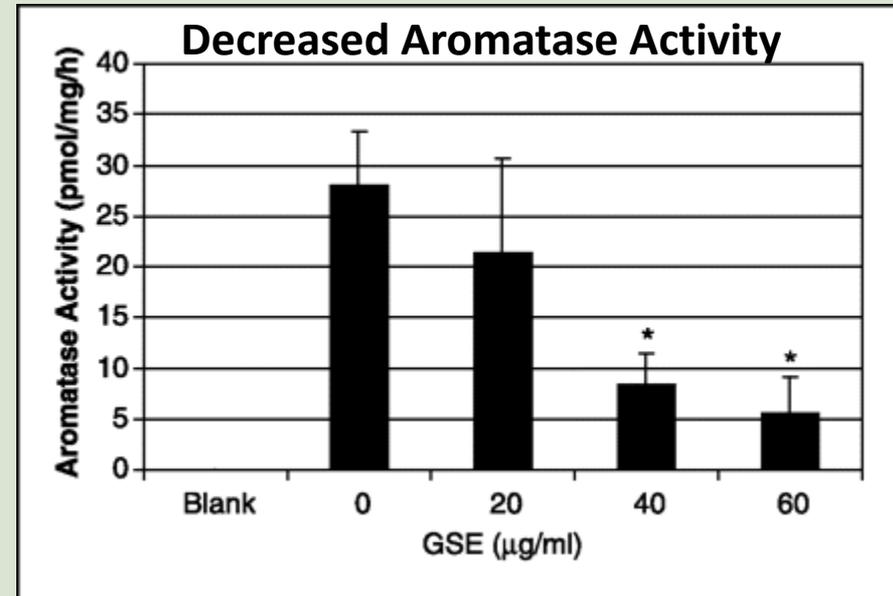
- When DIM was combined with radiation treatment for breast cancer, **increased cancer cell death by 30%** versus radiation alone
- In women with a genetic mutation associated with breast cancer, DIM supplementation increased the activity of cancer-preventing genes by 34%
- In men with precancerous cell changes associated with the development of prostate cancer, 12 months of DIM supplementation resulted in **complete regression in 45% of patients**, versus no regression found in any of the placebo patients

# Additional Hormonal Support: Curcumin

- Curcumin
  - **Liver protectant** – increases levels of protective antioxidants that are depleted when the liver processes toxins (like xenoestrogens - hormone disruptors)
  - In brain and nerve cells (animal model) exposed to BPA, **curcumin protected against brain cell damage** and restored neurogenesis (nerve cell formation) that was reduced due to the BPA
  - Up to an **80% inhibition of breast cancer cell replication** (cell study)

# Additional Hormonal Support: Grape Seed

- Reduces the activity of the enzyme (aromatase) that converts androgen (testosterone) to estrogen
- Assists the liver in processing toxins and spent hormones - **58% increase in liver antioxidant levels** (animal model of impaired liver function)



Animal Model – increasing doses of grape seed extract

# How to use DIM

- Ideal for:
  - Relieving PMS and other symptoms of estrogen dominance
  - Protection against breast cancer
- Also useful for men
  - Helps keep testosterone in its beneficial forms
  - Has anti-cancer activity against prostate cancer
- Dosage: 120 mg of DIM with 250 mg of curcumin and French grape seed

# **Pecans for the Heart**

## **(1 slide)**

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# Pecans for a healthier heart

- Randomized, placebo-controlled trial of 26 overweight or obese people
- All participants were given a controlled version of the “standard American diet” containing the same amount of calories, fat, and fiber for 4 weeks, and then they ate the same diet PLUS 1.5 oz a day of pecans for 4 weeks
- Results:
  - Serum insulin, insulin resistance, total cholesterol, serum glucose, and blood pressure levels were all lower after eating the pecan diet versus the “no pecan” diet
  - The pecan diet was associated with a significant **decrease** in cardiovascular disease risk, while the same diet but without pecans significantly **INCREASED** cardiovascular risk factors
- Pecans are rich in healthy fats, fiber, and essential minerals (copper and magnesium)

**CBD: What is it?**  
**(1 slide)**

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# Have you heard about CBD?

- CBD is NOT “marijuana” : CBD = cannabidiol
- Cannabidiol is one [well-known] member of a family of compounds called **phytocannabinoids**
- The phytocannabinoids act on the body’s **endocannabinoid system** (which controls pain sensation, nerve function, and sleep)
- Cannabis [**hemp**] plants are rich in phytocannabinoids, but other plants have compounds that also affect the endocannabinoid system, including echinacea and green tea
- Many internet websites call out CBD for relieving pain, reducing seizures, alleviating insomnia, and even treating cancer
- BUT – it is not just CBD. There are up to **100 different phytocannabinoids** in cannabis and it is the entire family of phytocannabinoids that have effects on the body
- Look for hemp oil from the stalk of *Cannabis sativa* containing the full spectrum of plant compounds