

UltraWellness

BREAST WELLNESS

What You Need To Know To Stay Healthy!

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The 7 Keys To UltraWellness

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FUNCTIONAL MEDICINE

- 🌿 Prevention
- 🌿 Underlying Causes
- 🌿 Science Based
- 🌿 Biochemical Individuality
- 🌿 Patient Centered (Not Disease Centered)
- 🌿 Interconnections in our body
 - Inflammation and heart disease
 - Gut and immune system

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FUNCTIONAL MEDICINE - 7 KEYS

- 🌿 Hormonal and Neurotransmitter
- 🌿 Oxidative Stress
- 🌿 Detoxification
- 🌿 Immune System
- 🌿 Inflammation
- 🌿 Digestive System
- 🌿 Structure

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ESTROGEN

- 🌿 As estrogen exposure increases so does our risk of breast cancer
 - Number of periods in your lifetime
 - BCPs >5 years or current use
 - HRT - 8.6% decrease in postmenopausal ER+ breast cancer since 2001
 - Endocrine Disrupters

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Endocrine Disrupters

- 🌿 Substances that mimic or disturb the activity or binding of our hormones
- 🌿 Xenoestrogen - synthetic chemicals that act as endocrine disrupters
- 🌿 Plastics -
 - BPA - Bisphenol A - #7
 - PVC - Polyvinyl chlorine - phthalates
- 🌿 Pesticides
carcinogens and endocrine disruptors

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What can you do?

- 🌿 Buy organic
 - Decreased pesticide exposure
 - Decreased growth hormone exposure
 - Decrease animal products in general
- 🌿 Use glass whenever possible
- 🌿 Do not heat or microwave plastic
- 🌿 Switch to non plastic reusable water bottles
- 🌿 Avoid pesticides on your lawn and garden

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ESTROGEN

- As estrogen exposure increases so does our risk of breast cancer
 - Number of periods in your lifetime
 - BCPs >5 years or current use
 - HRT
 - Endocrine Disrupters
 - **Weight - % body fat**

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WEIGHT

- Postmenopausal -
 - increase weight by 22 or more pounds since age 18 -- 30% increased risk of breast cancer than women gained 5 or less pounds
 - JAMA. 2006. 296:193
 - breast cancer survivors who were overweight or obese were more likely to have their cancer recur than thinner survivors.
 - Journal of Clinical Oncology. 2002. Vol. 20, No. 15: 3302-3316

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WHY?

- Aromatase
- Body Fat
- Insulin Resistance

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Decrease Aromatase

- Lower % body fat
 - Maintain healthy weight
 - Continue to do resistance exercise to keep lean tissue high
- Decrease inflammation
 - Omega 3 fats
 - Avoid trans fats, less saturated fat
 - Lower % body fat - inflammation made in fat
 - Tumeric
 - Aspirin ?

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SHBG

- Sex Hormone Binding Globulin
- Increased level = lower free estrogen
 - Maintain a healthy weight
 - Vegetarian lower fat diet
 - Improve Insulin Resistance

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Insulin Resistance

- Abdominal weight gain
- Fatigue
- Feeling tired after a meal
- Harder time losing weight
- Cravings for foods
- Hot Flashes
- Energy Swings
- Low blood sugar

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Who Is At Risk?

Epidemic

- 5% of children
- 25% of people over 30
- 50% of people over 60

Lifestyle

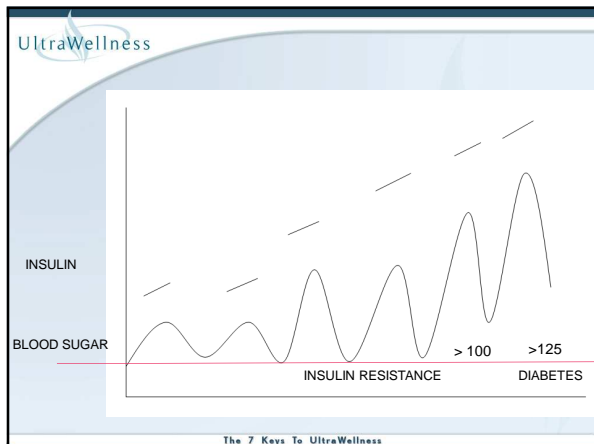
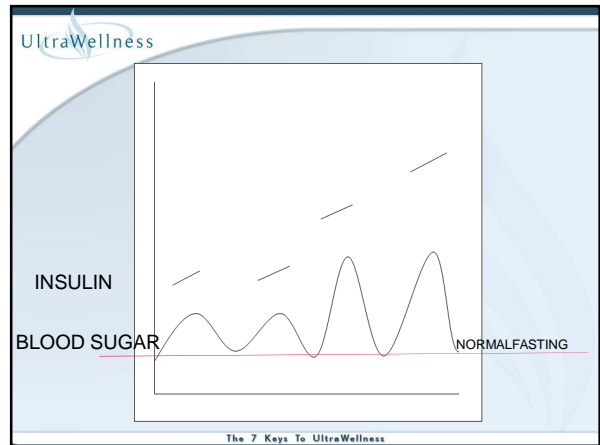
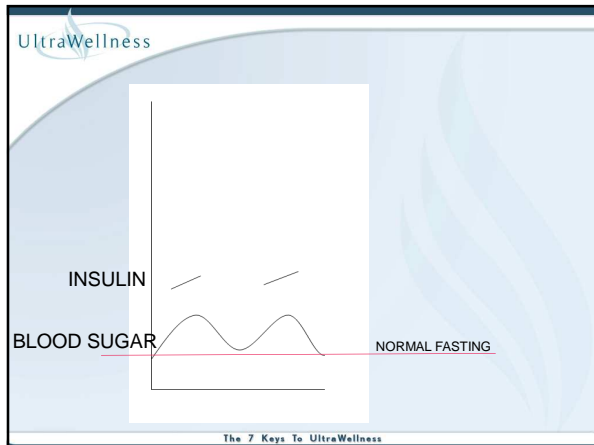
- Weight gain
- Poor Diet
- Lack of exercise
- Stress
- Sleep deprivation

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QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.

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METABOLIC SYNDROME

3 out of the 5

1. Impaired glucose tolerance - fasting blood sugar > 100 or high insulin
2. Elevated blood pressure >130/85 or on medication
3. Central Obesity = Apple shape
 - Waist circumference >35" women > 40" men
 - Waist / Hip ratio > .85 women >0.9 men
4. Elevated Triglycerides > 150
5. Low HDL < 50 women < 40 men

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How Can I Improve Insulin Sensitivity?

- 🌿 Increase fiber - 35 grams daily
- 🌿 Protein - at each meal
- 🌿 Regular Meals
- 🌿 Increase omega 3 fats
- 🌿 Eliminate Trans fats (partially hydrogenated fats)
- 🌿 Nutrient dense foods
- 🌿 40 minutes of exercise daily
- 🌿 Get 7-9 hours of sleep per night
- 🌿 Manage stress

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Glycemic Load Linked To Breast Cancer Risk

- 🌿 61,000 women over 17 years
- 🌿 Highest Glycemic Load had about 80% increased risk of getting ER+ breast cancer

🌿 *Int J Cancer 2009;125:153-157.*

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ESTROGEN METABOLISM

- 🌿 2 OH Estrone - protective
- 🌿 4 OH Estrone - promote tissue proliferation and carcinogenic
- 🌿 16 OH Estrone - promotes tissue proliferation and carcinogenic

🌿 2/16 ratio > 2 optimal

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Improve Estrogen Metabolism

- 🌿 Increase cruciferous vegetables
I3C and DIM
- 🌿 Fish oil
- 🌿 Daily exercise
- 🌿 Ground flax seed
- 🌿 Healthy soy

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Our Genes

- 🌿 BRCA 1 and 2
- 🌿 COMT
- 🌿 CYP1B1
- 🌿 GSTM1

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DETOXIFICATION

- 🌿 Phase I - certain people have higher risk
 - Avoid Estrogen Disrupters
 - Avoid Cigarette smoke
 - Decrease Charbroiled Meats - Heterocyclic aromatic amines
 - Limit Alcohol

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ALCOHOL

- No safe intake?
- As alcohol intake increases so does our risk
- For every 1 drink increase per day, a women's risk of getting breast cancer increased by 12%

J Nat Cancer Inst.2009;101:296-305

- >2 drinks per day = 3x increased risk

Annals of Int Medicine 11/02.

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ALCOHOL - Why?

- 🌿 Liver and detox impact
- 🌿 Increase free estrogen by decreasing SHBG
- 🌿 Associated with other unhealthy lifestyles
- 🌿 Decrease B vitamins - important for methylation

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DETOXIFICATION

🌿 Phase II

- Methylation
 - Need adequate folate, B12, B6
 - Alcohol increases B vitamin needs
 - Genes - MTHFR
 - Check homocysteine and Methymalonic acid
- Sulfation
 - Cysteine ---- glutathione
- Glucuronidation

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Glucuronidation

- 🌿 Glucuronic Acid conjugates with estrogen
- 🌿 E-GA - excreted in the stool
- 🌿 Beta glucuronidase - cleave E-GA and increases free estrogen
- 🌿 Beta glucuronidase is elevated:
 - high meat / low fiber diets
 - Imbalanced gut flora
 - Pathogenic gut flora

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Globulin Proteins: Proteins that may prevent unhealthy bacteria from adhering to the intestine wall.

Lactoferrin: A protein that traps iron and blocks its use by unhealthy bacteria, thus starving them.

Unhealthy Bacteria: Lactobacillus acidophilus, Bifidobacteria, Fructooligosaccharides

Toxins being detoxified: Toxins, Toxins

Other labels: Yeast, Intestinal Deterioration, Parasites

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Antibiotics and Breast Cancer

- 🌿 17 year period -
 - > 25 scripts -- 2 x increased risk
 - 1-25 scripts --- 1.5 x increased risk
 - Int. J Cancer 2008. Nov 1: 123(9):2152-5.
- 🌿 Immune system ?
- 🌿 Damage to Gut

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Heal The Gut

- Limit Antibiotic Use
- High Fiber Diet
- Decrease Red meat - <18 oz/wk (AICR)
- Probiotics
- Nutrients
- Remove inflammatory foods
- Treat infections

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Immune System

- Increase Inflammation = Increase Cancer
Coussens LM, Werb. Inflammation and Cancer. Nature 2002; 420:860-7.
- Decrease Inflammation
 - Avoid refined and processed foods
 - Decrease % Body Fat
 - Increase Omega 3 fats
 - Decrease Omega 6 and saturated fats and eliminate trans fats
 - Tumeric, resveratrol and green tea

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STOP Progression To Cancer

- 30-50% of healthy women aged 40-50 premalignant microscopic breast tumors on autopsy.
Black WC, Wetch HG. Advances in diagnostic imaging and overestimations of disease prevalence and the benefits of therapy. N Engl J Med 1993;328:1237-43.
- Damage To DNA in Cells
- Resistance to Apoptosis
- Induction of Angiogenesis

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Phytochemicals

Phytochemicals - plant metabolites that defend against microbes

- Organic has more phytochemicals -- Stress
- Increase host defense against DNA damaging molecules. Reduce oncogenic potential of carcinogens.
- Cruciferous vegies, Cucumin, Resveratrol have pro-apoptotic activity against cells
- Anti-Angiogenesis - Green tea - 6 cups, Rasberries, Strawberries and Blueberries

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8 - 10 1/2 cups per day

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STRESS!

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STRESS

- ✦ Increased cortisol :
 - Decreased SHBG -- increased free estrogen
 - Increased insulin resistance and abdominal fat
 - Lower NK (natural killer) cell activity
 - NK cells find and kill new cancer cells
 - Stronger a women's NK cell activity is the higher rate of survival from breast cancer after 12 years
 - Head JF: Assessment of Immunologic Competence and Host Reactivity Against Tumor Antigens In Breast Cancer Patients. *Annals of the NY Acad of Sciences* 690(1993):340-42.
 - Increased Social Support = Increased NK activity
- Increased IL-6 - inflammatory cytokine
 - Increased Inflammation = Increase Cancer Risk

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Sleep

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SLEEP

- ✦ Sleep deprivation
 - Increased cortisol
 - Increased Insulin
 - Lower melatonin
 - Anticancer and antioxidant effects

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EXERCISE

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How Much?

- ✦ 4 hrs per week less risk
- ✦ 3-5 hours per week = improved survival
- ✦ Vigorous exercise + BMI < 25
 - 20% decreased risk

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DIET

- ✦ Reduced calorie diets = reduced risk
 - Oxidative Stress
- ✦ High fiber, low fat diets = decreased estrogen in body
- ✦ High fat diet - increased reoccurrence ER-cancer
 - WINS - Women Intervention Nutrition Study
- ✦ Soy in adolescents = lower risk
- ✦ Green tea - ECGC - anti-angiogenesis and antioxidant
- ✦ Vitamin D -
 - 25OH vit D > 52 = 50% decreased risk breast cancer than if vit D < 12ng/dl

AACR 2006
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1/3rd of all cancers can be prevented

- ✦ Exercising Regularly
- ✦ Eating Healthy Foods with Increased Fruits and Vegetables
- ✦ Maintaining a Healthy Weight
 - Decrease breast cancer by 38%

✦ Policy and Action for Cancer Prevention - Food, Nutrition, Physical Activity and the Prevention of Cancer: A Global Perspective. 2007 WCRF / AICR

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Government Role

- ✦ Increase Availability of Farmer's Markets
- ✦ Increase Bike Lanes and Walking Paths
- ✦ Get Rid of Vending Machines in Schools
- ✦ End Advertising of Junk Food To Kids
- ✦ Take High Fructose Corn Syrup out of products
- ✦ Ban Trans Fats

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What Can We Do?

- ✦ Choose Whole Foods
- ✦ Get 3-5 hours of Exercise Per Week
- ✦ Increase Fiber Intake to 35gm daily
- ✦ Have Protein at Every Meal - include vegetarian options - beans, nuts as well as fish, lean poultry and eggs.
- ✦ Maintain a Healthy Weight

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What Can We Do?

- ✦ Get a Good Night Sleep
- ✦ Choose Organic Foods
- ✦ Avoid Excess Toxins
- ✦ Take Probiotics
- ✦ Limit Your Alcohol Intake
 - <1 drink per day or 5 per week.

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THANK YOU !

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