

# Austin Quan Yin Newsletter

## The Better Health News

### Special Interest Articles:

- Eating sugar shortens your life
- Pharmaceutical advertising creates bias
- B vitamins and memory
- Cutting asthma costs
- ADHD and supplements
- Improve sports performance
- Vitamin E

## B<sub>12</sub> and Aging

Research appearing in *Neuroscience Bulletin* (2009; 25(4): 209-15) looked at the connection between vitamin B<sub>12</sub> deficiency and the health of elderly patients. Out of 827 patients averaging 77 years of age (none younger than 60), 19.7% were vitamin B<sub>12</sub> deficient. Vitamin B<sub>12</sub> deficiency was associated with many health problems, including neurological symptoms like unsteadiness in the dark, Parkinsonism and reduced ability to feel vibration (an early sign of nerve

degeneration)

. There were higher rates of diabetes, heart disease, cerebral ischemia, high blood pressure, and gastrointestinal diseases in the vitamin B<sub>12</sub> deficient group.

Severe vitamin B<sub>12</sub> deficiency can lead to pernicious anemia, which is a megaloblastic (large red blood cells) anemia. Neurologic symptoms show up in vitamin B<sub>12</sub> deficiency long before the anemia develops. Of the deficient patients in this group, only 9.8% had a megaloblastic anemia.

## Fight Pain with Cherries?

According to research submitted to the 2009 annual meeting of the American College of Sports Medicine (abstracts 851 and 852), consuming tart cherry juice can reduce pain from exercise. Healthy runners between the ages of 18 and 50 were randomly selected to receive either tart cherry juice or a placebo to drink one week before the race. The group with the cherry reported less pain. Another study had 14 women with fibromyalgia drinking either tart cherry juice or a placebo for 10 days to see its effect on muscle pain and

strength after exercise. Once again, the group receiving the cherry juice had less pain and more strength. It makes sense, according to an article appearing in the *Journal of Natural Products* (1999;62(2):294-296), substances in tart cherries, called anthocyanins and cyanidin are both antioxidant and anti-inflammatory. Another article in the *Clinical Journal of Pain* (January/February 2004;20(1):19-26) mentions that substances in tart cherry juice are anti-inflammatory.

## Eating Sugar Shortens Your Life

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*Researchers at the Université de Montreal were able to increase the life span of yeast cell by reducing the amount of sugar it consumed.*

Consuming sugar and refined carbohydrates can lead to high cholesterol, high blood pressure, diabetes, obesity and a host of other health problems. Dr. Weston Price documented the degeneration caused by high sugar diets in his book, "Nutrition and Physical Degeneration". He would compare the effect of diet on people of the same ethnicity. He made these comparisons all around the world. Generally one group would be more isolated and eat a the same diet their ancestors had for centuries; he would compare the health (mainly dental health and bone structure) to a group of the same ethnicity that ate a more "civilized" diet consisting of much more sugar and refined starch. The physical degeneration of the

group eating the high sugar, high refined carbohydrate diet was striking. This was true of every ethnic group Dr. Price studied.

Recent research published in *PLoS Genetics* (2009;5(3)e1000408) gives a hint to the reason sugar can reduce the length and quality of life. Researchers at the Université de Montreal were able to increase the life span of yeast cell by reducing the amount of sugar it consumed. Yeast cells were used in the study because they age similarly to human cells. Researchers believed that the study took a step in confirming the connection between age-related diseases and sugar consumption.

## Pharmaceutical Advertising Creates Bias

The fact that medical journals sell advertising to drug companies creates a bias against natural products. This should be obvious. After all, is there any better way to corrupt scientific findings than money? A recent study appearing in *BMC Complimentary and Alternative Medicine* (2008 Apr 9;8:11) looked at the amount of drug company advertising in individual journals and compared it to the

content in the journal pertaining to nutritional supplements. The journals with the most advertising from drug companies had the fewest articles about nutritional supplements, and articles about supplements tended to be negative.

## B Vitamins and Memory

The role of folic acid and vitamin B<sub>12</sub> in memory and cognition is pretty well established. Research appearing in the *American Journal of Clinical Nutrition* (2007; 86(5): 1384-1391) looked at 1,648 subjects over the age of 65 over a 10-year period. During the 10-year course of the study mental function and vitamin B<sub>12</sub> levels were tested at least three times. High vitamin B<sub>12</sub> levels were associated with slower rates of mental decline. An earlier study appearing in the *American Journal of Clinical Nutrition* (1996;63:306-14), also found that high levels of B<sub>6</sub> were associated with better memory.

Research appearing in *Clinical Biochemistry* (2007; 40(9-10) 604-608) found a connection between low levels of folic acid and vitamin B<sub>12</sub>, and depression in 66 subjects over the age of 60. Also, the depressed subjects tended to have higher homocysteine levels.

It is commonly assumed that people who need B<sub>12</sub> must have injections. Actually, if the dosage is high enough, oral supplementation can be very effective. A review of research appearing in *Family Practice News* (November 15, 2004:59) shows that taking vitamin B<sub>12</sub> orally may be as effective as getting by injection. The article reviewed four earlier studies that compared oral B<sub>12</sub> supplementation with injections and placebos in patients with documented B<sub>12</sub> deficiency. The studies showed taking a high dose orally (between one and two milligrams per day) is as effective as B<sub>12</sub> injections. Lower

doses were not as effective, in fact at 10 mcg per day, oral B<sub>12</sub> supplementation is no more effective than placebo. Doctors in Sweden use oral B<sub>12</sub> therapy instead of injections and have been getting good results for over 30 years.

There is not a lot of research on the connection between niacin and memory. Although in the severe niacin deficiency disease, pellagra, there are mental symptoms. Symptoms in the central nervous system can include memory impairment, disorientation, confusion, and confabulation (excitement, depression, mania and delirium). Some patients may become paranoid.

One study, appearing in the *Journal of Neuroscience* (2008 November 5;28(45):11500-10) looked at the effect niacinamide (a form of niacin) had on memory in rats. The rats in the study were normal rats and rats specially bred to develop a disease similar to Alzheimer's disease in humans. Over a period of four months rats were either given niacinamide in their water or a placebo. In the rats bred for the Alzheimer's-like disease, there was an increase in proteins used to strengthen brain tissue and there was a decrease in material that could lead to plaquing. The specially bred rats who received the niacinamide performed as well on memory tests as the normal mice, while the untreated rats demonstrated loss of memory.

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## Reducing Asthma Costs

In the decade between 1990 and 2000 the cost of asthma care went up 54%, according to *Family Practice News* (October 1, 2000:5). More focus on diet, lifestyle and supplementation can cut these costs. More attention should also be paid to drug therapy and efforts should be made to reduce drug intake.

Inhaler overuse is an important issue, and can lead to increased hospitalizations and death. An article appearing in *Family Practice News* (April 15, 1993:46) stated that deaths from asthma could be cut by 50% if physicians monitored beta agonist inhaler overuse by patients. An inhaler should last one month, but often prescriptions are given with unlimited refills and the doctor has no idea how often the patient is using the inhaler. Other medications can contribute to asthma attacks. An article in the *Annals of Allergy* (June 1992;68:453-462) stated that drugs may be responsible for as many as 10% of asthma attacks. NSAIDs may be responsible for 2/3 of these drug-induced attacks. Drugs, like muscle relaxants, beta-blockers, or antibiotics can also trigger asthma attacks.

Diet is seldom stressed by the medical establishment, but it plays a role in asthma. Research appearing in the *European Respiratory Journal* (2009; 33:33-41) looked at the dietary habits of 54,672 French women and the association with asthma attacks. Of the subjects, 1,063 currently had asthma with 206 having asthma attacks at least once per week. There was a strong correlation between the frequency of asthma attacks the adherence to a "Western" diet including pizza, cured meats, sweets and other processed foods. Also the types of fats in the diet affect asthma symptoms, according to research appearing in the *European Journal of Clinical Nutrition*

(2005; 59(12): 1335-46). It found that omega-3 fatty acids were especially helpful for preventing exercise induced asthma attacks. This was supported by a review article appearing in the *Australian and New Zealand Journal of Medicine* (1994;24:727), which found that a diet low in omega-3 fatty acids and high in omega-6 fatty acids and margarine may be part of the reason that asthma is on the rise. The article notes that asthma is low in Scandinavia and in Mediterranean countries where there is less omega-6 consumption and more consumption of omega-3 and olive oil.

*Clinical and Experimental Allergy* (2000;30:615-627) reviewed research about nutrients that may affect asthma. Magnesium supplementation was found to reduce reactivity in the airways; magnesium is a mild bronchodilator, and acts to open the airways. Vitamin C intake has been shown to reduce exercise induced asthma. Vitamin C levels tend to be low in asthmatics. The journal *Thorax* (2009; 64(7): 610-9) also reviewed nutritional studies related to asthma and the intake of antioxidants, namely vitamins A, C and E. The authors concluded that "Relatively low dietary intakes of vitamins A and Care associated with statistically significant increased odds of asthma and wheeze." This was echoed in the *American Journal of Clinical Nutrition* (1995;61(Suppl.):625S-630S). A study appearing in the journal *Thorax* (May 2006; 61: 388 - 393) looked at 1,030 subjects and found that dietary vitamin C and manganese intake were inversely associated with asthma symptoms.

Nutrition is a simple and inexpensive way to improve asthma symptoms. It can reduce asthma costs and save lives.

## Supplementation Helps Children with ADHD

There have been a number of studies that show nutrition, avoidance of food additives, essential fatty acids and vitamin supplementation can all be of value for children with ADD or ADHD. A study appearing in *Magnesium Research* (2006; 19(1): 46-52) looked at children with ADHD and their response to supplementation with magnesium and vitamin B<sub>6</sub>. Forty children with ADHD and 36 other children, who acted as controls, participated in the study. The children were given magnesium (six mg. for every kg. of body weight per day) and

vitamin B<sub>6</sub> (60 mcg. for every kg. of body weight per day) for at least eight weeks. They were evaluated at the beginning of the study, during the study and at the end of the study. It was found that the supplementation improved the symptoms of ADHD. Magnesium levels were assessed by measuring the amount of magnesium in the red blood cells. Children with ADHD tended to have lower magnesium levels in the red blood cells. The magnesium levels increased after supplementation.

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## Improve Sports Performance

A study appearing in the *British Journal of Nutrition* (2008, 100: 903-9097) looked at coenzyme Q10 supplementation and muscle damage after intense exercise. This was a double-blind, placebo controlled study involving 18 athletes who were given either 300 mg of CoQ10 or a placebo for 20 days. During the course of the study they exercised intensely for 5 1/2 hours each day for six days. Blood tests to indicate the level of muscle damage were taken (myoglobin, and creatine kinase). The muscle-damage indicators increased in both groups, but were significantly lower in the group receiving the supplement.

Another double-blind, placebo-controlled study, appearing in the *Journal of the International Society of Sports Nutrition* (2008; 5(1): 8) looked at

CoQ10 supplementation and athletic performance. The participants of the study were 22 trained athletes and 19 untrained subjects. An hour before a series of exercise tests they were randomly given either a placebo or 200 mg of Coenzyme Q10. Blood samples and muscle biopsies were taken before and after exercise. The subjects were then given either a placebo or 100 mg of Coenzyme Q10 twice each day for a period of two weeks. At the end of the period they performed the same exercises and were tested in the same way. A trend for increased time to exhaustion was observed following 2 weeks of CoQ10 supplementation.



*"We are indeed much more than what we eat, but what we eat can nevertheless help us to be much more than what we are."*—Adelle Davis

## Vitamin E and Inflammation

An article printed in the journal *Arthritis and Rheumatism* (September 1991;34(9):1205) discussed the anti-inflammatory role of vitamin E. The article cites a study where vitamin E was used in a placebo in a study examining the anti-inflammatory effects of fish oil in patients with rheumatoid arthritis. In that study, the group receiving the placebo unexpectedly (because of the vitamin E) enjoyed a decrease in pain and inflammation; c-reactive protein (a substance found in the blood that indicates the presence of inflammation) was reduced by 1/3 in the placebo group. Another small study where osteoarthritis patients were given either 600 mg/day of vitamin E or a placebo found

that a significant portion of the group receiving the supplement experienced improvement in symptoms.

A recent study done on mice appeared in the journal *Experimental Physiology* (2008 Dec;93(12):1263-72). The mice were injected with a substance from bacteria that produces inflammation (*E. coli* lipopolysaccharide). Three days prior to the injection they were divided into two groups, with one group receiving a vitamin E injection and the other receiving a placebo. Chemical markers indicating inflammation were measured after the injection (specifically cytokines, interleukin-1-beta and interleukin-6). The levels of inflammatory chemicals were much lower in the mice that received the vitamin E.

