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Austin Quan Yin Newsletter
The Better Health News

Special Interest Articles:

More Fiber Means Less Fat

The amount of fiber you consume may have something to do with the amount of extra weight you carry around. There are two places where the body can gather fat, subcutaneous (beneath the skin) tissue and visceral tissue, which is fat around the organs. A study of 85 Hispanics between the ages of 11 and 17 was published in the *American Journal of Clinical Nutrition* (2009; 90(5): 1160-6) looked at the relationship between dietary fiber and the amount of visceral fat. Information about the subjects' diets was obtained from what they could recall from the previous two days. Body fat was measured using MRI and dual-energy X-ray absorptiometry. It was found that higher dietary fiber intake was associated with less fat around the organs. The researchers found that even minor reductions in fiber intake had a profound effect on the subjects having an increase in fat.

Free Radicals and Antioxidants

You may have come across terms like "antioxidant", "free radical" or "oxidative stress". A free radical is a chemical that readily gives up an electron—it sort of fires the electron like a chemical bullet. Free radicals can damage tissue and produce inflammation; they create oxidation. Sometimes the term "oxidative stress" is used to describe the damage done by free radicals. Oxidative stress has been linked to cancer, aging, atherosclerosis, ischemic injury, inflammation and neurodegenerative diseases (Parkinson's and Alzheimer's). Flavonoids may help provide protection against these diseases by contributing to the total antioxidant defense system of the human body. Antioxidants are vitamins, nutrients and phytochemicals that act like little "bullet-proof vests". Antioxidants, like vitamins C and E, bioflavonoids, lipoic acid, coenzyme Q10 and other substances found in the diet and taken as supplements act to protect the cells.

Anxiety and Choline

Choline deficiency is associated with fatty deposits in the liver. It may also be related to cirrhosis of the liver, atherosclerosis and high blood.

A study appearing in the *American Journal of Clinical Nutrition* (2009, 90(4): 1056-60) looked at anxiety and its relationship to the amount of choline in the blood. The two groups of subjects in the cross-sectional study were between the ages of 46 and 49 or 70 and 74. The Hospital Anxiety and Depression Scale was used to evaluate the 5,918 subjects. It was found that there was an inverse relationship between plasma choline and anxiety. The relationship did not extend to depression and no relationship between choline levels and depression was found.

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CoQ10 and Cancer

Research appearing in the *Journal of the American Academy of Dermatology* (2006; 54(2): 234-41) looked at the relationship between conenzyme Q 10 (ubiquinone) levels and malignant melanoma. The study compared 117 patients with melanoma to 125 matched controls who were free of the disease. The average age of the subjects was 55; with 79 of them in the early stages of the disease and 38 in the late stages of the disease. The controls were cancer-free and matched to the subjects for age, sex, occupation, and place of birth.

The researchers found that the ubiquinone levels in the subjects with the disease were significantly lower than in the controls. Furthermore, ubiquinone levels seemed related to whether the patients would develop metastasis or not. Over 32% of the patients developed metastasis during the 34 month follow-up period. The CoQ10 levels of the patients with metastasis were much lower than the levels of the patients who did not develop metastasis. Metastasis developed in 35 of the 82 melanoma patients with low CoQ10 levels, compared to only 3 of the 35 patients with higher levels. Also, 17 of the patients with low levels died during the course of the study. None of those with high CoQ10 levels died during the course of the study.

Choline and Breast Cancer

Choline is grouped with the B vitamins. In the strictest sense of the word, choline is not a vitamin because humans can manufacture small amounts of it. But dietary consumption of choline is necessary because we cannot synthesize enough to maintain health. Most of the choline in the body is found in phospholipids, the most common of which is lecithin, or phosphtidylcholine. It functions with inositol as a basic constituent of lecithin. It is in egg yolk, liver, brewer's yeast and wheat germ. It is associated with the utilization of fats and cholesterol in the body. It prevents fats from accumulating in the liver and facilitates the movement of fats into the cells.

Choline is also essential for the health of the myelin sheaths of the nerves. It also helps to regulate and improve liver and gallbladder functioning and aids in the prevention of gallstones.

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Choline is important for the integrity of the cell membranes (which are partially made of phosphlipids). It is also important for cell signaling, which is communication among individual cells so as to coordinate their behavior to benefit the organism as a whole. Choline is important for fat metabolism, and without adequate choline, fat can accumulate around the liver. Choline is necessary for the production of acetylcholine, which is an important neurotransmitter.

Recent research, appearing *in The Federation of American Societies for Experimental Biology Journal (FASEB J)* epublished January 29, 2008 ahead of print, found that choline may play a role in preventing breast cancer. The researchers compared dietary data from 1,508 women with breast cancer and 1,556 women without breast cancer. They found that women who consumed the most choline (more than 450 mg/day), had a lower incidence of breast cancer when compared to women who did not consume a lot of choline. Women consuming 450 mg/day of choline have a 24% lower risk of breast cancer when compared to women who consume less than 200 mg/day of the nutrient.

Choline is also essential for the health of the myelin sheaths of the nerves. It also helps to regulate and improve liver and gallbladder functioning and aids in the prevention of gallstones.

Natural Headache Relief

A combination of nutrition and hands-on therapy is usually very effective in treating headaches. Detoxification is one possible way to bring headaches under control. Simple things work very well in treating headaches. Often people who get headaches have habits that are causing the headaches, but have not made the connection between their lifestyle and their symptoms.

One obvious thing that can be done is to quit eating refined sugar and to eat regular meals. Research that appeared in the journal *Headache* (May 1978;18:91-94) a study appeared that looked at 74 subjects who suffered from migraine headaches and their blood sugar levels. The subjects were give glucose tolerance tests (GTT) and it was found that six of the patients had results that suggested diabetes and 56 had results that suggested reactive hypoglycemia. A diet free of sucrose, and eating six small meals per day improved the GTT results in most of the six patients with the diabetic patterns and half of those subjects became headache free. Of the 56 subjects with the hypoglycemic GTT result, of the 43 subjects who returned for a follow up, just about every one had improvement of their GTT curve and reduction in pain.

The kinds of fats in the diet can affect whether or not you have headaches. One article appearing in the journal Medical Hypotheses (1998;50:1-7) postulated that migraines may be linked to blood lipids, much the same way that cardiovascular disease is. Research appearing in the *American Journal of Clinical Nutrition* (1985;41:874) found that supplementation with fish oil reduced the frequency and severity of migraine headaches. Indeed, many research articles have shown the value for omega-3 fatty acids for pain and inflammation.

B vitamins may be of value for migraine patients in the same way that bringing blood sugar under control is helpful. Also, there is some research to show that high dose of riboflavin can help migraine patients. Research appearing in the journal *Cephalgia* (1994;14:328-329) tested the results of giving 400 mg/day of riboflavin to subjects with migraine headaches. Half of the subjects were also given 75 mg. of aspirin. There was a mean global improvement of a little over 68% in the headache scores. The group receiving the aspirin did no better than the group receiving riboflavin alone. The *European Journal of Neurology* (2004;11:475-477) also ran a study that found that giving riboflavin reduced the frequency of headaches and the use of medication.

Magnesium is so well researched that it should always be considered for patients with headaches. One article appearing in the journal *Vitamins and Hormones* (2004;69:297-312) spoke of the value of magnesium, coenzyme Q10 and vitamin B_{12} for headache patients.

Gluten and Irritable Bowel

Celiac disease is more widespread than we previously believed.

An article appearing in the journal *Gastroenterology* (June 2004;126(7):1721-1732) spoke of the connection between celiac disease and irritable bowel syndrome. The article noted that 75% of patients with celiac disease (gluten sensitive enteropathy) had the symptoms of irritable bowel syndrome (especially when diarrhea is present). Patients with celiac disease often do well on a gluten-free diet. The authors suggest that it may be a good idea to test patients with irritable bowel for celiac disease. Celiac disease is more widespread than we previously believed.

Vitamin C and Cancer

An animal study appearing in the *American Journal of Clinical Nutrition* (1991;54:1256S-60S) demonstrated that vitamin C inhibits kidney tumors induced by estrogen. The *Journal of the National Cancer* Institute (1990:82:561- 569) stated that there was an inverse association with breast cancer risk. In many circles there has been interest in vitamin C as an adjunctive cancer treatment. In a symposium held by the National Cancer Institute in December, 1990, 40 papers were presented that showed the value of vitamin C for cancer patients. A number of other animal studies showed the inhibitory effect of vitamin C on tumor growth. IV vitamin C has actually shrunk tumors in patients with adenocarcinoma (IV vitamin C is used extensively in Germany for cancer patients).

Vitamin C protects the cell as an antioxidant. In the journal *Biological Chemistry* (May 10, 2002;277(19):16895-16899) demonstrated that vitamin C prevented mutations in cell exposed to oxidative stressors. Another study appearing in *FEBS Letters* (1998;363:363-367) showed that vitamin C plays a role in repairing DNA. Vitamin C also enhances natural killer cell activity (cells important in immunity and fighting cancer), according to research in *Nutrition Research* (1993;13:753-764).

Granted, a lot of these studies are small, involve animals or took place in a Petri dish, but the results are hopeful. Also, vitamin C is very inexpensive. Considering that vitamin C plays a role in cancer therapy in other countries, perhaps we should look into it as well.

Citicoline May be Good for Your Brain

"A wise man should consider that health is the greatest of human blessings, and learn how by his own thought to derive benefit from his illnesses."— Hippocrates

Citicoline is a substance that is important for the production of cell membranes. It is found naturally in the body and is sometimes used as a nutritional supplement. It is necessary for the production of gray matter in the brain. Earlier research has shown it to be useful for helping protect the brain from damage due to a stroke; it seems to help protect the nerve cells when they are deprived of oxygen.

A recent study appearing in *NMR in Biomedicine* (2008; 21(10): 1066-75) looked at the role citicoline has in mental function. The subjects of the study were 16 men and women with no health problems. They were supplemented with either 500 mg/day or 2000 mg/day of citicoline for a period of six weeks. The researchers found that the supplementation improved brain chemistry in the subjects (improvements in phospholipid turnover in the brain increase in phosphocreatine, and increased ATP [for energy production] in the brain). The benefits were observed via sophisticated brain imaging techniques. The study demonstrated that healthy middle-aged adults (mean age 47) had increased energy and electrical activity in the frontal lobe of the brain - the portion of the brain that controls higher thought, decision making and focus. It was actually found that the lower dose of the supplement worked better than the higher dose. The authors concluded that citicoline supplementation may help with cognitive decline associated with aging.