YOUR NEWSLETTER OF GOOD HEALTH AND VITALITY

Dr. Michael Janson's HEALTHY LIVING™

Volume 6 No. 9 Free on the web at www.drjanson.com September, 2004

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In This Issue

Dear Friends,

Glimmers of hope have begun to appear on the nutrition horizon. Schools in Nashua, New Hampshire, have banned vending machines that dispense junk and soda beverages. The new vending machine offerings will include water, flavored water, juices, and sports drinks (the last only available after school). The news article reported that "the policy is meant to offer healthy foods throughout a school, as opposed to offering a piece of fruit with lunch, and a candy bar down the hall..."

Around the country, 75 to 85 percent of snacks are of poor nutritional value, right in line with the rise of obesity and diabetes in young people, so to see this shift is gratifying, even if it is just a start. At the end of July, the French parliament voted to ban vending machines selling junk (candy and soft drinks) in all schools, partly due to the rising obesity levels in children.

In Italy, Britain, Sweden, and other European countries, concern about obesity is growing, and this is particularly important to some Mediterranean countries where the traditional diet of fruits, vegetables, grains and pastas, and fish is being threatened by highly processed junk. Some of these countries are taking steps to curb advertising aimed at children, and to educate people about the value of maintaining their traditional diets. In Britain, a member of parliament introduced a bill to ban preschool TV advertising of foods high in sugar, salt, and fat. I am sure this will help not only their health, but their school performance as well.

Watching television and playing computer games has overtaken physical activity for many children, but at least many countries are recognizing the danger of an increasingly sedentary lifestyle. I remember watching TV as a kid, but also spending lots of time at recess playing sports, and lots of time after school playing outside, as well as riding bikes, weekend hikes, summers at the shore playing baseball, swimming, and running around in general (we had no TV at the summer house).

It is true that I spend a lot of time at the computer these days, writing, researching, and learning. Even though I also spend a lot of time in the garden being very physical, this is not enough, so I feel the need for a specific exercise program (running and bicycling) to complement my more sedentary activities. With cities in the USA and with so many other countries beginning to recognize the problems brought on by poor diet and sedentary lives, it is refreshing to see that some of them are doing something about it, emphasizing traditional, less-processed diets and increased physical activity as important for overall health.

It is important for all of us to contribute improving children's health, partly by setting the example of healthy living. Everyone will benefit from a healthier society, and it will reduce health care costs.

Diabetes Revisited

Adult onset (type II) diabetes has been in the news extensively in recent months, and it is clear that the incidence of diabetes and the complications from it are increasing, and not only in this country.

I reported last year (October, 2003) on the extent of diabetes in developing countries and the pandemic nature of the disease (occurring over a wide geographic region and affecting a large percentage of people). In most developing countries, infectious disease associated with poverty is often the leading cause of death. Now, in Mexico, diabetes is the number one killer.

Death from diabetes is increasing in Mexico at three percent per year, and is now the cause of 12 percent of all deaths. (Deaths from heart disease, cancer, and hypertension have also increased dramatically in the past 50 years.) It is clear that as developing countries industrialize the food supply the health of the population suffers accordingly. It appears that junk food is extremely popular in Mexico, but obesity and diabetes are also rising in other developing countries.

While the sugar and soft drink industries try to deny it, evidence is mounting that dietary sugar, particularly from soft drinks, is related to the increasing rate of diabetes. (In the U.S. it is estimated that 18 million people have diabetes, and it is increasing at 1.3 million per year.) The recent revision of the USDA dietary guidelines falls short in recommending the reduction of sugar and soft drinks (perhaps because the panel is influenced by the industry).

The Nurses' Health Study of 91,249 women shows a direct relationship between the rise in sugar drink consumption (during 20 years, adult consumption rose 61 percent, and children's intake more than doubled). In this study, women who increased their intake from less than one a week to one per day nearly doubled their risk of diabetes. They also significantly increased their weight with the increased sugar. Fruit juice consumption was not associated with an increased risk.

The highly absorbable sugars in these drinks (as well as other junk sweets) cause rapid blood glucose elevations and subsequent release of excess insulin. The rise in sugar determines what is called the "glycemic index" or GI of the food being studied. The GI can be misleading, though, in other contexts, because healthy foods with a high GI are often not eaten alone. For example, a baked potato has a high GI, but if you add some olive oil or flaxseed oil it changes the effect. Studies of food combinations would produce a different picture of the GI than single foods. Sodas, however, are often consumed by themselves.

Recently, diabetes and pre-diabetes have been linked with the loss of mental function and dementia. A study of 7027 post-menopausal women showed that diabetes and prediabetes almost doubled the loss of cognitive function.

Of course, diet is not the only contributor to diabetes and obesity. Sedentary lifestyles also contribute to diabetes risk. Exercise blunts the rise in blood sugar after meals, and it makes insulin more effective by increasing muscle-cell insulin sensitivity. Brisk walking, jogging, cycling, and similar activities are helpful in controlling blood sugar (animals have to be physically active every time they want to eat). These also help to reduce weight.

Diabetes Supplement Update

While diet and exercise are the primary influences on blood sugar, dietary supplements are also important in the management of diabetes. Recent studies confirm the value of high-dose chromium in controlling blood sugar. A study of elderly diabetics showed that 400 mcg of chromium reduced blood sugar by 20 percent after only three weeks. Lipid levels were also lowered. Higher doses (1000 mcg) are even more valuable.

Alpha-lipoic acid helps to control blood sugar. A new animal study shows that it improves insulin sensitivity. Higher doses (1000 mg) help to reverse peripheral neuropathy that is often associated with chronic diabetes. Alpha-lipoic acid is a potent antioxidant and a cofactor for mitochondrial energy production. It counteracts free radicals, removes toxic metals, and enhances vitamin C and glutathione levels.

Recently, researchers have found that cinnamon can improve sugar control. A daily dose of up to 6 gms (about a teaspoon) reduces fasting sugars by 29 percent. It also improves lipids, lowering total cholesterol, triglycerides, and LDL-cholesterol by 25 to 30 percent.

Lutein and Macular Degeneration

New research suggests that lutein is even better than previously reported in helping age-related macular degeneration (ARMD), a deterioration of the most sensitive area of the retina. A 12-month study of 90 patients with ARMD showed that lutein supplements (10 mg daily) increased the visual pigment in the retina, and was associated with a significant improvement in visual acuity (using the Snellen eye chart). The ability to detect contrast was also better in the treatment group than in the controls.

In another study, seven patients with ARMD were treated for five months with 10 mg of lutein. The pigment was found to concentrate in the macula, suggesting that even diseased retinas can absorb and accumulate visual pigment.

In addition to preventing ARMD, as previous research has shown, this is the first information showing potential reversal of the condition. Macular pigments, such as lutein and zeaxanthin, are carotenoids that come exclusively from the diet. They not only provide the visual pigment, but they are antioxidants that protect the macula from oxidative free-radical damage.

Lutein in the diet is found in spinach, other dark leafy greens, leeks, peas, and egg yolks. Low dietary levels are associated with increased ARMD and also with cataracts. Supplemental lutein is derived from marigolds. Carotenoids are fat soluble, and should be taken with oil-containing foods for better absorption.

Ask Dr. J

Q. What do you consider to be the safe limit for folic acid supplements? I've been told not to take more than 1000 mcg (1 mg).

RG, Indiana, U.S., via Internet

A. Folic acid (also called folacin or folate) is a B vitamin with a number of functions. It is essential for cell replication and both DNA and RNA production, as well as protein synthesis. Tissues that need a lot of folate are those that multiply rapidly, such as red blood cells, immune cells, and the developing fetus.

A deficiency of folate during pregnancy can lead to birth defects. In others, it can cause anemia, with abnormally enlarged red blood cells. Vitamin B12 deficiency also leads to anemia with enlarged red cells, which is early evidence of that deficiency. High doses of folate can correct the enlarged red cells seen with B12 deficiency, hiding that deficiency from detection, so folate has developed an unwarranted reputation for causing B12 deficiency, when it only masks it.

Increasing dietary or supplemental folate is associated with a lower risk of colon cancer, and may also help to prevent lung and breast cancer. Folate in larger doses (along with B6 and B12) has value in reducing the production of homocysteine, a metabolic byproduct associated with an increased risk of heart disease.

If patients have high homocysteine, I often recommend that they take 5000 mcg (5 mg) or more. Supplements of vitamin B12 can prevent a hidden deficiency while taking higher doses of folate. Undetected B12 deficiency can lead to irreversible nerve damage. B12 deficiency does not always cause anemia, so independent of folate, it is good to attend to B12 intake and check levels. I am unaware of any other folate problems.

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Improving School Diets

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In the Health News

- Long term use of acetominophen (Tylenol) is associated with a decline of kidney function (Curhan GC, et al., Lifetime nonnarcotic analgesic use and decline in renal function in women. *Arch Intern Med.* 2004 Jul 26;164(14):1519-24.). In this report, 10 percent of 1697 women showed a 30 percent decline in the filtration ability of the kidneys over 11 years. Tylenol is used as a pain killer, and other pain killers have been associated with kidney damage, but not in this study. Women who took between 1500 and 9000 tablets (averaging less than 1 to about 2 per day) had a 64 percent decline in kidney filtration. For arthritis pain, alternative treatments are available.

Diet and Disease

- Blueberries are known for containing powerful antioxidant phytochemicals. New research presented at a meeting of the American Chemical Society (Reuters, August 24, 2004) shows that they can also help control cholesterol levels and blood sugar. Blueberries contain a compound called pterostilbene, similar to resveratrol (both are also found in grapes). It protects against cancer and heart disease. Related compounds are found in other berries.
- Linoleic acid, one of two essential fatty acids, found in grains, legumes, seeds, and nuts, appears to lower the risk of prostate cancer. (Laaksonen DE, et al., Serum linoleic and total polyunsaturated fatty acids in relation to prostate and other cancers...Int J Cancer. 2004 Sep 1;111(3):444-50.) Researchers following 2002 men for 13 years found that those with the highest intake had about half the prostate cancer risk as those with the lowest intake, possibly because it displaced saturated fat in their diets. Other cancers were also reduced, but not as much as prostate cancer.

Dr. Janson's Healthy Living™

Published by
Vitality Now!®
PO Box 384
Greenville, NH 03048
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Seasonal Vegetables

(Or what to do with all of those garden zucchini, yellow squash, string beans, and tomatoes!) I find that you can easily mix them all in a variety of dishes that are simple and tasty. I first sauté some organic onions and garlic in a mixture of olive oil and curry powder. Then I add diced potatoes and water, and simmer with a lid for 10 minutes. Next, I add cauliflower pieces, cooked chick peas, tamari soy sauce, and slices of the above veggies, then simmer until all the flavors suffuse the mixture. I serve this over brown rice. I also use the same vegetables, but substitute oregano, thyme and fresh basil from the garden instead of the curry, use white cannelloni beans instead of chick peas and potatoes, and add fresh-ground pepper. This combination gives the mix more of an Italian flavor, and it can be served over whole wheat or buckwheat pasta.

From June to October, I see patients in Arlington, MA, and Amherst, NH. For appointments during this time, call **603-878-2256**. I also do phone consults.

From November to May, I see patients in New Smyrna Beach, Florida. Call **386-409-7747**.

My newest book is *The User's Guide to Heart Healthy Supplements*. You can order it from **QCI Nutritionals** at **888-922-4848**. *Dr. Janson's New Vitamin Revolution* and my other books are also available from QCI Nutritionals or health food stores. You can visit the QCI Nutritionals website at **www.qcinutritionals.com** for quality supplements at reasonable prices.

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