

Austin Quan Yin Newsletter

The Better Health News

Special Interest Articles:

- Olive Leaf and Blood Pressure
- Anger and Breathing
- CoQ₁₀ and Parkinson's Disease
- Reflux Medication, Good or Bad?
- Can Supplements Prevent Blindness
- Diet and Inflammatory Bowel Disease
- Simple Changes May Prevent Alzheimer's Disease

Bowel Flora and Antioxidant Status

According to research appearing in the *Proceedings of the Nutrition Society* (2007, Volume 66) supplementing with prebiotics and probiotics can improve antioxidant status. Prebiotics are supplements that feed normal bowel flora, like fructo-oligosaccharides. Probiotics are supplements that actually contain the desirable flora. Improving antioxidant status protects the body against oxidative stress. Oxidative stress is a threat to health. It can be at the root of serious diseases like heart disease and cancer, or simply make you fatigued. Oxidative stress is caused by chemicals in both the diet and the environment. Many of these chemicals produce free radicals, which are electrons that are not

tightly bound to the molecule. These electrons interact with the body. Think of the chemicals as electronic "bullets". Antioxidants are the body's "bullet-proof vests". Free electrons cause damage to tissue and inflammation. This can seriously undermine your health. Oxidative stress can be measured by looking at certain biomarkers. In a double-blind, placebo controlled study, one group received maltodextrin as a placebo, while the other group received a combination of probiotics and prebiotics for three weeks. The group receiving the pre- and probiotics enjoyed improvement in the biomarkers or oxidative stress.

EPA and Triglycerides

A double-blind, placebo-controlled study appeared in the *American Journal of Cardiology* (published ahead of print June 15, 2011). The subjects consisted of 229 patients with high triglyceride levels (500-2000) with fasting. Subjects were given an omega-3 fatty acid supplement (either 4 grams per day or 2 grams per day of a product containing 96% of the ethyl ester of EPA) or a placebo. Overall, patients with triglycerides higher

than 750 at the start of the trial, experienced a 45.4% reduction when taking 4 grams per day of the EPA. Those taking 2 grams per day had a 32.9% reduction. The authors of the study concluded that the EPA supplement "significantly reduced the triglyceride levels and improved other lipid parameters without significantly increasing the LDL cholesterol levels.

Olive Leaf Extract and Blood Pressure

After eight weeks of treatment, the olive leaf extract performed comparably to the drug.

In a randomized, double-blind study published in *Phytomedicine* (2011 Feb 15; 18(4): 251-8) involved patients with stage 1 hypertension and tested the efficacy of treatment with olive leaf extract. Two groups of patients were treated with either Captopril or olive leaf extract. Captopril is in a group of drugs called ACE inhibitors. ACE stands for angiotensin converting enzyme. At the start of the study, the mean systolic (top number) blood pressure was 148.4 in the group receiving the drug and 149.3 in the group receiving the olive leaf extract. After eight weeks of treatment, the olive leaf extract performed comparably to the drug. The olive leaf extract decreased the

systolic blood pressure by 11.5, the Captopril reduced the systolic blood pressure by 13.7. The diastolic (bottom number) blood pressure was reduced 4.8 by the olive leaf extract and 6.4 by the Captopril. The group receiving the olive leaf extract enjoyed an additional benefit, a significant reduction in triglyceride levels. According to the authors of the study, "Olive (*Olea europaea*) leaf extract, at the dosage regimen of 500mg twice daily, was similarly effective in lowering systolic and diastolic blood pressures in subjects with stage-1 hypertension as Captopril, given at its effective dose of 12.5-25mg twice daily."

Anger and Breathing

Anger is a risk factor for cardiovascular disease. Research published in the journal *Thorax* (2006; 61(10):863-8) indicates that hostility and anger constricts the airways and may actually cause pulmonary function to decline over time. The subjects of the research were 670 men. Their level of hostility was determined by using the Cook Medley Hostility Scale. Lung function was measured three times over an 8.2 year

period by measuring forced vital capacity and forced expiratory volume with a spirometer. There was an association between decline in pulmonary function and levels of hostility, even when other risk factors, such as smoking were accounted for.

CoQ₁₀ and Parkinson's Disease

Parkinson's disease is a progressive, chronic neurologic disease that affects half a million Americans. It may cause shaking (tremor), muscle stiffness (rigidity), slowing of movement, impaired balance or other symptoms. Patients often experience a loss of automatic movements; things like smiling, blinking, swinging the arms when walking are often diminished or lost. Parkinson's disease is a common movement disorder. Parkinsonism describes a group of conditions that has symptoms similar to those of Parkinson's disease. A study that appeared in the *Archives of Neurology* (October 2002, Vol. 59, No. 10, pp. 1541-1550) looked at the effect supplementation with CoQ₁₀ (coenzyme Q₁₀) had on patients with Parkinson's disease. CoQ₁₀ is necessary for energy production in the cell, and it works as an antioxidant to protect cells from chemical damage.

Earlier studies have demonstrated that coenzyme Q₁₀ levels are reduced in the cells of patients with Parkinson's disease and that cellular energy production in these patients is impaired. Studies on animals have shown that CoQ₁₀ supplementation can protect the area of the brain that is affected by Parkinson's disease.

A separate study looked at 80 patients with early-stage Parkinson's disease. All of the subjects had

classic symptoms, tremor, stiffness and slowed movement. The subjects were divided into four groups. One group received a placebo (containing only vitamin E), with the other three groups getting vitamin E and either 300 mg/day, 600 mg/day or 1,200 mg/day of CoQ₁₀. The subjects were evaluated one month after the initiation of treatment and for every four months thereafter (for a total of 16 months).

Side effects from the CoQ₁₀ were mild, and all subjects were able to stay on the original dose. Also, the percentage of subjects reporting side effects were the same for both the treatment and the placebo groups. The groups receiving 300 mg/day and 600 mg/day of the CoQ₁₀ developed less disability than the placebo group. The subjects who received 1,200 mg/day of CoQ₁₀ had 44% less decline in motor function, mental decline and the ability to perform tasks necessary for daily living.

The subjects receiving the CoQ₁₀ also had increase in blood levels of CoQ₁₀ and improved energy production in the cells. This was a small study and is far from conclusive, but none the less, beneficial results were demonstrated.

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Reflux Medication, Good or Bad?

A study performed on mice showed that acid suppressing medications (proton pump inhibitors, like Prilosec and Prevacid) may actually aggravate the conditions that they are designed to treat. The stomachs of mice treated with these drugs developed more inflammatory changes and had greater bacterial infestation than those who were not treated (when the researchers treated normal mice with the proton pump inhibitor omeprazole for two months, they noticed that these mice also developed stomach inflammation that was due to bacterial overgrowth).

Bacteria cause an inflammatory response in the stomach, which in turn causes the over production of hydrochloric acid. The bacterial infestation causes the production of chemicals called cytokines. These cytokines causes the production of a hormone, called gastrin. The acid producing cells of the stomach, called parietal cells, produce hydrochloric acid in response to the gastrin production. The acid production is the body's defense mechanism designed to kill the invading microbes. Interfering with acid production by using omeprazole interferes with the body's defense against these bacteria.

The researchers compared responses in normal mice with mice genetically unable to produce gastrin. When treated with antacid drugs, both groups of mice showed increased inflammatory changes and increased bacteria. Antibiotic treatment resolved gastritis in mice being treated with antacid medication. Low hydrochloric acid and increased inflammation caused increases in G-cells (cells that produce gastrin) and in parietal cells (cells that produce hydrochloric acid). This elevation in the number of G-cells and parietal cells correlated with inflammation, and not with stomach acidity.

One of the researchers, Juanita L. Merchant is quoted as saying, "In treating patients with gastrointestinal disorders, physicians usually aim to increase the pH of the stomach, particularly in patients who are in the intensive care unit, to try to protect their stomach linings from ulceration, which physicians initially believed was due only to stomach acid. There is also the dogma that most ulcers are due to infections by *Helicobacter*. But one important take-home point from our papers is that you don't want to block acid secretion over the long term just to treat either the bacterial overgrowth or the *Helicobacter* infection, because that's going to potentially create other problems."

Interestingly, the increase in acid does not inhibit *Helicobacter pylori*. A low-acid environment will inhibit *Helicobacter*. *Helicobacter* has been linked to gastritis, ulcers and cancer. The interest in suppressing acid is born of the idea that to do so is necessary to suppress *Helicobacter*. The researchers point out that other bacteria can also cause gastritis and cancer. "In general, the medical community needs to think more broadly about chronic infections in the stomach, colon, bladder and liver, because inflammation in all of these organs can lead to cancer," Merchant said. "*Helicobacter* has quite correctly been labeled as a significant carcinogen, but our papers emphasize that other organisms can also cause chronic gastritis that may ultimately lead to cancer." The research appears in the January 2002 issues of *Gastroenterology and the American Journal of Physiology -- Gastrointestinal and Liver Physiology* by HHMI investigator Juanita L. Merchant and colleagues at the University of Michigan.

Can Supplements Prevent Blindness?

The macula is the central and most vital part of the retina. Macular degeneration is a condition where this area degenerates, resulting in diminishing and even loss of sight. The condition tends to run in families. Macular degeneration can slowly or suddenly produce loss of vision. It is painless. It affects more than 10 million Americans. It is an incurable eye disease and that it is the leading cause of blindness for those aged 55 and older. As people age the chances for developing eye diseases increase dramatically.

There are two forms of macular degeneration, wet and dry. In dry macular degeneration (also called atrophic), a pigment is deposited in the macula; there is no indication of scarring, bleeding or other damage. In wet macular degeneration, an exudate is formed (leaked material) and forms a mound which is often surrounded by small hemorrhages. Eventually, the mound contracts and leaves a scar.

Diet and Inflammatory Bowel Disease

The term "inflammatory bowel disease" refers to either Crohn's disease or ulcerative colitis. Inflammatory bowel disease is the name of a group of disorders that cause the intestines to become inflamed (red and swollen). The inflammation lasts a long time and usually comes back over and over again. Inflammation often leads to ulceration and eventually scar tissue can form.

Research that appeared in the *American Journal of Gastroenterology* (2011 April; 106(4): 563-73) indicates that there may be a connection between diet and the development of inflammatory bowel disease. Studies that looked at the role of

Research appearing in the *Archives of Ophthalmology* (Epublished ahead of print March 14, 2011) looked at 38,022 women (mean age 54.6 years), comparing omega-3 fatty acid consumption to the incidence of macular degeneration, over a period of 10 years. Over the course of the study 235 cases of macular degeneration were diagnosed. Docosahexanoic acid (DHA) is an omega-3 fatty acid that is found in cold, deep-water oceanic fish. It was found that the subjects with the highest intake of DHA had a significant reduction in the risk for developing macular degeneration when compared to those who consumed the least amount of DHA. Subjects who consumed one or more servings of fish each week had a lower risk of developing macular degeneration (nearly half) when compared to those who consumed one serving or less each month.

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diet and the risk of inflammatory bowel disease were systematically reviewed. There were 19 studies that gathered data from 1,269 patients with Crohn's disease, 1,340 patients with ulcerative colitis and 4,000 healthy controls.

The researchers found that eating fruit and other high fiber food lowered the risk of developing Crohn's disease. A high fiber diet was also negatively associated with the risk for ulcerative colitis. The development of ulcerative colitis was positively associated with a high fat diet.

"Walking is man's best medicine".— Hippocrates

Simple Changes Can Prevent Alzheimer's Disease

Research that was presented at the Alzheimer's International Conference on July 19, 2011 in Paris shows that even a moderate reduction in the risk factors for Alzheimer's disease could prevent millions of cases worldwide. Common risk factors for the disease include obesity, smoking, high blood pressure, depression, inactivity, diabetes and low education. The researchers determined that these risk factors were responsible for about 17 million cases of Alzheimer's disease worldwide. The study was published online in *The Lancet Neurology* (epublished 7/19/11).

Epidemiologic analysis of the links between Alzheimer's disease and key risk factors found that 21% of all cases in the United States are

linked to a sedentary lifestyle. Depression is linked to 15% of the cases. Smoking is linked to 11% of the cases. Mid life obesity accounts for 8% of the cases and mid-life hypertension accounts for 7% of the cases.

A second study that was presented at the conference found that people with the ability to cope, keep positive and ask for help, skills that were called "resilient cognition" by the researchers, were less likely to develop Alzheimer's disease. Poor coping skills were linked to an increased incidence of Alzheimer's disease. People who were neglected as children or who scored poorly of tests for gauging suicidal thoughts had a tendency for poor cognitive performance.

