The Nutrition Reporter™

© Jack Challem June 2010 Vol 21 No 6

The independent newsletter that reports vitamin, mineral, and food therapies

# Focus on 'Good' and 'Bad' Carbs, Not Just Fat Intake to Reduce Heart Risks

If you're reducing your intake of saturated fats, it's important to pay attention to the types of carbohydrates you eat. Some types of carbs will lower your risk of a heart attack, whereas others will boost your risk, according to three new studies.

Marianne U. Jakobsen, PhD, of Aarhus University Hospital, Denmark, and her colleagues studied 53,644 women and men. Over 12 years of follow up, almost 2,000 of the subjects suffered a heart attack.

When Jacobsen looked at the subjects' eating habits, a pattern emerged: On the positive side, people had a lower risk of heart attack if they cut back on saturated fats but increased their intake of whole grains and high-fiber vegetables and fruits. People were 12 percent less likely to have a heart attack with every 5 percent increase in calories from high-fiber foods.

However, people who cut back on saturated fats but increased their intake of high-glycemic carbs did not fare so well. Their odds of a heart attack jumped 33 percent for every 5 percent increase in calories from high-glycemic, low-fiber carbs, e.g., white bread and pasta, potatoes, and sweets.

Meanwhile, Sabina Sieri, PhD, of the Fondazione IRCCS Istituto Nazionale dei Tumori, in Milan, Italy, and her colleagues studied the dietary habits of 47,749 men and women. After about eight years of follow up, Sieri found that women consuming the largest amounts of high-glycemic carbs – those that quickly raise blood sugar levels – had more than double the risk of developing heart disease, compared with women who ate low-glycemic, high-fiber carbs. The types of carbohydrates did not seem to influence the risk of heart disease in men participating in this study.

In the third study, Miriam B. Vos, MD, of Emory University, Atlanta, and her colleagues analyzed dietary data and lipid abnormalities among 6,113 men and women participating in the most recent National Health and Nutrition Examination Survey.

Vos classified the subjects by the amount of "added sugars" (primarily sucrose and high-fructose corn syrup) in their foods, ranging from less than 5 percent to more than 25 percent of their calories.

People who consumed the largest amounts of sugars – typically added during manufacture or processing of foods – had higher blood levels of triglycerides and lower levels of the "good" high-density lipoprotein (HDL) form of cholesterol. Both high triglycerides and low HDL are risk factors for cardiovascular disease.

References: Jacobsen MU, Dethlefsen C, Joensen AM, et al. Intake of carbohydrates compared with intake of saturated fatty acids and risk of myocardial infarction: importance of the glycemic index. *American Journal of Clinical Nutrition*, 2010; epub doi 10.3945/ajcn.2009.29099. Sieri S, Krogh V, Berrino F, et al. Dietary glycemic load and index and risk of coronary heart disease in a large Italian cohort. *Archives of Internal Medicine*, 2010;17:640-647. Welsh JA, Sharma A, Abramson JL, et al. Caloric sweetener consumption and dyslipidemia among US adults. *JAMA*, 2010;303:1490-1497. ❑

### Perspectives

## Attacks on Multivitamins

I like to read what other newsletters and magazines write about vitamin supplements. The *Tufts Health & Nutrition Letter*, *Reader's Digest*, and even *Prevention* recently published long articles attacking multivitamins. These rabid attacks cited widely criticized scientific articles, and by repeating misinformation, they may have misguided and harmed millions of people.

As one example, the Tufts newsletter claimed to investigate the "top 20" multivitamin supplements (apparently those sold in drug stores) and warned that they don't contain enough calcium and vitamin D for bone health, not enough antioxidants for eye health, not enough DHA (one of the omega-3s), not enough ginkgo, not enough bilberry, and not enough probiotics.

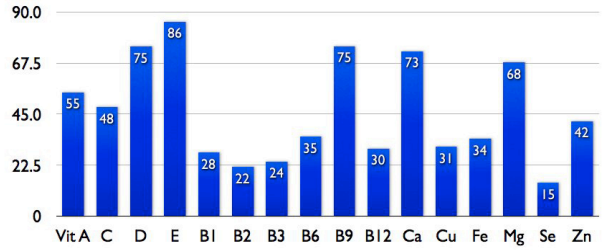
More research summaries on next page

First, I could quibble about ingredients in multivitamins, but these formulas have never been intended as the end all of supplements. They're basically a form of nutritional insurance, one that's needed more than ever given the disastrous state of malnutrition in the United States and other Western nations. It's physically impossible to pack ideal amounts of every nutrient into a capsule or tablet.

Second, in its diatribe against multivitamins, the nutritionally conservative Tufts newsletter indirectly suggested that, if people wanted higher potencies of some nutrients or herbs, they should go buy standalone supplements of calcium and D, lutein, antioxidants, DHA, ginkgo, bilberry, and probiotics. After all, if you can't get enough of these nutrients in a multivitamin, it only makes sense to make up the difference with whatever individual supplements are important to your health.

There is so much good research supporting the benefits of taking a high-potency multivitamin. Taking a daily multi reduces inflammation and your risk of heart disease, cancer, mood problems and many other health problems.

**The Percentage of Americans Who Do Not Obtain Recommended Amounts of Vitamins and Minerals**




I have long recommended that people take at least a high-potency multivitamin, and I continue making this recommendation. Given the millions of Americans (and others) who do not get adequate nutrition, it only makes sense. *–JC*

## Vitamin E Supplements Help in Treating Fatty Liver Disease

Taking vitamin E supplements can improve liver function in people with fatty liver disease, also known as nonalcoholic steatohepatitis (pronounced stee-at-oh-hep-a-titus) or NASH.

Arun J. Sanyal, MD of Virginia Commonweath University, Richmond, and his colleagues treated 247 men and women who were overweight or obese and had been diagnosed with fatty liver disease. The diagnosis is typically made when fat accumulation in the liver exceeds 5 to 10 percent, causing inflammation, scarring, and a reduction in liver function.

None of the subjects consumed large amounts of alcohol or were diabetic, both risk factors for the disorder.

They were asked to take 800 IU of natural-source vitamin E, the drug pioglitazone, or placebos daily for 96 weeks. By the end of the study, 43 percent of the patients taking vitamin E had improved significantly.

Patients taking vitamin E had less liver fat and lower levels of the liver enzymes alanine aminotransferase (ALT) and aspartate aminotransferase (AST), all signs of improved liver function. They also had less liver inflammation, but no change in fibrosis (excess fibrous tissue or scarring). No improvements occured among patients taking placebos, and the improvements with pioglitazone or placebos were not considered significant.

Reference: Pioglitazone, vitamin E, or placebo for nonalcoholic steatohepatitis. *New England Journal of Medicine*, 2010: epub 10.1056/NEJMoa0907929. ❑

## Lycopene Shows Some Benefits in Malignant Brain Tumors

Adding natural-source lycopene supplements to conventional therapies can extend the lives of patients with gliomas, a type of brain tumor.

Tarun Puri, MD, and his colleagues at the All India Institute of Medical Sciences, New Delhi, treated 50 patients who had been diagnosed with high-grade gliomas (mostly glioblastoma multiforme). The patients' average age was 38 years.

The patients underwent surgery, followed by radiation therapy and the drug paclitaxel, which sensitizes tumors to the effects of radiation. Half of the patients received 8 mg of lycopene or a placebo daily, starting on the first day of radiation therapy.

Tumors took longer to metastasize in patients taking lycopene – an average of 41 weeks, versus 27 weeks for patients getting placebos. In addition, patients taking lycopene lived longer – an average of 66 weeks, versus 39 weeks for those receiving placebos. Puri described seven of the patients taking lycopene as having a complete therapeutic response at the last medical follow up, compared with only two receiving placebos.

Puri wrote, "The encouraging results obtained in our study and evidence from recent reviews on the incorporation of nutritional agents in cancer management have opened new vistas in cancer management."

Reference: Puri T, Goyal S, Julka PK, et al. Lycopene in treatment of high-grade gliomas: a pilot study. *Neurology India*, 2010;58:20-23. ❑

## Combining Lutein with Vitamin A Slows Deterioration of Vision

Vitamin A supplements have been routinely recommended for people with retinitis pigmentosa, an inherited disease that accelerates the breakdown of photoreceptor cells in the eye's retina. A new study has found that adding the antioxidant lutein helps preserve vision.

Retinitis pigmentosa first reduces mid-peripheral and far peripheral vision, leading to tunnel vision. Then, after age 60, central vision begins deteriorating and leads to blindness.

Eliot L. Berson, MD, of the Harvard Medical School and his colleagues treated 225 patients diagnosed with retinitis pigmentosa. The patients ranged in age from 18 to 60 years, and all were nonsmokers.

All of the patients were given supplements that provided 15,000 IU of vitamin A palmitate daily. Some were also given either 12 mg of lutein (approximately the amount in a half cup of cooked spinach) or placebos daily.

After four years, the combination of lutein and vitamin A significantly slowed the loss of mid-peripheral vision, compared with vitamin A alone. Mid-peripheral vision is between central and far peripheral vision.

Reference: Berson EL, Rosner B, Sandberg MA, et al. Clinical trial of lutein in patients with retinitis pigmentosa receiving vitamin A. *Archives of Ophthalmology*, 2010; 128:403-411. ❑

## Specific Types of Dietary Fat May Influence Risk of Endometriosis

Endometrial cells normally form the lining of the uterus, but in endometriosis, these cells grow outside the uterus, such as on the ovaries. Endometriosis is a serious and painful gynecological disease that is the third leading cause of gynecologic hospitalizations.

But the risk of developing endometriosis can be influenced by eating habits and the specific types of fats consumed.

Stacey A. Missmer, ScD, and her colleagues at the Brigham and Women's Hospital, Boston, analyzed dietary and health data over 12 years from 70,709 registered nurses who were participating in a larger study.

Total fat consumption was not associated with the risk of endometriosis. However, women consuming the largest amounts of trans fats – found in hydrogenated oils, fried foods, margarine, crackers, and many other processed foods – were 48 percent more likely to be diagnosed with endometriosis.

In contrast, women with who consumed the most omega-3 fish oils – found in salmon and tuna – were 23 percent less likely to have endometriosis.

Reference: Missmer SA, Chavarro JE, Malspeis S, et al. A prospective study of dietary fat consumption and endometriosis risk. *Human Reproduction*, 2010: epub ahead of print. ❑

## Eating Enough Dietary Protein May Reduce Risk of Hip Fractures

Eating adequate amounts of protein might reduce the risk of hip fractures, according to a new study.

Marian T. Hannan, DSc, of the Harvard Medical School and her colleagues analyzed the eating habits and risk of hip fractures among 946 older men and women.

People who ate larger amounts of protein, though within the normal range, were 37 percent less likely to suffer a hip fracture. In contrast, people who consumed the least amount of protein – less than 46 grams daily – were 50 percent more likely to experience a hip fracture.

A 3-ounce piece of cooked chicken contains about 27 grams of protein.

Protein can protect against fractures in at least two ways. Bone is a matrix of minerals and protein, and adequate protein helps strengthen that matrix. In addition, protein is needed to make muscles, which improve physical strength and stability.

Reference: Misra D, Berry SD, Broe KE, et al. Does dietary protein reduce hip fracture risk in elders? The Framingham osteoporosis study. *Osteoporosis International*, 2010: epub ahead of print. ❑

## Cutting Sleep Hours Leads to Significant Boost in Food Intake

Some research has shown that a lack of sleep might lead to an increased risk of overweight and obesity. The reasons have been attributed to a number of factors, including higher levels of stress hormones and disrupted eating habits.

A new study has confirmed that inadequate sleep could set the stage for weight gain.

Laurent Brondel, PhD, of the Centre European des Sciences du Gout, Dijon Cedex, France, and his colleagues studied 12 healthy young men. On one day, the men were monitored as they went to bed at midnight and woke up at 8 a.m. On another day, they went to bed at 2 a.m. and woke up at 6 a.m., after just four hours sleep. In both cases, the men were allowed to eat as much food as they wanted.

When the men were sleep deprived, they were much hungrier before breakfast and dinner – and ate about 560 more calories that day. The increase in

Continues on next page

# Quick Reviews of Recent Research

**• Low vitamin D may aggravate asthma**

Doctors at the University of Colorado, Denver, reported that blood levels of vitamin D were related to the severity of asthma in a study of 58 patients. Normal to high levels of vitamin D were associated with better lung function. In contrast, people with low vitamin D levels had greater airway reactivity.

Sutherland ER. *American Journal of Respiratory Care and Critical Care Medicine*, 2010;181:699-704.

**• Alpha-lipoic acid helpful in neuropathy**

Researchers from the Netherlands recently analyzed 10 placebo-controlled studies in which alpha-lipoic acid was used to treat diabetic neuropathy. Daily intravenous administration of alpha-lipoic acid significantly reduced nerve pain over three weeks. Oral alpha-lipoic acid was less effective but did provide some benefits over three to five weeks. Nerve pain was reduced by 30 to 50 percent. European doctors have used both intravenous and oral alpha-lipoic acid, an antioxidant, to treat diabetic neuropathy for decades.

Mijnhout GS. *Netherlands Journal of Medicine*, 1010; 68:158-162.

**• B vitamins associated with lower heart risks**

Japanese doctors asked 58,730 men and women, ages 40 to 79 years, to complete a dietary questionnaire, after which their health was tracked for 14 years. During this time, 3,497 of the subjects died from stroke, coronary heart disease, or other types of cardiovascular disease. Relatively high intakes of vitamin B6 and folic acid were associated with a lower risk of death from heart failure in men and a lower risk of death from stroke, coronary heart disease, and cardiovascular disease for women.

Cui R. *Stroke*, 2010: epub ahead of print.

**• Zinc supplements ease depression and anger**

Japanese doctors asked young women to take either a multivitamin supplement or a multivitamin with 7 mg of zinc daily for 10 weeks. The multivitamin was given to prevent outright vitamin deficiencies, and it provided half of the Japanese recommended daily allowance for vitamins. Clinical tests showed that women taking the zinc benefited from significant reductions in anger and hostility, as well as in feelings of depression and dejection.

Sawada T. *European Journal of Clinical Nutrition*, 2010; 64:331-333.

**• Green tea might contribute to fat burning**

Swiss researchers investigated the potential role of green tea extract and caffeine in fat oxidation – the burning of fats in cells. On different days, they asked 10 generally healthy but overweight or obese men to take 300 mg of epigallocatechin-3-gallate (EGCG), 600 mg of EGCG, 200 mg of caffeine, or a combination of 300 mg of EGCG and 200 mg caffeine. The combination of EGCG and caffeine led to a 49 percent increase in cellular fat oxidation.

Thielecke F. *European Journal of Clinical Nutrition*, 2010: epub ahead of print.

**• Sunlight may benefit people with MS**

The incidence of multiple sclerosis (MS) increases in populations farther from the equator, and researchers have long thought that low levels of vitamin D – the sunshine vitamin – might be a factor in the development and severity of MS. While that might be true, new evidence suggests that sunlight might have other benefits in MS. Researchers at the University of Wisconsin studied laboratory mice with an MS-like disease. When the mice were exposed to ultraviolet (UV) rays to mimic the effects of sunlight, they found that the UV rays protected against MS-like damage. The amount of UV was not large enough to significantly increase the animals' blood levels of vitamin D.

Becklund BR. *Proceedings of the National Academy of Sciences of the USA*, 2010;107:6418-6423.

## Sleep and Food Intake...

Continues from previous page

calorie intake, if maintained over the course of a year, would lead to an increase of at least 30 pounds in body weight.

"These experimental results suggest, as observed in several epidemiological studies, that sleep restriction could be one of the environmental factors that contribute to the obesity epidemic."

Reference: Brondel L, Romer MA, Nougues PM, et al. Acute partial sleep deprivation increases food intake in healthy men. *American Journal of Clinical Nutrition*, 2010: doi 10.3945/ajcn.2009.28523. ❑

The Nutrition Reporter™ newsletter (ISSN 1079-8609) publishes full monthly issues except for August and December and is distributed only by prepaid subscription. This issue, Vol 21 No 6,  Phone: (520) 529.6801. Email: nutritionreporter@gmail.com. The Nutrition Reporter™ is strictly educational and not intended as medical advice. For diagnosis and treatment, consult your physician. Subscriptions are $28 per year in the U.S.; either $34 US or $40 CND for Canada; and $42 for all other countries, payable in U.S funds through a U.S. bank. The Nutrition Reporter™ is a trademark of Jack Challem.

The Nutrition Reporter™
Post Office Box 30246 • Tucson AZ 85751-0246 USA
Editor and Publisher: Jack Challem
Copy Editor: Mary E. Larsen

**Medical and Scientific Advisors**

**Richard P. Huemer, MD** Lancaster, Calif. • **Ralph K. Campbell, MD** Polson, Montana
**Peter Langsjoen, MD** Tyler, Texas • **Ronald E. Hunninghake**, MD Wichita, Kansas
**Marcus Laux, ND** San Francisco, Calif. • **James A. Duke, PhD** Fulton, Maryland