



EDITOR'S NOTES:

Revised Seafood Recommendations for Pregnancy: Too Little, Too Late

The Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) just released a revised statement recommending that pregnant and breast-feeding women, as well as young children, should include at least two servings of low-mercury seafood every week. This is the first time a government agency has recognized the importance of the nutrients found in fish for cognitive development, and is a "baby" step for the health of future generations. It's also too little too late.

The recommendation is not only too general, but it easily could have no impact on future children's brain development. The recommendations make no mention of what nutrients found in seafood are important for brain development and discourage women from taking fish oil supplements, since the authors "...don't believe women would accrue the same benefits in terms of health and development if they were to use supplements in place of fish." However, the only nutrients found solely in fatty seafood that are strongly linked to cognition are the omega-3 fatty acids, especially DHA. The other nutrients in fish, such as protein and B vitamins, are easily obtained elsewhere and seldom are low in pregnant women's diets.

The recommendations also set no clear standards for what fish are the best choices, other than to choose low-mercury fish. Granted, the mercury warning is important, since many women have shunned seafood altogether because they weren't sure what was wrong with fish, only that it was possibly bad. However, by not calling out the importance of the omega-3s and making specific recommendations for how many servings of fatty fish should be included in the weekly diet, the recommendation would easily allow a woman to falsely think she has met that quota with intakes far below it, placing her baby at risk.

Pregnant women need at least 220 milligrams of DHA a day. Salmon easily meets that limit with 2,400 milligrams per 4-ounce serving (two servings a week would average 600 milligrams of omega-3s a day). But tilapia is also recommended, even though it only has 150 milligrams or 6% of the omega-3s in salmon. Light canned tuna with only 300 milligrams, cod with 200 milligrams, and catfish with as little as 100 milligrams are recommended only because they are low in mercury. To make matters worse, studies also show that battering and frying fish eliminates the benefits of what few omega-3s are present. That is not mentioned in the recommendations.

The research on DHA's benefits to brain and vision development has been accumulating for decades. As far back as the mid 1970s, these fats were suspected to be important for optimal pregnancy outcomes. Babies born to women who ate fatty fish rich in omega-3s while pregnant were shown to have higher I.Q.s and better behavioral development. By 1990, there was enough evidence that researchers were releasing preliminary recommendations that pregnant and breast-feeding women make sure they got enough of this important fat in their diets. The millions of babies born in the past 24 years were placed at potential risk of cognitive and vision problems because FDA and EPA drug their heels. I commend FDA and EPA for finally starting the process, but will it take another 24 years before they are willing to recommend specific seafood and supplements to ensure babies are given the best chance at optimal brain and vision development? Let's hope not.

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



Elizabeth Somer

Vitamins for Neuropathy

Some B vitamins might help reduce the pain associated with peripheral neuropathy, according to a study from the University Hospital in Coimbra, Portugal. A supplement combination of uridine monophosphate (UMP), folic acid, and vitamin B12 was given daily for two months to 212 patients with peripheral neuropathy and neuropathic pain. Results showed that the intensity of pain decreased during the course of the study. The global score for pain assessed using the painDETECT questionnaire dropped from 17.5 points to 8.8 points at the final examination. The need for nonsteroidal anti-inflammatory drugs decreased or was withdrawn in 77.4% of the patients. The researchers conclude that this supplement combination "...leads to statistically significant reductions not only in the total [pain level] but also in the intensity of pain, number of areas affected, and pain radiation," making it possible to reduce medication.

Negrao L, Almeida P, Alcino S, et al: Effect of the combination of uridine nucleotides, folic acid and vitamin B12 on the clinical expression of peripheral neuropathies. Pain Management 2014;May 16:1-6.

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Calcium Safe for Your Heart

Calcium supplements do not raise heart disease risk, according to a study from Brigham and Women's Hospital in Boston. Calcium supplementation and cardiovascular disease risk was compared in 74,245 women from the Nurses' Health Study who were free of heart disease and cancer at baseline. At the end of 24 years, 4,565 cardiovascular events had been reported (2,709 coronary heart disease and 1,856 strokes). After adjusting for age, body mass index, dietary calcium intake, and other cardiovascular risks, the women taking more than 1,000 milligrams of supplemental calcium a day had a 29% lower risk for heart disease and no increased risk for stroke. The authors conclude that, "Our study adds to the existing body of evidence supporting that calcium supplements do not increase

the risk of heart attack or stroke in women."

IN PERSPECTIVE: *A few studies in the recent past have shed concern on the potential adverse effects of calcium supplements on heart disease risk, especially in women. Since dietary calcium is typically low in most American's diets, supplemental calcium is the logical alternative. More than 60% of women over the age of 60-years-old are taking calcium supplements to fill in the gaps and help prevent osteoporosis. This study helps ease people's concerns. In addition, the women who took calcium supplements also tended to take better care of themselves, so the benefits extend beyond just healthy bones.*

Paik J, Curhan G, Sun Q, et al: Calcium supplement intake and risk of cardiovascular disease in women. Osteoporosis International 2014;May 7th.

Veggies are a Stroke of Luck

Once again, colorful fruits and vegetables are found to lower disease risk, in this case stroke. Researchers at the Medical College of Qingdao University in China conducted a meta-analysis of 20 studies published during the past 19 years for a combined total of 760,629 men and women who had 16,981 strokes. Results showed that stroke risk decreased by 32% with every 200 grams of fruit consumed each day and 11% for every 200 grams of vegetables consumed. As produce consumption increased, stroke risk decreased. The researchers also cited studies showing that a produce-rich diet lowers blood



pressure, improves microvascular function, and lowers body mass index, waist circumference, cholesterol, inflammation, and oxidative stress.

Hu D, Huang J, Wang Y, et al: Fruits and vegetables consumption and risk of stroke. Stroke 2014;May 8th.

B Smart During Pregnancy

A pregnant woman can significantly reduce her chances of developing pre-eclampsia and having a small for gestational age baby if she supplements with folic acid, state researchers at Korea University College of Medicine in Seoul. Folic acid supplementation and favorable maternal and fetal outcomes were studied in 215 pregnant women. Results showed that blood folic acid levels in women who

supplemented were more than double that of women who did not supplement, while homocysteine levels decreased. The incidence of pre-eclampsia was much lower in the supplemented women compared to the unsupplemented women, as were the odds of having a small for gestational age baby (9.2% compared to 20%, respectively).

Kim M, Ahn K, Ryu K, et al: Preventive effects of folic acid supplementation on adverse maternal and fetal outcomes. PLoS One 2014;9:e97273.

Magnesium Protects Arteries

Magnesium helps reduce the risk for arterial calcification and thus plays a major role in the prevention of fatal heart disease and stroke, state researchers at USDA's Human Nutrition Research Center on Aging at Tufts University in Boston. Magnesium intakes were compared to arterial calcification in 2,695 people, ages 42- to 64-years-old, who were initially free of heart disease. Results showed that for every 50 milligram/day increase in magnesium intake there was a 22% lower risk for arterial calcification. Those people with the highest magnesium intakes had up to a 58% lower risk for coronary arterial calcification. Women appeared to benefit the most from optimal magnesium intakes.

Hruby A, O'Donnell C, Jacques P, et al: Magnesium intake is inversely associated with coronary artery calcification: The Framingham Heart Study. JACC Cardiovascular Imaging 2014; 7:59-69.

Speed Aging Kids

Being overweight speeds the aging process in children, according to a study from the University of Houston in Texas. Because obesity is linked to accelerated biological ageing and suppressed immunity, the researchers investigated how this affects being overweight even in children. Body weights were compared to immune markers in the blood of 123 adolescents aged 10- to 14-years-old. Results showed that overweight or obese children had significantly lower levels of immune cells, such as T lymphocytes, compared to lean children. Immune cells of the overweight children also resembled those of older adults. The researchers conclude that being overweight even in adolescence accelerates the aging process, at least as it related to immunity, thus predisposing children to an increased risk of immune-related diseases in adulthood.

Spielmann G, Johnston C, O'Connor D, et al: Excess body mass is associated with T cell differentiation indicative of immune ageing in children. Clinical and Experimental Immunology 2014;176:246-254.



The Staying Alive Diet

Eating well significantly lowers a person's risk for dying from almost any cause, according to a study from the National Cancer Institute in Bethesda. Researchers examined the relationship between four diet patterns and all-cause, cardiovascular disease, and cancer death in a group of 492,823 adults. The four diets were: USDA's Healthy Eating Index (HEI), the Alternative Healthy Eating Index (AHEI), the Mediterranean diet (MD), and the Dietary Approaches to Stop Hypertension (DASH). During the 15-year study, there were 86,419 deaths, more than 23,000 were from heart disease and more than 29,000 were from cancer. Results showed that all-cause mortality was reduced by 22% with the HEI, 24% with the AHEI, 23% with the MD, and 17% with the DASH diet. The diets also were protective against heart disease and cancer.

Reedy J, Krebs-Smith S, Miller P, et al: Higher diet quality is associated with decreased risk of all-cause, cardiovascular disease, and cancer mortality among older adults. Journal of Nutrition 2014;144:881-889.

How Does It Work?

Hundreds of studies show that the Mediterranean diet lowers heart disease risk. But, how does it do it? A study from the University of California at Davis might have found the answer to that question. The researchers gave mice an enzyme inhibitor that lowered blood pressure in wild mice, but not in mice engineered to have a defect in this enzyme. They then fed the mice the Mediterranean-style diet, which has unsaturated fats from olives, nuts and fish oils, as well as nitrates from vegetables. This combination formed a nitro fatty acid in the body that lowered blood pressure by the same mechanism as the enzyme inhibitor. The researchers conclude that, "...this provides insights on the mechanism behind how eating vegetables aids in the reduction of risk [for high blood pressure]."

Charles R, Rudyk O, Prysyazhna O, et al: Protection from hypertension in mice by the Mediterranean diet is mediated by nitro fatty acid inhibition of soluble epoxide hydrolase. Proceedings of the National Academy of Sciences 2014;May 19th.

Diet vs Smoking - The Cancer Risk

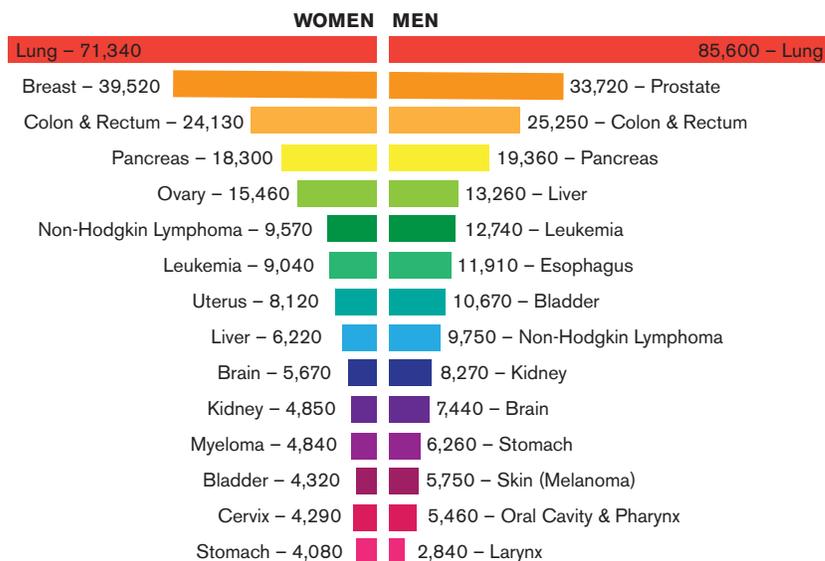
What you eat could make or break your risk for breast or prostate cancer, depending on whether or not you smoke, state researchers at the University of Cordoba in Argentina. People were interviewed about their diets, smoking habits, and lifestyle practices, along with family histories of cancer. Results showed that in smokers, high intake of fatty meats, as well as fatty foods in general, increased both prostate and breast cancer risk up

to 24-fold. Intake of nonstarchy vegetables was inversely linked to prostate cancer in nonsmokers, while breast cancer risk increased in women who smoked as their intake of sweet beverages or alcohol also increased.

Roman M, Niclis C, Tumas N, et al: Tobacco smoking patterns and differential food effects on prostate and breast cancers among smokers and nonsmokers in Cordoba, Argentina. European Journal of Cancer Prevention 2014;23:310-318.

Leading Cancer Killers

Estimated number of cancer deaths for 2011.



Source: Cancer Facts & Figures 2011, American Cancer Society

The Case for a New Form of Folate

Researchers at the University of Milan make a case for supplementing with a new form of folic acid - 5-methyltetrahydrofolate (5-MTHF). Folate is critical for normal cell division. Low folate status is caused by poor dietary intake, poor absorption of folate, and/or alteration of folate metabolism as a result of genetic defects or drug interactions. Folate deficiency increases the risk for neural tube defects, cardiovascular disease, cancer and cognitive problems. There even is evidence that a folate deficiency contributes to mental illness, such as schizophrenia. Folate can

be supplemented as folic acid, folinic acid, or 5-MTHF. The researchers argue that naturally occurring 5-MTHF has important advantages over synthetic folic acid, since it is well absorbed even when gastrointestinal pH is altered and its bioavailability is not affected by metabolic defects. Using 5-MTHF instead of folic acid reduces the potential for masking symptoms of a vitamin B12 deficiency, reduces interactions with drugs, and overcomes metabolic defects.

Scaglione F, Panzavolta G: Folate, folic acid and 5-methyltetrahydrofolate are not the same thing. Xenobiotica 2014;44:480-488.



Omega-3s: The Fountain of Youth?

People who consume optimal amounts of the omega-3 fats, EPA and DHA from fatty fish or supplements, live longer, state researchers at the Fred Hutchinson Cancer Research Center in Seattle. More

than 70,000 study participants between the ages of 50- and 76-years-old were followed for incidence of mortality through 2006, at which time there had been 3,051 deaths. When dietary intakes were com-

pared to mortality risk, the researchers found that a higher combined intake of EPA and DHA from diet and supplements lowered mortality risk by 18% and death from cancer by 23%. The researchers conclude that, "...intake of long-chain omega-3 fatty acids may reduce risk of total and cancer-specific mortality."

IN PERSPECTIVE: *It is important to note that not all omega-3s are created equal. There is no body of evidence at this time to show the omega-3 ALA, in the form of flax, walnuts, soy and other plant-based foods, has any benefit in reducing mortality risk.*

Bell G, Kantor E, Lampe J, et al: Intake of long-chain omega-3 fatty acids from diet and supplements in relation to mortality. American Journal of Epidemiology 2014;179:710-720.

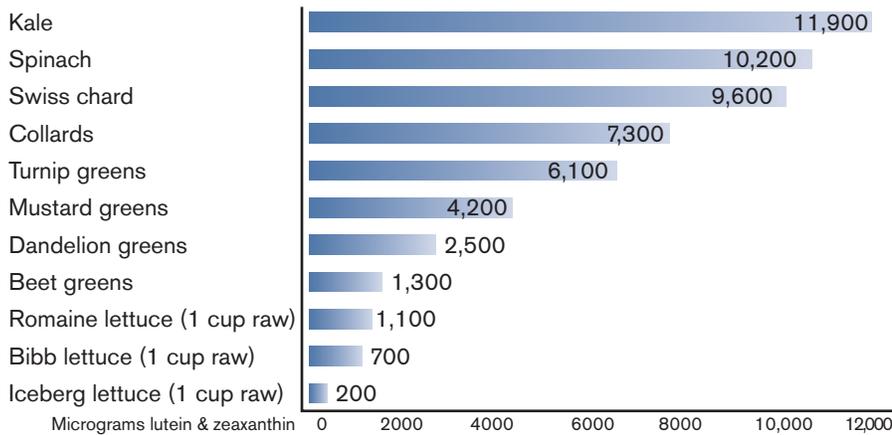
Lutein: The New Anti-Aging Supplement

Lutein supplements got seniors up and moving in a study from the University of South Australia. Forty-four seniors who did not meet the Australian physical activity guidelines were given daily placebos or supplements of lutein (21 milligrams), and were encouraged to exercise more. After one month, those seniors taking lutein showed increased blood levels of

the carotenoid and a significant reduction in sedentary time. In fact, the percent change in blood lutein was directly associated with the increase in daily activity. The more, the better.

Thomson R, Coates A, Howe P, et al: Increases in plasma lutein through supplementation are correlated with increases in physical activity and reductions in sedentary time in older adults. Nutrients 2014;6:974-984.

Your Daily Greens*



* 1/2 cup cooked, unless otherwise noted

Brain Watch

Alzheimer's risk is much higher than previously thought. It is now the sixth leading cause of death in the U.S. In fact, one in every six women and one in every 11 men develop this crippling dementia, according to the Alzheimer's Association in their 2014 Facts and Figures report. More than five million Americans have Alzheimer's and that number is expected to jump to 16 million by the year 2050. More than 60% of caregivers for Alzheimer's patients are women. An accumulating body of research shows there may be much we can do to stem the tide. For example, a 2008 study found that being overweight in middle-age

increased dementia risk three-fold. A study from the Mayo Clinic reports that people with type 2 diabetes or high blood pressure in middle-age are much more likely to develop dementia as they grow older.

Researchers at the University of Bristol report that the current food environment in the U.S. contributes to the development of cognitive impairment and dementia.

Alzheimer's Association's 2014 Facts & Figures. <http://www.alz.org/>

Roberts R: Neurology 2014;March 19th.

Martin A, Davidson T: Human cognitive function and the obesogenic environment. Physiology & Behavior 2014;March 11th.

The Hearing Vitamin

Seniors who consume optimal amounts of vitamin C also have the best hearing, according to a study from Yonsei University College of Medicine in Seoul, South Korea. Hearing tests were compared to vitamin intakes in 1,910 participants in the 2011 Korea National Health and Nutrition Examination Survey. Results showed that seniors who consumed the most vitamin C also performed the best on hearing tests. As dietary supplement use of vitamin C increased so did hearing scores at all frequencies. Optimal intakes of vitamins A, B2, and niacin also appeared to improve hearing in seniors, while vitamin D had an inverse relationship to hearing ability. The researchers conclude that, "...we should consider proper diet counseling to prevent hearing decline."

Kang J, Choi H, Kim K, et al: Dietary vitamin intake correlates with hearing thresholds in the older population. American Journal of Clinical Nutrition 2014;99:1407-1413.

HOTTOPIC: Vegetarian diets might be useful for weight management, but typically are low in zinc, iron, calcium, magnesium, fiber, protein, and vitamins B12, A, C, and E, state researchers at PlantWise Nutrition Consulting LLC in Plainwell, Michigan. *American Journal of Clinical Nutrition 2014;May 28th.*



Fried Genes

People at risk for obesity are more affected by fried foods than others, state researchers at Harvard School of Public Health. BMIs were repeatedly taken over the course of years on 9,379 women from the Nurses Health Study and 6,379 men from the Health Professionals Follow-up Study. Among those people in the highest third of the genetic risk score for obesity, the differences in BMI between those who consumed fried foods four or more times a week and those who consumed fried foods less than once a week was high. In short, the genetic link to obesity most likely led to weight gain when people ate fried foods. The researchers speculate that eating fried foods somehow interacts with a person's genetic profile increasing the chances for weight gain.

Qi Q, Chu A, Kang J, et al: Fried food consumption, genetic risk, and body mass index. British Medical Journal 2014;348:g1610.

Weight Loss Success Stories

The National Weight Control Registry (NWCR) at Brown University and the University of Colorado follows people who have lost a significant amount of weight and kept it off for more than a year. In their 10-year follow-up of 2,886 weight-loss successes, the average weight loss maintained was almost 51 pounds. Those who regained the most weight also had decreased their activity levels, slacked off on dietary restraint, stopped weighing themselves regularly, or started eating more calories from fat. The good news is that the majority of NWCR participants maintain a significant amount of weight loss after a decade when they stick with their behavior changes.

IN PERSPECTIVE: *Want to know more about what weight-loss successes are doing to keep the weight off? Check out the website at: <http://www.nwcr.ws/>*

Thomas J, Bond D, Phelan S, et al: Weight-loss maintenance for 10 years in the National Weight Control Registry. American Journal of Preventive Medicine 2014;46:17-23.

How Are We Doing, America?

Researchers at Stanford University School of Medicine studied the trends in obesity incidence and physical activity during the past few years, and the news is shocking. Using data from the National Health and Nutrition Examination Survey (NHANES) from 1988 to 2010, trends in obesity, abdominal obesity, physical activity, and calorie intake were compared. Results showed that average body mass index (BMI) increased 0.37% each year in both men and women during that time period. Average waist circumference increased 0.37% in women and 0.27% in men per year. The prevalence of obesity and abdominal obesity increased substantially, especially in younger women. The percentage of adults who engaged in

no leisure-time physical activity increased from 19.1% to 51.7% in women and from 11.4% to 43.5% in men. (Wow!) Average daily calorie intake did not change, which explains why the changes in BMI and waist circumference were linked to lack of exercise, not changes in food intake.

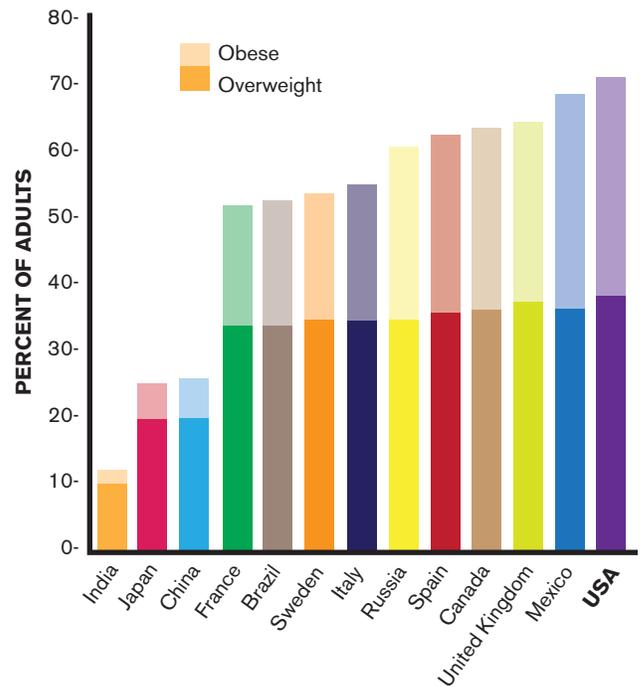
Researchers at the Centers for Disease Control and Prevention report the obesity epidemic may have leveled off at one-third of adults and 17% of children and teens being obese.

Ladabaum U, Mannalithara A, Myer P, et al: Obesity, abdominal obesity, physical activity, and caloric intake in U.S. adults: 1988-2010. American Journal of Medicine March 10th.

Ogden C, Carroll M, Kit B, et al: Prevalence of childhood and adult obesity in the United States, 2011-2012. Journal of the American Medical Association 2014;311:806-814.

US Ranks #1

America tops the list for being the fattest country in the world! Just slightly over 70% of our population is overweight or obese.

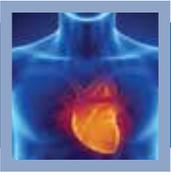


HOTTOPICS: Many pregnant and breast-feeding women are deficient in iodine and should take a daily supplement, state researchers at the American Academy of Pediatrics. *Pediatrics 2014; May 26th.*

There is mounting evidence that supplementation with folic acid, vitamin B12, vitamin D, and possibly other nutrients, could

be useful in the treatment of schizophrenia, state researchers at Harvard Medical School in Boston. *CNS Drugs 2014; May 21st.*

Resveratrol significantly improved glucose control and insulin sensitivity in diabetics, in a study from Chongqing Medical Nutrition Research Center in China. *American Journal of Clinical Nutrition 2014;99:1510-1519.*



IN THE NEWS

- People with elevated blood pressure tend to crave salt, which only exacerbates their condition, according to a study reported at the annual meeting of the American Society of Hypertension in New York City.
- Being overweight increases a woman's risk of dying from early stage breast cancer, according to a study reported at the American Society of Clinical Oncology's annual meeting in Chicago.
- Studies reported at the American Urological Association's annual meeting in Orlando found that diets rich in complex carbohydrates and lower in protein and fat reduced prostate cancer risk by up to 70%. A fiber-rich diet lowered the risk for aggressive prostate cancer by up to 80%.
- People who have COPD have better lung function and fewer symptoms when their diets contain fatty fish, grapefruit, bananas, milk products, and other healthy foods, according to a study reported at the American Thoracic Society's annual meeting in San Diego.
- Rapid weight loss from crash diets leads to muscle, not fat, loss, according to a study reported at the European Congress on Obesity in Bulgaria.
- Mediterranean diet helps kids avoid unnecessary weight gain, state researchers at the University of Gothenburg, Sweden,

HOT TOPICS: Adding oat bran to breakfast foods, including juice and biscuits, improves feelings of satiety, which aids in weight management, according to a study from University of Eastern Finland. *Appetite* 2014;75:150-156.

Low folic acid status could be the reason for DNA damage associated with cleft palate and cleft lip, state researchers at

D Answer to a Healthy Pregnancy

Pregnant women who maintain optimal vitamin D status have healthier, less risky pregnancies, according to two studies from the University of Pittsburgh. In the first study, researchers found that pregnant women with blood vitamin D values greater than 50nmol/L had a 40% lower risk of developing preeclampsia, a severe form of high blood pressure. In the second study, second trimester maternal vitamin D levels in 792 pregnant women were compared to risk of small for gestational age (SGA) babies. Results showed that women with vitamin D levels of 50nmol/L or greater compared with women whose levels were below that amount had a 68% reduction in SGA risk. Interestingly, there was no association between vitamin D levels and SGA risk in obese mothers.

A study from the University of Iowa in

Iowa City found that vitamin D levels were low in a significant amount of newborns and recommend that babies be supplemented with vitamin D at a daily dose of 400IU starting at birth.

Researchers at the Norwegian Institute of Public Health in Norway found that expectant mothers who eat lots of fruits and vegetables have a lower risk of premature delivery.

Bodnar L, Simhan H, Catov J, et al: Maternal vitamin D status and the risk of mild and severe preeclampsia. Epidemiology 2014;25:207-214.

Gernand A, Simhan H, Caritis S, et al: Maternal vitamin D status and small for gestational age offspring in women at high risk for preeclampsia. Obstetrics & Gynecology 2014;123:40-48.

Ziegler E, Nelson S, Jeter J: Vitamin D supplementation of breastfed infants. Pediatric Research 2014;May 23rd.

Englund-Ogge L, Brantsaeter A, Sengpiel V, et al: Maternal dietary patterns and preterm delivery. British Medical Journal 2014;348:g1446.

The Young Child's Memory Diet

What young children eat influences how well they remember, according to a study from the University of Illinois. Researchers investigated the relationship between performance on direct and indirect memory tasks and intake of various dietary components, including saturated fats, omega-3 fats, and refined sugar, in 52 children between the ages of 7- and 9-years-old. Results showed that saturated fat intake was associated with poor memory on both tests, while children who consumed the most omega-3s showed significantly higher memory performance. Eye movement measures of relational memory was inversely linked to sugar intake. That is, as



sugar intake increased, memory decreased.

IN PERSPECTIVE: Previous studies on animals and seniors have shown a direct link between diet and hippocampal function, the area of the brain associated with memory. This area has amazing plasticity as a result of lifestyle habits. It increases in both cell number and region size in response to daily exercise (especially vigorous activity), diet, social interaction, and brain challenges such as learning a new language. This study shows that children also are influenced by one of those factors: diet. Yet another reason to avoid the drive-through and focus on healthy foods, such as omega-3-rich salmon!

Baym C, Khan N, Monti J, et al: Dietary lipids are differentially associated with hippocampal-dependent relational memory in prepubescent children, American Journal of Clinical Nutrition 2014;99:1026-1032.

Jawaharial Institute of Postgraduate Medical Education and Research in India. *Clinics and Practice* 2014;4:608.

While the omega-3 fats, EPA and DHA, show promise in enhancing brain function and mood, a study from Harvard University found no evidence that these fats lowered the risk of completed suicide. *American Journal of Epidemiology* 2014;May 8th.



HOT TOPICS

1 A large international study representing numerous universities found that women who consume fish once a week or more during pregnancy are at lowest risk for preterm birth and also are most likely to have babies who weigh more than women who shun seafood. *American Journal of Clinical Nutrition* 2014;99:506-516.

2 Including more legumes in the daily diet is a simple diet habit that could help prevent and manage the obesity epidemic and its related risks for heart disease, diabetes, and the metabolic syndrome in this country, state researchers at Louisiana State University in Baton Rouge. *Obesity Reviews* 2014;January 17th.

3 Once again a study, this one from the National Heart, Lung, and Blood Institute in Bethesda, found people tend to glorify their foods intakes, reporting they eat much better than they really do. *Public Health Nutrition* 2014; March 17:1-9.

4 A Loyola University study found that about 10% of US children between the ages of 6- and 18-years-old (a population of 5.5 million) are vitamin D insufficient, with levels below 16ng/mL. *Journal of Pediatric Endocrinology and Metabolism* 2014;March 12th.

5 Increased intake of folic acid and vitamin B6 might lower breast cancer risk in women with a certain genotype, says a study from Xinxiang Medical University in China. *Pakistan Journal of Medical Sciences* 2014;30:106-110.

6 People who consume diets rich in fiber, vitamin B6, vitamin C, magnesium, and selenium have better moods, according to a study from the University of Navarra in Spain. *Nutritional Neuroscience* 2014; March 17th.

7 Vitamin B6 shows promise in lowering colon cancer risk and researchers at Hiroshima University in Japan found the reason might be that this vitamin affects cancer cell gene expression. *Oncology Reports* 2014 March 11th.

8 Current heart-healthy dietary recommendations to lower total fat intake, especially saturated and trans fats, while increasing intake of omega-3 fats and monounsaturates in olive oil are also useful for lowering breast cancer risk, state researchers at Isfahan University of Medical Sciences in Iran. *International Journal of Preventive Medicine* 2014;5:6-15.

9 Losing as little as 5% of excess body weight significantly improves sleep habits, including sleep apnea, state researchers at the University of Eastern Finland's Oivauni Sleep Clinic, in Kuopio. *Sleep* 2014;February 11th.

10 Researchers at Northwestern University report that the unhealthy behaviors of college students, including binge drinking, lower intake of colorful fruits and vegetables, tobacco use, inactivity, and weight gain increase their risk for cancer and heart disease later in life. *Preventive Medicine* 2014;May 13th.

11 Women whose partners have high urinary levels of phthalates, chemicals that make plastics more flexible, take longer to become pregnant than women whose mates have low levels of these plasticizers, state researchers at the National Institute of Child Health and Human Development in Maryland. *Fertility & Sterility* 2014;February 14th

12 Less than 4% of children are tested for blood cholesterol levels despite the nation's pediatric obesity epidemic with children as young as 6-years-old showing signs of adult onset degenerative diseases, state researchers at Boston Children's Hospital. *Journal of the American Medical Association* 2014;May 3rd.

13 The rapid increase in childhood obesity and overweight pregnant women is likely the cause of a 30.5% increase in type 2 diabetes in U.S. children, according to a study from Colorado School of Public Health in Aurora. *Journal of the American Medical Association* 2014;May 7th.

14 Overweight children exposed to certain household chemicals, such as perfluorinated chemicals (PFCs) used in stain and water repellants for carpets and furniture, might be at higher risk for heart disease and diabetes, say researchers at the University of Southern Denmark. *Journal of Clinical Endocrinology & Metabolism* 2014;February 25th.

15 Here's one that might surprise you! A study from Cornell University found that when children bite, rather than chew, food (in this case, gnawing on chicken on the bone vs pre-cut, boneless chicken), they exhibit more aggressive behavior after the meal. *Eating Behaviors* 2014;15:311-313.

16 Diets rich in lycopene, a carotenoid found in tomatoes and watermelon, might lower the risk for ovarian cancer in postmenopausal women, according to a study from Medical College of Soochow University in China. *Scientific Reports* 2014;4:4885.

17 In a review of the research from DSM Nutritional Products in New Jersey, researchers conclude that the omega-3 fat DHA might help the brain recover from mild traumatic brain injuries, such as concussions. *Advances in Nutrition* 2014;5:268-277.

18 Easy access to cheap junk food, even when vegetables are available and people exercise, is a major cause of the obesity epidemic. Focusing on reducing calorie intake from sugary beverages and salty snacks would be a better way to reduce obesity rates than attempts to convince Americans to eat more produce, state researchers at the University of Illinois at Urbana-Champaign. *CA: A Cancer Journal for Clinicians* 2014;May 22nd.

19 Both daily exercise and the omega-3 fats in fatty fish enhance cognition. However, in the absence of exercise, increased intake of the omega-3s, EPA and DHA, compensate by offsetting the deleterious effects of lower physical activity, according to a study from the University of Pittsburgh. *Neuropsychologia* 2014;May 9th.



REVIEW

Sugar: How Much of What is Safe?

No animal in the history of the planet has ever consumed as much added sugar as Americans consume today. Daily intakes average somewhere between 30 and 50 teaspoons. In one review of Americans' eating habits by the National Cancer Institute, 78% of women and 67% of men eat too much added sugar. (In the same study, 90% of the people failed to meet even minimum standards for green and orange vegetables, beans, milk products, and whole grains!)

The worst offender is liquid sugars, since they don't curb appetite, so become calories added to the diet, rather than replacing calories. There is strong evidence that sugar-sweetened beverages, the primary source of added sugar in our diets, increase a person's risk for being overweight, which in turn increases the risk for almost all age-related diseases, from dementia to heart disease. A study from the University of Southampton, UK found that added sugars and sugar-sweetened beverages are linked to higher waist circumference and body mass index. While you'll gain the same amount of weight by eating 100 extra calories from sugar as you would from fat, there is mounting evidence that fructose is more likely than other calories to head for the belly. Belly fat, also called visceral fat, is closely linked to risks for heart disease and diabetes.

Added sugars are not just empty calories. They also harm our health. For example, a sweet tooth also increases diabetes risk.

Sugar-sweetened-beverage drinkers are up to 35% more likely to develop diabetes and heart disease. They also have up to a 20% increased risk for metabolic syndrome. Their HDL levels are lower and their triglyceride levels are higher compared to people who curb their sugar intakes. In addition, liver and muscle fat more than double when people drink sugary beverages on a regular basis. A study from the National Cancer Institute found that fructose intake, primarily from beverages, was linked to a higher incidence of all-cause mortality in both men and women.

What is a person to do? According to the American Heart Association, added sugar (i.e., high fructose corn syrup, glucose, dextrose, honey, cane or beet sugars, evaporated cane juice, brown rice syrup, etc.) should be limited to no more than 100 calories (6½ teaspoons) a day for women and no more than 150 calories (9½ teaspoons) for men. Less is better. Also, don't drink sugar-sweetened beverages and limit fruit juices to no more than 1 cup a day. Don't worry about natural sugars in fruit, milk, or plain yogurt. Read labels: 4 grams equals 1 teaspoon of sugar. Also, don't be fooled by sugars with a "health halo" such as organic cane sugar or agave syrup. They all are considered added sugars.

American Journal of Clinical Nutrition 2014;99:1077-1088 and 1479-1486.
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NUTRITION ALERT

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The Best Snack for Athletes

Skip the cookies, the granola bars, and the sugary sports drinks, the best snack for endurance athletes is nuts. Researchers at the USDA Human Nutrition Research Center on Aging at Tufts University in Boston studied trained male cyclists and triathletes who were randomly assigned to consume either 75 grams of whole almonds or cookies with a similar caloric value. The athletes consumed the snacks for four weeks each in a cross-over designed study. At the start and end of the study, they performed tests on a stationary trainer. Blood samples tested for glucose, and the athletes also were assessed for carbohydrate and fat oxidation, energy expenditure, and oxygen use. Results showed that almonds increased cycling distance, while reducing fat oxidation and oxygen consumption. Almonds also maintained higher blood glucose and antioxidant levels. The researchers conclude

that almonds are the preferred snack for endurance athletes, since they contribute to carbohydrate conservation and utilization, and aid in effective oxygen use.

In another study from Tufts, researchers report that pistachio nuts are rich in carotenoids, chlorophylls, phenolic compounds, and other antioxidants, but only about 10% of these compounds are actually absorbed after digestion.

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