

Dr. Michael Janson's

HEALTHY LIVING™

Volume 8 No. 8

Free on the web at www.drjanson.com

August, 2006



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Dear Friends,

If you ask the right questions, you can usually get the survey results that you want, especially in an informal and unscientific "fluff" piece poll designed for television or other mass media. This was recently apparent to me when one of the major TV stations interviewed schoolchildren about their dietary preferences. The main question that the interviewer asked, and the one that still sits in my mind, was "Would you choose to eat a food that tasted good, or one that was healthy?"

This is a trick question clearly designed to elicit a specific answer, as almost anyone with common sense, especially teenagers, would not want to eat something that tasted bad or was tasteless. The trick, of course, is the unwarranted assumption that healthy foods do not taste good. In most cultures, people enjoy healthy foods that taste delicious. Foods with a variety of flavors and aromas are a delight to the palate without unhealthy ingredients.

Admittedly, companies who make and sell junk disguised as foods spend enormous sums on research in an effort to create products that appeal to taste buds, but their great appeal is low cost and ready availability. They also lace their products with fat, sugar, and salt, as well as artificial ingredients, to hide their lack of real flavors that come from natural foods, herbs, and spices. Then they spend as much on advertising directed at vulnerable children that

eventually addict them to unhealthy eating habits. No doubt they pay a lot to the TV stations that air these silly surveys.

Whole, natural, minimally processed foods are consumed around the world with great delight. For examples, native foods in China, India, Japan, Mexico, Thailand, Greece, the Middle East, and elsewhere are routinely enjoyed by adults and children, and they are generally healthy. When children grow up eating these foods, they do not consider themselves deprived of pleasure. However, they might still be susceptible to advertising designed to change their eating habits for the worse. Part of the appeal to children is their natural sweet tooth and the pleasant "mouth feel" of fats. The appeal to the the fake-food industry is that white flour, fat, and sugar are all cheap and highly profitable.

Susceptible children spend much of their time watching TV (more time than any other single activity except sleep), and over half the ads they see are for candy, soft drinks, chocolate, chips, and pastries, as well as restaurant chains. It is no surprise that they do not see these toxins for what they are. They see no ads for fruits and vegetables. It is not surprising that we see an epidemic of childhood obesity.

The teens in the TV program were mostly overweight and possibly unaware of the connection between their food choices and their weight, a relation that children (and adults) need to learn. A pollster might better ask children whether they would prefer to eat a tasty food or an unhealthy food. They might get quite a different result from the one that the glib TV piece suggested.

Managing Metabolic Syndrome

Metabolic syndrome (MetS) is really just a collection of physiological abnormalities that increase the risk of cardiovascular disease and other health problems. When they occur together they markedly increase risk. Although these abnormalities were not new, they were first described as a syndrome in the late 1980s. The most commonly discussed abnormality is insulin resistance.

Insulin is the hormone produced by the pancreas that is required to move sugar (glucose) from the bloodstream into most cells, such as muscle, liver, and fat cells (although not brain cells, which do not require insulin to absorb their fuel). Once inside the cells, the glucose can be burned for energy. A poor response to insulin leads to high blood sugars and excessive insulin production.

Other features of MetS (formerly called syndrome X, which was somewhat confusing as other conditions were also referred to by that term) include high blood pressure, high blood triglyceride and total cholesterol with low HDL cholesterol, and obesity around the waistline. It may also include high levels of blood clotting factors (such as fibrinogen) and the inflammatory marker, C-reactive protein (CRP). When someone has three or more of these conditions, disease risks are much higher. Unfortunately, this is increasingly being seen in children.

In addition to cardiovascular disease, metabolic syndrome increases the risk of developing diabetes, strokes, and peripheral vascular disease. While many people consider MetS to be the cause of their obesity, it is far more likely that too many calories in the diet, too much saturated fat, too many sweets, lack of exercise, and obesity itself are among the causes of MetS. The good news is that these are all dependent on lifestyle choices that someone can change for the better to reduce their risks of serious disease. Genetic predisposition plays only a small role in this condition.

You can evaluate yourself for these risk factors with some minor medical help. You can measure your waist circumference with a tape measure (a waistline over 40 inches for men and 35 inches for women is indicative). You can also take your blood pressure yourself. You are at risk if your levels are greater than 135/85. You can also look at the results of your blood testing to see if you

have elevated triglycerides (over 150 mg/dl), or a low HDL (under 40 mg/dl for men or 35 for women), or elevated fasting glucose (over 100mg/dl). For some of the numbers, risks are apparent below those limits, but these are the criteria for this diagnosis. More sophisticated testing is not essential, but it is easy for your doctor to order a fasting insulin (over 10 or 15 uIU/ml is too high, depending on which experts you accept).

Lifestyle As Treatment

It is clear that exercise and weight loss are essential lifestyle changes to reverse the MetS risk factors. In children, a program of high-fiber, low-fat diet plus daily aerobic exercise dramatically reduced the indicator numbers. For examples, insulin dropped from 27 to 18, triglycerides went from 146 to 88, systolic blood pressure reduced from 130 to 117, and diastolic from 74 to 67, among other beneficial changes.

The encouraging news is that the changes were evident within two weeks, food quantities were not restricted, and the improvements happened even though the subjects remained overweight. Aerobic fitness training improves insulin activity and moderates the effect of specific foods on blood sugar levels (the “glycemic index” or GI).

The GI refers to the effect on blood sugar when a portion of a food is eaten by itself. However, several studies in both diabetics and normal subjects indicate that this is only minimally useful for diet management. One reason is that foods are rarely consumed separately; combining foods and other factors alter glucose effects. While refined sugars and grains, such as white flour, contribute to insulin resistance, misconceptions surround the role of whole grains and fruits in the diet.

Whole grains improve insulin sensitivity and reduce MetS. In the Framingham study, while a high glycemic index increased insulin resistance, high whole grain and fruit consumption reduced it. In a study of 75,521 women, high whole grain consumption lowered the risk of diabetes. Another study of 535 older adults (60-98) showed that high whole grain intake markedly reduced MetS and cardiovascular mortality.

Avoid fad diets that claim to help with metabolic syndrome by avoiding healthy foods. They often exclude such foods because of their GI. I recommend eating a high-fiber, low-fat diet of whole,

natural foods that are minimally processed, emphasizing vegetables, fruits, whole grains, legumes, seeds, nuts, and fish. In the context of this diet, foods such as carrots and potatoes are fine.

Numerous supplements also help to control blood sugar, lipids, and blood pressure, and I have written previously about them. They include chromium (200-1000 mcg daily), cinnamon (1/2 tsp twice a day), and alpha lipoic acid (300-1000 mg), which help with blood sugar; coenzyme Q10 (200 mg), magnesium (500-1000 mg), vitamins C and E, hawthorn, and taurine, which help with blood pressure; garlic, fish oil, policosanol, niacin, red yeast rice, and L-carnitine, which help with blood lipid levels. Combining diet, exercise and supplements might completely eliminate the risks associated with metabolic syndrome.

Preserving Vision Update

New research shows that omega-3 fatty acids from fish help to block the development of age-related macular degeneration (ARMD). Prior studies have shown that high-fat diets increase the risk. Researchers followed 2335 people for five years and found that those who ate fish once a week had 40 percent less ARMD than those who ate it less often. Those who ate fish three times a week or more had 75 percent less ARMD.

In another study of 681 twins, those subjects with the highest fish consumption had about half the risk of ARMD compared with those whose intake was the lowest. In this study, the most benefit was seen when consumption of commercial vegetable oils was the lowest. In this study they also noted that smoking doubles the risk of ARMD.

In the Nurses' Health Study, researchers followed 76318 women for 20 years and found that diabetes increased the risk of glaucoma by about 80 percent. Untreated glaucoma, an increased eye pressure, can lead to blindness. This is further evidence of the importance of controlling diabetes and metabolic syndrome. (Pasquale LR, et al., Prospective study of type 2 diabetes mellitus and risk of primary open-angle glaucoma in women. *Ophthalmology*. 2006 Jul;113(7):1081-6.)

The carotenoids lutein and zeaxanthin are antioxidants that appear to protect against both ARMD and cataract in a study of serum levels in 899 subjects. Delcourt C, et al., Plasma lutein and zeaxanthin and other carotenoids as modifiable risk factors for age-related maculopathy and cataract: the POLA Study. *Invest Ophthalmol Vis Sci*. 2006 Jun;47(6):2329-35.

Ask Dr. J

Q. I am healthy, but have taken 120-150 mg of coenzyme Q10 daily for five years. Might this make the heart work harder and cause heart failure if I take too much?

TM, Pennsylvania, via internet

A. Coenzyme Q10 is a cofactor for the production of energy in muscle and other cells. It is especially important for the heart and brain, but it is not a stimulant. It helps the heart work harder if it needs to, but it does not "push" the heart to work harder. It will only help the heart function optimally while it also protects the heart and other tissues as an antioxidant.

Taking coenzyme Q10 is extremely safe. Medical researchers have used up to 3000 mg daily with no side effects. I can understand your confusion. I recently read in a supermarket magazine a dietitian cautioning against taking over 100 mg of coenzyme Q10, incorrectly suggesting that it might harm the liver. In fact, research suggests that it protects the liver.

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In the Health News

- A milk thistle extract, the flavonone silibinin, destroys lung cancer in mice. Mice were injected with urethane, and half were fed silibinin in their diet. Treated mice had significantly fewer large lung cancers than the controls. Silibinin inhibits the formation of new blood vessels needed for tumor growth (angiogenesis). (Singh RP, et al., Effect of silibinin on the growth and progression of primary lung tumors in mice. *J Natl Cancer Inst.* 2006 Jun 21;98(12):846-55.) I wonder why the researchers noted that they did not use silymarin, the commonly available dietary supplement, which contains silibinin.

Diet and Disease

- Researchers compared 52 overweight/obese adults with matched normal-weight subjects. The normals ate more fruit and fiber, 43 percent more complex carbohydrates, and more total carbohydrates. Compared to the normal weight subjects, the diet of the overweight/obese subjects contained more total fat, saturated fat, and cholesterol. (Davis JN, et al., Normal-weight adults consume more fiber and fruit than their age- and height-matched overweight/obese counterparts. *J Am Diet Assoc.* 2006 Jun;106(6):833-40.)
- Mediterranean diets reduce risk factors for heart disease. Researchers compared diets high in fruits, vegetables, whole grains, and limited amounts of meats and processed foods, plus either olive oil or nuts and seeds, to a low-fat diet. Blood pressure, blood sugar, and cholesterol improved more than in those on the low-fat diet, but the study was short, did not focus on outcomes (just risk factors), and the low-fat group had less intense nutrition education. Other information suggests that healthy low-fat diets that include essential fatty acids are even more beneficial. Estruch R, et al., Effects of a Mediterranean-style diet on cardiovascular risk factors: a randomized trial. *Ann Intern Med.* 2006 Jul 4;145(1):1-11.

Dr. Janson's Healthy Living™

Published by
VITALITY NOW!®
PO Box 384
Greenville, NH 03048
Subscriptions: Free online

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Polenta Banana Pudding

Polenta is an international food with many names (mealie pap, ugali, mamaliga, funjie), but it is basically boiled coarsely-ground corn meal (I grind my own in a Vita Mix). Put 1 cup of medium coarse corn meal and ¼-½ tsp salt with 2½ cups of boiling water simultaneously in a crock pot (mix at the start and once or twice during cooking). In a food processor blend 3 bananas with 8 oz. of silken tofu, 1 Tbsp of vanilla, 1 tsp of cinnamon, ½ cup of shredded coconut, 2 pitted dates, ½ Tbsp of lemon juice, ¾ tsp of freshly ground nutmeg, and 2 tsp of orange zest. When the polenta is cooked, place it in a large mixing bowl with the other ingredients and ½ cup of soaked raisins. Fold this all together and let it cool in the fridge in individual dessert bowls or a storage container. The corn starch will set and thicken it. Serve as is or garnish with some fresh or frozen organic berries.

From June to October, I see patients in Arlington, MA, and Amherst, NH. Call **603-878-2256**.

From November to May, and occasionally during the summer, I see patients in New Smyrna Beach, Florida. For appointments, call **386-409-7747**. I also do **phone consults** from both locations.

My newest book is *The User's Guide to Heart Healthy Supplements*. Dr. Janson's *New Vitamin Revolution* and my other books are also available at my website, 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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