



BREAST CANCER PREVENTION

THE TOP 10 LIST OF NUTRITION AND LIFESTYLE STEPS
ALL WOMEN SHOULD KNOW

Dr. James Meschino DC, MS, ND

- A Comprehensive Guide to Nutrition
- A Comprehensive Guide to Lifestyle
- A Comprehensive Guide to Nutrition and Lifestyle



About Dr. James Meschino, DC, MS, ND



A recognized expert in the use of nutritional supplements in the prevention and management of degenerative diseases and anti-aging, Dr. James Meschino, DC, MS, ND, was appointed to the advisory board of the Academy of Anti-Aging Research in 2001. He is a doctor of naturopathy, an associate professor at the Canadian Memorial Chiropractic College and has been a Faculty Member of the American Council of Exercise (ACE). He is also a faculty member of the Integrative Cancer Therapy Fellowship Program for physicians, sanctioned by the American Academy of Anti-Aging Medicine.

Dr. Meschino has appeared as a health and anti-aging expert on many television and radio programs in Canada and the United States.

The published author of five nutrition, supplementation and wellness books, he has also had over 50 research review papers on nutritional supplementation published by *America-Online* and is the regular anti-aging and natural therapies columnist for *Dynamic Chiropractic*. Dr. Meschino's continuing education seminars for health practitioners are authorized for continuing education credits in many states and provinces throughout North America.

- A Comprehensive Guide to Minerals
- A Comprehensive Guide to Herbs
- A Comprehensive Guide to Accessory Nutrients and Esser

Table of Contents

(move your mouse over text below, then click to follow link)

INTRODUCTION	page 4
TOP TEN LIST	pages 5 - 9
<i>Don't eat high fat animal foods (except fish)</i>	page 5
<i>Stay Lean</i>	page 5
<i>Perform a Minimum of 30 Minutes of Endurance Exercise, Five Times Per Week</i>	page 6
<i>Take a High Potency Multiple Vitamin Containing Vitamin E Succinate and Vitamin D</i>	page 6
<i>Drink Less Alcohol and Get A B-50 Complex, as Part of Your High Potency Multiple Vitamin and Mineral Supple- ment</i>	page 7
<i>Take a Supplement Containing Fish Oil, Flaxseed Oil and Borage Seed Oil AND Eat Fish Twice Per Week</i>	page 7
<i>Consume Cruciferous Vegetables and Indole-3-Carbinols Daily</i>	page 8
<i>Consider Supplementation With Curcumin and Other Natural Anti-Inflammatory Agents</i>	page 8
<i>Take Two Heaping Tablespoons of Ground Flaxseed Each Day</i>	page 9
<i>Eat at Least One Serving of a Soy Food Each Day</i>	page 9
ADDITIONAL READINGS	page 10
SCIENTIFIC REFERENCES	pages 11 - 12



Introduction

In 1996, Dr Walter Willett of Harvard University authored a report in the *Journal of The National Cancer Institute* stating that, after reviewing the world-wide evidence, approximately 50% of breast cancer cases could be avoided if women in North America engaged in more prudent nutrition and lifestyle practices.



It has been shown consistently that having a full-term pregnancy and breast feeding before age 30 reduces a woman's lifetime risk of breast cancer by 25-30%, and that another 20-25% of breast cancer cases are linked to a strong family history (genetic risk factors).

However, the remaining 50% of breast cancer cases are strongly linked to faulty nutrition patterns, excess body fat and insufficient exercise, according to numerous investigative studies on this subject. (1,2)

During the past ten to twelve years, compelling evidence has emerged from research investigations, which identify the most important dietary and lifestyle strategies women should consider in order to reduce their risk of breast cancer. According to the available research, the following represents the 10 most important steps women should consider in this regard:

... the remaining 50% of breast cancer cases are strongly linked to faulty nutrition patterns, excess body fat and insufficient exercise...

The Top 10 List

1. **Don't eat high fat animal foods (except fish)** – Eating less red meat, pork, milk and yogurt products higher than 1% milk fat, cheeses above 3% milk fat, whole milk, butter, ice cream, cream, whipped cream etc., is the first vital step in reducing breast cancer risk. These foods are not only high in saturated fat, which can over-stimulate production of estrogen, but they also contain a polyunsaturated fat known as AA (arachidonic acid). Breast tissue converts AA into local mini hormones (eicosanoids) that increase the replication rate of breast cells. When breast cells divide too quickly, they tend to make genetic errors that lead to breast cancer development. This is how hormone replacement therapy increases risk of breast cancer — by speeding up the cell replication rate. Follow-up studies on humans and numerous animal studies show that higher breast tissue concentrations of AA increase the risk of future onset of breast cancer. Overall, the goal is to slow down the rate of breast cell replication. When you do that, cancer is less likely to develop. Eating less high-fat animal foods



is an important first step, as is remaining at your ideal weight and exercising, as we shall touch on next. Thus, if becoming a vegetarian is out of the question (vegetarians have low rates of breast cancer), it is best to derive your protein from chicken and turkey breast (skinless), Cornish hen, fish, soy products, peas and beans, egg whites, non fat or 1% yogurt and milk, and cheese that is less than 4% milk fat. **(3,4,5,6)**

2. **Stay lean** – It is a medical fact that women who are overweight after menopause have a three times greater incidence of breast cancer than women who are at their ideal weight. Studies, such as the New York University Women's Health Study, indicate that as women become fatter they increase production of estrone hormone in their fat tissues (estrone is potent form of estrogen). The higher circulating levels of estrone in turn, over-stimulate breast cell replication rates increase risk of breast cancer development. As we said, faster cancer develop, breast cancer an even more potent estrogen, the ability of breast cancer readily metastasize to other areas of the body. The message is clear and simple – attain and maintain your ideal body weight. Very conveniently, giving up foods high in animal fat will help you get leaner, as will performing 30-minutes of endurance exercise, 5 times per week, which we will examine next. **(7,8,9)**



3. Perform a minimum of 30 minutes of endurance exercise, five times per week

– Numerous studies indicate that women who are more active have a lower incidence of breast cancer. Endurance exercise is extremely useful because it burns fat, making fat cells smaller. When fat cells make less estrone hormone, and likely to over-stimulate breast cells. This effect slows down the rate of replication of breast cells, which translates into a lower risk for breast cancer. As well, all other aerobic exercises speed up circulation of blood through the liver, enabling detoxification enzymes (which reside in the liver) to neutralize and remove excess estrogen from the circulation. In turn, this helps to keep female hormones in balance, which ultimately helps regulate the breast cell replication rate. (10,11)



cells are smaller thus, are less. This effect slows down the rate of replication of breast cells, which translates into a lower risk for breast cancer. As well, all other aerobic exercises speed up circulation of blood through the liver, enabling detoxification enzymes (which reside in the liver) to neutralize and remove excess estrogen from the circulation. In turn, this helps to keep female hormones in balance, which ultimately helps regulate the breast cell replication rate. (10,11)

4. Take a High Potency Multiple Vitamin Containing Vitamin E Succinate and Vitamin D

– Investigative studies show that vitamin E succinate has important anti-cancer properties in regards to breast cancer. Vitamin E succinate has been shown to encourage certain types of

human breast cancer cells to commit suicide by stimulating action of the cell's death receptors (fas-receptors). Vitamin E succinate also disrupts other signals within breast cancer cells, which inhibit cell replication and inhibit breast cancer cells from forming blood vessels to feed themselves. All of these effects are associated with decreased risk of breast cancer development. Overall, in all experimental and animal studies performed to date,

As for vitamin D, human observation studies indicate that women with vitamin D blood levels above 85 nmol/L have a lower risk of developing breast cancer. We know that breast cells extract vitamin D from the bloodstream, which in turn, slows down the rate of cell replication of breast cells. Vitamin D also encourages breast cells to fully mature as they divide from one generation to the next. Fully mature cells are less prone to becoming cancer cells than are less mature-looking cells. As such, vitamin D is now regarded as a very important anti-cancer vitamin, in addition to its role in preventing osteoporosis. Most women do not achieve the vitamin D intake levels required each day to protect themselves from breast cancer and osteoporosis. Therefore, it is very prudent to take a high potency multiple vitamin and mineral supplement each day that provides 400 IU of vitamin D along with 400 IU of Vitamin E Succinate. (12-20)



... only vitamin E in the form of vitamin E "Succinate" has demonstrated these powerful inhibitory effects against breast cancer (and other cancers).

5. **Drink Less Alcohol and Get A B-50 Complex, as Part of Your High Potency Multiple Vitamin and Mineral Supplement** – The Nurses' Health Study, along with other compelling evidence, indicates that women who consume more than one alcoholic drink each day, on average, double their risk of breast cancer (and colon cancer). Alcohol is

The body appears to have a capacity to handle only one alcoholic drink in any 24-hour period before risk begins for cancer and other problems.

known to generate free radicals that can lead to genetic mutations, which trigger cancer development. The body appears to have a capacity to handle only one alcoholic drink in any 24-hour period before risk begins for cancer and other problems. As such, after cigarette smoking, the National Cancer Institute states that alcohol consumption is the second most important

environmental cause of cancer in our society. Alcohol also depletes the body of folic acid, which is a B-vitamin required for our DNA to replace itself when cells are undergoing replication. In a state of sub-optimal folic acid status, our DNA tends to be fragile and cancer cells form more easily when cells replace themselves from one generation to the next. Even the Nurses' Health Study showed that higher intakes of folic acid could reduce, to some degree, the cancer-causing effects of alcohol, in women who took a B vitamin supplement each day. As many of the B -vitamins work together in the body, it is wise to take a B-50 complex, as part of your daily multiple vitamin and mineral supplement. This advice, along with consuming no more than one alcoholic drink within any 24-hour period are also important preventive measures against breast cancer. **(21-24)**



6. **Take a Supplement Containing Fish Oil, Flaxseed Oil and Borage Seed Oil AND Eat Fish Twice Per Week** – Fish and fish oil supplements

contain an omega-3 fat that breast cells convert into a mini-hormone that slows down the rate of cell replication. Women with higher levels of this omega-3 fat in their breast cells (as well as the omega-3 fat that is richly supplied by flaxseed oil – alpha-linolenic acid) have been shown to have a significantly lower risk for future development of breast cancer, compared to women with lower breast levels of these omega-3 fats. Studies also show that the higher your ingestion of omega-3 fats, the higher will be your breast tissue levels of these fats, as well as the health-promoting mini hormones your breast cells make from these fats. Borage seed oil contains a unique omega-6 fat that helps the body block the formation of mini-hormones made from AA (as discussed above). Thus, higher breast cell levels of fish oil, flaxseed oil and borage oil, help to counter the adverse effects of the AA (arachidonic acid) derived from high fat animal foods. The ultimate strategy in this regard is eat less high-fat animal foods, while consuming two to three servings of fish each week, and to take a supplement each day that contains 400 mg each of fish oil, flaxseed oil and borage seed oil (take 2-3 capsules per day for optimal effects). **(5,25,26,27)**



7. Consume Cruciferous Vegetables and Indole-3-Carbinols Daily – Human



studies demonstrate that women, who consume cruciferous vegetables (broccoli, Brussels sprouts, cabbage, cauliflower, bok choy) on a regular basis, have a lower incidence of breast cancer. Cruciferous vegetables contain a unique molecule called the indole-3-carbinol, which enhances the ability of the body to detoxify cancer-causing agents. Indole-3-carbinol also stimulates enzymes that convert estrogen into a safer form



of estrogen (more 2-hydroxy estrone and less 16-hydroxy estrone) that is associated with a lower risk of breast cancer. As such, it is prudent to consume at least one serving per day of a cruciferous vegetable. Some women take it one step further and consume a supplement each day that contains Indole-3-Carbinol, along with Milk Thistle (milk thistle also enhances detoxification enzyme activity and supports liver function) and immune boosting agents (reishi mushroom extract and astragalus). **(28-32)**

8. Consider Supplementation With Curcumin and Other Natural Anti-Inflammatory Agents

– In recent years we have recognized that as much as 40% of breast cancer occurs in women who, (for genetic reasons) express an abnormally high number of receptors on the surface of their breast cells known as Epidermal Growth Factor Receptors. There are four types of receptors in the family of Epidermal Growth Factor Receptors and women who are genetically prone to breast cancer tend to over express the Type-2 Epidermal Growth Factor Receptor, usually referred to as ErbB2. This receptor (ErbB2) sends continuous messages to the interior of the breast cell, instructing the cell to replicate on an on-going basis, speeding up cell replication and increasing risk of cancer. As such, medical science has been looking for a

drug or chemical agent that could inhibit the firing of the ErbB2 receptor, and thus slow down breast cell replication rate. In recent years medical science has produced a drug (a monoclonal antibody) called Herceptin, that does exactly that, which is now used in some cases of breast cancer treatment. However, the drug has unpleasant side effects and cannot be used on a preventive basis. Interestingly, the natural agent called curcumin (derived from the spice turmeric) has been shown to silence the ErbB2 receptor without causing side effects. A recent study with human colon cancer patients showed that curcumin supplementation reduced the recurrence of colon cancer in this high-risk population. In this type of colon cancer Epidermal Growth Factor Receptors are also over-expressed and contribute to constant signaling that leads to rapid cell replication and cancer development. This is how aspirin is related to lower risk of breast, colon and prostate cancers. However, aspirin causes

intestinal tract bleeding and ulcers and thus, cannot be recommended as a cancer preventive strategy for these reasons. Many holistic doctors recommend, as an alternative, supplementation with a combination product containing curcumin, white willow extract, boswellia and ginger. These four natural agents work synergistically to help regulate Epidermal Growth Factor Receptors and block the production of mini-hormones involved in rapid cell division at the tissue level. **(33-49)**

Experimental studies suggest that curcumin may help to silence ErbB2 breast receptors as well. In addition, supplementation with the natural anti-inflammatories, white willow bark extract, boswellia and ginger help the body block the conversion of AA (arachidonic acid) into mini-hormones that cause rapid cell replication. ...women who are genetically prone to breast cancer tend to over express the Type-2 Epidermal Growth Factor Receptor, usually referred to as ErbB2.

- 9. Take Two Heaping Tablespoons of Ground Flaxseed Each Day** – Ground flaxseeds contain 800 times more of the raw material from which the body makes two important phytoestrogens (Enterolactone and Enterodiol) than any other food source. Enterolactone

... Human studies demonstrate that 50 gm of ground flaxseed per day can reverse fibrocystic breast disease and tone down the firing of the ErbB2 receptor that is associated with breast cancer development and progression.

(ENL) and enterodiol (EDL) have been shown to slow down the rate of breast cell replication by competing with the body's potent estrogens for entry into breast cells, by inhibiting enzymes that produce highly potent estrogens and by inhibiting enzymes directly involved in cell replication. All indicators suggest that two heaping tablespoons of ground flaxseed per day (e.g. sprinkled onto cereal, mixed into yogurt, or mixed into juice or a protein shake) is an exceptional way to help control regulatory mechanisms at the cell level that are associated with reducing breast cancer risk. **(50-59)**

- 10. Eat at Least One Serving of a Soy Food Each Day** - Although there is controversy about soy and breast cancer, the evidence is quite convincing that consuming soy foods provides significant protection against reproductive organ cancers in women and men. To start with, breast cancer rates are 75% lower in countries where soy foods are a main staple of the daily diet. Experimental evidence indicates that soy isoflavones (phytoestrogens) exhibit a number of anti-cancer properties, some of which include, toning down the effects of more potent estrogens, inhibiting enzymes that are directly related to rapid cell division, and enhancing the conversion of potent estrogens to less potent estrogens, all of which slow down the rate of breast cell replication – a major factor in reducing breast cancer development. Most recently, a study involving breast cancer patients showed that providing them with 200 mg per day of soy isoflavones (as a supplement) helped to shrink the tumors (increased the apoptosis to mitosis ratio) while the patients were awaiting surgery. In my view, women should consume at least one generous serving per day of a soy food (soy milk, tofu, soy nuts, etc.) as a means to derive the health-promoting benefits of soy isoflavones and other constituents found exclusively in soy foods. **(60-67)**

... the evidence is quite convincing that consuming soy foods provides significant protection against reproductive organ cancers in women and men. To start with, breast cancer rates are 75% lower in countries where soy foods are a main staple of the daily diet. Experimental evidence indicates that soy isoflavones (phytoestrogens) exhibit a number of anti-cancer properties

My suggestion is that you speak to your health practitioner about the appropriateness of these strategies in your individual case and seek his/her guidance as to how to access supplements that meet the requirements outlined in this review.

For more information on this or other related topics, visit Dr. Meschino's website at:

<http://www.meschinohealth.com/>

ADDITIONAL READINGS

(click on [http link below topic to view article](#))

1. **Flaxseed and Breast Cancer Prevention**
<http://meschinohealth.com/ArticleDirectory/FlaxseedAndBreastCancerPrevention/6>
2. **Soy Phytoestrogens and the Prevention of Breast Cancer**
http://meschinohealth.com/ArticleDirectory/Soy_Phytoestrogens_and_the_Prevention_of_Breast_Cancer/12
3. **Black Cohosh and Breast Cancer: A Review of the Scientific Studies**
<http://meschinohealth.com/ArticleDirectory/BlackCohoshAndBreastCancer:AReviewBlackKohoshAndBreastCancer:AReviewOfScientificStudiesOfScientificStudies/106>
4. **Soy and Soy Extract**
http://meschinohealth.com/ArticleDirectory/Soy_and_Soy_Extract/13
5. **Foods That Really Do Fight Cancer**
http://meschinohealth.com/ArticleDirectory/Foods_That_Really_Do_Fight_Cancer_/8
6. **Nutritional Status Of Vitamin B12 and Vitamin D Shown to be Important Indicators of Cancer Risk**
http://meschinohealth.com/ArticleDirectory/Nutritional_Status_Of_Vitamin_B12_And_Vitamin_D_Shown_To_Be_Important_Indicators_Of_Cancer_Risk/10
7. **Helping Your Patients Acquire Sufficient Soy Isoflavones to Match the Traditional Asian Diet**
http://meschinohealth.com/ArticleDirectory/Helping_Your_Patients_Acquire_Sufficient_Soy_Isoflavones_To_Match_The_Traditional_Asian_Diet/16
8. **Vitamin E Succinate: The Preferred Form of Vitamin E To Combat Breast, Prostate and Other Cancers**
http://meschinohealth.com/ArticleDirectory/Vitamin_E_Succinate:_The_Prefered_Form_Of_Vitamin_E_To_Combat_Breast,_Prostate_And_Other_Cancers/11
9. **Two Recent Studies Suggest That Soy Isoflavone Supplementation May Benefit Breast And Prostate Cancer Patients**
<http://meschinohealth.com/ArticleDirectory/TwoRecentStudiesSuggestThatSoyIsoflavoneSupplementationMayBenefitBreastAndProstateCancerPatients/17>

• A Comprehensive Guide To Accessory Nutrients and Essential

References:

1. Willet, W. Estimates of cancer deaths avoidable by dietary change. *J Natl Cancer Inst.*, 1996; 86, 14: 948
2. Cancer and Nutrition. Simone, B. Avery Publishing Group Inc., 1992:219-23
3. Rose DP. Dietary fatty acids and cancer. *Am J Clin Nutr.* 1997;66(suppl):998S–1003S.
4. Carroll, K K. Experimental evidence of dietary factors and hormone-dependent cancers. *Cancer Res* 1975;35:3374-83
5. Pala, Valeria, et al. Erythrocyte membrane fatty acids and subsequent breast cancer: a prospective Italian study. *Journal of the National Cancer Institute*, Vol. 93, July 18, 2001, pp. 1088-95
6. Dwyer, J T Health aspects of vegetarian diets, 1988. *Am J Clin Nutr*;48:712-38
7. Toniolo, et al. A Prospective Study of Endogenous Estrogens and Breast Cancer in Postmenopausal Women. *JNCI* 1995; 87(3): 190-199
8. Lew, E.A., et al. The American Cancer Society Study; Variations in mortality by weight among 750,000 men and women. *J Chronic Dis* 1979; 32: 563-76
9. Tannenbaum, A. The relationship of body weight to cancer incidence *Arch Pathol* 1940; 30: 509
10. Sprague BL, Trentham-Dietz A, Newcomb PA, Titus-Ernstoff L, Hampton JM, Egan K. Lifetime Recreational and Occupational Physical Activity and Risk of In situ and Invasive Breast Cancer. *Cancer Epidemiology Biomarkers & Prevention* 16, 236-243, 2007.
11. Steege, J.F., et al. The effects of aerobic exercise on premenstrual symptoms in middle-aged women: a preliminary study. *J Psychosom Res.*, 1993; 37, 2: 127-133
12. Malafa MP, Neitzel LT. Vitamin E succinate promotes breast cancer dormancy. *J Surg Res*; 93(1): 163-70. 2000
13. Fang X, Birringer M, Dong L, Veprek P, Low P et al. A peptide conjugate of vitamin E succinate targets breast cancer cells with high ErbB2 expression. *Cancer Research*; 67: 33373344.2007
14. Yu W, Israel K, Liao Q, Aldaz CM, Sanders BG and Kline K. Vitamin E succinate (VES) induces Fas sensitivity in human breast cancer cells. *Cancer Research*; 59:953-961. 1999
15. Garland CF, et al. Can colon cancer incidence and death rates be reduced with calcium and vitamin D? *Am J Clin Nutr* 1991;54 (Suppl 1):193S-201S.
16. Garland CF, Garland FC, Gorham ED. Calcium and vitamin D. Their potential roles in colon and breast cancer prevention. *Ann NY Acad Sci* 1999;889:107-19.
17. Garland FC, et al. Geographic variation in breast cancer mortality in the United States: a hypothesis involving exposure to solar radiation. *Prev Med* 1970;19:614-22.
18. Schmidt J, Wittenhagen P, Harder M. Molecular effects of vitamin D on cell cycle and oncogenesis. *Ugeskrift for læger* 1998 Jul 20;160(30):4411-4.
19. Lappe JM et al. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. *Am J Clin Nutr.* 2007;85:1586-91
20. Longnecker M. Alcoholic beverage consumption in relation to risk of breast cancer: meta-analysis and review. *Cancer Causes Control* 1994;5(1):73-82.
21. Smith-Warner SA, Spiegelman D, Yaun SS, van den Brandt PA, Folsom AR, Goldbohm RA, et al. Alcohol and breast cancer in women: a pooled analysis of cohort studies. *JAMA* 1998;279(7):535-40
22. Giovannucci, et al. Folate, methionine, and alcohol intake and risk of colorectal adenoma. *J. Natl Cancer Inst.* 1993;85(11):875-83
23. Goelez SE, Vogelstein B, Hamilton SR, et al. Hypomethylation of DNA from benign and malignant human colon neoplasms. *Science* 1985;228:187-190
24. Yee LD, Young DC, Rosol TJ, VanBuskirk AM and Clinton SK. Dietary (n-3) polyunsaturated fatty acids inhibit HER-2/neu-induced breast cancer in mice independently of the PPAR gamma ligand rosiglitazone. *The American Society for Nutritional Sciences J. Nutr.* 2005.;135:983-988.
25. Bounoux P, Koscielny S, Chajes V, et al. Alpha-linolenic acid content of adipose breast tissue: a host determinant of the risk of early metastasis in breast cancer. *Br J Cancer.* 1994;70:330–334.
26. Fan, Yang-Yi and Chapkin RS. Importance of dietary gamma -linolenic acid in human health and nutrition. *Journal of Nutrition* 128 (9): 1411-1414. 1998)
27. Hecht, S.S. Chemoprevention of cancer by isothiocyanates, modifiers of carcinogen metabolism. *J Nutr* 1999; 129: 7688-74S
28. Verhoeven, D.T., Goldbohm, R.A., van Poppel, G., et al. A review of mechanisms underlying anticarcinogenicity by brassica vegetables. *Chem Biol Interact* 1997; 103: 79-129 [review]
29. Beecher, C.W. Cancer preventive properties of varieties of Brassica oleracea: a review. *Am J Clin Nutr.* 1994 May; 59 (5 suppl): 1166S-1170S
30. Osborne, M.P., et al. (1993) Increase in the extent of estradiol 16 alpha-hydroxylation in human breast tissue: A potential biomarker of breast cancer risk. *JNCI* 85: 1917-20
31. Michnovicz, J.J. Increased estrogen 2-hydroxylation in obese women using oral indole-3-carbinol. *Int J Obes Relat Metab Disord* 1998; 22: 227-9
32. Reddy S, Rishi A.K., Xu H et al. Mechanisms of curcumin-and EGF-receptor related protein (ERRP) – dependent growth inhibition on colon cancer cells. *Am J Clin Nutr*, 55; 2: 185-194. 2006
33. Ciardiello, F, Caputo R, Bianco, R. Antitumor Effect and Potentiation of Cytotoxic Drugs Activity in Human Cancer Cells by ZD-1839 (Iressa), an Epidermal Growth Factor Receptor-selective Tyrosine Kinase Inhibitor. *Clinical Cancer Research*; 6: 2053-2063, May 2000
34. Ciardiello F and Tortora G. Interactions between the epidermal growth factor receptor and type I protein kinase A: biological significance and therapeutic implications. *Clinical Cancer Research*, 4.; 4: 821-828: 1998
35. Al-Achi. Anti-inflammatory Herbs. *U.S. Pharmacist.* 29:03 (Posted 03/15/2004)
36. Satoskar R R et al. Evaluation of anti-inflammatory property of curcumin in patients with post-operative inflammation. *Int J Clin Pharmacol Ther Toxicol* 1986; 24:651-54.
37. Murray M T. *The Healing Power of Herbs.* Prima Publishing, Rocklin CA; 1995: 327-35.
38. Arora R B et al. Anti-inflammatory studies on curcuma longa (turmeric). *Ind J Med, Res* 1971; 50: 1289-95.
39. Heck A. et al. Potential interactions between alternative therapies and warfarin. *Am J Health – Syst Phar*, 2000; 57, 13: 1221-1227.
40. Schweizer S et al. Workup-dependent formation of 5-lipoxygenase inhibitory boswellic acids analogues. *J Nat Prod* 2000, Aug; 63 (8): 1058-1061.
41. Etzel R. Special extract of boswellia serrata (H15) in the treatment of rheumatoid arthritis. *Phytomed* 1996; 3: 91-94.
42. Bradley P R et al. *British Herbal Compendium*, Vol 1, Bournemouth, Dorset, UK: British Herbal Med Assoc., 1992, 224-26.
43. Mills S Y et al. Effects of a proprietary herbal medicine on the relief of chronic arthritic pain: A double-blind study. *Br J Rheum* 1996; 35: 874-78.

References (cont'd)

44. Chrubasik S et al. Treatment of low back pain exacerbations with willow bark extract: a randomized double – blind study. *Am J Med* 2000 July; 109 (1):9-14.
45. Srivastava K C et al. Ginger in rheumatism and musculoskeletal disorders. *Medical Hypotheses* 1992; 39:342-8.
46. Bliddal H et al. A randomized placebo – controlled, cross-over study of ginger extracts and ibuprofen in osteoarthritis, osteoarthritis cartilage 2000, Jan; 8 (1): 9-12.
47. García-Mediavilla V, Crespo I, Collado PS, Esteller A, Sánchez-Campos S et al. The anti-inflammatory flavones quercetin and kaempferol cause inhibition of inducible nitric oxide synthase, cyclooxygenase-2 and reactive C-protein, and down-regulation of the nuclear factor kappaB pathway in Chang Liver cells *European Journal of Pharmacology*,557;2-3:221-229.
48. Steele VE, Holmes CA, Hawk ET, Kopelovich L, Lubet JA et al. Lipoxygenase inhibitors as potential cancer chemopreventives. *Cancer Epid Biomarkers and Prevention*, 8;467-4893.1999.
49. Jacobs E.J. et al. A large cohort study of long-term daily use of adult-strength aspirin and cancer incidence *Journal of the National Cancer Institute*; 99; 8: 608-615. 2007
50. Nesbitt PD et al. Human metabolism of mammalian lignan precursors in raw and processed flaxseed. *Am J Clin Nutr* 1995;69(3):549-55
51. Huthcins AM et al. Flaxseed influences urinary lignan excretion in a dose-dependent manner in postmenopausal women. *Cancer Epidemiol Biomarkers Prev* 2000;9(10):1113-8
52. Tham DM et al. Clinical Review 97 : Potential health benefits of dietary phytoestrogens : a review of the clinical, epidemiological, and mechanistic evidence. *J Clin Endocrinol Metab* 1998;83(7):2223-35
53. Zeigler J. Just the Flax, Ma'am: Researchers Testing Linseed. *J Natl Cancer Instit* 1994;86(23):1746-8
54. Brzinski A, Debi A. Phytoestrogens: the natural selective estrogen receptor modulators? *Eur J Obstet Gynecol Reprod Biol* 1999;85 (1):47-51
55. Tou JC, Thompson LU. Exposure to flaxseed or its lignan component during different developmental stages influences rat mammary gland structures. *Carcinogenesis* 1999;20(9):1831-5
56. Haggans CJ et al. Effect of flaxseed consumption on urinary estrogen metabolites in postmenopausal women. *Nutr Cancer* 1999;33 (2):188-95
57. Haggans CJ et al. The effect of flaxseed and wheat bran consumption on urinary estrogen metabolism in premenopausal women. *Cancer Epidemiol Biomarkers Prev* 2000;9(7):719-25
58. Thompson LU et al. Antitumorigenic effect of mammalian lignan precursor from flaxseed. *Nutr Cancer* 1996;26:159-65
59. Gross PE et al. Effect of dietary flaxseed in women with cyclical mastalgia. Program and abstract of the 23rd Annual San Antonio Breast Cancer Symposium. Dec 6-9 2000; San Antonio Texas. Abstract 153. *Breast Cancer Res Treat*. 2000;64:49
60. Muir C, Waterhouse J, Mack T, Powell J, Whelan S. Cancer incidence in five continents. Vol. 5 Lyon, France: International Agency for Research on Cancer, 1987. (IARC Scientific publication no. 88).
61. Coward L, Barnes NC, Setchell KDR, Barnes S. The isoflavones genistein and daidzein in soy bean foods from American and Asian diets. *J Agric Food Chem* 1993; 41: 1961-7.
62. Barnes S, Grubbs C, Setchell KDR, Carlson J. Soybeans inhibit mammary tumor growth in models of breast cancer. In: Pariza MW, ed. *Mutagens and carcinogens in the diet*. New York: Wiley-Liss, 1990: 239-53.
63. Cassidy A et al. Biological effects of a diet of soy protein rich in isoflavones on the menstrual cycle of premenopausal women. *Am J Clin Nutr* 1994; 60:333-40.
64. Molteni A, Brizio-Molteni L, and Persky V. In vitro hormonal effects of soybean isoflavones. 1995. *J Nutr*, 125: suppl:751S-756S
65. Chen X and Anderson JJB. Isoflavones inhibit proliferation of ovarian cancer cells in vitro via an estrogen receptor-dependent pathway. 2001. *Nutr and Cancer*, 41;1&2: 156-17
66. Constantinou AI, Lantvit D, Hawthorne M et al. Chemopreventive effects of soy protein and purified isoflavones on DMBA-induced mammary tumors in female Sprague-Dawley rats. 2001. *Nutr and Cancer*, 41;1&2: 75-81
67. Sartippour MR, Rao JY, Apple S et al. A pilot clinical study of short-term isoflavone supplements in breast cancer patients. 2004. *Nutr and Cancer*, 49;1: 59-65

Breast Cancer Prevention
The Top Ten List of Nutrition and Lifestyle Steps All Women Should Know
Copyright © 2011
Dr. James Meschino, DC, MS, ND
All Rights Reserved

This eBook may not be reproduced in any form, in whole or in part,
without the consent of the publisher.

www.meschinohealth.com
1 - 888 - 494-1010



facebook.com/Meschino.Health



twitter.com/#!/DrJamesMeschino