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Austin Quan Yin Newsletter
The Better Health News

Special Interest Articles:

Does Sugar Make You Stupid?

Research appearing in the *Journal of Physiology* (Published online before print April 2, 2012, doi: 10.1113/jphysiol.2012.230078 *May 1, 2012*) looked at sugar consumption in rats and how it affected their ability to learn complex tasks. Scientists at UCLA conducted a five-day training session, teaching the rats how to navigate a complicated maze.

After the training session, the rats were divided into two groups. One group was given an omega-3 fatty acid mixture containing flaxseed oil and DHA, the other group was not. For six weeks, both groups of rats were fed a solution containing high fructose corn syrup instead of water.

At the end of the six weeks, the rats were then given the opportunity to navigate the maze. "The DHA-deprived animals were slower, and their brains showed a decline in synaptic activity," said Fernando Gomez-Pinilla, a professor of neurosurgery at the David Geffen School of Medicine at UCLA. "Their brain cells had trouble signaling each other, disrupting the rats' ability to think clearly and recall the route they'd learned six weeks earlier."

Sugar consumption interfered with the regulation of how the cells use and store sugar (insulin resistance). Because of the problems with sugar and cellular energy production, the rats' brain function was affected. Examination of the brains of the rats not fed the omega-3/DHA supplement revealed signs of insulin insensitivity. The study showed that high-fructose corn syrup harms the brain as well as the body. Supplementation with omega-3 fatty acids seems to offer some protection from the damage done by sugar consumption.

"Our findings illustrate that what you eat affects how you think," said Gomez-Pinilla. "Eating a high-fructose diet over the long term alters your brain's ability to learn and remember information. But adding omega-3 fatty acids to your meals can help minimize the damage."

Can Broccoli Protect You From the Sun?

Sulforaphane does not absorb UV rays, but helps the cells' defense against sun damage. The extract somehow enhances the activity of proteins that are part of the cell's defensive system.ACTH.

Research appearing in the *Proceedings of the National Academy of Sciences of the United States of America* (2007 Oct 30;104(44):17500-5. Epub 2007 Oct) found that the topical application of a broccoli extract may protect from UV rays. The research, performed at Johns Hopkins University School of Medicine found that the extract, called sulforaphane, works differently from traditional sunscreens.

The researchers measured the reddening and inflammation caused by the UV rays. The broccoli extract reduced the reddening of the skin (erythema) by over 37%. In addition, the protective effect lasted long after the extract had been applied. Three days after the application of the extract, subjects still experienced a reduction in skin reddening when exposed to UV radiation.

Sulforaphane does not absorb UV rays, but helps the cells' defense against sun damage. The extract somehow enhances the activity of proteins that are part of the cell's defensive system. That defensive system acts to inhibit carcinogens, helps dispose of damaged, potentially cancerous cells, and suppresses the inflammatory response. The reason the broccoli extract works for several days after application is that it does not merely block UV rays, it actually enhances the health of the cells.

Caffeine May Increase Blood Sugar

A study published in the February, 2008 issue of *Diabetes Care* indicates that consuming caffeine may make it difficult to control blood sugar levels. It was a small study, involving 10 subjects with type-2 diabetes. The subjects managed their diabetes with diet and took no drugs.

The subjects were able to choose their food for lunch and dinner, but were given a nutrient drink for breakfast. They were all fitted with a monitor that continually measured their blood sugar over a three day period. On one day they were given caffeine capsules (equivalent to four cups of coffee) and on the other days they were given a placebo.

The caffeine increased the amount of glucose in the blood immediately after meal by an average of 9% after breakfast, 15% after lunch and 26% after dinner. Overall, the average amount of sugar in the blood went up about 8% on the day of caffeine consumption.

Herbs and Allergies

Fritillaria thunbergii (Fritillaria) is an antitussive herb and is a potent cough suppressant. It has a broncho-dilation effect and inhibits mucosal secretions. Fritillaria tends to act in a manner that is similar to dexamethasone, which is used to treat nasal allergy and inflammation.

Solidago virgaurea (European Goldenrod) supplies flavonoids, saponins and phenol glycosides. Its medicinal uses, besides bladder and urinary tract inflammation, include allergies and associated symptoms. *S. virgaurea* is primarily used to promote the loss of water (aquaretic agent) from the body, as opposed to a diuretic, which causes the loss of electrolytes as well (Univ. of MD Med. Center website).

Scutellaria baicalensis (Baikal Scullcap) possesses anti-inflammatory, anti-bacterial, and anti-allergic properties, via its active principals. They include biacalein, baicalin and wogonin (flavonoid glycosides), beta-sistosterol, and even benzoic acid. *S. baicalensis* has been used for upper respiratory infections (The Pharmacology of Chinese Herbs, pg 385-6), and has been shown to inhibit histamine (Pub Med, Kyo, 1998). It also has some fungistatic properties (Pub Med, Yang, 1995). Animal studies have shown a bronchodilator effect on guinea pigs with allergic asthma (Chinese Herbal Medicine Materia Medica, pg 75-6).

Euphrasia officinalis (Eyebright) – It is useful if an allergic response is the basis for sinusitis (Clinical Botanical Medicine, pg 209). *E. officinalis* contains Iridiode monoterpenes, lignans, flavonoids and tannins, some alkaloids, glycosides, sterols and volatile oils. The astringent qualities of this herb protect the mucous membranes of the eyes, thereby reducing the inflammation seen in allergic reactions that occur with hay fever or air pollution.

Morus alba (White Mulberry) It is used as a tonic and as an expectorant for asthma, bronchitis, cold and cough and dyspepsia. *Morus alba* supplies polyhenolic compounds such a morin, mulbulberrin and maclurin, to name a few. The fruit also contains a significant amount of resveratrol.

Platycodon grandiflorum (Chinese bellflower) The active principals are triterpenoids, sterols and saponins, principally platycodin. Platycodin exerts an expectorant action by increasing bronchial secretions (The Pharmacology of Chinese Herbs, pg 285-6). Traditional uses are to dispel phlegm, to ventilate the lungs, and to relieve sore throat. In traditional Chinese Medicine, it is often used in combination with other herbs in order to direct the actions of other herbs to the upper body.

Albizia julibrissin (Silk Tree) has sweet, neutral properties and contains saponins and tannins. It is calming, i.e. it “calms the spirit” (Chinese Herbal Medicine Materia Medica, pg 406-7), and is considered an “auspicious tree.” It is also used as a tonic and anthelmintic or vermifuge (Li Shih-Chen, Chinese Medicinal Herbs, pg 22-3).

Euphrasia officinalis... *The astringent qualities of this herb protect the mucous membranes of the eyes, thereby reducing the inflammation seen in allergic reactions that occur with hay fever or air pollution.*

Allergies, Science and Natural Health

It is a good idea to reconcile scientific research with natural health approaches, although it is sometimes a difficult task. All of the medical journals sell ads to drug companies and it should be obvious that economics help to determine what appears in the journals. But occasional natural health gems appear; they are usually small studies, which are typically branded as "inconclusive". The overall attitude of the journals seems to be, "My, isn't this amusing. We will have to look into it *someday*." But as long as drugs are profitable, medicine will not strongly recommend diet and natural therapies. They will, however, print the occasional amusing little study. One such study, appearing in the journal, *Annals of Allergy*, May 1994 evaluated 26 children with ADHD. The children were put on an allergy elimination diet. Along with eliminating artificial colors and preservatives, some foods were also eliminated. These included common allergens like wheat, dairy products, egg, corn, yeast, soy, citrus, chocolate and peanuts. Of the 26 subjects, 19 responded well to the diet. It is a small study, but it should offer hope to people with ADD.

Scientists in Finland have found that the type of fats consumed in the diet may be connected to the tendency toward allergy, according to research published in the journal *Allergy* (2001;56:425-428). The British Medical Journal (January 19, 2002; 324:144) has research that shows the herb, butterbur may be useful for allergic symptoms. There is even a journal article about homeopathy and allergies. In a small study, published in the August 19, 2000 issue of the *British Medical Journal*, 24 patients were given a homeopathic remedy daily and 27 patients received a placebo. The treatment group enjoyed some relief. Although it was a small group, the study was double-blind, placebo-controlled and randomized.

The information found in medical journals is interesting, but it does not give the practitioner information that is good enough to effectively treat airborne allergies. The doctor who is a real scientist, and who wants to make his or her patients better will make note of the journal research, but also look at what patients respond to and take into account seemingly unrelated research. For instance, we know that eating sugar and producing insulin exacerbates inflammation. The symptoms of hay fever are largely due to inflammatory chemicals produced by the body, so it stands to reason that refined sugar is something that should be avoided by patients with hay fever. The same thing goes for trans fats. Yet this advice is seldom given in traditional medical offices; they are waiting for the perfect study to prove this (perhaps prompting Nasonex to pull its ads).

A real scientist will take the journal articles into account, but also take clinical and anecdotal information into account. He or she will look at known chemistry and physiology. Although the journals scorn anecdotal information, some of the most clinically useful stuff comes to us anecdotally. And why not use anecdotal information if you are dealing with a very low risk therapy like nutrition that potentially can produce good results—especially if a doctor who you respect is using it and getting results (anecdotally)?

Are Walnuts Good for Diabetics?

A randomized, controlled, single-blind study appearing in *Diabetes Care* (2009 Oct 20; [Epub ahead of print]) looked at the relationship between walnut consumption and cardiovascular health in diabetics. The mean age of the 24 subjects was 58, and they were all type 2 diabetics. The subjects underwent testing of their vascular endothelium (cells lining the blood vessel walls) by measuring flow-mediated dilation. Flow mediated dilation (FMD) is a method used to diagnose early stages of atherosclerosis. Problem with the endothelium (lining of the blood vessels) is considered to be one of the early signs of atherosclerosis; and that is measured with FMD.

The subjects were placed on either an ad libitum diet or an ad libitum diet supplemented with 56 grams of walnuts per day. At the end of eight weeks, it was found that the group receiving the walnuts had improved endothelial function as measured by FMD.

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Do Antihistamines Cause Cancer?

Research published in *Science News* (1994;145:324) raises the question of whether the antihistamines we take for allergies are linked to cancer. Studies in mice have shown that antihistamines promote the growth of malignant tumors. Scientists at the University of Manitoba believe that the consumption of various medications, including antihistamines and antidepressants, may increase the risk for cancer. In February, 1994, the Department of Health and Human Services noted an increase in the incidence of cancer in the United States. Scientists at the University of Manitoba believe that the consumption of various medications, including antihistamines and antidepressants, may increase the risk for cancer. It has been demonstrated that drugs like Elavil, Claritin, Hismanal, Atarax, Unisom, Prozac, NyQuil and Reactine create tumors in animal studies. Some antihistamines behave like the drug DPPE (Dipalmitoyl Phosphatidylethanolamine), which has been linked to enhancing tumor growth, by binding to histamine receptors, which interferes with enzymes designed to detoxify and remove poisons from the body. This also interferes with the system that regulates cell growth. The drugs do not necessarily cause cancer, but can enhance the growth of cancer.

The point is that all drugs have side-effects and present a burden to the body. As is the case with most disease states, symptoms from allergies are largely due to inflammation. It makes sense to avoid foods that cause inflammation, like refined foods, sugar, hydrogenated oils and foods with chemical additives. Eat foods that lower inflammation, like brightly colored produce that is full of antioxidants, including carotenes, flavonoids and vitamin C.

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

Mom's Diet Affects Baby's Allergies

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 and infants from families with a history of allergies. The infants in the study were being breast fed; and 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 an additional risk factor for children to develop allergies.

A placebo-controlled study appearing in *Acta Pediatrica* (Volume 98, Issue 9, September 2009, Pages: 1461–1467) looked at 145 pregnant women who either had allergies themselves or the husband or previous child had allergies. The women were randomly selected to either receive 1.6 g of EPA and 1.1 g of DHA (fish oil) or a placebo from the final trimester of their pregnancy until the third or fourth month of the newborn's life (the mothers all breastfed their children). In those supplemented with the fish oil the prevalence of allergies or eczema was significantly lower than for the placebo group.
including dioxin and heavy metals.