September, 2008
Volume 3, Issue 9

The Better Health News2

Special Interest Articles:

Name that food:
Little Brownies

Can the Suburbs Make You Fat?

According to research published in the *American Journal of Preventive Medicine* in December, 2006, teenagers living in the suburbs are more than twice as likely to be overweight than children living in cities. An earlier study showed that adults living in the suburbs tended to be more overweight than those living in cities.

The study linked suburban sprawl to obesity in children; the greater the sprawl, the more obesity. It makes sense. People in cities walk more. In the suburbs people have to drive everywhere. Many suburbs don't even have sidewalks. Work, school, shopping and other destinations are farther away than they are in the city, so people spend more time in their cars. Because of the long distances traveled, they tend to have less time for exercise. Also, there is a tendency for many people to eat junk food in the car.

Bilberry and the Kidney

Research appearing in the *Journal of Agriculture and Food Chemistry* (Vol. 56, No. 3: February 13, 2008, e-published ahead of print) showed that bilberry extract may have a protective effect on the kidney. Mice were exposed to a chemical, potassium bromate ($KBrO_3$), which is an additive used in bread making. It is a toxic substance that has been linked to hearing loss and kidney damage. The mice were given a dose of the chemical that was high enough to cause kidney damage. They also gave an anthocyanin-enriched bilberry extract of 50, 100, and 200 mg/kg over five days. After receiving the bilberry extracts the mice exhibited a reversal in blood levels blood urea nitrogen (BUN) and creatinine to normal levels (these are blood markers that may indicate kidney damage). The bilberry also reduced malondialdehyde (an oxidative substance), nitric oxide and xanthine oxidase. The bilberry reduced the oxidative stress to the kidneys.

Some Problems with Osteoporosis Drugs

According to the January 18, 2008 issue of the British Medical Journal, the benefits of osteoporosis drugs are exaggerated.

The *Journal of Orthopaedic Trauma* (May/June 2008, Volume 22, Issue 5) published a retrospective review of patients with femoral shaft fractures admitted to a Level 1 trauma center between January 2002 and March 2007. Seventy low-energy fractures were identified. These are leg fractures (thigh) that occurred with little or no trauma.

The researchers looked at 59 females and 11 males, averaging 74.7 years of age. Twenty-five (36%) were being treated with alendronate (a biophosphonate, which is an osteoporosis drug) Nineteen (76%) of these 25 patients had a fractured femur (thigh bone). The fracture was demonstrated a simple, transverse fracture with a unicortical beak in an area of cortical hypertrophy. This fracture pattern was seen in only one patient (2%) not being treated with alendronate.

Bone is living tissue. It is continually breaking down and rebuilding. In many women over 30, bone resorption occurs faster than rebuilding. Biophosphonates, like Fosamax, Actonel and Boniva are designed to slow this process down. There is some evidence that microscopic fractures that occur normally in bone are not repaired when these drugs suppress the remodeling process. Another problem that can occur with these drugs is osteonecrosis, which is a painful condition where the bone literally dies and rots.

According to the January 18, 2008 issue of the *British Medical Journal*, the benefits of osteoporosis drugs are exaggerated. The drugs are being prescribed to women with osteopenia, which is a less serious situation than osteoporosis and affects about half of all older women.

The authors of the *British Medical Journal* article believe that the osteoporosis drugs are being prescribed unnecessarily to a relatively healthy population. They feel that it is a case of a risk factor being turned into a disease in order to sell tests and drugs. The calculation of the benefits of the drugs is presented in a way to make them look more effective than they actually are. For example, a 75% relative risk reduction for fracture is cited. In reality, this is actually less than a 1% reduction in absolute risk. This means that 270 women with pre-osteoporosis would have to be treated with drugs for three years to avoid a single fracture. Women with osteopenia have such a low risk of fracture to begin with, that the drugs offer them almost no benefit.

B_6 and MSG

According to a small research study *(Biochem Biophys Res Commun* 100:972-7, 1981). A small group of students (12/27) who were not supplemented were challenged with a large dose MSG and showed characteristic symptoms. For 12 weeks nine of the students received 50 mg. of pyridoxine (vitamin B_6) per day, the other three took a placebo. When challenged with MSG after the supplementation, 8/9 of the supplemented students did not react to the MSG.

Cod Liver Oil and Rheumatoid Arthritis

A study appearing in the journal, *Rheumatology* (2008 May;47(5):665-9) showed that cod liver oil could possibly help patients with rheumatoid arthritis (RA) reduce their medication. There were 97 subjects in the study; they were between the ages of 37 and 78 and diagnosed with RA. Subjects received either a placebo or 10 grams of cod liver oil per day. They were evaluated at the beginning of the study, as well as at 4, 12, 24 and 36 weeks.

The amount of non-steroidal anti-inflammatory medication (NSAID) being taken at the beginning of the study was considered to be 100%, for the purposes of future comparison. The subjects who were taking a once-daily dose of medication had the dosage changed to a shorter-acting equivalent of the total dose, e.g. diclofenac slow-release 75 mg twice a day was changed to six 25 mg tablets of diclofenac a day. Patients were asked to keep track of their medication and told to reduce the dosage as much as possible—stopping them if possible. The intake and the average daily requirement from the previous visit was compared with the baseline dose. Any reduction or increase in NSAID dose was documented in percentages.

Of the 97 subjects, 69 were females and 28 males. All patients were on NSAIDs and 36 of placebo group and 39 of the subjects taking the cod liver oil were on disease modifying antirheumatic drugs (DMARDs). Only two patients in each group were on more than one DMARD. Seven subjects in the placebo group and nine of those in the fish oil group were on oral prednisolone at doses of ≤7.5 mg/day [mean dose 4.9 mg (3–7.5 mg)].

Thirty-two out of 49 subjects in the fish oil group and 26 out of 48 subjects in the placebo group completed the study. When only those patients who completed the study were analyzed; 19 out of 32 (59%) patients in the active group and 5 out of 26 (19%) patients in the placebo group were able to reduce their daily NSAID requirement by more than 30% at the end of nine months. The authors of the study concluded that cod liver oil supplements containing omega-3 fatty acids could be used to decrease the amount of drugs needed by patients with RA.

Diet is something to consider when dealing with rheumatoid arthritis. There is a relation between dietary factors and risk of rheumatoid arthritis. A study involving 145 rheumatoid patients and 188 control subjects from southern Greece and published in the *American Journal of Clinical Nutrition* (1999 Dec;70(6):1077-1082) shows a connection between diet and severity of symptoms. Consumption of both cooked vegetables and olive oil was associated with a lower instance of rheumatoid arthritis.

A study appearing in the journal, Rheumatology showed that cod liver oil could possibly help patients with rheumatoid arthritis (RA) reduce their medication.

Low Testosterone

In men, testosterone levels decline around the age of 30 and by age 80 may be down to 20% of someone in their 20s. Men with low testosterone tend to have less stamina, reduced muscle mass and reduced libido. They can also have cognitive problems as well as depression and anxiety. The thing you really notice in men with low testosterone levels is a lack of initiative—they fit the stay-at-home, couch potato stereotype. They may say things like, "I used to like to work on the car (go on a hike, go dancing, work around the yard, etc.), but I really don't feel like doing that anymore."

Low testosterone can lead to more serious health problems. It is linked to obesity (and increased abdominal fat), diabetes and heart disease. In the journal, *Circulation* (2007;116:2694-2701), a study examined the prospective relationship between endogenous testosterone concentrations and mortality due to all causes, cardiovascular disease, and cancer in a nested case-control study based on 11,606 men aged 40 to 79 years. The researchers concluded that endogenous testosterone concentrations are inversely related to mortality due to cardiovascular disease and all causes. Low testosterone may be a predictive marker for those at high risk of cardiovascular disease. Other research *(Circulation* 1999;100:1690-1696) showed that short-term intracoronary administration of testosterone, at physiological concentrations, induces coronary artery dilatation and increases coronary blood flow in men with established coronary artery disease.

Women can have low testosterone as well. Levels decline between the ages of 20 and 40. An article appearing in the journal, *Clinical Geriatric Medicine* (2003;19:605-616) reviews the changes a woman goes through when testosterone levels decrease. When a woman receives estrogen for hormone replacement therapy after menopause, there is an increase in sex hormone-binding globulin. The sex hormone-binding globulin binds to testosterone, further decreasing levels. Low testosterone is linked to a decrease in libido, as well as a decrease in muscle mass. It can cause fatigue, irritability, sleep disturbances, poor memory and cognition, headaches, and even depression. Testosterone may play a role in preventing Alzheimer's disease, according to a recent animal study, according to *Proceedings of the National Academy of Sciences* (February 1, 2000;97:1202-1205). Nerve cells collected from rats and mice tend to produce a harmless form of beta-amyloid protein in the presence of testosterone. Under the influence of testosterone, much less beta-amyloid peptide is produced, and more of this secretory beta-amyloid precursor protein, which is considered by most people to be beneficial for the health of the nerve cells. Testosterone may actually reduce production of the protein that makes up plaques in the brains of Alzheimer's disease patients.

Calcium, Magnesium and Chemotherapy

Researchers from the North Central Cancer Treatment Group presented a study at the 44th meeting of the American Society of Clinical Oncology (American Society of Clinical Oncology abstract number: 4009) that indicated calcium and magnesium may reduce side effects from the chemotherapy drug oxaliplatin. A group of 102 patients with colon cancer were divided into two groups. One group of 50 patients received an intravenous solution containing calcium and magnesium prior to chemotherapy treatment. The other 52 subjects received a placebo.

One of the side effects of treatment with oxaliplatin is neurotoxicity. It creates pain in the extremities that can be severe. The researchers found that the subjects receiving the calcium and magnesium had a significant reduction in the length of duration and the severity of neurotoxicity.

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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:

SUGAR, EGGS, BLEACHED WHEAT FLOUR, SOYBEAN AND/OR CANOLA OIL, WATER, CORNSYRUP, CHOCOLATE LIQUOR (PROCESSED WITH ALKALI), COCOA (PROCESSED WITH ALKALI), PALM OIL, FRUCTOSE, WHEY, SALT, NATURAL & ARTIFICIAL FLAVORS, GELLAN GUM, SODIUM CITRATE, GUAR GUM, XANTHAN GUM, PROPYLENE GLYCOL MONOESTERS, SOY LECITHIN, MONO- AND DIGLYCERIDES, SODIUM STEROYL LACTYLATE, SOY PROTEIN, POTASSIUM SORBATE (PRESERVATIVE).

Answer on page 1

Always laugh when you can. It is cheap medicine.—*Lord Byron*
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Stress and Comfort Foods

Research appearing in the *Proceedings of the National Academy of Sciences* (Sept 30, 2003; vol. 100; no. 20; 11696-11701) shows why stress creates craving for comfort foods. The study looked at corticosterone production in rats (the equivalent human hormone is the adrenal hormone cortisol). Stress causes an increase in corticosterone in rats. The hormone prompts pleasure seeking behavior—including eating high energy foods like sugar and lard.

Eating those comfort foods may actually work to control the hormonal output of stress, when chronic stress is present. "Our studies suggest that comfort food applies the brakes on a key element of chronic stress," says study co-author Norman Pecoraro, PhD. It makes sense, high energy food is likely to be needed in times of acute stress.

In areas where there is war, epidemic, hunger and other extreme stressors, there is a need for high energy food. Such food can help with survival. In comfortable civilization, there is chronic stress—and comfort foods are everywhere. An increase in abdominal fat, actually reduces the production of the stress hormones. "This seems to be the body's way of telling the brain, 'It's ok, you can relax, you're refueled with high-energy food,'" says Pecoraro. This can explain the difficulty many people have with losing weight. Weight loss is stressful, causing the output of adrenal hormones and the desire for comfort foods.