



## EDITOR'S NOTES:

### The Latest Protein Craze

I am astounded that protein has become the new "hot nutrition topic." Companies add it to granola bars, water bottles, smoothie beverages, and breakfast cereals. Some companies, such as Oscar Mayer, are even making portable protein packs. It's the nutrition topic on the nightly news, in the paper, front and center on blogs, and on the cover of most health-related magazines. In fact, it's one of the top three diet trends of 2014.

I admit that protein is one of the three nutrients for weight loss. The other two are fiber and water. All three fill us up before they fill us out, so we push away from the table before overeating and we feel satisfied longer. Extra protein also is important for those few Americans who are serious body builders in the muscle-building phase of their program (once muscle is built and only needs maintaining, protein needs decrease). There also is suspicion that the elderly might need higher amounts of protein than the average person to maintain muscle function, but that has yet to be proven.

Some age-old beliefs about excessive protein intake also have proven wrong in recent years. For example, researchers once believed that too much protein, especially from animal sources, caused calcium loss from bones, contributing to osteoporosis. Recent short-term studies show that protein probably increases both the amount of calcium excreted in the urine and the amount absorbed from food, so it's effect on bone is a wash. A few large studies found that people who eat protein-packed diets have higher bone mass and lower rates of fractures compared to those who eat less protein.

Why do I have a problem with protein obsession? When you look back on every national nutrition survey dating back to the 1960s and forward to today, the only nutrient Americans get enough, and often too much of, is protein. Our diets typically are low in everything from vitamin A to zinc. Take for example the omega-3 DHA, which lowers the risk for heart disease, dementia, depression, and possibly a host of other mental ills. We need at least 220 milligrams a day, but average less than 50 milligrams.

But protein? Americans average about 15% of their calories as protein. That means most women get close to 83 grams a day and most men get about 110 grams. Adults need about 0.36 grams of protein per pound of healthy body weight. That is the equivalent of 45 grams for a 125 pound and 70 grams for a 195 pound person. Obviously, we already are doing very well when it comes to protein!

It is almost impossible not to get enough of this nutrient based on our typical diets here in the West. A breakfast of oatmeal cooked in milk and sprinkled with an ounce of nuts supplies 20 grams of protein. A turkey sandwich at lunch adds another 29 grams, and a 4-ounce steak at dinner adds up to 36 grams for a total of 85 grams before adding other foods consumed during the day, such as yogurt, bread, or almost any other food, except oils and fruit. In short, the protein fad is a smoke screen that lines the pockets of processed food manufacturers, while the real nutritional deficiencies, which are rampant, get lost in the shuffle. That's what is so infuriating!

Elizabeth Somer, M.A.,R.D.



Elizabeth Somer

### The Sexy Diet

Semen quality depends on a man's diet, state researchers at Harvard School of Public Health. Food intake questionnaires were gathered on 155 men and compared to semen samples during an 18-month period. Results showed that men who consumed processed meats, such as hot dogs, ham, salami, and luncheon meats, had significantly lower sperm quality. In contrast, men who consumed fatty seafood, such as salmon, showed significantly higher sperm counts and quality. Semen counts increased as seafood intake increased. The researchers conclude that, "Consuming fish may have a positive impact on sperm counts and morphology, particularly when consumed instead of processed red meats."

Low levels of the omega-3 fats in sperm lower fertility, at least in guppies, in a study from the University of Western Australia.

*Afeiche M, Gaskins A, Williams P, et al: Processed meat intake is unfavorably and fish intake favorably associated with semen quality indicators among men attending a fertility clinic. Journal of Nutrition 2014;144:1091-1098.*

*Gasparini C, Kelley J, Evans J: Male sperm storage compromises sperm motility in guppies. Biology Letters 2014;November:10(11).*

## INSIDE THIS ISSUE:

- Diet tips to boost mood and memory...2
- Eat to save the planet.....3
- The gut-brain connection.....4
- Diet and depression in kids.....5
- Diet and heart health.....6
- Foods for beautiful skin.....7



## Cocoa Cognition

In a small, short-term study, researchers at Columbia University found that consuming lots of cocoa-derived flavanols significantly improved memory in adults. Diets either enriched with raw cocoa flavanols (900 milligrams/daily) or not (10 milligrams/day) were given to 37 healthy people between the ages of 50- and 69-years-old. Both before and after the study, each person underwent brain scans to monitor changes to a specific region of the brain called the dentate gyrus region, an area suspected to be important in age-related memory loss. The volunteers also completed memory tests. At the end of three months, those people on the high-flavanol diet showed an amazing improvement in memory, equivalent to a typical

## B is for Brain

Folic acid and other B vitamins are essential for optimal brain health throughout life, according to a review of studies by researchers at the University of Ulster, UK. Studies show that folic acid and other B vitamins help regulate neurotransmitters in the brain and influence neurodevelopment and behavior in offspring of pregnant women depending on dietary and supplemental intake during gestation. Folate is directly involved in DNA methylation, which is one of the epigenetic factors that underlie fetal programming and brain development. Optimal B vitamin status is linked to better cognitive health in ageing, as well. Supplementation with folic acid and related B vitamins for at least two years reduces global and regional brain atrophy, as measured by MRI scans in seniors.

A study from Harvard Medical School found that suboptimal intake of folate-rich foods increases the risk for dementia.

*McGarel C, Pentieva K, Strain J, et al: Emerging roles for folate and related B-vitamins in brain health across the life cycle. Proceedings of the Nutrition Society 2014; November 5th.*

*Agnew-Blais J, Wasserheil-Smoller S, Kang J, et al: Folate, vitamin B6, and vitamin B12 intake and mild cognitive impairment and probably dementia in the Women's Health Initiative Memory Study. Journal of the Academy of Nutrition and Dietetics 2014; September 5th.*

memory of a 60-year-old improving to that of a 30- to 40-year-old.

**IN PERSPECTIVE:** *While this preliminary finding is interesting, it is important to note that commercially available chocolate or cocoa products would not be expected to give the same boost in mental function. In fact, most consumer chocolate products are flavanol-free.*

*Brickman A, Khan U, Provenzano F, et al: Enhancing dentate gyrus function with dietary flavanols improves cognition in older adults. Nature Neuroscience 2014; October 26th.*

### Have Your Chocolate (Cake) and Eat It, Too

If you're a chocoholic, here's a few tips for having a little, but not too much.

- Include a small amount of high-quality dark chocolate with meals or soon after. You're less like to binge that way.
- Buy individually wrapped pieces, so it's portioned for you ahead of time
- Use cocoa powder as the base for your chocolate treats, since it has no cocoa butter and is low in calories, yet packed with antioxidants.

## Minerals for Mood

Optimal iron and zinc intake might be necessary for mood, mind, and memory in pre-menopausal women. Researchers at Deaken University in Melbourne, Australia reviewed the research on intake of these minerals from ten randomized controlled trials and one non-randomized trial. Results showed that seven studies found improvements in mood and cognition after iron supplementation. Women taking iron supplements showed improved memory and intellectual ability. Zinc supplementation, both as an adjunct to traditional antidepressant therapy and as a therapy on its own, improved symptoms of depression in three trials. Improving zinc status also appeared to enhance cognitive and emotional functioning, according to the researchers.

*Lomagno K, Hu F, Riddell L, et al: Increasing iron and zinc in pre-menopausal women and its effects on mood and cognition. Nutrients 2014;6:5117-5141.*

## Mood-Boosting Produce

People who eat colorful fruits and vegetables reduce their chances of being depressed. In an Australian study from the University of Queensland, depression risk and dietary intakes were monitored in 6,271 women with an average age of 55 years-old. After six years, results showed that 381 women developed depression but women who ate at least two servings daily of fruit were 14% less likely to develop depression compared to women who ate fewer daily fruit servings. Including vegetables in the daily diet also lowered risk even when other variables, such as smoking, alcohol intake, body mass index, physical activity, marital status, and education, were taken into account. The researchers conclude that, "...increasing fruit [and vegetable] consumption may be one important factor for reducing both the prevalence and incidence of depressive symptoms in mid-age women."

*Mihrrshahi S, Dobson A, Mishra G: Fruit and vegetable consumption and prevalence and incidence of depressive symptoms in mid-age women. European Journal of Clinical Nutrition 2014; October 29th.*

## Low Vitamin D Deadly?

Low vitamin D levels could increase the risk for early death, according to a study from Copenhagen University Hospital in Denmark. All-cause mortality and cause-specific mortality were compared in a group of 95,766 people genotyped for factors that affected vitamin D status. The subjects were followed for 5.8 to 19.1 years, during which time more than 10,000 of them died. Results showed that genetically low vitamin D levels were linked with early death from any cause, including cancer, but not to heart-related events. This was clear even when other factors, such as smoking, drinking alcohol, physical activity levels, blood pressure, cholesterol levels, and body mass index (BMI) were taken into account.

*Afzal S, Brondum-Jacobsen P, Bojesen S, et al: Genetically low vitamin D concentrations and increased mortality. British Medical Journal 2014; November 18th.*



## Coffee for Your Ears

Drinking coffee might help lower your risk for tinnitus, which is a steady ringing or buzzing in the ears, according to a study from Brigham and Women's Hospital in Boston. More than 65,000 women between the ages of 35- and 44-years-old who did not have tinnitus at the start of the study were followed for 18 years. During that time, almost 5,300 cases of tinnitus were reported among the women.

Results showed that women who consumed less than 150 milligrams a day of caffeine (the amount in one and a half 8-ounce cups of coffee) were 15% more likely to develop tinnitus compared to women who consumed 450 milligrams of caffeine a day. The researchers are unclear how caffeine affects tinnitus risk, but speculate that because caffeine stimulates the nervous system, its protective effect must come from a direct effect on nerve enervation to the inner ear.

A chemical in coffee, called chlorogenic acid or CGA, reduced insulin resistance and the accumulation of fat in the livers of mice in a study from the University of Georgia.

On the down side, researchers at the Mayo Clinic found that caffeine aggravated menopausal hot flashes in a group of 1,806 women, while soy helps lower hot flashes in some women, according to a study on 357 menopausal women in the Seattle, Washington area.

*Glicksman J, Curhan S, Curhan G: A prospective study of caffeine intake and risk of incident tinnitus. American Journal of Medicine 2014;127:739-743.*

*Yongjie M, Mingming G, Liu D: Chlorogenic acid improves high fat diet-induced hepatic steatosis and insulin resistance in mice. Pharmaceutical Research 2014; November 14th.*

*Faubion S, Sood R, Thielen J, et al: Caffeine and menopausal symptoms. Menopause 2014;July 21st.*

*Newton K, Reed S, Uchiyama S, et al: A cross-sectional study of equal producer status and self-reported vasomotor symptoms. Menopause 2014; November 18th.*

## A Breath Away with Antioxidants

Antioxidant-rich diets lower death rates for people with chronic obstructive pulmonary disease (COPD), according to a Centers for Disease Control and Prevention (CDC) study using data from the National Health and Nutrition Examination Survey (NHANES III). Concentrations of antioxidants in 1,492 people between the ages of 20- and 79-years-old who had obstructive lung function were compared to death rates during the subsequent 14-year period. Results showed that concentrations of lycopene and vitamin C were inversely associated with all-cause mortality. As levels of these two antioxidants increased, all-cause mortality rates dropped. Concen-



trations of lutein and zeaxanthin also were inversely linked with mortality, but only in smokers.

*Ford E, Li C, Cunningham T, et al: Associations between antioxidants and all-cause mortality among US adults with obstructive lung function. British Journal of Nutrition 2014;October 15th: 1-12.*

## Save the Planet and Live Longer

A change in typical dietary habits could save the planet, states researchers at the University of Minnesota in St. Paul. The modern diet high in refined sugars, refined fats, oils, and resource- and land-intense agricultural products such as beef will contribute to an 80% increase in global greenhouse gas emissions by the year 2050. A shift from this dietary pattern to one similar to the Mediterranean, pescatarian, or vegetarian diets would boost human life expectancy and quality of life, help prevent diet-related chronic diseases, and significantly slash greenhouse gas emissions, thus saving habitat for endangered species. "We showed that the same dietary

changes that can add about a decade to our lives can also prevent massive environmental damage," conclude the researchers.

People who follow the traditional Mediterranean diet have a better chance of reversing the symptoms of metabolic syndrome compared to people who adopt a low-fat diet, according to a study from the University Hospital of St. Joan of Reus in Spain.

*Tilman D, Clark M: Global diets link environmental sustainability and human health. Nature 2014;November 12th.*

*Babio N, Toledo E, Estuch R, et al: Mediterranean diets and metabolic syndrome status in the PREDIMED randomized trial. Canadian Medical Association Journal 2014; October 14th.*

## Extract Against Cancer

A special type of cactus might be the next best treatment for cervical cancer, according to a study from Korea University in Seoul. Extracts of the seeds from the cactus, *Opuntia humifusa*, commonly known as Eastern Prickly Pear or Indian Fig cactus, significantly suppressed the proliferation of cervical cancer cells in this study, but did not affect the growth of normal cells. The extracts blocked the activity of cancer-generating enzymes, resulting in a reduction in tumor volume and cancer cell

expression. The researchers conclude that, "...this extract may be a promising candidate for treating human cervical carcinoma."

*Hahm S, Park J, Oh S, et al: Anticancer properties of extracts from *Opuntia humifusa* against human cervical carcinoma cells. Journal of Medicinal Foods 2014; November 7th.*

**HOT TOPIC:** Lycopene protects pancreatic cells from pancreatitis, according to a study from Inner Mongolia People's Hospital in the People's Republic of China. *Free Radical Research 2014;November 20th.*



## Fatten Up

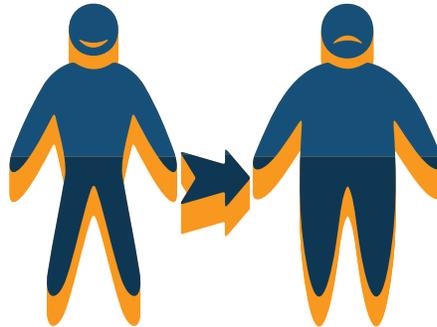
The hourglass figure has been replaced with a shape more closely resembling a beer stein. Researchers at the Centers for Disease Control and Prevention (CDC) assessed data from the National Health and Nutrition Examination Survey (NHANES) on nearly 33,000 men and women ages 20 and older. They found that the average waist size has ballooned from 37.6 inches to 38.8 inches between 1999 and 2012. Based on their waist circumference, 54% of Americans are abdominally obese, up from 46%, 13 years ago. Women are widening faster than men, with their midribs growing about twice as fast, 1.5 inches vs 0.8 inches, respectively.

Sixteen major food and beverage companies vowed to remove 1 trillion calories from the market between 2007 and 2012 and 1.5 trillion by 2015. They have gone far beyond that by slicing 6.4 trillion calories. But put down your party favors. Cutting one trillion calories equates to a measly

## Dining Buddies

Be careful who you eat with! According to a study from Cornell University, the heavier that people who eat with you or near you are, the more food you are likely to eat and the less likely that food will be healthy. More than 80 college students were invited to eat a spaghetti and salad lunch on four separate occasions. On two occasions, an actress wore a fat suit and ate more salad than pasta. On the other occasion, she ate more pasta than salad. On the remaining two occasions, she did not wear the fat suit and again ate either more or less pasta versus salad. The researchers tracked what the students ate and found that people eat 32% more pasta and 43% less salad when dining with an overweight person, even when that overweight person ate more salad. The researchers stress that the message is not to avoid dining with overweight people, but to pay attention to subtle cues to overeat.

*Shimizu M, Johnson K, Wansink B: In good company. The effect of an eating companion's appearance on food intake. Appetite 2014;September 16th.*



14 calories a day for the average person. The additional calories saved in the further cuts might have helped a bit, except that consumers bought fewer of these products and bought more higher-calorie items, which resulted in very little change in total calorie intake.

**IN PERSPECTIVE:** *In the CDC study, packing on fat around the middle is associated with the metabolic syndrome, including heart disease, diabetes, high blood pressure, cancer, and possibly even dementia.*

*Ford E, Maynard L, Li C: Trends in mean waist circumference and abdominal obesity among US adults, 1999-2012. Journal of the American Medical Association 2014;312:1151-1153.*

*Ng S, Popkin B: The healthy weight commitment foundation pledge. American Journal of Preventive Medicine 2014;47:520-530.*

## Which Companies Vowed to Cut Calories?

Grouped together, these 16 companies represent about one-third of all calories in the U.S. food supply.

Bumble Bee Foods  
Campbell Soup Company  
ConAgra Foods  
General Mills, Inc.  
Kellogg Company  
Kraft Foods, Inc.  
Mars, Inc.  
McCormick 7 Company  
Nestle USA  
PepsiCo, Inc.  
Post Foods/Ralston Foods  
Hillshire Brands  
Coca Cola Company  
Hershey Company  
The J.M. Smucker Company  
Unilever

## The Gut-Brain Connection

You may not be at the helm of your appetite control center. It could be the bacteria in your gut dictating what you want to eat, according to a review of studies by researchers at the University of New Mexico. The findings suggest that the array of different bacteria in the gut, called the microbiome, influences our food choices by releasing signaling molecules into our gut. The digestive tract is linked to the immune system, the endocrine system, and the nervous system, so those microbiome-generated molecules influence our physiologic and behavioral responses. Research shows that gut bacteria affect food choices by acting on the vagus nerve, changing taste receptors, producing toxins to make us feel bad, and by releasing chemical rewards to make us feel good when we eat what they want to feed on. For example, some bacteria prefer fat and others prefer sugar, so they release molecules that tweak our preferences for foods high in these substances. The researchers state that this relationship between the microbes in our gut and the rest of our body is a two-way street. We can influence the compatibility of these microscopic, single-celled house guests by what we consciously choose to eat, including foods rich in probiotics, prebiotics, and phytonutrients.

A study from King's College London and Cornell University found that our genetic make-up influences whether we are fat or thin by shaping which types of microbes thrive in our body, and a study from the University of Illinois found that fiber alters gut bacteria in favor of weight loss and lower risk for disease.

*Alcock J, Maley C, Aktipis A: Is eating behavior manipulated by the gastrointestinal microbiota? BioEssays 2014;August 8th.*

*Goodrich J, Waters J, Poole A, et al: Human genetics shape the gut microbiome. Cell 2014;159:789.*

*Holscher H, Caporaso J, Hooda S, et al: Fiber supplementation influences phylogenetic structure and functional capacity of the human intestinal microbiome. American Journal of Clinical Nutrition 2014;November 18th.*



## Iron Up During Pregnancy

Women who take iron supplements during pregnancy lower their risk for having a baby with autism, according to a study from the University of California, Davis. Maternal iron intake during pregnancy was compared to autism spectrum disorder (ASD) risk in 520 pairs of mothers and children

### 6 Tips for Improving Iron Absorption

1. Include a vitamin C-rich food with every meal, such as orange juice, a tossed salad, broccoli, or most fruits. Vitamin C dramatically improves the absorption of nonheme iron (the iron in vegetables and legumes) and counteracts some of the iron-inhibitors in foods, such as phytates in whole grains and tannins in tea and coffee.
2. Consume small amounts of heme iron in red meat, such as extra lean beef, with large amounts of non-heme iron, such as chili beans. This increases the absorption of non-heme iron. Pork in a vegetable stir fry and spaghetti with meatballs are other examples.
3. Cook in a cast iron skillet.
4. Select iron-fortified foods.
5. Drink tea and coffee between meals.
6. Take iron supplements on an empty stomach, if tolerated.

## Dummy Diet for Kids

Children who are fed low-quality diets show an increased risk for mental health problems, along with weight gain, state researchers at Deakin University in Australia. Dietary intakes and mental health status were compared in this review of the research that included 83,000 children between the ages of 4½ and 18-years-old. Results showed that poor diets increased the risk for anxiety, depression, and mood disorders in both children and teens. In contrast, good diets increased a child's concentration, school performance, and weight.

*O'Neil A, Quirk S, Housden S, et al: Relationship between diet and mental health in children and adolescents. American Journal of Public Health 2014;104:e31-e42.*

with autism and 346 pairs of mothers and their normal-development children. The researchers assessed maternal iron intake, including multi supplements, fortified breakfast cereals, and other supplements during the three months prior to conception to the end of each mother's pregnancy and during breast-feeding. Results showed that iron intake and use of iron-containing supplements reported by mothers of autistic children was lower than that reported by mothers of normal-development children, especially for the months before and during early pregnancy, as well as during breast-feeding. Those children whose mothers had consumed optimal amounts of iron throughout pregnancy had up to a 51% lower risk for having ASD.

*Schmidt R, Tancredi D, Krakowiak P, et al: Maternal intake of supplemental iron and risk of autism spectrum disorder. American Journal of Epidemiology 2014;180:890-900.*

## Vitamin D: The New Eczema Cure

Daily supplements of vitamin D might help kids with eczema, according to a study from Harvard Medical School in Boston. Vitamin D supplements (1,000IU/day) or placebos were given to 107 children (average age was 9-years-old) with atopic dermatitis that flared up in cold weather or during the transition from Fall to Winter. Symptoms were evaluated at the study's start and one month later. Results showed that those children who supplemented with vitamin D had a significant 29% improvement in symptoms compared to placebos. There were no adverse effects from the supplements.

**IN PERSPECTIVE:** *A common treatment for eczema is the use of ultraviolet light that stimulates production of vitamin D in the skin. This study suggests that lack of the "sunshine vitamin" might explain why the skin condition worsens in the Fall and Winter.*

*Camargo C, Ganmaa D, Sidbury R, et al: Randomized trial of vitamin D supplementation for winter-related atopic dermatitis in children. Journal of Allergy and Clinical Immunology 2014;134:831-835.*

## IN THE NEWS

- A report released by the Obesity Society states that 140 million American adults (about 65%) are candidates for behavioral weight-loss treatment, 83% of those should be on some form of pharmacotherapy to treat their condition, and 32 million are so grossly obese that they are potential candidates for bariatric surgery.
- Researchers at Carolinas Medical Center in Charlotte, North Carolina warn people to mix chia seeds with enough liquid to allow them to expand before consuming, since non-soaked chia seeds form a gel that when swallowed can cause esophageal obstruction.
- Added sugar consumption is up 30% in the past three decades, with Americans averaging 300 calories a day from this no-nutrient substance, according to a study reported at the Obesity Society's Annual Meeting.
- According to a report presented at the Obesity Society's Annual Meeting, consuming a high-fat diet during pregnancy and while breast-feeding negatively influences the offspring's brain function and behavior, as well as weight.
- Trans fats in processed foods were linked to compromised memory, in a study from the University of California, San Diego reported at the American Heart Association's Scientific Sessions, 2014.
- Global obesity costs are at \$2 trillion annually and if current trends continue, half the world's population will be obese or overweight by 2030, according to a report from Yale University.

**HOTTOPIC:** Vitamin C plays an important role in the prevention of periodontal disease in seniors, state researchers at University of Dammam, Saudi Arabia. *Geriatrics and Gerontology International 2014;November 19th.*



## The See & Think Faster Nutrients

Lutein and zeaxanthin are major carotenoids in the eye, and also are found in pathways connecting ocular tissue with the brain. It is suspected that these pigments influence the processing of visual signals within and outside the retina, and that increasing lutein and zeaxanthin levels within the visual system should increase visual processing speeds. Researchers at the University of Georgia, measured macular pigment density (as a biomarker of lutein and zeaxanthin levels in brain) and visual motor reaction times in 92 young, healthy subjects. Changes in these outcome variables also were assessed after four months of supplementation with either placebo, zeaxanthin only (20 milligrams/day), or a mixed formulation of zeaxanthin (26 milligrams/day), lutein (8 milligrams/day), and omega-3 fatty acids (190 milligrams of EPA and DHA/day). Results showed that as lutein and zeaxanthin levels increased, visual motor performance improved. Supplementation with zeaxanthin and the omega-3 formulation also was effective in improving visual processing speeds. The researchers conclude that, "... increasing macular pigment density through supplementation resulted in significant improvements in visual processing speed, even when testing young, healthy individuals who tend to be at peak efficiency."

*Bovier E, Renzi L, Hammond B: A double-blind, placebo-controlled study on the effects of lutein and zeaxanthin on neural processing speed and efficiency. PLoS One 2014;9(9):e108178.*

**HOT TOPICS:** A derivative of vitamin B3, nicotinamide riboside, protected mice from developing liver cancer in a study from the Spanish National Cancer Research Centre. *Cancer Cell* 2014; November 20th.

People who drink three or more cups of coffee a day, even if it's decaf, show improved liver function and health, according to a study from the National Cancer Institute. *Hepatology* 2014; October 9th.

## Magnesium for the Heart

Low magnesium levels are associated with an increased risk for heart failure, according to a study from the University of Minnesota. More than 14,700 adults between the ages of 45- and 64-years-old were assessed for blood levels of magnesium, phosphorus, and calcium at the start



of the study. This data was compared to heart failure risk during the subsequent 20 to 22 years. Results showed that 2,250 of the participants suffered heart failure events during that time. Those with the lowest compared to the highest blood levels of magnesium were at 71% higher risk for a heart failure event. Participants in the highest category for phosphorus had a 34% higher risk and those in the highest calcium category had a 24% higher risk for heart failure.

**IN PERSPECTIVE:** Magnesium-rich foods include dark green leafy vegetables, whole grains, nuts, and legumes. It is estimated that three out of four Americans are low in this mineral. Most one-pill-a-day multiple supplements do not contain enough, so if you think your diet might be low, add a magnesium supplement of about 250 milligrams a day.

*Lutsey P, Alonso A, Michos E, et al: Serum magnesium, phosphorus, and calcium are associated with risk of incident heart failure. American Journal of Clinical Nutrition 2014;100:756-764.*

## The New Anti-Cancer Superfood

Wild Alaskan salmon might be the best inclusion in an anti-cancer diet, according to findings from the Mid America Heart Institute at St. Luke's Hospital in Kansas City. The researchers review of recent studies showed that low-dose aspirin decreases the risk for cancer by suppressing the activity of an enzyme important in the initiation and progression of adenocarcinoma, a type of cancer associated with breast, prostate, pancreas, colon, and other tissues. The researchers cite evidence that optimal intake of the omega-3 fats found in fatty fish should do the same thing. People who eat fatty fish (as long as it is not salt cured or fried) at least twice a week compared to those who eat fish less than once a week have a significantly lower number of cancers, including ovarian, endometrial, pharyngeal, esophageal, gastric, colonic, rectal, and pancreatic cancers. High omega-3 intake from diet and supplements is associated with a 23% lower risk for total cancer mortality.

*DiNicolantonio J, McCarty M, Chatterjee S, et al: A higher dietary ratio of long-chain omega-3 to total omega-6 fatty acids for prevention of COX-2-dependent adenocarcinomas. Nutrition and Cancer 2014;October 30:1-6.*

## The Portfolio Diet

Switch to the Portfolio Diet and you dramatically lower your risk for heart disease. That's what researchers at the Richardson Centre for Functional Foods and Nutraceuticals in Winnipeg concluded. During this six month study, 351 patients with high blood lipid levels were placed on either a control diet or the Portfolio Diet rich in plant sterols, insoluble fiber, soy protein, and nuts. Results showed that the Portfolio Diet significantly lowered blood LDL-cholesterol levels without affecting levels of fat-soluble nutrients, such as beta carotene, lutein, lycopene, vitamin A, and vitamin E. As levels of the plant-based sterols increased, blood cholesterol levels decreased. The researchers conclude that, "...the Portfolio Diet is one of the best options for cardiovascular risk reduction."

*Ramprasad V, Jenkins D, Lamarche B, et al: Consumption of a dietary portfolio of cholesterol lowering foods improves blood lipids without affecting concentrations of fat soluble compounds. Nutrition Journal 2014; October 18th.*



## HOT TOPICS

**1** The amino acid glutamate is low in the brains of people with multiple sclerosis and is associated with lower visual and verbal memory, according to a study from Cardiff University, U.K. *Journal of Neurology, Neurosurgery & Psychiatry* 2014; 85:833-839.

**2** Cyberbullying and emotional, behavioral, and substance abuse problems are less common in teens whose families sit down together for meals, according to a study from McGill University in Montreal. *JAMA Pediatrics* 2014;September 1st.

**3** American diets are poor but have improved slightly, mostly due to the lower consumption of trans fats and a small improvement in fruit, whole grains, nuts, and legume intakes, according to a study from Harvard School of Public Health. However, the average diet scored only 47 out of a possible 110 points, so we have a long way to go. *JAMA Internal Medicine* 2014;September 1st.

**4** Researchers at the Centers for Disease Control and Prevention (CDC) in Atlanta report that between 20.4% and 41.4% of people, depending on the state, consume at least 1 or more sugar-sweetened beverages every day. *MMWR Morbidity and Mortality Weekly Report* 2014;63:686-690.

**5** Consuming a diet rich in colorful fruits and vegetables gives the skin a healthier glow than a tan from sunbathing, state researchers at Leeds University, U.K. *Quarterly Journal of Experimental Psychology* 2014;July 11:1-25.

**6** Since 1976, diabetes prevalence has risen from 4.7% to 11.2% in men and from 5.7% to 8.7% in women. This increase strongly correlated with increased BMIs, according to a study from the Social and Scientific Systems in Silver Spring, Maryland. *Annals of Internal Medicine* 2014;September 2nd.

**7** TV viewers ate more M&Ms, cookies, carrots, and grapes when watching loud, action movies compared to interview programs, according to a study from Cornell University. *JAMA Internal Medicine* 2014; September 1st.

**8** A study from Einstein Medical Center in Philadelphia found that liver injury caused by herbal and body-building supplements has increased from 7% to 20% in the last ten years. However, while the study found 45 cases of injury from bodybuilding supplements, it also found 709 cases caused by medications, or an almost 16-fold greater harm. *Hepatology* 2014;July 12th.

**9** Eating a high-salt diet more than doubles a smoker's risk for developing the inflammatory disease, rheumatoid arthritis, state researchers at Umea University in Sweden. *Rheumatology* 2014; September 10th.

**10** As many as one in 20 children have some form of fetal alcohol syndrome, which is far higher than previously thought, state researchers at the University of North Carolina at Chapel Hill. *Pediatrics* 2014; November 1st.

**11** Less than one in four middle-aged or older adults in the U.S. meet minimum standards set by the Department of Health and Human Services for muscle strength, state researchers at Arizona State University in Phoenix. *Preventing Chronic Disease* 2014;Sept 18th;11:E162.

**12** The risk for developing gestational diabetes increases 13% when pregnant women eat fried foods one to three times a week compared to pregnant women who avoid fried foods altogether, according to researchers at the U.S. National Institute of Child Health and Human Development. *Diabetologia* 2014;October 8th.

**13** A study from Massachusetts General Hospital for Children found that daily supplements of sulforaphane, a phytochemical in broccoli and other cruciferous vegetables, improved irritability, repetitive behaviors, hyperactivity, and communication in boys and young men with autism. *Proceedings of the National Academy of Sciences* 2014;111:155505-155505.

**14** Rather than focus on calories, when teens were told that drinking a soda would require walking five miles to burn off those calories, many of the teens purchased no or smaller sizes of sugary beverages as a result, in a study from Johns Hopkins University Bloomberg School of Public Health. *American Journal of Public Health* 2014;October 16th.

**15** Jet lag and working the night shift alters gut bacteria in favor of gaining weight, states researchers at the Weizmann Institute of Science in Israel, who go on to speculate that probiotics or antimicrobial therapies might help prevent weight gain in these people. *Cell* 2014; October 16th.

**16** Handling cash register receipts increases the body's absorption of the potentially dangerous chemical, bisphenol A (BPA), that disrupts hormones and is linked to a variety of ills, from developmental problems in babies to cancer, obesity, diabetes, and heart disease in adults, according to a study from the University of Missouri. *PLOS One* 2014;October 22nd.

**17** While drinking large amounts of milk was associated with higher risk for premature death in a group of more than 61,000 women and 45,000 men, consuming fermented milk products, such as yogurt, was linked to reduced rates of death and bone fractures, in a study from Uppsala University in Sweden. *British Medical Journal* 2014;October 28th.

**18** Being overweight increases a Black or Hispanic woman's risk for developing breast cancer, according to two new studies, one from the Cancer Prevention Institute of California and the other from Rutgers Cancer Institute of New Jersey. Almost one in every two Black women and Hispanic women are obese. *Cancer Epidemiology, Biomarkers & Prevention* 2014;October 30th.

**19** Families who sit down for meals together have teens who are at low risk for being overweight, according to a study from the University of Minnesota Medical School in Minneapolis. *Journal of Pediatrics* 2014;September 29th.



## Low-Carb No Way

Researchers at Harvard School of Public Health in Boston investigated the potential benefits of a low-carbohydrate diet on heart attack survival in both men and women. Food frequency questionnaires were given to 2,258 women from the Nurses' Health Study and 1,840 men from the Health Professional Follow-Up Study who had survived a heart attack during follow-up. The participants provided a before-heart attack and at least one after-heart attack questionnaire. Results showed that adherence to a low-carbohydrate diet high in animal fat and protein increased all-cause and cardiovascular deaths by up to 33% and 53%, respectively.

In another study from Harvard, researchers found that red meat consumption during the teen years increased premenopausal breast cancer risk in women later in life.

*Li S, Flint A, Pai J, et al: Low carbohydrate diet from plant or animal sources and mortality among myocardial infarction survivors. Journal of the American Heart Association 2014;September 22nd.*

*Farvid M, Cho E, Chen W, et al: Adolescent meat intake and breast cancer risk. International Journal of Cancer 2014;September 15th.*

## NUTRITION ALERT

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## REVIEW

# Painless New Years Resolutions That Pack a Health Punch

Most New Years resolutions come and go. We have great hopes and intentions and head off to the gym, start a new diet, lose weight, be healthier. By February, the gym shoes are at the back of the closet, the diet book is in the garage sale box, and the weight is still haunting us. Here are a few painless, super-simple, fool-proof resolutions that provide a big health bang for minimal effort.

**1) Start dinner or lunch with a bowl of soup:** When people start a meal with a bowl of soup, they consume 200 calories less and feel full and satisfied. Add a bowl of chicken noodle or cream of tomato to your sandwich for lunch every day and you could lose up to two pounds a month

**2) Eat nuts:** Not only are nuts a good source of protein, magnesium, vitamin E, and B vitamins, but a handful of nuts as a snack several times a week lowers heart disease by 35%, as well as diabetes and cancer risk. Women on low-calorie diets that include nuts lose just as much weight as women on low-calorie, low-fat diets, but are more likely to keep the weight off long-term.

**3) Cook in cast iron:** Up to 80% of women during the childbearing years are iron deficient. Besides pumping up the iron content of your diet, throw out that expensive cookware and return to Grandma's cast iron. The iron leaches out of the pot into the food, boosting iron content several fold, especially in acidic foods such as spaghetti sauce and tomato-based soups

**4) Chew gum while cooking:** People unconsciously consume 100s of calories while cooking meals. You can put away as many calories in this form of nibbling as you would sitting down to a full meal. Each bite averages 25 calories. Four mindless bites while cooking equates to almost a one pound weight gain each month. Chew sugarless gum when cooking or drink ice water to keep your fingers out of the food and to satisfy your need to munch.

**5) Move More:** While the likelihood of you sticking with an hour workout at the gym is slim, you can boost activity and shed pounds by just adding more movement to your daily routine. Walk up the escalator or take the stairs instead of the elevator and escalator. Park at the end of the lot, rather than drive around for 15 minutes looking for a closer parking spot. Use a hand-held can opener rather than an electric one. Adding 10 minute bursts of activity to your day will add up to significant health benefits and even a few inches off the waistline.

**6) Supplement:** Even if you think you eat pretty well, take a moderate-dose, broad-range multiple vitamin and mineral. Supplement your supplement with an omega-3 DHA, too. While up to 90% of Americans think they eat pretty well, only one in every 100 meet even minimum standards of a balanced diet. To hedge your bets, while you try to eat better, take a multiple and DHA to fill in the gaps on those days when you eat less than perfectly.

*Rebello C, Greenway F, Dhurandhar N: Functional foods to promote weight loss and satiety. Current Opinion in Clinical Nutrition and Metabolic Care 2014;November 17th.*

*Parham M, Heidari S, Khorramirad, et al: Effects of pistachio nut supplementation on blood glucose in patients with type 2 diabetes. Review of Diabetic Studies 2014; 11:190-196.*

*Hess J, Slavin J: Snacking for a cause: Nutritional insufficiencies and excesses of U.S. Children. Nutrients 2014;6:4750-4759.*