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Austin Quan Yin Newsletter

The Better Health News

Special Interest Articles:

- Mom's diet and child's allergies
- L-carnitine and male fertility
- CRP
- Lupus
- Liver failure
- Milk thistle
- Fatty acids and child development

Testosterone and Alzheimer's disease

Alzheimer's disease is characterized by amyloid protein plaques that form in the brain of the afflicted. Testosterone may have a protective effect. An animal study appeared in the *Proceedings of the National Academy of Sciences USA* (February 1, 2000;97:1202-1205), that looked at the effect testosterone may have on the development of Alzheimer's disease. Nerve cells from mice and rats produced a harmless form of beta-amyloid protein when in the presence of testosterone. The protein produced in the presence of testosterone is a precursor protein (is turned to other products by the body). Some consider the precursor to actually be beneficial to the health of the nervous system.

Acetaminophen and Liver Damage

ALT stands for alanine aminotransferase; it is a substance that is released into the blood when liver cells are damaged. Serum ALT levels will give you an idea if there is any liver cell damage occurring. A randomized, single-blind, placebo-controlled, 5-treatment, parallel-group, inpatient, diet-controlled (meals provided), longitudinal study of 145 healthy adults, appearing in the *Journal of the American Medical Association* (Vol. 296 No. 1, July 5, 2006) indicated that acetaminophen use, even a recommended doses, causes liver damage. The subjects were given either four grams of acetaminophen (the maximum recommended daily dose) or a placebo for 14 days. The use of the acetaminophen increased ALT levels to nearly five times normal in 19% of the participants. No such increases were noted in the placebo group.

Mom's Diet Affects Child's Allergies

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According to the American Academy of Allergy and Immunology, a child's chance of developing allergies is 25% if one parent has allergies and 66% if both parents have allergies. In research appearing in *Medical Tribune* (July 23, 1992;30), breast feeding mothers were able to reduce the chances that their babies will develop allergies by eating a low-allergen diet. The subjects of the study were 58 mothers from families with a history of allergies, and their babies. The infants in the study were being breast fed and they were divided into two groups. Another group of 62 mothers and babies served as a control. In the test group, the mothers were placed on a hypoallergenic diet. For one year, the mothers in the test group avoided common allergens like eggs, dairy, fish, nuts, wheat or citrus. Their homes were treated with products to control dust mites.

At the end of the year, 40% of the infants in the control group developed allergies. Only 13% of the infants in the test group developed allergies. The test group also had a lower incidence of asthma, 7% compared to 19% in the control group. The study found that restricting the mother's diet can lead to fewer allergies in children. Parental smoking is a huge risk factor for children to develop allergies.

L-Carnitine and Male Fertility

Researchers in China performed a meta analysis of nine randomized, controlled clinical studies, looking at the possible effect L-carnitine (LC) and L-acetyl-carnitine (LAC) may have on male fertility. The study, published in the *Asia Pacific Journal of Clinical Nutrition* (2007; 16 Suppl: 383-90), found that supplementation with LC or LAC improved pregnancy rate, and sperm motility.

There even seems to be some evidence to support the idea that Acetyl-L-carnitine and Propionyl-L-carnitine (PLC) may be of some benefit to men with erectile dysfunction. A placebo controlled study, published in the journal *Urology* (2005; 66(5): 1080-5) found that PLC and ALC improve the effects of sildenafil (erectile dysfunction drug) on patients with erectile dysfunction.

CRP Levels and Health

CRP is C-reactive protein; it is a globular protein that increases when there is tissue damage or inflammation. Elevated CRP is associated with an increased risk for heart disease. It is also associated with an increased risk for death from other causes. Research appearing in *Clinical Chemistry* (2008 Feb;54(2):335-42) verifies this. CRP is also associated with depression, cognitive decline and stroke, according to a meta-analysis of 19 studies appearing in *Lancet Neurology* (2005; 4(6): 371-380).

Omega-3 fatty acid consumption may play a role in lowering CRP levels. In the journal, *Nutrition Research* (2008; 28(5):309-14), a cross-sectional study involving over 440 Japanese women found that dietary intake of omega-3 fatty acids was inversely proportional to CRP levels.

Diet may well affect CRP levels. A study appearing in the *Annals of Nutrition and Metabolism* (2006; 50(1): 20-4) examined the serum CRP (as well as lipid levels and other markers) after subjects ate a Mediterranean type of meal. Eighty men (with no health problems) consumed a Mediterranean meal (1,000 calories, 61% of the fat was monounsaturated). On another occasion they ate a typical Western diet (1,000 calories with 57% of the fat being saturated fat). The change in blood levels was compared to changes made after eating a more typical Western diet. Increase in blood lipids and blood sugar were similar, but the CRP was lower after the Mediterranean meal. The Mediterranean meal also increased carotenoids (plant antioxidants and vitamin A precursors) and human serum paraoxonase (also called PON1—it can protect low density lipoprotein (LDL) from oxidation).

Dietary fiber may also help to lower CRP levels, according to research appearing in the *American Journal of Clinical Nutrition* (2006; 83(4): 760-6). Supplementation may also help lower CRP levels. Research appearing in the *European Journal of Nutrition* (2007 May 3; Epub ahead of print) found that magnesium supplementation lowered CRP levels in patients with heart failure. Research appearing in *Free Radical Biology and Medicine* (2008 Oct 10; Epub ahead of print) found that vitamin C supplementation reduced CRP levels in 396 healthy subjects. Vitamin E, on the other hand, did not have this effect.

Since CRP is an inflammatory marker, it stands to reason that things that reduce inflammation should have a favorable effect on levels. Dietary changes that favor a reduction in inflammation should be valuable, no matter what therapy is being undertaken.

Testing for CRP in serum is a good indicator of risk for a heart attack.

Lupus

A randomized, double-blind, placebo-controlled study appearing in *Annals of the Rheumatic Diseases* (2008;67:841-848) looked at the effect omega-3 fatty acids had on disease activity in systemic lupus erythematosus (SLE). The study lasted 24 weeks and the 60 SLE patients were given either omega-3 fatty acid supplement (3g per day) or a placebo. Disease activity was measured using the revised Systemic Lupus Activity Measure (SLAM-R) and the British Isles Lupus Assessment Group index of disease activity SLE (BILAG). Endothelial function was measured using flow-mediated dilation (FMD) of the brachial artery; in other words, the health and suppleness of the cells lining the artery were measured. The level of oxidative stress was also measured. Measurements were taken at baseline, 12 weeks and at 24 weeks.

Supplementation with omega-3 fatty acids improved SLAM-R and BILAG scores, as well as improving oxidative stress measurements. Researchers concluded that low dose supplementation with fish oil has a therapeutic effect on SLE patients.

A study appearing in *Photodermatology, Photoimmunology and Photomedicine* (2008; 24(5): 260-7) found that patients with cutaneous lupus erythematosus (CLE) tended to be deficient in vitamin D, possibly because of restriction to sun exposure. Low vitamin D levels were found in 65% of the 52 patients involved in the study. Another study appearing in the *American Journal of Medical Science* (2008; 335(2): 99-104) looked at 37 female patients with systemic lupus erythematosus (SLE). The study found that lower vitamin D status was associated with higher disease activity. Research appearing in *Osteoporosis International* (Epub ahead of print, July 4, 2008), shows a possible link between systemic lupus erythematosus (SLE) and low vitamin D levels. The cross-sectional study compared serum vitamin D levels (25(OH)D) in 26 healthy controls and 36 patients with SLE. Low vitamin D levels were more prevalent in the SLE patients than in the controls. Vitamin D is a synergist to calcium and magnesium. These products can also be used with diastolic hypotension, para-thyroid dysfunction, bone healing, osteoporosis, patients who avoid the sun or are housebound, fibroids and endometriosis.

A small observational study appearing in the *Annals of Rheumatic Disease* (2004;63:1501-1503) looked at three patients diagnosed with lupus. The patients were tested, and found to have gluten sensitivity. The article states that in patients with SLE, the prevalence of antigliadin antibodies (gliadin is found in wheat and other gluten grains) has been reported to be 23%. It goes on to state that gluten sensitivity is a possibility in those with autoimmune type disorders and should be considered as a differential diagnosis.

One easy strategy is to have the patient avoid gluten for two weeks and see if symptoms improve. If the patient flares up when gluten is reintroduced, there is a very good chance that he or she is sensitive to gluten.

Liver Failure and Gluten Sensitivity

Celiac disease is characterized by gluten insensitivity; it damages the small intestine and interferes with nutrient absorption. Symptoms often include abdominal pain, gas, fatigue, and diarrhea.

In a study published in the journal *Gastroenterology* (April 2002;122:881-888), describes case histories of four patients with liver disease who also had celiac disease (gluten allergy). Gluten free diets reversed the liver dysfunction in these cases (one patient did not adhere to a gluten-free diet and the disease progressed until he needed a liver transplant). Two of the patients who managed to stay on the gluten-free diet, maintained good liver function. The researchers then looked at the prevalence of celiac disease in patients awaiting liver transplant and found that 4% of 185 patients had celiac disease.

Celiac disease is characterized by gluten insensitivity; it damages the small intestine and interferes with nutrient absorption. Symptoms often include abdominal pain, gas, fatigue, and diarrhea. It is associated with other immune system disorders—including autoimmune hepatitis. The authors of this study believe that celiac disease should be investigated for all cases of autoimmune hepatitis or any hepatitis of unknown origin.

Milk Thistle and Lung Cancer

Flavonoids are plant pigments that act as antioxidants, protecting the plant from the oxidative stress of photosynthesis. They act as antioxidants for humans who eat the plants as well. Silibinin is a flavonoid found in milk thistle. Flavonoids from milk thistle, like silibinin and silymarin have been shown to protect the liver from alcohol, drugs and poisons and to promote healing and recovery in the liver. Silibinin has even shown to be of some value in protecting against liver cancer, according to a study appearing in the *World Journal of Gastroenterology* (2007 Oct 28:13(40):5299-305).Research, appearing in the *Journal of the National Cancer Institute* (2006 Jun 21;98(12):846-55), shows that silibinin may inhibit lung cancer as well.

The researchers injected mice with an substance that causes cancer. The mice were then divided into groups and given varying amounts of silibinin in their diets. After 18 weeks mice receiving silibinin had 38% fewer tumors than those that did not receive the flavonoid. At the end of 29 weeks, the supplemented mice had 70% fewer tumors than the controls.

[The key to longevity:] Keep breathing—Sophie Tucker, newspaper reports, Jan 13, 1964

Fatty Acids and Child Development

According to research appearing in the *European Journal of Nutrition* (published online, ahead of print Dec. 19, 2007), the amount of docosahexanoic acid (DHA) found in blood in the umbilical cord during pregnancy has a positive association with the child's motor function later in life. DHA levels are also associated with a lowered risk of post partum depression.

The study followed over 300 children for a period of seven years following birth. Children were evaluated using the Maastricht Motor Test. Children with higher levels of DHA in the umbilical blood scored higher on the test.

This supports other research appearing in *Archives of Disease in Childhood (Fetal and Neonatal Edition)* (published online Dec. 21, 2006), which found that omega-3 fatty acid supplementation in the pregnant mother resulted in increased hand-eye coordination, improved scores for language comprehension, a tendency to use longer sentences and a better vocabulary when the children were tested at 2 ½ years. Seventy-two children were tested; 33 in the group supplemented with fish oil and 39 in the control group. They were evaluated with the Griffiths Mental Development Scales, the Peabody Picture Vocabulary Test and the Child Behaviour Checklist.