

Austin Quan Yin Newsletter

The Better Health News

Special Interest Articles:

- CRP AND VITAMIN C?
- EAT BREAKFAST AND KEEP WEIGHT OFF
- IT IS COLD AND FLU SEASON
- B VITAMINS, MEMORY AND COGNITION
- CAN BERRIES PROTECT YOUR BRAIN?
- BIOFLAVONOIDS PROTECT THE NERVOUS SYSTEM
- FEVER CAN BE A FRIEND

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Diabetic Neuropathy and Alpha Lipoic Acid

The nerves of your body that are not part of your brain or spinal cord are known as peripheral nerves. When the peripheral nerves are damaged, or not working properly, that is known as neuropathy. A polyneuropathy is a neuropathy pattern that involves both feet or both hands. Another word for this pattern is a Stocking and Glove Neuropathy. Commonly patients feel pain, numbness, tingling, burning, weakness or loss of feeling in the affected area. Many time patients with polyneuropathy do not have any symptoms; in this case the diagnosis is made by a physical examination or a

laboratory test (electromyography (EMG) and nerve conduction velocity test (NCV)). Neuropathy is a problem that is commonly experienced by diabetics.

A randomized, double-blind, placebo-controlled study was published in *Zhonghua Yi Xue Za Zhi*. (2007 Oct 16;87(38):2706-9); it looked at the affect supplementation with alpha-lipoic acid had on diabetic polyneuropathy. The subjects of the study were 460 diabetic patients with mild to moderate distal symetric sensorimotor polyneuropathy. For a period of four years they were given either a placebo or 600 mg/day of alpha-lipoic acid.

Dementia and DHA

Docosahexanoic Acid is DHA, an omega-3 essential fatty acid that is found in fish oil. A number of studies have linked it to improved mood and cognition. A number of earlier studies have associated low omega-3 levels. Research appearing in *Biological Psychiatry* (1 July 2007; Volume 62, Issue 1, Pages 17-24) actually looked at

the DHA content in the frontal lobes of deceased patients with major depressive disorder (on autopsy) and compared the fatty acid content in deceased patients without depression. The only fatty acid that was significantly different between the two groups was DHA, which was 22% lower in the depressed patients.

CRP and Vitamin C

Those with low vitamin C levels tended to have higher CRP levels. Vitamin C deficiency was also associated with higher BMI (body mass index), higher blood pressure and higher waist circumference.

CRP is C-reactive protein. It is a globular protein that indicates the presence of inflammation. High CRP levels are associated with heart disease and a variety of health problems. A study appearing in the *American Journal of Epidemiology* (2009; 170(4): 464-71) looked at non-smokers between the ages of 20 and 29 and the relationship between serum ascorbic acid (vitamin C) and CRP levels. Vitamin C intake was assessed by dietary intake questionnaire. Serum vitamin C (ascorbic acid) was measured from overnight fasting blood samples, utilizing liquid chromatography. Of the

sample, 33% had suboptimal levels of vitamin C and 14% had a vitamin C deficiency. Those with low vitamin C levels tended to have higher CRP levels. Vitamin C deficiency was also associated with higher BMI (body mass index), higher blood pressure and higher waist circumference. Those with lower vitamin C intake on the dietary questionnaires tended to have lower serum ascorbic acid levels. This is just another indicator that diet can affect risk factors for various health problems.

Eat Breakfast to Keep Weight Off

A study appearing in the *European Journal of Clinical Nutrition* (2009; 63, 405-412) found an association between skipping breakfast and becoming overweight or obese. Information was gathered about breakfast, physical inactivity and alcohol consumption in 25,176 teen-aged subjects. The researchers found that skipping breakfast had a stronger association with being overweight obese—stronger than alcohol consumption or physical inactivity.

Other research appearing in *Family Practice News* (May 15, 2003:10) looked at 1,943 adults between the ages of 25 and 37 and found that those who ate breakfast seven days per week were less likely to be obese, or to have insulin resistance. The risk for insulin resistance was between 37% and 55% lower for regular breakfast eaters than for those who ate breakfast seldom or never.

It is Cold and Flu Season

The idea behind vaccines is to confer immunity to a specific virus. Since this is not an option, why not take steps to improve general immunity. We hear that half of Europe died during the Bubonic Plague in the 14th century. That means that the other half didn't die—better immunity.

We use language like, "I caught a cold," or "I caught the flu". It makes it sound like the virus has moves like LeBron James. It fakes left, spins right and slam dunks into you. But we know that even in a pandemic, not everyone gets sick.

So the goal is to enhance your immune system as much as possible. First do all the things your mother told you: wash your hands before eating, eat a good diet, and get plenty of rest. Stress really puts a strain on the immune system and can increase your chances of getting sick. Researchers from the University of Florida and the University of Iowa reported in the *Journal of Psychosomatic Medicine* (May, 2001), that those who have a lot of pain and stress are more likely to become sick than those who claimed to have little pain and stress. It is reasonable to expect that other stressful procedures may hamper immune function.

Diet is very important. Sugar and refined flour products stress the immune system. Similarly,

hydrogenated oils and deep-fried foods should be avoided. Fresh, brightly colored produce will help to boost your immune system. Fresh produce is high in vitamin C. The bright color in plant foods is from carotenes and bioflavonoids. These are powerful antioxidants that will help to protect your cells. The carotenes are precursors to vitamin A.

Also, supplementation often helps with immunity: Vitamin C is antiviral and antioxidant. It protects your cells from chemical stress and from viruses. Vitamin A is a much neglected immune support nutrient. Research shows that chemical exposure, along with bacterial and viral exposure reduces vitamin A levels (get professional help before taking vitamin A, because too much of it can be toxic). Arabinogalactan can be purchased as a powder. They exist in high amounts in herbs that boost the immune system like: *Echinacea purpurea*, *Baptisia tinctoria*, *Thuja occidentalis*, *Angelica acutiloba* and *Curcuma longa*. In short, arabinogalactan is found in herbs that boost the immune system.

The idea is to improve your body's infrastructure. Fortify your immune system and the chances of getting sick decrease.

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B Vitamins, Memory and Cognition

The role of folic acid and vitamin B₁₂ 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 cognitive function and vitamin B₁₂ levels were tested at least three times. High vitamin B₁₂ levels were associated with slower rates of cognitive decline. An earlier study appearing in the *American Journal of Clinical Nutrition* (1996;63:306-14). That study also found that high levels of B₆ were associated with better memory.

In research appearing in *Clinical Biochemistry* (2007; 40(9-10): 604-608) found a connection between low folic acid and vitamin B₁₂ levels, and depression in 66 subjects over the age of 60. Also the depressed subjects tended to have higher homocysteine levels.

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.

B vitamins can even help with depression. In a double-blind, placebo-controlled study published in the *Journal of the American College of Nutrition* (1992;11(2):159- 163), B vitamins were given to geriatric patients suffering from depression. It was found that taking thiamin, riboflavin and pyridoxine (10 mg/day of each) created improvement in depression rating and cognitive function scores. The vitamins seemed to potentiate the antidepressant medication the subjects were taking. Interestingly, B₁₂ levels increased in the treatment group, but not in the control group. B₁₂ was not one of the supplements given.

Can Berries Protect Your Brain?

Oxidative stress is a situation where chemical “bullets”, like electrons or radiation create damage to living tissue. The nutrients and phytochemicals that we call antioxidants work like chemical “bullet-proof vests”, protecting the cells. Extracts from blueberries and strawberries act as antioxidants. According to research appearing in *Neurobiological Aging* (July 10, 2006 [e published ahead of print]), berry extracts can protect the brain. Male rats were divided into three groups. One group was fed a daily extract from strawberries, one group was fed an extract from blueberries, and the other acted as a control. After eight weeks, half of the rats in each

group were exposed to radioactive iron (which is known to cause cognitive decline).

The rats in the control group experienced decreased levels of brain activity and had poor performance with tasks related to memory after being exposed to the radiation. The rats receiving the berry extracts fared much better. In particular, the group that received the strawberry extract had better performance with activities related to spatial location and those receiving blueberry had improvement in learning ability. Berries may slow the aging of the brain and protect it from oxidative damage.

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Bioflavonoids Protect the Nervous System

Bioflavonoids are natural antioxidants formed by plants. Three such compounds, hesperidin, hesperetin and neohesperidin, are found in citrus fruit. Research that appeared in the *Journal of Agricultural and Food Chemistry* (published on line Jan, 2008, ahead of print) showed that bioflavonoids protect cells from damage. The researchers injected cells with the different concentrations of the bioflavonoids and then injected the cells with hydrogen peroxide (to create oxidative stress and cell destruction). They found that all three of the bioflavonoids acted to

protect the cells, reducing cell loss and preventing membrane damage from the peroxide. They also increased the activity of the antioxidant enzyme, catalase.

The activity of citrus bioflavonoids may act to protect the nervous system. More researchers are considering the idea that Alzheimer’s disease is from a build up of beta amyloid plaques, which are associated with an increase in cell damage and death from oxidative stress.

Happiness is nothing more than good health and a bad memory.—
Albert Schweitzer

Fever can be a Friend

For some reason we tend to view a fever as a problem that needs to be brought under control. Even if there is a fever, or temperature that is 99.5 degrees or higher, the fever is not the problem—it is a symptom. The fever is a positive response to the disease. It is a sign that the immune system is working. Fever increases the amount of a natural antiviral and anticancer substance in the blood, called interferon. Fever can also increase the white blood cells, and improves their ability to destroy bacteria and infected cells. Fever also hinders the reproduction of many viruses and bacteria. A mild fever may be a good thing—the immune system is working. The idea of trying to stop a mild fever with a drug is not a good one. The fever is actually your body fighting the illness. If a child is sick, monitor him or her for dramatic increases in temperature and worsening of any other of his symptoms.

A temperature of 106° Fahrenheit can harm the heart and brain. If it gets that high, then you need to be concerned. During most infections,

however, the temperature does not rise above 104° Fahrenheit. Aspirin reduces fever, pain, and inflammation, but pediatricians rarely recommend it. Taking aspirin during viral illness has been linked to Reye's syndrome. Reye's syndrome is a rare, potentially fatal childhood disease. In general, it strikes children under the age of 15 upon recovering from an upper respiratory illness, flu or chicken pox. Reye's syndrome is characterized by abnormal accumulations of fat in the liver and a severe increase of pressure in the brain. Typically the first symptom is uncontrollable vomiting and nausea. Other early symptoms include lethargy, drowsiness, disorientation and irritability. The swelling in the brain may cause seizures or coma, and the child may stop breathing. A child with Reye's syndrome needs immediate medical care. The earlier it is diagnosed, the better the chance for a successful recovery.

