

# **Fighting Cancer with Natural Therapies**

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# **What is Naturopathic Medicine?**

- Naturopathic Medicine is a distinct system of health care. Practitioners seek to understand and educate their patients about the cause of illness, and use natural therapies to bring about greater health and wellness.
- Naturopathic interventions are evidence based, intended to support the body's inherent healing processes and uniquely chosen for each patient.

# **Naturopathic Medical Education**

- **Naturopathic Medical Education**
  - **4 year pre-med undergraduate education**
  - **4 years of Naturopathic medical school**
    - **2 years basic sciences**
    - **2 years clinical sciences**
  - **Board Exams**
- **Residency**

# Accredited Naturopathic Medical Schools

- **United States**
  - **Bastyr University- Seattle, Washington**
  - **National College of Naturopathic Medicine-Portland, Oregon**
  - **Southwest College of Naturopathic Medicine- Tempe, Arizona**
  - **University of Bridgeport College of Naturopathic Medicine- Bridgeport , Connecticut**
- **Canada**
  - **Boucher Institute of Naturopathic Medicine- New Westminster, British Columbia**
  - **Canadian College of Naturopathic Medicine- Toronto, Ontario**

# Licensed States / Territories

- Alaska
- Arizona
- California
- Connecticut
- Florida
- Hawaii
- Kansas
- Maine
- Oregon
- New Hampshire
- Puerto Rico
- Utah
- Vermont
- Washington
- Washington DC
- Virgin Islands

# **Naturopathic Medical Principles**

- **The Healing Power of Nature**
- **Identify and Treat the Cause**
- **First Do No Harm**
- **Doctor as Teacher**
- **Treat the Whole Person**
- **Prevention**

# **Naturopathic Medical Modalities**

- **Diet/Exercise**
- **Nutritional Supplementation**
- **Botanical Medicine**
- **Homeopathy**
- **Counseling**
- **Hydrotherapy**
- **Physical Medicine**
- **Acupuncture/ Acupressure**

# **How does Naturopathic Medicine fit within the healthcare model?**

- Naturopathic Doctors are nutrition and complementary healthcare specialists
- The principles and philosophies of Naturopathic Medicine are based on Patient Empowered Medicine and an Integrative Care Model
- Naturopathic Doctors are trained as physicians, providing a medical bridge between conventional and complementary care



# Principles of Fighting Cancer Naturally

- **Nutrition**
  - fiber, vegetables, fruit, fat, water
- **Exercise**
  - waist management, blood glucose.
- **Natural Therapeutics**
  - botanicals and nutrients such as garlic, green tea extract, vitamin D, calcium, curcumin.

# Nutrition

*“Let food be thy  
medicine, and let thy  
medicine be thy food.”*

**HIPPOCRATES**



# Healthy Eating Tips

- Choose a variety of foods
- Eat plenty of fruits and vegetables
- Use nonfat or low-fat dairy products
- Go lean with protein
- Limit intake of saturated fat, cholesterol and salt
- Watch the size of your portions
- Select high fiber foods and whole grains
- Choose water, milk, tea instead of soda

(American Dietetic Association)

# Nutrition

- Studies in cancer prevention show a strong connection between dietary habits, lifestyle and risk of carcinoma.
  - Consumption of fruit is negatively associated with cancer of the lung.
  - Consumption of vegetables, mainly onion and garlic, probably reduces the risk of the intestinal stomach cancer.
  - Consumption of red and processed meat is positively associated with colorectal cancer and stomach cancer in those infected by *Helicobacter pylori*.
  - Fish intake is negatively associated with colorectal cancer risk.
  - High alcohol intake increases the risk of breast cancer.
- Gonzalez, Carlos A. Riboli, Elio. Diet and cancer prevention: where we are, where we are going. Nutrition & Cancer. 56(2):225-31, 2006.

# The New American Plate™



2/3 (or more)  
vegetables,  
fruits,  
whole grains  
and beans

1/3 (or less)  
animal  
protein



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# Vitamin D, Folic Acid and Calcium

- Reported inverse relationship between serum vitamin D levels and human tumor incidence (breast, colon, pancreatic, prostate).
- Colorectal cancer may be partly related to hormonal action, since women are 30% less likely to succumb to colorectal cancer than men.
- Elevated dietary calcium, phytoestrogens and folate intake have a positive role in tumor prevention.
- Tumor prevention thought to be due to synthesis in colon cells of calcitriol, the active metabolite of vitamin D, since this hormone has profound antiproliferative, prodifferentiating and proapoptotic activity in colon cancer
- Cross, Heide S. Kallay, Eniko. Nutritional regulation of extrarenal vitamin D hydroxylase expression - potential application in tumor prevention and therapy. *Future Oncology*. 1(3):415-24, 2005 Jun.

# Adequate levels of Folic acid

- Maintaining adequate levels of serum folate from dietary sources and vitamin supplements can significantly reduce the risk of breast cancer.
- This protective effect of folate appears to be operative in subjects at risk for developing breast cancer, namely, women regularly consuming a moderate amount of alcohol.

Kim, Y I. Folate and cancer prevention: a new medical application of folate beyond hyperhomocysteinemia and neural tube defects. *Nutrition Reviews*. 57(10):314-21, 1999 Oct.

# **Aim for high fiber**

- **High-fat, low-fiber diet had an increase in the relative risk of developing colon cancer.**
- **However, consumption of a high-fiber and healthy protein diet was associated with a trend toward reduced rates of colon cancer.**
- **High fiber diet increases feeling of satiety**
- **Aids body with removal of toxins**

*February 10, 2003, issue of the Archives of Internal Medicine,*



# Soft drinks

- People eating 5 or more servings a day of added sugar daily were 69% more likely to develop pancreatic cancer.
- People who consumed 2 or more servings of soft drinks a day had a 93% greater risk of pancreatic cancer compared to those who abstained from soft drinks.
- Thought to be due to decreased sensitivity to insulin due to increased levels in bloodstream and putting

stress on pancreas. (American Journal of Clinical Nutrition, November 2006)

# Glucose levels and Diabetes

- For women, total cancer risk increased with rising plasma glucose levels in non-DM people.
- High fasting glucose was significantly associated with an increased risk of cancer of the pancreas, endometrium, urinary tract, malignant melanoma. (Diabetes Care 2007;30:561-567)
- Increased glucose levels (prediabetic) and diabetes increased risk for developing colon cancer, related directly with higher sugar = increased risk. Possibly due to lifestyle factors (Cancer Epidemiology and Biomarkers, June 2004)
- Increased glucose levels = increased risk for cancer

# “Waist” management

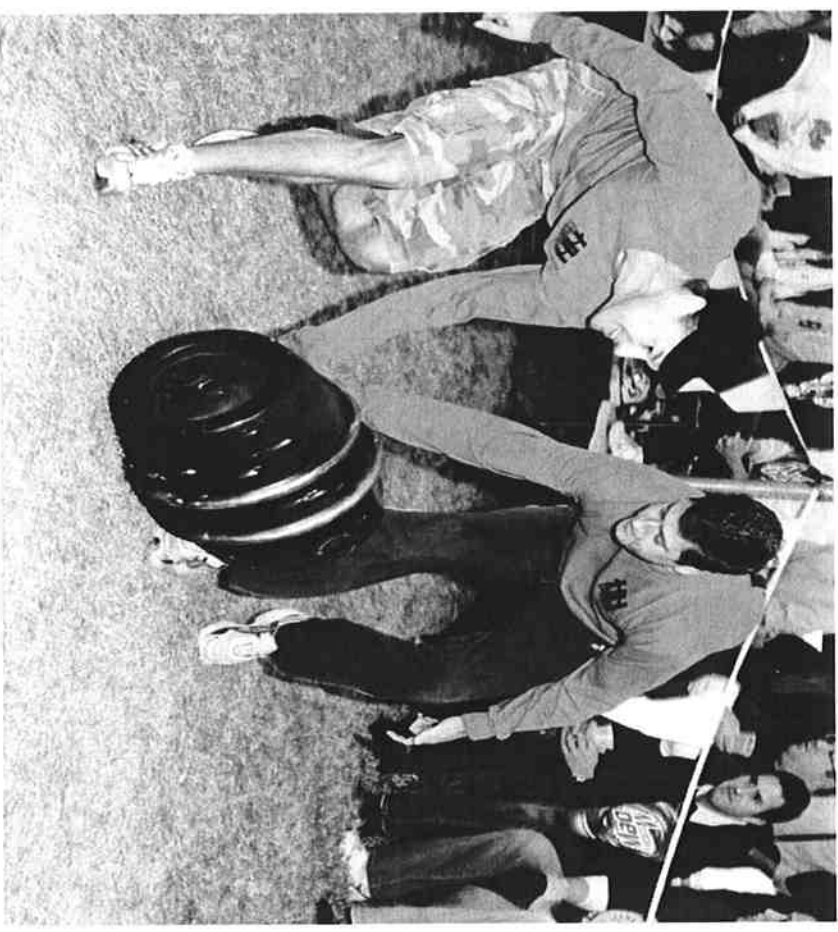
- Increased risk of endometrial cancer with women with obesity, low physical activity high-glycemic load diet, high carb diet (*Int J Cancer* 2007;120:1103-1107)
- Increased abdominal weight → increased pressure leading to more GERD –Esophageal cancer (*Journal of Diabetes Nursing*, August 2005)
- Excess hormones, which are stored in fat, lead to increased risk for breast, endometrial, colon cancers (*Journal of Diabetes Nursing*, August 2005)

# **“Waist” management**

- **Waist size and waist to hip ratio increase risk of colon cancer.**
- **Women with highest waist-to-hip ratio had a 48% higher risk of being diagnosed with colon cancer and men in the same group had a 39% higher risk. BMI was only linked to colon cancer for men. Theorized abdominal fat increases insulin and IGF-1, which promotes tumor growth. (Journal of the National Cancer Institute, July 2006)**

# Exercise: get moving!

- *Women who exercise regularly are more sensitive to insulin and have lower levels in bloodstream, associated with a 20% decreased risk of breast cancer in Caucasian and African American women except with women with a family history of breast cancer. (Journal of National Cancer Institute, November 2005)*



# Exercise

- Exercise (3-4 hours weekly of recreational activity or household chores) decreased likelihood of diagnosis of endometrial cancer by 12% in postmenopausal women and in premenopausal women decreased risk by 34% - thought due to decreasing estrogen levels, decreasing body fat and lowering insulin levels. (International Journal of Cancer, July 2007)
- Six or more hours a week of strenuous activity reduces risk of invasive breast cancer by 23% if they did not have a family history of breast cancer, independent of when the physical activity took place. Thought due to decreased estrogen levels, increasing insulin sensitivity and preventing weight gain. (Cancer Epidemiology Biomarkers and Prevention, February 2007)

# Maintain Healthy Weight

- Excess weight (obese or overweight), is associated with: 14% of colon cancers, 11% of breast cancers, 49% of endometrial cancer, 31% of renal cancer, 39% of esophageal cancer, 14% of pancreatic cancer, 20% of non-Hodgkin lymphomas, 17% of multiple myeloma cancers. (Rauscher, Reuters Health, November 2005).