Breast Cancer

Diet and Lifestyle Seminar

- I'm providing a summary of recent research on the effects diet and lifestyle has on breast cancer.
- This research information will enlighten and empower you in your quest for a healthier life.

Breast Cancer

Risks

- Breast cancer does not have a single cause.
- Breast cancer does have some risk factors including age, race and family history or genetics.
- Breast cancer grows up to 8 years before being diagnosed.

Breast Cancer

Oklahoma

- The breast cancer death rate in Oklahoma exceeds that of the United States.

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Breast Cancer: Risks

- Research shows many modifiable factors in our environment, diet and lifestyle influence the prevention, development, growth and death of breast cancer cells.
- Our body has natural mechanisms that can assist or hinder the ability to fight cancers.

Breast Cancer Risks

- Eating a nutritious diet, being physically active, and keeping body fat under control may prevent:
  - 38% of Breast Cancers
  - 45% of Colorectal Cancers
  - 70% of Endometrial Cancers
  - The World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR).

Breast Cancer Diet - Calories

- Energy intake >2,057 calories per day was significantly and positively related to breast cancer risk.
  - Breast J. 2009 Sep-Oct;15 Suppl 1:S63-71

Breast Cancer Diet - Coffee

- Women who drank more than eight cups of coffee per day had an increased risk of breast cancer.
  - Breast J. 2009 Sep-Oct;15 Suppl 1:S63-71

Breast Cancer Green Tea

- Increased green tea consumption (more than three cups a day) decreased breast cancer recurrence by 73%
- Increased green tea consumption decreased breast cancer risk by 81%
- In women <50 years of age, consuming three or more cups per day had a 37% reduced breast cancer risk when compared with women reporting no tea consumption.

Breast Cancer Diet - Alcohol

- Subjects who drank >9 gm of alcohol (ethanol) per day had an increased risk of breast cancer
  - 1 jigger (1.5 oz) = 14 gm alcohol
- A positive and significant association was noted between the consumption of beer, wine and spirits, and breast cancer risk.
  - Breast J. 2009 Sep-Oct;15 Suppl 1:S63-71
Breast Cancer
Diet - Alcohol
- Alcohol was significantly positively associated with total breast cancer: Even a moderate amount of alcohol (>10 gm/day) significantly increased breast cancer risk
- Moderate consumption of alcohol was associated with hormone receptor-positive tumors.
  - Am J Epidemiol. 2009 Aug 1;170(3):308-17

Breast Cancer
Diet – Western
- Western Diet (essentially meat products, French fries, appetizers, rice/pasta, potatoes, pulses, pizza/pies, canned fish, eggs, alcoholic beverages, cakes, mayonnaise, and butter/cream) increased breast cancer risk by 20%

Breast Cancer
Diet – Mediterranean
- Mediterranean Diet (essentially vegetables, fruits, seafood, olive oil, and sunflower oil) decreased breast cancer risk by 15%.

Breast Cancer
Diet – Black Women’s Study
- Western (refined grains, processed meat, and sweets)
- Prudent (whole grains, vegetables, fruit, and fish)
- Compared to Western diet the Prudent dietary pattern decreased cancer risk by 30% in premenopausal women
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Breast Cancer
Diet – Fruits and Vegetables
- Consumption of individual vegetable and fruit groups such as dark green leafy vegetables, cruciferous vegetables, carrots and tomatoes, banana, watermelon/papaya/cantaloupe were all inversely and significantly related with breast cancer risk.
Breast Cancer Diet – Fruits and Vegetables
- Higher intake of fruits and vegetables combined was associated with a significant decreased in the risk of breast cancer.

Breast Cancer Diet – Fruits and Vegetables
- A diet high in vegetables, fruit, and fiber and low in fat decreased additional risk of secondary breast cancer events in women without hot flashes
  - (diet of 5 servings of vegetables and fruit daily)
  - Am J Clin Nutr. 2009 May;89(5):1565S-1571S.

Breast Cancer Meat
- High intake of red meat, total meat and processed meat increased the risk of breast cancer
  - A meta-analysis shows an association between breast cancer risk and red meat consumption in premenopausal women

Breast Cancer Meat
- Breast cancer risk increased by 56% for each additional 100 gm/day of meat consumption
  - 6 oz steak = 170 gm
  - Nutr Cancer. 2008;60(2):177-87

Breast Cancer Red Meat
- Positively associated with breast cancer:
  - Red meat
  - Heterocyclic amines (well cooked, grilled or burnt meat)
  - Iron

Breast Cancer Red Meat – Fried Meat
- Red meat did not increase breast cancer risk
- Fried meat intake increased the risk of ER+/PR- breast cancer
Breast Cancer Omega-3

- High consumption of omega-3 from fatty fish is associated with a reduced risk for breast cancer
  - 19% lower risk in premenopausal women
  - 27% lower risk in postmenopausal women

Breast Cancer Omega-3

- Postmenopausal
  - Consuming 101 mg of EPA daily decreased breast cancer risk by 38%
  - Consuming 213 mg of DHA daily decreased breast cancer risk by 32%

Breast Cancer Omega-3

- Premenopausal
  - Highest amount of omega-3 decreased breast cancer risk by 46%

Breast Cancer Omega 6 Fatty Acids

- Cause inflammation and pain (via COX-2)
  - Linoleic acid
    - Corn oil
    - Safflower oil
    - Sunflower oil
  - Arachidonic acid
    - Animal Fat

Breast Cancer Omega 6 Fatty Acids

- A significant increased breast cancer risk was observed among those with high intakes of omega-6 PUFAs from meat
  - Int J Cancer. 2008 Oct 1;123(7):1637-43

Breast Cancer Omega 6 Fatty Acids

- High consumption of processed meat, fish, butter and other animal fats, and margarine increased to risk of breast cancer by 2 fold
  - Br J Nutr. 2008 Nov;100(5):942-6
Breast Cancer
Omega 3 and Omega 6 – COX-2
- Omega-6 fatty acids and their derivatives promote the production of proinflammatory eicosanoids (COX-2), whereas omega-3 fatty acids suppress this action.
  - Drug News Perspect. 2008 Nov;21(9):504-10

Breast Cancer
Omega 3 and Omega 6 – COX-2
- Apricoxib (CS-706), a small-molecule, orally active, selective COX-2 inhibitor, is under development by Tragara Pharmaceuticals Inc as an analgesic and anti-inflammatory agent, and also for its anticancer potential.

Breast Cancer:
Flaxseed
- 25 gm of Flaxseed in a daily muffin
  - Reduced Ki-67 index by 34.2%
  - HER2 expression by 71%
  - Increased apoptosis by 30.7%
  - Compared to placebo group
    - Clin Cancer Res. 2005 May 15;11(10):3828-35

Breast Cancer
Omega-9 Fatty Acids
- Oleic acid in olive oil (monounsaturated fatty acid) decreases the risk of breast cancer.
  - World J Surg Oncol. 2005 Jul 8;3:45

Breast Cancer
Omega-9 Fatty Acids
- Olive oil
- Avocado
- Peanuts
- Almonds

Breast Cancer
Trans Fatty Acids
- A high serum level of trans-fatty acids, presumably reflecting a high intake of industrially processed foods, is probably one factor contributing to increased risk of invasive breast cancer in women.
Diet and Lifestyle Influences on Breast Cancer

**Breast Cancer Oxidative Damage**
- In all stages, MDA (malondialdehyde) levels in breast cancer patients were significantly higher than those in healthy subjects.
- Fruits and vegetables provide antioxidants and lower MDA.

**Breast Cancer MDA**
- Low plasma vitamin A increased risk of breast cancer by approximately two fold.
- Low plasma vitamin E increased the risk by two to three fold.
- A high level of MDA was associated with breast cancer.

**Breast Cancer Copper**
- Consistently, high levels of copper have been found in many types of human cancers, including prostate, breast, colon, and lung. Recent studies suggest that copper (removal) could be used as a novel selective target for cancer therapies.
  - Cancer Res. 2007 Feb 15;67(4):1636-44
- The copper levels in serum of healthy volunteers were lower than in cancer patients.
  - Biometals. 2009 Apr;22(2):377-84
- Copper is a co-factor essential for tumor angiogenesis (growth of new blood vessels) processes and high levels of copper have been found in many types of human cancers, including prostate, breast and brain.
  - Front Biosci. 2005 Sep 130:2932-9
  - Heavy Metal Test at www.ToxicWaterSolution.com

**Breast Cancer Glucose**
- Metabolic syndrome is significantly more prevalent in triple-negative (ER-, PR-, HER2-) breast cancer patients.
  - Breast Cancer Res Treat. 2009 Oct 23
- Hyperinsulinemia most likely favors cancer in diabetic patients as insulin is a growth factor with preeminent metabolic but also mitogenic effects and its action in malignant cells is favored by mechanisms acting both at the receptor and post-receptor level.
Diet and Lifestyle Influences on Breast Cancer

Breast Cancer

Glucose
- Higher insulin-like growth factor 1 (IGF-1) levels are associated with premenopausal breast cancer risk
- High insulin levels increased the risk of postmenopausal breast cancer by 46%

Cholesterol & Glucose
- Dietary Energy Restriction (DER):
  - Reduced expressions of growth genes in the lipid metabolism and glycolytic (glucose) pathways in breast tissue
- Lowered serum biomarkers of breast cancer risk (insulin, leptin, total and low-density lipoprotein cholesterol, and triglycerides)

Soy
- A diet rich in isoflavones from soy products reduces the risk of postmenopausal breast cancer in Japanese American and White women
- Genistein could be useful as a chemotherapeutic agent in premenopausal women with breast cancer of the ERAlpha-negative and ERBeta-positive type
- Decreased estradiol stimulated cancer growth.
- A recent nested case-control study and meta-analysis of numerous epidemiological studies show an inverse correlation between genistein intake and breast cancer risk
- Clinical studies in osteopenic and osteoporotic, postmenopausal women support the breast and uterine safety of purified naturally derived genistein administered for up to 3 years.

Sunshine and Vitamin D
- Sun exposure rate seemed to be positively correlated with a lower risk of overall morality due to organ cancer
- The health benefits of sunlight appear to outweigh the risk of skin cancer
- The vitamin D hormone system is necessary for cell proliferation and differentiation.

Vitamin D
- In the meta-analysis of 11 research studies, there was a significant inverse relationship between vitamin D intake and breast cancer risk
- The highest vitamin D intake reduced breast cancer risk by 91%
- The highest 25 Hydroxyvitamin D3 level reduced breast cancer by 45%
Breast Cancer

Vitamin D
- Women with breast cancer had lower plasma 25OHD levels than controls.
- Highest levels of 25OHD levels reduces breast cancer risk by 52%.

Breast Cancer

Vitamin D
- Vitamin D3 Blood Test
  - 25 Hydroxyvitamin D3
  - Normal level 32 – 100 ng/ml
  - Optimal level 50 – 70 ng/ml

Breast Cancer

Exercise
- Two large studies have reported that exercise decreased breast cancer mortality
- Estrogen pathway and the insulin pathway are two potential mechanisms

Breast Cancer

Exercise
- >7 hours/week of moderate-to-vigorous activity during the past 10 years was associated with 16% reduced risk of postmenopausal breast compared with inactivity.

Breast Cancer

Bra
- In premenopausal women, sleeping without bra decreased the risk of breast cancer
- Sleeping without a bra did not decrease breast cancer in postmenopausal women.

Breast Cancer

Bra
- Premenopausal women who do not wear bras had half the risk of breast cancer compared with bra users
- Possibly because they are thinner and likely to have smaller breasts.
Breast Cancer
Antiperspirants / Deodorants
- Antiperspirants had no association with the risk of breast cancer.
  - East Mediterr Health J. 2006 May-Jun;12(3-4):478-82

Breast Cancer
Antiperspirants / Deodorants
- Frequency and earlier onset of antiperspirant/deodorant usage with underarm shaving were associated with an earlier age of breast cancer diagnosis.

Breast Cancer
Antiperspirants / Deodorants
- Breast cancer did not increase with antiperspirant, deodorant, product use among subjects who shaved with a blade razor, or application of antiperspirant or deodorant products within 1 hour of shaving.

Breast Cancer
Sleep
- Nighttime shift work increases risk
- Blindness lowers risk
- Long sleep duration lowers risk
- Community nighttime light level increases risk

Breast Cancer
Sleep
- Blind women with No Perception of Light appear to have a lower risk of breast cancer, compared to blind women with Light Perception.
  - Cancer Causes Control. 2009 Aug 1

Breast Cancer
Sleep
- Women shift workers report poor sleep quality and experience reproductive disturbances, an increased risk of breast cancer, and a greater risk of metabolic and cardiovascular disorders.
Breast Cancer

Sleep
- Sleep disturbances can lead to immune suppression and a shift to the predominance in cancer-stimulatory cytokines.

Breast Cancer

Stress
- Social stress is not associated with breast cancer.
- It cannot be confidently concluded that life events, personality features or depression play a role in the onset of cancer.

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Free Seminar on-line at
- www.NaturalCancerReports.com

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