

PHYTONUTRIENTS: REDUCING CANCER RISK

Reasons for Including These Foods in Your Daily Menu:

LEGUMES: Includes peas, lentils and beans (such as soybeans and pinto beans). The known phytochemicals in these foods include saponins, phytic acid, and protease inhibitors. They are also rich in dietary fiber, which has been shown to lower the risk of developing colorectal cancer and provide an excellent source of folate. Legumes are also a good source of magnesium, calcium, iron, potassium... all of which link this inexpensive food to disease prevention.

BERRIES: Berries (strawberries, blackberries, raspberries and blueberries) have long been known to contain rich amounts of vitamin C and fiber, but they are also rich in ellagic acid, which has several cancer protecting properties. Strawberries also contain a wide range of flavonoids and blueberries are high in phenolic compounds called anthocyanosides considered to be very potent antioxidants.

CRUCIFEROUS VEGETABLES: This plant food category includes broccoli, cauliflower, kale, brussels sprouts, cabbage and bok choy. These low carbohydrate veggies are linked to prevention of cancers of the mouth, larynx, pharynx, esophagus, and stomach. Identified phytonutrients in these foods include glucosinolates, isothiocyanates (derived from glucosinolates), indole-3-carbinol, and crambene. These sulfur-containing vegetables may help regulate a system of enzymes in the body which defend against cancers, including tumors of the breast, lung, colon, cervix, liver, and endometrium.

DARK GREEN LEAFY VEGETABLES: Spinach, romaine and leaf lettuce, mustard and collard greens, chicory and swiss chard are excellent sources of fiber, folate and carotenoids (including lutein and zeaxanthin, plus saponins and flavonoids). Carotenoids seem to prevent cancer by acting as antioxidants and scavenging "free radicals" from the body before they have time to do harm. These folate-rich foods can also protect against pancreatic cancer, among others.

FLAXSEED: Here's a seed grain that continues to enjoy good press as more is learned about it. It is available as flaxseed flour, meal (more coarse) and oil, but is not digested if served in seed form. It is best to grind the seed (try using a coffee bean grinder) in amounts to be used within a month. Refrigerate the meal or flour in a tightly sealed container to preserve freshness. Flaxseed is rich in lignans which are classified as plant estrogens. Plant estrogens may mimic the action of estrogen in the human body, and possibly inhibit the formation of tumors in the colon, breast, skin, and lung. Flax is also the richest plant source of alpha-linolenic acid (an omega-3 fatty acid), offering added protection from some cancers as well as heart disease. [Note: flax seed and flax seed oil, taken in large quantities, can reduce blood clotting and may interact with such drugs as aspirin, known to have a similar effect. Current recommendations: 2 T ground flax seeds daily]. Do not depend solely upon flaxseed as your source for omega-3 fatty acids (FAs). Fish oils, including salmon, cod liver oil and krill oil, are advised as the best source for useable Omega-3 FAs.

GARLIC: The family of vegetables called 'Allium' includes garlic, leeks, onions, scallions and chives. These vegetables are known to keep away more than vampires. In fact, they offer protection from

stomach and colorectal cancers. In this case, the more garlic or onion ingested, the greater the protective effect. Identified phytochemicals in garlic include allicin, allixin, allyl sulfides, quercetin, and organosulfur compounds. Diallyl disulfide in garlic has recently been identified as killing leukemia cells in the lab.

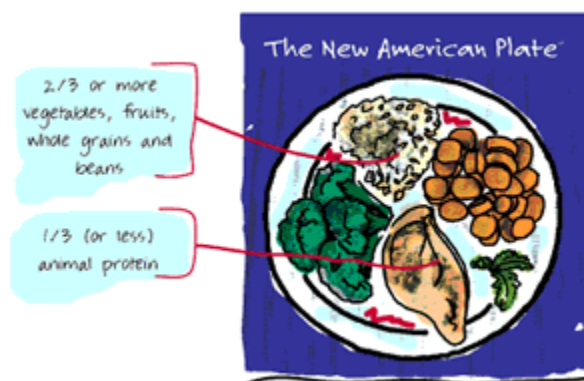
GRAPES & GRAPE JUICE: These foods contain resveratrol, a compound that belongs to a large group of phytochemicals called polyphenols. The beneficial resveratrol is most concentrated in the skin of the grape, and the red and purple varieties of grapes contain more of this compound than do green grapes. While red wine has received much press as now being a health food, the non-alcoholic juice is at least as rich in this antioxidant without the added cancer and other health risks that goes with consuming more than 6-8 oz. of wine daily. Resveratrol may prevent cell damage that can trigger the cancer process.

GREEN TEA: While both black and green teas contain polyphenol and flavonoid antioxidants, green tea contains 3x more catechins than does black tea. Catechins are a flavonoid being studied for their anti-cancer potential. Regular consumption of green tea has been associated with lower risk of bladder, colon, stomach, pancreatic and esophageal cancers. There is still insufficient evidence, however, to make a direct link between tea consumption and lowered cancer risk. Very high amounts of green tea can interact, like high amounts of flax seed with aspirins and blood-clotting time, so avoid this in supplement form).

TOMATOES: Lycopene is the antioxidant responsible for the bright red color of this fruit. Lycopene and related compounds are found concentrated in tissues of the healthy prostate. Consumption of tomato products is linked to a significant drop in prostate cancer. Normally, we recommend foods with minimal processing to derive the greatest health benefits. However, in this case, it appears that processing tomatoes into sauces and juice allows for the protective compound to be more easily absorbed. Enjoy other veggies and fruits in the “red” family for their overall health benefits.

The Concept of SYNERGY in fighting Cancer through Plant-Based Foods

While no single food can protect us from cancer, continued research suggests that a diet focused on plant foods rich in vitamins, minerals and phytonutrients offers real protection against cancers. The beneficial interaction of these components from our foods (conceptually called “synergy”) is continuing to show promise. The American Institute for Cancer Research (AICR) now advises that Americans fill at least 2/3 of their meal plate with vegetables, fruits, whole grains, and legumes. While researchers continue to unravel the specifics of how and why these foods may prevent or interrupt the development of tumors, we can make lifestyle changes now to include more of these foods in our meals and snacks.



Additional Reading & Resources

- <http://www.aicr.org>
- <http://www.eatright.org>
- http://www.cancer.wisc.edu/uwccc/article_cancer_nutrition.asp
- <http://www.healthcastle.com>
- <http://www.purdue.edu/UNS/html4ever/020617.Handa.lycopene.html>
- <http://www.ific.org>