

Austin Quan Yin Newsletter

The Better Health News

Special Interest Articles: Heart

- Pregnancy and the thyroid
- Name that Food
- Iodine
- Hypothyroidism
- Vitamin D and Fibromyalgia
- Crohn's Disease
- Fibromyalgia and Small Intestine Bacteria

Name that food:
Low calorie, non-dairy
dessert topping

Curcumin and Colitis

Turmeric is a perennial plant, botanically related to ginger, that is native to India, China and Indonesia. It is a component of curry powder and prepared mustard. It is used in traditional Chinese medicine and in Indian (Ayurvedic) medicine for its anti-inflammatory properties. It has been used to treat digestive disturbance, menstrual difficulties, pain and protecting the nervous and cardiovascular systems.

Curcuminoids are antioxidants that are found on the rhizomes (root-like structures) of turmeric. Major curcuminoids include curcumin, demethoxycurcumin and bisdemethoxycurcumin. These substances have powerful antioxidant and anti-inflammatory activity.

Research, appearing in *International Immunopharmacology*

(2006; 6(8):1233-42), showed that curcumin showed some therapeutic benefit in treating rats who had a chemically induced colitis. Other research has shown curcumin may have some value in treating colon cancer. Research in the journal *Clinical Gastroenterology and Hepatology* (August 2006; vol 4: pp 1035-1038) suggests that it might be valuable in treating colon cancer. Research in the *Korean Journal of Gastroenterology* (2005; 45(4):277-84) demonstrated that curcumin inhibited the growth of colon cancer cells. An animal study presented in the journal *Cancer Epidemiology Biomarkers Preview* (2005; 14(1):120-5 (ISSN: 1055-9965)) also suggests it may be useful for colon cancer patients. There are many more cancer studies that show the benefits of curcumin.

Antioxidants and Fibromyalgia

According to a small study appearing in the journal *Redox Report* (2006; 11(3): 131-5), found that 20 fibromyalgia patients were under more oxidative stress than 20 controls. When compared to the healthy subjects, the fibromyalgia patients had a lower total antioxidant capacity. Total peroxide level and oxidative stress index was

significantly higher in patients with fibromyalgia when compared to the healthy subjects. Also, the amount of pain suffered by the fibromyalgia patients seemed to correlate with their antioxidant status. The lower the antioxidant status, the more pain (as rated by the patients on a visual analog scale).

Pregnancy and the Thyroid

About one woman in 50 is thyroid deficient during pregnancy. Nearly 30 million Americans have a thyroid disorder (not all of them pregnant), and half of them are undiagnosed.

According to an article published in the November 22, 2000 issue of *Medical Screening* (a specialty publication of the *British Medical Journal*), a pregnant woman with hypothyroidism is four times more likely to miscarry in the second trimester than a woman with normal thyroid function. The study involved over 9,000 women. In slightly over 2% of the women the TSH levels were 6 or greater.

In the group with TSH levels more than 6 (hypothyroid), miscarriages occurred in 3.8% of the pregnancies. In the normal thyroid group miscarriages occurred in only 0.9% of the pregnancies. Also, as the TSH levels went up, so did the instance of miscarriages. Women who had TSH levels higher than 10, had a miscarriage rate of 8.1%.

The researchers state that routine thyroid screening should be part of every prenatal exam. According to the study, six of every 10 miscarriages can be attributed to hypothyroidism.

Other studies among pregnant women with hypothyroidism have suggest a possible connection between placental abruption, premature birth, miscarriage, low birth weight, and hypertension during pregnancy. These other studies were limited to women attending high-risk or specialty clinics and might not have reflected the findings in the general population—more research is needed to be conclusive.

About one woman in 50 is thyroid deficient during pregnancy. Nearly 30 million Americans have a thyroid disorder (not all of them pregnant), and half of them are undiagnosed. Hypothyroidism becomes even more prevalent with age; by the age of 60, 1 in 5 women will suffer from a thyroid deficiency. This can cause fatigue, depression, loss of sex drive, and, in general, a poor quality of life. If left untreated, thyroid disease can lead to serious long-term complications such as high cholesterol, heart disease, infertility, impaired IQ in offspring, and potentially, late miscarriage.

Name That “Food”

Diet and lifestyle play a large role in health and disease. Many of the things that pass for food in our society act to undermine our health. Dietary indiscretion can cause health problems. Look at the information taken from the label of a commonly consumed “food” and see if you can guess what it is:

WATER, CORN SYRUP, HIGH FRUCTOSE CORN SYRUP, HYDROGENATED VEGETABLE OIL

(COCONUT AND PALM KERNEL OILS) LESS THAN 2% OF SODIUM CASEINATE (FROM MILK), NATURAL AND ARTIFICIAL FLAVOR, MODIFIED FOOD STARCH, XANTHAN AND GUAR GUMS, POLYSORBATE 60, SORBITAN MONOSTEARATE, SODIUM POLYPHOSPHATES, BETA CAROTENE (COLOR).

Answer on page 1

Iodine

Iodine is necessary to produce thyroid hormones. A review article appearing in the *Lancet* (March 28,1998;351:923-924) pointed out the that 1.5 billion people were at risk for brain damage due to lack of iodine. An article in the *Journal of Clinical Endocrinology and Metabolism* (1993;77(3):587-591) summarized the health problems brought on by iodine deficiency. These include cretinism, goiter, intellectual disability, growth retardation, neonatal hypothyroidism, increased miscarriage, increased perinatal mortality and increased infant mortality. However, excess iodine can create hyperthyroidism. There may be a connection between low birth weight and iodine deficiency, according to research appearing in *Pediatrics* (October, 1996;98(4):730-734). Research appearing in *the American Journal of Clinical Nutrition* (2009; 90(5): 1264-71) looked at iodine status and its relationship to brain development. The subjects were 184 children (between the ages of 10 and 13) with mild iodine deficiency. In this randomized, placebo-controlled study, the subjects were given either 150 mcg of iodine or a placebo each day for a period of 28 weeks. Those given the iodine had improved iodine status and improvement on two of four cognitive tests. Research appearing in the *American Journal of Clinical Nutrition* (May, 1996;63(5):782-786) found a connection between low iodine

levels in children and slow learning. Iodine supplementation may also be useful in the treatment of fibrocystic breast disease. The *Canadian Journal of Surgery* (October 1993;36:453-460) found that women supplemented with iodine had greater improvement in their symptoms when compared to controls. Earlier animal research appearing in the *Archives of Pathology and Laboratory Medicine* (November, 1979;103:631-634) looked at rats who were given sodium perchlorate. Sodium perchlorate blocks iodine thus mimicking iodine deficiency in the rats--which in turn created fibrocystic breast disease in these rats.

Iodine is an important nutrient. It is especially important to pregnant women and children. Iodine is classified chemically with the halogens; it is similar to fluorine, bromine and chlorine. These other halogens can displace iodine; so drinking water with fluorine and chlorine may increase the need for iodine. Bromine is used in preservatives, like brominated vegetable oil (BVO), and should be avoided. Iodine requirements are 150 mcg per day for adults and 1000 mcg per day for pregnant and lactating women. Some physicians believe that these numbers are too low.

Iodine supplementation may also be useful in the treatment of fibrocystic breast disease.

Hypothyroid: A Commonly Missed Diagnosis

There are many patients who are tired, depressed or cannot seem to lose weight. This trio of symptoms may be caused by hypothyroidism, a commonly missed medical condition. In hypothyroidism, metabolism slows down, resulting in symptoms that include fatigue, depression, an inability to lose weight, constipation, and swelling of the ankles. Patients who have hypothyroidism tend to be cold and also tend to cry easily. Low thyroid function can even cause more serious symptoms like high cholesterol and delayed development in children. It is a problem that is commonly missed by doctors. According to research appearing in the *Archives of Internal Medicine* (2000;160:526-534.), 13 million Americans may have thyroid disease and not know it.

TSH is a pituitary hormone that stimulates the thyroid gland—levels are used to screen for thyroid problems. The *British Medical Journal* [BMJ 2000;320:1332-1334 (13 May)] published research examining the flaws in diagnosing hypothyroidism. The authors concluded that there are indeed flaws with the way that we diagnose hypothyroidism. First of all, the research is lacking that shows us the relative importance of lab tests and symptoms in diagnosing the thyroid. TSH production is affected by the level of thyroid hormone, but it is also affected by other things. We don't fully understand how various illnesses affect TSH and the thyroid hormones. There is also a need to consider the possibilities of false positive and false negative results when looking at lab tests related to the thyroid.

The basal body temperature, commonly used to screen for hypothyroidism, should be between 97.8 and 98.2 degrees (take it the **very first thing** in the AM). If a patient

has a low basal body temperature and hypothyroid symptoms, that is justification to treat the thyroid. However many things can cause a low temperature, thus using only basal body temperature and symptoms to make this diagnosis is unsatisfactory.

Many health problems are linked to hypothyroidism. Many people on antidepressants should be getting thyroid support. Research appearing in the *American Journal of Psychiatry* (March 1993;150:3:508-510) suggests that the thyroid may be involved with some cases of depression. This small study looked at 16 patients with subclinical hypothyroidism and 15 with normal thyroid function. The frequency of depression over the course of a lifetime was higher in the group with subclinical hypothyroidism.

Hypothyroidism can cause high cholesterol and heart disease. Research appearing in the *Annals of Internal Medicine* (2000; 132(4):270-8) showed that subclinical hypothyroidism and thyroid autoimmunity can also increase the risk of heart disease. Could it be that your patient who is on cholesterol lowering medication should actually be getting thyroid support? Hypothyroidism can be responsible for miscarriages. If an expectant mother has hypothyroidism and doesn't miscarry, her baby will have a lower IQ than if her thyroid was normal [According to a study published in the *New England Journal of Medicine* (1999;341:549-555, 601-602),]. Problems losing weight, dry skin and immune system problems may have the thyroid problems at their root.

Vitamin D and Fibromyalgia

Research in the journal *Clinical Rheumatology* (July 19, 2006) published online, looked at vitamin D levels in 75 fibromyalgia patients. The subjects filled out two questionnaires—the Fibromyalgia Impact Questionnaire and the Hospital Anxiety and Depression Score (HADS). Vitamin D levels were also tested. A little over 13% of the subjects were deficient in vitamin D, having less than 25 nmol/l, and

56% had low levels (below 50 nmol/l). The subjects who were deficient in vitamin D had lower HADS (median score 31) scores when compared to the group that merely had low levels or normal levels (median scores of 22.5 and 23.5 respectively). There may be an association between low vitamin D levels and the anxiety and depression that accompanies fibromyalgia.

Crohn's Disease and the Pancreas

Patients with Crohn's disease may have decreased pancreatic activity. A study appearing in the journal, *Gut* (1990;31:1076-1079) compared the activity of amylase and lipase (pancreatic enzymes that digest carbohydrate and fat respectively) in patients with Crohn's disease and healthy controls. The 59 men and 84 women with the disease had less pancreatic enzyme activity than the 50 men and 65 women who did not have the disease. The lowest enzyme activity was found in those with the most extensive bowel involvement.

A number of studies have shown that patients with Crohn's disease tend to have consumed a lot of refined sugar prior to developing the disease. Research appearing in the *Scandinavian Journal of Gastroenterology* (1983;18:999-1002), *Epidemiology* (January, 1992;3(1):47-52) and the *British*

Medical Journal (September 29, 1979;2:762-764) support this. A study appearing in *Z Gastroenterol* (January 1981;19(1):1-12) compared patients on a low carbohydrate, sugar-free diet to those eating a high carbohydrate diet. It was a small study, but 80% of the Crohn's disease patients on the low carbohydrate, sugar-free diet experienced improvement of symptoms. Four of the five patients on the high carbohydrate diet had to be removed from the study because their symptoms flared up.

Elaine Gottschall's model for Crohn's disease is one where the capacity to digest complex carbohydrates is overwhelmed. Carbohydrate is then broken down in the small intestine by bacteria, irritating the lining and further degrading the body's capability to digest carbohydrate. Her book, *Ending the Vicious Cycle*, goes into this mechanism in great detail and proposes a diet that is free of disaccharides and complex carbohydrates.

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“...happiness gives us the energy which is the basis of health.”—Henri-Frederic Amiel

Fibromyalgia and Bacteria in the Small Intestine

According to research appearing in the *Journal of Musculoskeletal Pain* (2001;9(3):107-113), there may be a connection between fibromyalgia and bacterial overgrowth in the small intestine. The study involved 815 subjects, of whom 152 were diagnosed as having fibromyalgia. Of the 152 fibromyalgia patients, 29 had inflammatory bowel disease and were excluded from the study. Of the remaining 123 fibromyalgia patients, 96 tested positive for bacterial overgrowth in the small intestine, as diagnosed by the lactulose hydrogen breath test. Also, 107 of the fibromyalgia patients met the criteria for irritable bowel syndrome.

In a follow up test following antibiotic therapy, the 25 subjects returned for testing. Of those 25 patients, 11 had eliminated the small intestine bacteria and 14 had incomplete eradication of the bacteria. Of the 25 patients, 57% had a global improvement in their symptoms.

The article notes correlation between fibromyalgia symptoms and certain species of bacteria. Certain species of *Chlamydia* and *Borelia* may produce endotoxins that can cause the systemic symptoms.

