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March 24, 2005 - You need to heed this killer and take the steps today to protect yourself and your family against this deadly cancer. Fortunately, colon cancer has a high level of remission if detected and treated early, but why not avoid it altogether? I'll share with you substantial medical research that shows how a few powerful nutrients and foods may significantly reduce your chances of developing colon cancer, even if you have a family history of the disease.

Simple Steps to Colon Cancer Prevention

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In this week's newsletter, I want to explore with you very encouraging medical studies highlighting several important nutrients in the fight against colon cancer. Using these specific nutrients together introduces us to a term that you might not yet be familiar with - chemoprevention. Chemoprevention is a strategy whereby people take a supplement or medication to try and decrease the risk of a certain disease. Colon cancer may be very amenable to chemoprevention, and today we'll review the several nutrients involved in its prevention.

First, I want to share with you a little background on colon cancer. Cancer of the colon (large intestine) affects approximately 130,000 Americans each year, and over 55,000 die. In fact, it ranks second only to lung cancer as a leading cause of cancer death. It primarily affects people over the age of 50, but can occur in younger people as well. These statistics are made even more somber by the fact that colon cancer is curable if treated early, and may even be preventable. Early detection and treatment is key in your battle against colon cancer, but a potentially more promising avenue of attack is chemoprevention.

Many colorectal cancers start out as colon polyps. Colon polyps are small growths of tissue that can occur in the lining of your colon. Detection of colon polyps (primarily by colonoscopy) and their removal may decrease your chance of getting cancer by 70 to 90%. It is generally thought that you may have a genetic predisposition for the development of colon cancer and polyps, and those environmental factors, even diet play a role. Dietary factors that may include a lack of certain nutrients, such as omega-3 fats, fruits, vegetables, fiber, antioxidants, calcium, selenium (I detail the science behind these findings and how you can easily supplement them later), high levels of refined flour (white bread, pasta, etc) and "bad fats" (fried foods), sugar and nitrates.

However, I think we'd all like to avoid developing the polyp-cancer precursors from the beginning, and that is why our chemoprevention strategy is so attractive. It involves just a few basic supplements and foods that have shown significant benefits in the prevention of colon cancer.

Let's begin with the B vitamin **folic acid. (GNLD's Vitamin B Complex / Lipotropic Adjuct)** A growing volume of evidence is accumulating that folic acid may be a very important nutrient in colon cancer risk reduction. Folic acid is important for the synthesis and repair of your DNA. Conversely, a lack of folic acid may cause abnormalities in your DNA repair that can lead to the development of malignant cells. Data suggests that people with the highest intake of folic acid have a 40% reduction in the risk of colon cancer. In fact, in the *Harvard Nurses Health Study*, there was a 75% reduction in the rate of colon cancer in women who took a multi-vitamin containing folic acid. Recent evidence also indicates that folic acid may reduce the occurrence of colon polyps, which as we've discussed, are often precursors to colon cancer. The dosage of folic acid that will give you the optimal benefit should be 1 mg per day or higher. This is much higher than the typical

diet will provide and what is in the typical multi-vitamin.

Calcium (GNLD's Calmag - Calcium + Magnesium) is another key nutrient in reducing the risk of colon cancer. The February 2005 issue of the *Journal of the American College of Gastroenterology* contained some exciting information on this topic. Doctors from the State University of New York at Buffalo and McMaster University in Canada reviewed the available studies on supplemental calcium preventing recurrent colorectal polyps. The dosages in the studies ranged from 1,200 to 2,000 mg per day. Their analysis revealed that the occurrence rate of polyps was lower in the group of patients that received supplemental calcium. The accompanying editorial agreed that calcium supplements should be used to prevent recurrent colorectal polyps.

Another study in the *American Journal of Clinical Nutrition* estimated that adding calcium and **Vitamin D (GNLD's Vitamin A+D)** to all cereal and grain products may decrease colon cancer deaths by 20%, saving approximately \$1 billion per year in health care costs. Since calcium supplementation may also help you lose weight and reduce the risk of cardiovascular disease and osteoporosis, there is really no downside to calcium supplementation **as long as you include magnesium**: Too much calcium impairs what little magnesium you obtain from the diet; magnesium is critical for normal blood pressure and heart function.

As seen in the previous study, Vitamin D is often taken with calcium for added benefits in regards to healthy bones. The two also seem to have an important link in the fight against colon cancer. It may be that this combination has additional benefits over calcium alone in colon cancer prevention. A study in the *Journal of the National Cancer Institute* suggested that calcium supplementation worked best in those people taking supplemental Vitamin D. Also; Vitamin D levels were associated with reduced occurrence of polyps only in those people who were taking supplemental calcium. So, it looks like there may be an additive effect between Vitamin D and calcium when taking the two together.

As stated earlier, magnesium is another nutrient that is critical to take with calcium. Magnesium is an essential mineral, and has many functions in your body, including healthy bones, regulated blood pressure and heart function. Further, people that suffer from migraine headaches often have magnesium deficiency. There is emerging evidence that magnesium may decrease your risk of colon polyps: Several studies indicate a trend towards decreased incidence of cancerous polyps in people with the highest intake of magnesium. Additionally, numerous animal studies indicated that magnesium may have help decrease the risk of colon cancer in rats that were given chemicals inducing colon cancer.

Several studies have also shown that people with lower levels of **selenium (GNLD's Betaguard / Formula IV)** have an increased risk of colon cancer and polyps. Selenium is a vital nutrient to the function of your immune system. One study has indicated that selenium may decrease polyp formation in the same fashion as non steroidal anti-inflammatory agents (such as Celebrex) by affecting the COX-2 enzyme, but without the deadly side effects. A landmark study in 1997 showed that supplementation with 200 mcg of selenium (in the form of selenomethionine) dramatically decreased the risk of developing colon cancer (as well as prostate and lung cancer). Ongoing research is looking at the protective effects of selenium in reducing the development of colon and prostate cancer.

Green tea (GNLD's Herbal Digestive Formula) is a well-researched antioxidant that has numerous benefits to you, including possible activity against many forms of cancer, including colon cancer. The major active component of green tea appears to be epigallocatechin-3-gallate (EGCG). In cell culture and rat model studies, this compound has been shown to have a protective effect against colon cancer. It may act by promoting death of abnormal cells, and/or by affecting the COX-2 enzyme that plays a role in abnormal colon cell growth. Some epidemiological studies have supported a decrease in colon cancer risk among those people who drink large amounts of green tea. In studies

that have not shown benefit, one of the mitigating issues may be that the dosage was not high enough. In fact, it may well be that in order to show a consistent preventative effect, the dosage of green tea or its components need to be higher than one would get when simply consuming green tea. This is where a high potency green tea extract may play a role. I would like to see further studies focus on supplemental green tea extract and its role in risk reduction.

Omega 3 fatty acids (GNLD's Omega 3) are commonly found in salmon, tuna, sardines and fish oil supplements. Epidemiologic studies have shown that two components of fish oil, DHA and EPA, may exert a protective effect against colon cancer. They may function by modulating the balance between your cell growth and death, which are key factors in the development of cancer and polyps. Since fish oil is also good for your cardiovascular system, supplementing your diet with it has many benefits, and I strongly recommend it.

Several other nutrients that are in preliminary investigation for colon cancer prevention include **resveratrol, curcumin** and **probiotics**. Resveratrol is the active ingredient in red wine that provides incredible benefits; curcumin is the active ingredient in the herb turmeric. Both are powerful antioxidants and provide numerous health benefits. There are over 80 studies in medical literature indicating both nutrients inhibit cancer cell growth and even cause cancer cell programmed death (apoptosis). **(GNLD's Phytodefence which contains Carotenoid Complex, Flavonoid Complex, and Cruciferous Complex is the most power antioxidant answer to fighting cancer of any kind... See website... www.gnld.co.za or www.friendlyforce.co.za).**

Finally, fibre not only lowers cholesterol and reduces the risk of heart disease and stroke but - based on a study in the Feb 2004 *American Journal of Clinical Nutrition* - fibre reduced the risk of colon cancer by up to 78%! Fruits and vegetables also reduced the risk of colon cancer by up to 71%, but the authors stressed it takes at least five servings per day to achieve the benefits. **(Use GNLD's Fibre which contains all 6 types of fibre found in nature).**

So where can you get all these nutrients that have been shown to potentially reduce the risk of colon cancer? GNLD. GNLD Formula IV contains many of the nutrients in this newsletter. The B vitamins are helpful for decreasing homocysteine levels, a risk factor in cardiovascular disease and Alzheimer's/dementia. The calcium and green tea have both been shown to be helpful in weight reduction. So you will get more than just a healthy colon, you will get a healthier you!

Colon cancer is a preventable disease with proper diet, nutrition and screening. If you are at risk for the development of colon cancer because of a history of colon cancer or polyps in your relatives, please speak with your doctor soon about appropriate screening measures. And if you are over 50, it is recommended that you have a colonoscopy about every 10 years.

GNLD Recommendations:-

Use GNLD's Formula IV, Vitamin B Complex, Lipotropic Adjunct, Calmag, Digestive Herbal Formula, Omega 3, Fibre and Aloe Vera Plus as a part of your daily regimen to keep this silent killer at bay.

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