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EDITOR'S NOTES:

What's Up with Detoxing?

Detox fasting. Seems like everyone is doing it. Should you? Yes, no, and maybe, depending on how healthy you are and how long you detox. Fasts - that is, drinking only water, juice, or tea for one or more days - have been used for centuries in attempts to cleans the body, fight fatigue, lose weight, and cure debilitating diseases from lupus to arthritis. Detox diets are types of fasts that range from juice fasts to weeks of alternating vegetables, water, juice, brown rice, and what not. Some also include herbal teas, potent laxatives, saunas, and even colonic irrigation (don't ask, you don't want to know!). The theory is that a detox diet purges the body of accumulated contaminants and toxins. Sounds great. Hey, who wants icky "toxins" in their body?! But, venture beyond the spa or naturopath's office and just about anyone in the nutrition or medical field will balk at the idea that detoxing does anything more than give you a headache. It certainly won't aid with long-term weight loss.

Glucose is the number one fuel for your brain and body. Even a detox diet that includes juice or brown rice doesn't supply enough glucose to meet these needs so the body first turns to stored glucose, called glycogen, in the liver and muscle. By the middle of the first day, that resource is exhausted, leaving you lightheaded, hungry, tired, and unable to concentrate. Next, proteins in your muscles and organs are broken down to make glucose. Finally, by day two or three, you lose your appetite and even feel slightly euphoric, light headed, or "energized" not because toxins are being released from tissues, but because of a rise in fat fragments, called ketones. In essence, your body is literally consuming itself as it strives to provide energy for the brain and tissues, while metabolism has slowed in a desperate attempt to conserve energy. The weight you lose in the first two to three days of a detox diet or fast is water and muscle, not fat.

What about those toxins? There is no definition of what that term means, let alone any scientific evidence that the body needs cleansing or the digestive tract needs a rest. The body already has an amazing system for breaking down and ridding itself of anything harmful. Ironically, fasting itself generates toxins. For example, pesticides stored in the body are released slowly with moderate weight loss, allowing the body to detoxify and eliminate them safely. However, these levels rise too rapidly when weight is lost too rapidly on any restrictive diet, such as a detox regimen, raising blood levels above safe ranges.

There's nothing wrong with short fasts for religious reasons, as Jews do on Yom Kippur. A one or two day fast is also safe for healthy people, even if its effectiveness for cleansing and weight loss is questionable. Just take it easy on those days, drink lots of fluids, and don't expect to accomplish much or even drive. Medical clearance is warranted before beginning a lengthier fast and a person shouldn't fast at all if she or he is pregnant, nursing, or has any health condition, including diabetes, cancer, compromised immunity, ulcers, or liver, kidney, heart, or lung disease. If a fast helps at all with cleansing, those benefits are sustained only if you follow it with a healthy diet and lifestyle. That's because the real secret to managing your weight, and feeling and looking your best is healthy eating every day, not a quick-fix crash diet.

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



Elizabeth Somer

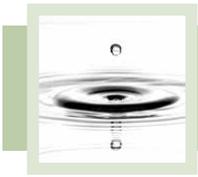
Flaxseed and Alpha Lipoic Acid Join Forces

A combination of flaxseed oil and alpha lipoic acid supplements might help lower risk factors for atherosclerosis, at least in animals. Researchers at the Chinese Academy of Sciences in Beijing fed rats diets with 20% fat from either only lard or a combination of lard and a mixture of flaxseed oil and alpha lipoic acid. At the end of 10 weeks, results showed that the combination of flaxseed oil and alpha lipoic acid significantly enhanced blood antioxidant levels and lowered oxidative stress and inflammatory markers, as noted by lowered C reactive protein (CRP) levels. In addition, the combination lowered levels of triglycerides, cholesterol, and LDL-cholesterol and improved the ratio of HDL to LDL-cholesterol.

Xu J, Yang W, Deng Q, et al: Flaxseed oil and alpha lipoic acid combination reduces atherosclerosis risk factors in rats fed a high-fat diet. Lipids in Health and Disease 2012;11:148.

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You Are At Higher Risk Than You Think

Even if you are healthy, and especially if you're not, you have a significant risk for developing heart disease, according to a study from Northwestern University School of Medicine in Chicago. An analysis of data collected from 1964 to 2008 in five studies on people who were initially free of cardiovascular disease was used to assess future risk for heart disease in Americans. Results showed that overall, US adults have a 55% likelihood of developing heart disease in their lifetimes. Even in those with no major risk factors, there is a 30% risk. The researchers also found that:

- Only 2% to 8% of Americans have no major risk factors for heart disease, while more than 55% have at least one risk factor.
- One in three Americans have had a cardiovascular event, such as a heart attack, stroke, or congestive heart failure.
- By age 45, the estimated overall lifetime risk for heart disease was more than 60% for men and 56% for women.
- By age 45, people with no cardiovascular risk factors lived up to 14 years

longer free of heart disease compared to those with two or more risk factors.

In a second study from Baylor College of Medicine in Houston, overweight people with diabetes who adopted an intensive exercise and diet program not only lost weight, but also showed a significant increase in the good cholesterol, HDL. They produced more adiponectin, a hormone from adipose tissue that plays a role in fat burning, sugar storage, and boosting production of HDLs.

In a study from Wake Forest School of Medicine in North Carolina, researchers report that US medical schools are doing a poor job of teaching students how to deal with the weight issues associated with their obese patients.

Wilkins J, Ning H, Berry J, et al: Lifetime risk and years lived free of total cardiovascular disease. Journal of the American Medical Association 2012;308:1795-1801.

Pritchett A, Dewwal A, Aquilar D, et al: Lifestyle modification with diet and exercise in obese patients with heart failure. Journal of Obesity & Weight Loss Therapy 2012;2:1-8.

Vitolins M, Crandall S, Miller D, et al: Obesity educational interventions in US medical schools. Teaching and Learning in Medicine 2012;24:267-272.

The Whole Grain Truth About Diabetes

Eat enough whole grains each day and you are likely to side-step developing pre-diabetes. In a study from the Karolinska Institute in Stockholm, 5,477 people between the ages of 35- and 56-years-old without diabetes kept food diaries of how much whole and refined grains they ate. Blood glucose levels were monitored during the subsequent 10 years. Results showed that one in every 13 participants became pre-diabetic, while one in 33 became diabetic. Those people who ate more than 59 grams (2 ounces or more), versus 30 grams, of whole grain a day had a 27% lower risk of becoming prediabetic.

IN PERSPECTIVE: *The average American consumes less than one serving of a whole-grain product a day and only 15 grams of whole grain. To maximize the benefits of this study, people should*

eliminate at least 2 ounces of refined grains from their daily diets and replace that with 100% whole grain products low in sugar, fat, and calories. Also, keep in mind that losing excess body fat remains the most important factor for people with pre-diabetes to revert back to normal blood sugar levels.

Wirstrom T, Hilding A, Gu H, et al: Consumption of whole grain reduces risk of deteriorating glucose tolerance, including progression to prediabetes. American Journal of Clinical Nutrition 2013;97:179-187.

HOT TOPIC: Melatonin is a hormone from the pineal gland that helps regulate circadian rhythms, and also has antioxidant, anti-aging, and immunomodulatory properties that help lower cancer risk, state researchers at the Di Bella Foundation in Bologna. *International Journal of Molecular Science 2013;14:2410-2430.*

U.S. Diets Suck!

Most Americans don't come close to eating well, according to a study from the US Department of Agriculture (USDA). Data on dietary intakes taken from the National Health and Nutrition Examination Survey, 2003-2004 (NHANES) compared what people said they ate to the recommended dietary guidelines. Using the USDA's Healthy Eating Index, which scores 10 categories of food intake (such as fruits, vegetables, grains, milk, meat and beans, etc.) with a potential 10 points for each category, researchers found that children and adults each scored a total of 56 points (equivalent to an "F" grade), while seniors scored 65 points (the equivalent of a "D" grade). No group came even close to a perfect score of 100 regardless of income or education.

The American Heart Association agrees with these findings. In their 2013 annual report on heart disease and stroke, they conclude that while smoking and lowering blood pressure efforts have improved, the two big factors that contribute to one death every 40 seconds from heart disease are poor eating habits and lack of exercise.

IN PERSPECTIVE: *Every national nutrition survey dating back to the 1960s has repeatedly and consistently shown that American diets are low in everything from vitamin A to zinc. We average only 3 to 4 fruits and vegetables, include less than a serving of whole grain, and drink little calcium-rich milk every day, while cheese is now the #1 source of saturated fat in our diets. It's no wonder this study found that most Americans are failing nutrition, yet when asked, say they think they eat pretty well. Not!*

Hiza H, Casavale K, Guenther P, et al: Diet quality of Americans differs by age, sex, race/ethnicity, income, and education level. Journal of the Academy of Nutrition and Dietetics 2012;November 15th.

Go A, Mozaffarian D, Roger V, et al: Executive summary: Heart disease and stroke statistics: 2013 Update. Circulation 2013;127:143-152.



Fast Food Failings

Fast food continues to be a bad choice, according to two studies. At Temple University in Philadelphia, researchers examined the changes in energy content of lunch and dinner menu offerings at eight leading fast-food chains, including McDonald's, Burger King, Wendy's, Taco Bell, KFC, Arby's, Jack in the Box, and Dairy Queen. Results showed the average entree contains 453 calories and the average side dish adds another 263 calories. There has been a 53% increase in the number of food offerings in the past few decades. Even though there hasn't been a significant change in calorie content of entrees and drinks, calories have increased for condiments and desserts. What has changed is the amount of calories now consumed as fast food, which accounts for 15% of Americans' calorie intake today compared to only 4% in the 1970s. About 28% of adults eat at a fast-food establishment two or more times a week, and 40% of high school students consume fast food on any given day.

Researchers at the National Cancer Institute compared fast food meals to the USDA's Healthy Eating Index, which rates food intakes based on 10 categories with a maximum score of 10 in each category. Eat perfectly and a person scores 100. No food from any fast food establishment studied rated a score above 72 (the equivalent of a C- grade). The researchers conclude that, "the poor quality of fast-food menus is a concern in light of increasing away-from-home eating..."

Kids who eat fast food at least three times a week are most likely to have severe allergic reactions, including asthma, eczema, and hay fever, according to a study from the University of Nottingham, England.

Bauer K, Hearst M, Earnest A, et al: Energy content of US fast-food restaurant offerings: 14-year trends. American Journal of Preventive Medicine 2012;43:490-497.

Kirkpatrick S, Reedy J, Kable L, et al: Fast-food menu offerings vary in dietary quality, but are consistently poor. Public Health Nutrition 2013;January 15th: 1-8.

Ellwood P, Innes A, Garcia-Marcos L, et al: Do fast foods cause asthma, rhinoconjunctivitis and eczema? Thorax 2013;January 14th.

More Reasons Not to Drink Soft Drinks

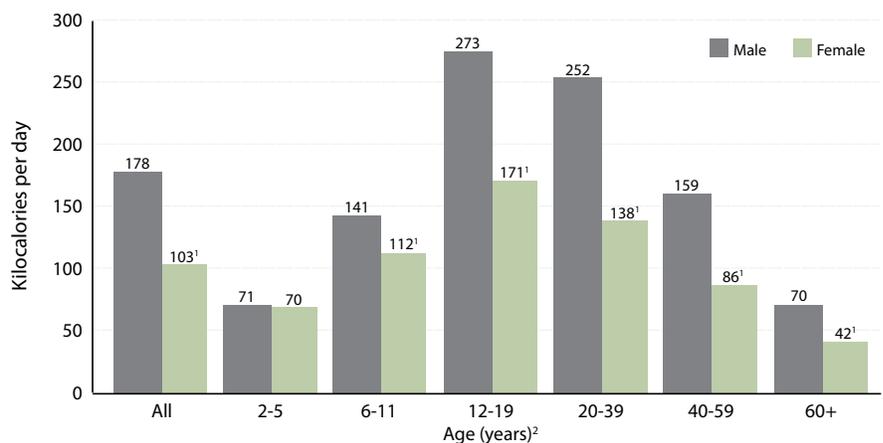
Now considered "the new tobacco," soft drinks are on the hot seat again. A study from Baylor College of Medicine in Houston found that almost one in three children drink soft drinks, while these beverages supply no nutritional value other than unwanted calories. Researchers at Osaka University report that women who drink sugary bottled beverages almost daily are 83% more likely to suffer a stroke than are women who rarely or never consume these drinks. A study from Menia University in Egypt found that soft drink consumption

was linked to increased risk for type 2 diabetes in women, while a study from the University of Bergen in Norway found that consuming sugar-sweetened beverages during pregnancy leads to excessive weight gain in both the mother and developing baby.

Fulgoni V, Quann E: National trends in beverage consumption in children from birth to 6-years. Nutrition Journal 2012;11:92

Eshak E, Iso H, Kokubo Y, et al: Soft drink intake in relation to incident of ischemic heart disease, stroke, and stroke subtypes in Japanese men and women. American Journal of Clinical Nutrition 2012;October 17th.

AVERAGE CALORIES FROM SUGARY DRINKS FOR AGES 2-YEARS-OLD AND OLDER



¹Significantly different from males.

²Significant quadratic trend for both males and females

Source: CDC/NCHS, National Health and Nutrition Examination Survey. 2005-2008

Eshak E, Iso H, Mizoue T, et al: Soft drink, 100% fruit juice, and vegetable juice intakes and risk of diabetes mellitus. Clinical Nutrition 2012;August 13th.

Grundt J, Nakling J, Eide G, et al: Possible relation between maternal consumption of added sugar and sugar-sweetened beverages and birth weight. BMC Public Health 2012;12:901.

The Anti-Depression Diet

People who eat little antioxidant-rich fruits and vegetables are at highest risk for developing depression, according to a study from Duke University in Durham, North Carolina. Researchers compared intakes of antioxidants, fruits, and vegetables in 278 seniors, 144 with depression and 134 without depression. Results showed that vitamin C, lutein, and another

carotenoid beta cryptoxanthin were significantly lower in depressed patients. In addition, fruit and vegetable intake also was low in these patients compared to controls. Antioxidants from dietary supplements was not linked to depression risk.

Payne M, Steck S, George R, et al: Fruit, vegetable, and antioxidant intakes are lower in older adults with depression. Journal of the Academy of Nutrition and Dietetics 2012; 112:2022-2027.



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Eat Your Way to Happiness

People who include at least seven colorful fruits and/or vegetables in their daily diets are the most likely to be happy and enjoy good mental health, according to a study from Dartmouth University and the University of Warwick. The eating habits of about 80,000 people were compared to psychological well-being. Results showed that mental well-being,

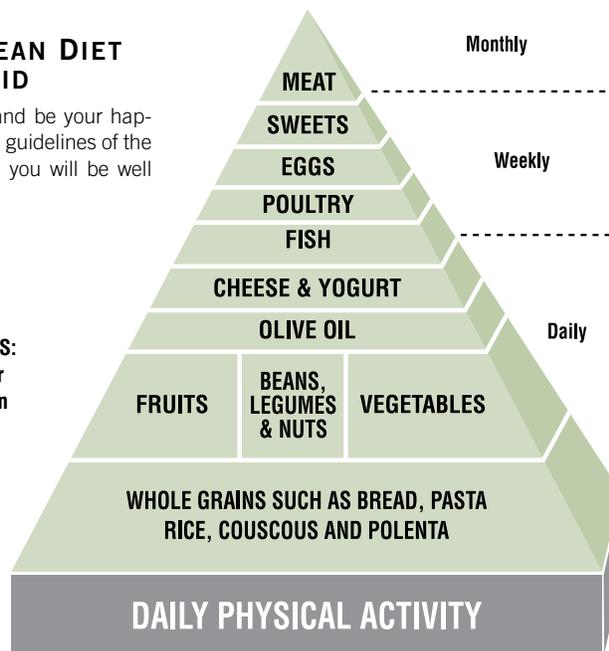
as assessed on life satisfaction, nervousness, self-reported health, happiness, and feeling low, rose with the number of daily servings of fruits and vegetables, peaking at seven servings a day.

Blanchflower D, Oswald A, Stewart-Brown S: Is psychological well-being linked to the consumption of fruit and vegetables? Social Indicators Research 2012;October 11th.

MEDITERRANEAN DIET PYRAMID

Want to feel your best and be your happiest? Follow the general guidelines of the Mediterranean Diet and you will be well on your way!

DAILY BEVERAGE RECOMMENDATIONS:
6 Glasses of Water
Wine in moderation



DHA Improves Reading Skills in Children

As if lowering the risk for heart disease, depression, dementia, and more wasn't enough, researchers at Oxford University in England report that the omega-3 fat DHA also improves reading and behavior in school-age children. Healthy children between the ages of 7- and 9-years-old who were underperforming in reading were given either placebos or 600 milligrams of DHA (as algal oil) a day for six months. Results showed significant improvements in reading (up to a 50% improvement) in the children whose initial reading performance was in the 10% to 20% group. Parent-rated behavior problems also were significantly reduced in the DHA-supplemented group, with

no side effects. The researchers conclude that, "DHA supplementation appears to offer a safe and effective way to improve reading and behavior in healthy, but underperforming, children from mainstream schools."

A study from the University of South Australia, Adelaide found that supplementation with omega-3s, especially DHA, improved literacy and behavior in children with attention deficit/hyperactivity disorder (ADHD).

Richardson A, Burton J, Sewell R, et al: Docosahexaenoic acid for reading, cognition and behavior in children aged 7-9 years. PLoS One 2012;7:e43909.

Mille C, Parletta N, Buckley J, et al: Eicosapentaenoic and docosahexaenoic acids, cognition, and behavior in children with attention-deficit/hyperactivity disorder. Nutrition 2012;28:670-677.

IN THE NEWS

- The average American consumes about 100 calories a day as beer, wine, or alcohol (which translates to a 10 pound weight gain every year if the calories are in addition to normal daily intake); however, 20% of men and 6% of women consume more than 300 alcoholic calories a day, according to a report published in the November issue of NCHS Data Brief.
- Getting too little sleep increases levels of the hunger-stimulating hormone, ghrelin, in men and lowers levels of the satiety hormone, GLP-1, in women, according to a news release from the November 29th issue of Sleep.
- Seniors who drink diet soft drinks are at higher risk for depression than those seniors who avoid the bottled junk, according to a study reported at the American Academy of Neurology's annual meeting in San Diego.
- One in every six Americans get food poisoning each year and most cases are caused by salmonella in eggs and sprouts, E.coli in beef, and Campylobacter in unpasteurized dairy products, with almost 50% of cases caused from contaminated restaurant food, says the Center for Disease Control and Prevention.
- The Food and Drug Administration (FDA) warns people to avoid a supplement sold under the name "WOW," which is actually Reumofan Plus renamed to sell remaining supplies. The supplement contains a corticosteroid and anti-inflammatory drug, as well as a muscle relaxant that can cause liver injury, severe bleeding, and even stroke.

HOT TOPIC: High blood levels of vitamin E reduced progression of multiple sclerosis lesions in a study from the University of Oslo, Norway. *PLoS One 2013;8:e54417.*



How Many Fruits and Veggies Do You Eat?

People who eat diets rich in colorful fruits and vegetables have the lowest risk for having a stroke, according to numerous studies, including one from the Karolinska Institute in Stockholm. Dietary intakes of almost 75,000 healthy men and women were gathered and compared to subsequent stroke risk during the following 10 years. Results showed that those people who



Half of your plate at every meal and snack should be colorful fruits and vegetables!

consumed the most colorful fruits and vegetables lowered their risk for stroke by 13% compared to those with the least intake of these nutritious foods. Specifically, apples and pears lowered risk by 11% and green leafy vegetables lowered risk by 8%.

Larsson S, Virtamo J, Wolk A: Total and specific fruit and vegetable consumption and risk of stroke. Atherosclerosis 2012;December 28th.

tion and risk of stroke. Atherosclerosis 2012;December 28th.

Breasts Love Veggies!

Women who consume diets rich in colorful fruits and vegetables are less likely to develop breast cancer, state researchers at Brigham & Women's Hospital and Harvard Medical School in Boston. Data was analyzed on women who took part in eight

studies on carotenoid levels and breast cancer. Results showed that high blood levels of carotenoids - from carrots, spinach, kale, tomatoes, bell peppers, sweet potatoes, and other colorful vegetables - were linked to a low risk of developing breast cancer, especially a type of cancer called ER-negative, tumors that don't rely on estrogen to fuel their growth.

Eat Right to Avoid Pancreatic Cancer

What you eat could determine whether or not you get pancreatic cancer, according to a study from the Institute of Ricerche Farmacologiche in Milan, Italy. The researchers compared dietary intakes from 326 pancreatic cancer patients and 652 healthy controls. Results showed four dietary patterns: 1. Animal products, 2. Unsaturated fats, 3. Vitamins and fiber, and 4. Starch. People who ate the Animal-products diet rich in meat had more than a two-fold increased risk for pancreatic cancer, while those who ate the Starch-rich diet had a 1.69-fold increased risk. People who ate diets rich in colorful fruits and vegetables lowered their risk by 45%. No association was noted between unsaturated fats and cancer risk.

On the other hand, researchers at Stanford University caution people to be wary of diet cures for cancer. In their study of 50 randomly selected food items that have been touted to increase or decrease cancer risk, most of the claims were found to be weak at best. The research appears strongly in favor of onions, carrots, and tea lowering cancer risk, and bacon and sugar raising risk. "I would caution people not to over-interpret individual studies and to look to guidelines that have been published based on more comprehensive reviews," states the Director of Nutritional Epidemiology at the American Cancer Society.

Eliassen A, Hendrickson S, Brinton L, et al: Circulating carotenoids and risk of breast cancer. Journal of the National Cancer Institute 2012;104:1905-1916.

Schoenfeld J, Ioannidis J: Is everything we eat associated with cancer? American Journal of Clinical Nutrition 2013;97:127-134.

Bosetti C, Bravi F, Turati F, et al: Nutrient-based dietary patterns and pancreatic cancer risk. Annals of Epidemiology 2013;January 16th.

Berry, Berry Healthy Heart

Including at least three servings a week of blueberries and strawberries lowers a woman's risk for having a heart attack, state researchers at Harvard School of Public Health. Dietary intakes were assessed every four years for 18 years on 93,600 women between the ages of 25- and 42-years-old in the Nurses' Health Study and compared to subsequent heart attacks. Results showed that women who consumed the most blueberries and strawberries had a 32% lower risk of having a heart attack compared to women who ate the berries once a month or less, even if their diets were otherwise good in other fruits and vegetables. These findings were independent of age, blood pressure, family history of heart attack, body mass, exercise, smoking, or caffeine and alcohol intakes. The researchers conclude that, "blueberries and strawberries can easily be incorporated into what women eat every week. This simple dietary change could have a significant impact on prevention efforts."

In a study from the Karolinska Institute in Stockholm, high intake of antioxidant-rich foods, including fruits, vegetables, coffee, and whole grains, lowered heart attack risk in women.

IN PERSPECTIVE: *Berries are high in flavonoids, in particular the anthocyanins, which help dilate arteries, counter the accumulation of plaque in arteries, and provide numerous cardiovascular benefits. A serving of berries is one cup. Add to smoothies, as a topping for pancakes and waffles, sprinkle into salads, serve as a dessert, or layer with yogurt as a parfait.*

Cassidy A, Mukamal K, Liu L, et al: High anthocyanin intake is associated with a reduced risk of myocardial infarction in young and middle-aged women. Circulation 2013;127:188-196.

Rautiainen S, Levitan E, Orsini N, et al: Total antioxidant capacity from diet and risk of myocardial infarction. American Journal of Medicine 2012;125:974-980.



Vitamins Lower Multiple Sclerosis Risk

Vitamin A might improve immune function and suppress inflammation associated with multiple sclerosis, according to a study from Umea University in Sweden. Researchers measured retinol binding protein (RBP), a marker for vitamin A status, and C-reactive protein (CRP), a marker of inflammation in healthy controls and patients with multiple sclerosis (MS). Results showed that higher RBP levels were associated with a lower MS risk and CRP levels equal to or greater than 10mg/L also was linked to lower MS risk. The researchers conclude that, "...suboptimal vitamin A levels may be associated with MS risk."

The same researchers report that vitamin D also lowers MS risk in the years after a woman gives birth. They also found that vitamin D blood levels have been dropping since the mid 1970s, which might be a factor in why MS has become more common in industrialized parts of the world.

IN PERSPECTIVE: *MS is thought to be an autoimmune disorder that affects approximately 400,000 people in the United States. The disease attacks the fatty sheath (myelin sheath) surrounding nerve cells, causing disabling symptoms, such as loss of balance, blurred vision, slurred speech, bladder and bowel difficulties, and numbness.*

Salzer J, Hallmans G, Nystrom M, et al: Vitamin A and systemic inflammation as protective factors in multiple sclerosis. Multiple Sclerosis 2013;January 18th.

Salzer J, Hallmans G, Nystrom M, et al: Vitamin D as a protective factor in multiple sclerosis. Neurology 2012; 79:2140-2145.

Carbs Could Make You Infertile

The quality of a man's sperm is a reflection of the quality of his diet, according to two studies. At Harvard School of Public Health, researchers analyzed diet patterns and semen quality in men aged 18- to 22-years-old. Two dietary patterns were identified: the Western pattern (high in red and processed meat, refined grains, pizza, snacks, high-energy beverages, and sweets) and the Prudent pattern (high in fish, chicken, fruit, vegetables, legumes, and whole grains). Results showed the Prudent pattern was associated with more than a 11% greater sperm motility compared to the Western diet. The research-

ers conclude that "...a diet rich in fruits, vegetables, chicken, fish, and whole grains may be an inexpensive and safe way to improve at least one measure of semen quality."

In a second study, excessive intake of calories from dairy and refined carbs was associated with poor sperm quality in men, possibly because of the link to obesity, stated researchers who reported their findings at the American Society for Reproductive Medicine's annual meeting in San Diego.

Gaskins A, Colaci D, Mendiola J, et al: Dietary patterns and semen quality in young men. Human Reproduction 2012;27:2899-2907.

Greasy Diet, Infertile Men

Men who eat diets packed with saturated fat-laden foods may suffer from more than weight gain, heart disease, and cancer. A study from the University Department of Growth and Reproduction in Denmark found that they also have low sperm counts and higher rates of infertility. An examination of 701 young men (about 20-years-old), examined for their fitness for military service, included semen samples, physical examinations, and food frequency questionnaires. Results showed

that men who ate the most saturated fat had a 38% lower sperm concentration and a 41% lower sperm count in semen compared to those who ate little saturated fat. The researchers conclude that, "...a reduction in saturated fat intake may be beneficial for both general and reproductive health."

Jensen T, Heitmann B, Jensen M, et al: High dietary intake of saturated fat is associated with reduced semen quality among 701 young Danish men from the general population. American Journal of Clinical Nutrition 2013;97:411-418.

Take Your Calcium!

Women who get too little calcium are at high risk for developing a hormone condition caused by overactive parathyroid glands that contribute to bone loss and fractures, according to a study from Brigham and Women's Hospital in Boston. Using data from more than 58,000 women in the Nurses Health Study, the researchers found that women with the highest calcium intakes had a 44% lower risk for hyperparathyroidism (PHPT) compared to women who consumed the least amount of the mineral. Women who supplemented with as little as 500 milligrams of calcium every day had a 59% lower risk for PHPT. The researchers conclude that, "Increased calcium intake, from both dietary and supplemental calcium, is independently associated with a reduced risk of developing primary hyperparathyroidism in women."

Paik J, Curhan G, Taylor E: Calcium intake and risk of primary hyperparathyroidism in women. British Medical Journal 2013;345:e6390.

Supplements Benefit Teens

Researchers at Comenius University in Bratislava, Slovakia report that a special combination of supplements aids in lowering heart disease risk in teens with hypercholesterolemia. Supplements of plant sterols (1300 milligrams), fish oil (1000 milligrams of DHA and EPA), co-enzyme Q10 (3 milligrams), and vitamins B12 (50 micrograms), B6 (2.5 milligrams), and folic acid (800 micrograms) were given daily to 25 adolescents with elevated lipids and homocysteine levels. At the end of the 16-week study, total cholesterol, LDL-cholesterol, and blood homocysteine levels had decreased significantly. No changes were noted in C reactive protein (CRP) or HDL-cholesterol.

Garajova I, Muchova J, Nagyova Z, et al: Effect of a plant sterol, fish oil, and B vitamin combination on cardiovascular risk factors in hypercholesterolemic children and adolescents. Nutrition Journal 2013;12:7.



HOT TOPICS

1 Another “duh!” study. Researchers at the University of Pittsburgh found that cutting back on desserts, restaurant eating, sweetened beverages, and fried foods resulted in weight loss. *Journal of the Academy of Nutrition and Dietetics* 2012;112:1347-1355.

2 In a study on animals, researchers at the Federal University of Rio Grande do Sul in Brazil report that a soy-based diet lowers oxidative stress associated with heart failure. *Canadian Journal of Physiology and Pharmacology* 2012;90:1095-1103.

3 Supplementation with the omega-3 fats, EPA and DHA, reduced oxidative stress associated with obesity, in a study from Shiga University of Medical Sciences in Japan. *Biochemical and Biophysical Research Communications* 2012;November 3rd.

4 While not as potent a skin protector as topical sun screens, a diet rich in beta carotene and other carotenoids, including lycopene, aids in protecting skin from UV damage and contributes to long-term skin health and appearance, state researchers at the University of Dusseldorf in Germany. *American Journal of Clinical Nutrition* 2012;96:1179S-1184S.

5 Suboptimal intake of vitamins B1, B2, B6, and niacin was associated with more aggressive and delinquent behaviors in adolescents, while poor intake of folate and vitamin B6 increased the risk for withdrawn and depressive behaviors, in a study from the University of Western Australia in Perth. *Preventive Medicine* 2012;September 23rd.

6 Yo yo dieting increases the risk for heart disease, at least in older women, according to a study from Wake Forest University in North Carolina. Risk factors improve with weight loss, but return to pre-diet levels or even higher when weight is regained. *Journal of Gerontology* 2012;November 26th.

7 Replacing carbohydrates with monounsaturated fats, such as are found in nuts and olive oil, lowered bad cholesterol (LDLs) and raised good cholesterol (HDLs) in patients with elevated blood lipids, according to a study from the University of Toronto. *British Journal of Nutrition* 2013;January 14th: 1-11.

8 If the current trends continue, the rate of type 2 diabetes in young people will rise by 49% by 2050 and rates of type 1 diabetes will increase by 23%, with obesity being the main reason for this epidemic, according to a study from the Centers for Disease Control and Prevention in Atlanta. *Diabetes Care* 2012;35:2515-2520.

9 A diet rich in tryptophan and vitamin B6 helps boost serotonin levels and lower the risk for depression, with a carbohydrate-rich snack helping to facilitate transfer of tryptophan through the blood brain barrier to be converted to this feel-good neurotransmitter, state researchers at the Saint James School of Medicine in The Netherlands. *Neurochemistry International* 2013;January 7th.

10 People with heart disease who make healthful changes in their lifestyles, by increasing exercise and eating better diets (especially if it lowers fat and salt intake and increases intake of fish, fruit and vegetables), experience a significant improvement in quality of life, state researchers at Ghent University in Belgium. *European Journal of Preventive Cardiology* 2013;January 10th.

11 A calcium-rich diet lowers prostate cancer, especially among African American men, according to a study from Durham Veterans Affairs Medical Center in Durham, North Carolina. *Preventing Chronic Disease* 2012;9:E39.

12 Diets rich in magnesium and potassium help prevent strokes, according to a review of studies by researchers at the Karolinska Institute in Stockholm. *Current Opinion in Lipidology* 2012;November 2nd.

13 Adding cooked dried beans and peas to the daily diet improves the glycemic index (GI), glycemic control, and lowered heart disease risk in people with diabetes, in a study from the University of Toronto. *Archives of Internal Medicine* 2012;172:1653-1660.

14 Diets rich in fiber, especially fiber from vegetables, lowers breast cancer risk, according to a study from the International Agency for Research on Cancer in Lyon, France. *American Journal of Clinical Nutrition* 2013;97:344-353.

15 Dichlorophenols, pesticide residues used on fruits and vegetables, are used to purify tap water and might weaken the immune response, thus playing a role in the development of certain food allergies, according to a study from Albert Einstein College of Medicine in Bronx, New York. *Annals of Allergy, Asthma and Immunology* 2012;109:420-425.

16 Women with a history of gestational diabetes who follow a Mediterranean-like diet have a lower risk of developing diabetes, state researchers at Harvard Medical School. *Archives of Internal Medicine* 2012;172:1566-1572.

17 A chemical called melamine found in some dishware might increase the risk for kidney stones in some people, according to a study from Kaohsiung Medical University in Taiwan. *Journal of the American Medical Association: Internal Medicine* 2013;January 21st.

18 Overweight mothers or those who put on too much weight during pregnancy have lower levels of healthy bacteria in their breastmilk compared to healthy-weight mothers, according to a study from the University of Valencia, Spain. Breastmilk from healthy mothers contains more than 700 species of bacteria, more than previously believed. *American Journal of Clinical Nutrition* 2012;96:544-551.

19 Caution! Exposure to the herb, fang chi, commonly used in Chinese herbal medicine, was shown to increase urinary cancer risk in a study from Tzu Chi University in Taiwan. *Journal of Urology* 2013;189:48-52.



The Pill Popper Promise

Almost one in every two Americans takes a vitamin and/or mineral supplement, according to researchers at Tufts University who analyzed data from the National Health and Nutrition Examination Survey (NHANES: 2007-2008). Supplement users tend to eat better, too. According to the study, supplement users consumed greater amounts of vitamins A, C, and E, as well as folate, calcium and iron from food. While their diets were no better than non-supplementers when it came to vitamin B12 and zinc, their overall intake from supplements and food resulted in intakes closer to optimal for all nutrients studied.

One in every seven Americans also takes a supplement that isn't a vitamin or mineral, such as fish oil, echinacea, or ginseng, with reasons ranging from wanting to feel better to hoping to boost immunity.

Kennedy E, Luo H, Houser R. Dietary supplement use pattern of US adult population in the 2007-2008 National Health and Nutrition Examination Survey (NHANES). Ecology of Food and Nutrition 2013;52: 76-84.

NUTRITIONAL ALERT

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REVIEW

What to Eat to Be Happy

Most people recognize the link between what they eat and their physical health. Fail to get enough calcium and the resultant bone loss may lead to osteoporosis. But it takes years, even decades of that diet abuse to produce those problems, while the link between what you eat and your mood and memory is much more immediate. The effects also are cumulative: eat the right foods for months, years, decades and you will be that much happier and mentally sharp in the years to come.

Feel Good Tip #1: Eat breakfast: People who eat breakfast have more energy, a more sustained good mood throughout the day, they perform better at school and at work, and they sleep better at night, which means they wake up the next day more energized and happy. That is as long as the meal contains: 1) a whole grain to provide needed high-quality carbs for the brain during the morning hours, 2) a little protein to keep you satiated and maintain even blood sugar levels throughout the morning, and 3) 1 and preferably 2 colorful fruits and vegetables. An example is: a bowl of whole-grain cereal topped with berries and low-fat milk, and served with sliced watermelon. The calcium in milk also might lower depression risk.

Feel Good Tip #2: Keep lunch light and low-fat: It is important to stop and refuel mid-day. Just make sure lunch contains some fat, but not too much. Not only will a heavy lunch leave you groggy, but eat too much fat mid-day and it turns on a brain chemical, called galanin. According to research from Rockefeller University, the more fat we eat, the more galanin we produce. People who eat a fatty lunch are likely to eat more calories later in the day compared to someone who eats a low-fat lunch. You definitely need some fat, especially the good fats, like the healthy fats in nuts and olive oil and the omega-3 fats, but don't go overboard. Basically, a light, low-fat meal helps you stay alert through the afternoon hours, boosts energy, and fills you up without filling you out. An example would be a turkey breast sandwich on whole wheat piled high with spinach leaves and served with a glass of low-fat milk and a fruit salad or watermelon, orange slices, and pineapple.

Feel Good Tip #3: Include super mood foods in your daily diet: First, it is a style of eating, not just a few foods, that will stack the deck in favor of feeling great. You can't toss a handful of baby carrots into an otherwise junk diet and think you will boost your mood! Sprinkling that healthful eating plan with a few super mood foods gives you an even greater nutritional bang for your buck. Super mood foods are ones loaded with vitamins, minerals, fiber, and antioxidant-rich phytonutrients, while being moderate in calories, such as watermelon, berries, and wild salmon.

A Final Note: An eating plan that resembles the Mediterranean diet is your goal. It always will help improve mood and memory, and in some cases may be all it takes to feel your best. However, depression and fatigue can be symptoms of other problems, so always consult a physician if emotional problems persist.

Popa T, Ladea M: Nutrition and depression at the forefront of progress. Journal of Medicine and Life 2012;5:414-419./Bae Y, Kim S: Low dietary calcium is associated with self-rated depression. Nutrition Research and Practice 2012;6:527-533./White B, Horwath C, Conner T: Many apples a day keep the blues away. British Journal of Health and Psychology 2013;January 24th.

HOTTOPIC: Researchers at the Fred Hutchinson Cancer Research Center in Seattle reviewed the research on dietary supplements and markers for inflammation. They conclude that glucosamine, chondroitin, and fish oil supplements show promise in lowering C reactive protein (CRP) levels, thus reducing inflammation-related diseases, such as cancer and cardiovascular disease. *American Journal of Epidemiology 2012;176:1002-1013.*