



EDITOR'S NOTES:

How Far Should We Take "Freedom of Choice?"

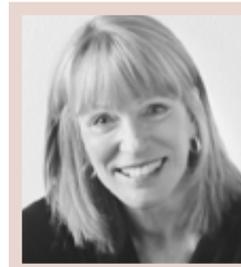
"You are taking away New Yorkers freedom of choice," said the American Beverage Association in response to New York's Mayor Mike Bloomberg's proposed ban on soft drinks sold in 20-ounce or larger containers. We also took away American's freedom of choice when we banned tobacco smoke in public places, made seat belts a requirement in all cars, and required motorcyclists and young bicyclists to wear helmets. Yet, all of those and many more laws and ordinances aimed at improving the health of Americans when they refuse to do it voluntarily have resulted in lower disease and accident rates. So, how far do we go to force people to smarten up and take better care of themselves and their children when it comes to junk food?

Commercial sweetened beverages are the new tobacco. They provide no nutritional value and are directly related to the obesity epidemic not only in this country, but around the world. According to a study from Harvard School of Public Health in Boston reported at the American Heart Association's meeting in New Orleans, more than 180,000 deaths worldwide in 2010 were directly linked to the intake of sugar-laden drinks. The link is so strong that for every ounce of soft drinks a person consumes in a week, his or her risk for being overweight increases. This, in turn, raises the risk for a plethora of diseases, including cancer, heart disease, high blood pressure, type 2 diabetes, stroke, asthma, sleep apnea, arthritis, gallbladder diseases, menstrual problems, gout, anger, hostility, self-esteem problems, depression, sleep disorders, and fatigue. In men, excess fat increases an enzyme called aromatase, that converts testosterone into estradiol, a form of estrogen. This increases prostate cancer risk and lowers testosterone levels, leaving a man feeling tired, flabby, and less interested in sex. It also reduces sperm count, gives him "man boobs," and leads to erectile dysfunction (ED). In fact, overweight men have up to a 90% greater risk for ED than do lean or fit men. Need I go on?

Along with all that ill health comes escalating healthcare costs. Obesity experts have been screaming for years that the obesity epidemic in this country will break the back of the healthcare industry, while in the meantime, our insurance premiums continue to rise to cover the cost of everyone else's poor food and lifestyle choices. So it goes for freedom of choice.

Personally and professionally, I have come to the conclusion that for many Americans, making wise food and lifestyle choices is beyond their capability. As long as insurance companies continue to cover people who refuse to take care of themselves, then shuffle the costs to the rest of us, I am perfectly willing to consider having people forfeit their freedom of choice when it comes to obviously unhealthy behaviors, such as the consumption of sugary beverages. I commend Mayor Bloomberg for stepping up to the political plate and putting his foot down on at least one of the glaringly obvious culprits. If he can't convince lawmakers and citizens to wake up and smell the obvious, then I suggest a stiff tax be added to every ounce of sugary beverage sold. I'd also make it illegal to sell sugary beverages to anyone younger than 18-years-old. Then let the masses decide how much they love that junk and what they are willing to pay for their expanding waistlines and declining health. Are you with me?

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



Elizabeth Somer

Diet-Related Diseases Linked to Dementia

The body is one big package. So, it is no surprise that researchers at Linköping University in Sweden found that people with diet-related diseases, such as hypertension, diabetes, and congestive heart failure, are also at highest risk for dementia. Disease status of 702 people who were 80-years-old and older from a Octogenerian Twin study was compared to risk for developing dementia. Dementia was diagnosed according to criteria in the Diagnostic and Statistical Manual of Mental Disorders. Results showed that people with congestive heart failure (CFH) had a 40% chance of developing dementia compared to people without CHF who had a 30% risk. Depression, diabetes, hypertension, and elevated homocysteine levels also raised dementia risk.

Hjelm C, Brostom A, Dabl A, et al. Factors associated with increased risk for dementia in individuals age 80 years or older with congestive heart failure. Journal of Cardiovascular Nursing 2013;January 30th.

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Folic Acid Supplementation Reduces Autism Risk

Women who take folic acid supplements prior to and after conception may lower their risk for having a child with autism, according to a study from the Norwegian Institute of Public Health in Oslo. Researchers followed 85,176 women and their children, born between 2002 and 2008. Supplementation prior to and following conception was compared to autism risk in the children at ages three to 10-years-old. In the study sample, 270 of the children were diagnosed with an autism spectrum disorder, including 114 with autism. The risk for autism was twice as high in the unsupplemented group compared to women who had supplemented prior to and following conception.

IN PERSPECTIVE: *Folic acid affects genes and DNA repair, which might explain its role in brain development and autism risk. The important note here also is that supplementing prior to pregnancy is as critical as supplementing after the pregnancy test comes back positive. In other words, all women during the childbearing years who have any chance at all of becoming pregnant should be taking a multi that contains no less than 400 micrograms of folic acid.*

Suren P, Roth C, Bresnahan M, et al: Association between maternal use of folic acid supplements and risk of autism spectrum disorders in children. Journal of the American Medical Association 2013;309:570-577.

HOTTOPICS: The cost of diabetes in the U.S. rose from \$174 billion in 2007 to \$245 billion in 2012, a 41% increase in five years, according to the American Diabetes Association. *Diabetes Care 2013;March 6th.*

Children consume on average more than 500 calories a day from sugar-sweetened beverages. Consumption of sports drinks and energy drinks in adolescents has tripled in the past few years, state researchers at the University of Illinois, Chicago. *Journal of the Academy of Nutrition and Dietetics 2013;113:43-53.*

Sugar and Diabetes Worldwide

Finally! We have conclusive evidence that the glut of added sugar in the diet is linked to diabetes risk worldwide. A study from Stanford University looked at population data around the world and concluded that as sugar consumption goes up in a country, the number of people with diabetes goes up as well. Data from the United Nations Food and Agricultural Organization on the availability of foods in 175 countries was compared to diabetes incidence in each country. Results showed that for every additional 150 calories of sugar, about the amount in a 12-ounce soft drink, that was available per person every day, the prevalence of diabetes increased 1% in the population. This rise was independent of obesity, physical activity, and alcohol use. Duration and degree of sugar exposure also was directly related to diabetes risk, while risk decreased as sugar availability and duration decreased. The researchers conclude that, “some calories may be more metabolically harmful than others, and sugar calories appear to have remarkably potent properties that make us concerned about their long-term metabolic effects.”

In another study conducted by reputable institutions, from Stanford University in California and Cambridge University in the UK to the World Health Organization in Geneva, researchers found that as soft

drink consumption increased globally from 9.5 gallons per person in 1997 to 11.4 gallons in 2010, so did obesity rates. A 1% rise in soft drink consumption was associated with an additional 4.8 overweight and 2.3 obese adults for every 100 adults in a country. The researchers conclude that “Soft drink consumption is significantly linked to overweight, obesity, and diabetes worldwide...”

And, guess what?! Parents are to blame for the biggest factor in children’s soft drink consumption with almost 80% of empty calories from these beverages consumed in the home, state researchers at Vanderbilt University School of Medicine in Nashville, TN.

IN PERSPECTIVE: *The prevalence of diabetes worldwide has doubled in the past three decades. One in every 10 adults in the world now has diabetes, with the vast majority having type 2 diabetes, which is almost entirely related to poor diet, lack of exercise, and weight gain.*

Basu S, Yoffe P, Hills N, et al: The relationship of sugar to population-level diabetes prevalence. PLoS One 2013;8:e57873.

Basu S, McKee M, Galea G, et al: Relationship of soft drink consumption to global overweight, obesity, and diabetes. American Journal of Public Health 2013;March 14th.

Briefel R, Wilson A, Cabili C, et al: Reducing calories and added sugars by improving children’s beverage choices. Journal of the American Academy of Nutrition and Dietetics 2013;113:219-227.

What is the Best Form of Folic Acid?

Folic acid supplementation is critical to prevent neural tube defects (NTD), since dietary intakes often are suboptimal. Folic acid supplements effectively raise blood levels of this B vitamin, but researchers at Saarland University Hospital, Homburg/Saar, Germany report that the natural form of folate, 5-methyltetrahydrofolate (L-Methylfolate) also is effective. Folic acid is a synthetic compound and requires metabolism in the body to the natural form. People show a wide range in their ability to convert folic acid to the natural form. On the other hand

5-methylTHF requires no conversion and is readily available to the body. It has no tolerable upper intake level and does not mask vitamin B12 deficiency. The researchers conclude that, “Supplementation of the natural form, 5-methylTHF, is a better alternative to supplementation of folic acid....and can effectively improve folate biomarkers in young women in early pregnancy in order to prevent NTDs.

Obeid R, Holzgreve W, Pietrzik K: Is 5-methyltetrahydrofolate an alternative to folic acid for the prevention of neural tube defects? Journal of Perinatal Medicine 2013;13:1-15.



Want Diabetes? Eat Processed Foods!

People who load the plate with highly processed foods that spike blood sugar levels are the ones most likely to develop diabetes, according to a study from Merton College in Oxford, England. Researchers chose 24 studies that tracked the eating habits of 125,000 adults.

Researchers chose 24 studies that tracked the eating habits of 125,000 adults. The link between diabetes and a high-glycemic diet filled with foods such as, white bread, potatoes, processed and fast foods was strong. For every additional 100 grams of sugar per 2,000 daily calories, people had a 45% higher risk of type 2 diabetes. As one researcher said, "By raising blood sugar and demanding that the pancreas keep pumping out insulin, meal after meal, day after day, a high-glycemic diet can put people at risk over the edge."

IN PERSPECTIVE: *A low-glycemic diet is one based on fruits, vegetables, whole grains, legumes, nuts, and other real foods. While glycemic index (GI) is important, the "glycemic load" is a better marker for health. This factor compares a food's GI score with the amount of calories and carbs in the food. The glycemic load is a much better indicator of a food's ability to prevent or contribute to disease, since a food that has a large amount of carbs AND dramatically raises blood sugar levels obviously increases the chances of weight gain more than a food that might temporarily raise blood sugar levels, but has few calories.*

For example, a potato has a high glycemic score and it packs a hefty dose of carbs, while watermelon has a high GI score, but few calories and carbs. The former will increase the chances of those extra calories being funneled into fat cells, but watermelon just fills you up, without filling you out.

Livesey G, Taylor R, Livesey H, et al: Is there a dose-response relation of dietary glycemic load to risk of type 2 diabetes? American Journal of Clinical Nutrition 2013;97:584-596.

Fructose on the Hot Seat

The glut of fructose now added to processed foods does not dampen appetite and can cause people to overeat, resulting in weight gain, state researchers at Yale University in New Haven, Connecticut. In this study, appetite-related changes in blood flow in the hypothalamic region of the brains of 20 healthy adults were monitored after the subjects had consumed either glucose or fructose. Results showed that levels of hormones that play a role in feeling

full were high after ingestion of glucose, but there were much smaller increases in hormones associated with satiety when fructose was consumed. While the researchers warn that this does not prove fructose is responsible for the obesity epidemic in this country, but it suggests that the use of high fructose corn syrups is at least a contributor to the problem.

Page K, Chan O, Arora J, et al: Effects of fructose vs glucose on regional cerebral blood flow in brain regions involved with appetite and reward pathways. Journal of the American Medical Association 2013;309:63-70.

Americans are consuming more sugar today than any animal has ever eaten in the history of the planet. High fructose corn syrup is a major contributor to that sugar intake.



Whole Grain Sleuthing

Many starchy products have jumped on the whole-grain bandwagon. Most are junk in disguise. How can you tell if a product really is a good source of whole grain? That's what researchers at Harvard School of Public Health set out to clarify. In this study, more than 500 products, including breads, bagels, cereals, crackers, granola bars, chips, and more were critiqued based on five recommended whole-grain criteria, including: 1. the whole grain stamp, 2. whole grain as a first ingredient, 3. whole grain as a first ingredient without sugar, 4. the word "whole" before any grain in the ingredients, and 5. the content of total carbohydrate to fiber of less than or equal

to 10:1. Total calories, trans fat, sugars, and sodium also were taken into account. Results showed that the least helpful criteria was the whole grain stamp. These foods had higher calories and sugar. The American Heart Association's 10:1 ratio showed healthier foods, with less sugar, salt, and trans fat. (For example, a slice of bread that had 20 grams of carbohydrates and 2 grams of fiber would have a ratio of 10:1.) Foods that listed whole grain first on the ingredient list and had no added sugars were almost as healthy as the ones using the 10:1 ratio.

Mozaffarian R, Lee R, Kennedy M, et al: Identifying whole grain foods. Public Health Nutrition 2013; January 4: 1-10.



Fatty Dairy Products Linked to Cancer Recurrence

Women with a history of breast cancer might want to steer clear of fatty dairy products if the results of a study from Kaiser Permanente in Oakland, California prove true. Women diagnosed with early breast cancer supplied information on their dietary intakes at the start of the study and also six years later. Of the original 1,893 women, almost 350 women had a cancer recurrence at the five to six-year follow-up. Of the 372 deaths during that period, 189 were caused by breast cancer. Results showed that women who ate one or more servings of fatty dairy products each day, such as whole milk, cream for coffee, butter, sour cream, cream cheese, and cheese, had a 49% higher risk of breast cancer death compared to women who ate no more than half a serving each day. In addition, the women eating the most fatty dairy foods had a 64% higher risk of dying from any cause compared to women who consumed little or no fatty dairy. The researchers conclude that, "...

intake of high-fat dairy, but not low-fat dairy, was related to a higher risk of mortality after breast cancer diagnosis."

Kroenke C, Kwan M, Sweeney C, et al: High- and low-fat dairy intake, recurrence, and mortality after breast cancer diagnosis. Journal of the National Cancer Institute 2013; March 14th.

IS IT THE SATURATED FAT?

While the Kaiser Permanente study did not isolate the component of fatty dairy foods linked to cancer risk, the only ingredient removed to make low fat milk is the fat, most of which is saturated.

	Grams Sat. Fat
Butter, 1 Tbsp	7.6
Whipping cream, 2 Tbsp.	7.0
Cream cheese, 1 oz.	6.2
Cheddar cheese, 1 oz.	6.0
Whole milk, 1 cup	4.9
Whole fat yogurt, 1 cup	4.8
Velveeta cheese spread, 1 oz.	3.6
Sour cream, 2 Tbsp.	3.2
Cottage cheese, creamed ½ cup	3.0
Half & half, 2 Tbsp.	2.2
Cottage cheese, 1% ½ cup	0.7
2% milk, 1 cup	0.2
Nonfat milk, 1 cup	0

Pregnant? Take DHA

Women who supplement their diets with the omega-3 fat docosahexaenoic acid (DHA) during pregnancy are less prone to give birth to premature babies, according to a study from the University of Kansas. At between eight and 20 weeks gestation, 350 pregnant women were given either 600 milligrams (taken in three divided doses throughout the day) of DHA or placebos. Outcomes of the pregnancies were monitored. Results showed that women taking DHA had larger, heavier babies and gave birth about three days later than the placebo group. The placebo group had significantly more births of very early preemies with 5% of mothers in this group giving birth less than 34 weeks gestation compared to less than 1% in the DHA group. Only the DHA-supplemented group showed increases in blood DHA.

In another study by the same authors, daily supplementation of 600 milligrams DHA during pregnancy improved neurobehavior in the newborns.

Carlson S, Colombo J, Gajewski B, et al: DHA supplementation and pregnancy outcomes. American Journal of Clinical Nutrition 2013; February 20th.

Gustafson K, Carlson S, Colombo J, et al: Effects of docosahexaenoic acid supplementation during pregnancy on fetal heart rate and variability. Prostaglandins Leukotrienes and Essential Fatty Acids 2013; February 20th.

BPA: Beyond Just Plastics

Bisphenol A (BPA) and phthalates are two chemicals in plastics that have been linked to a wide variety of health issues, including hormone disruption, reproductive problems, reduced fertility, and increased risk for asthma, hyperactivity, aggression, heart disease, and diabetes. Apparently, they sneak into your body even if you avoid foods that are shipped,

HOT TOPIC: Patients with chronic periodontitis show improvements when they consume 8 milligrams of lycopene (the amount in a 2/3 cup of watermelon) every day, state researchers at the Himalayan Institute of Medical Sciences. *Quintessence International 2013; February 18th.*

stored, or cooked using plastic materials, according to a study from the Center for Child Health, Behavior, and Development in Seattle. Ten families were followed for five days. Half the families got catered meals made from fresh, local ingredients that were not stored or prepared in plastic. The other half got a handout on how to avoid BPA and phthalates in their diets, such as not microwaving in plastics and avoiding canned foods. Results showed that all but one person in the catered group showed a spike in urinary phthalate levels and a modest rise in BPA levels. The control group showed no spike, just a steady level of the chemicals during the study. High levels of these contaminants were found in milk, butter, cream, spices,

and more, possibly from phthalates in plastic tubing that milk goes through to get to final containers or from animal feed. In general, the more processed the food, the higher the phthalates.

IN PERSPECTIVE: *The problem with BPA is consumers have no idea the level of these contaminants because manufacturers don't know whether their processing materials contain them. Some researchers are requesting comprehensive legislation and a third-party certification to ensure products are free of these chemicals.*

Sathyannarayana S, Alcedo G, Saelens B, et al: Unexpected results in a randomized dietary trial to reduce phthalate and bisphenol A exposures. Journal of Exposure Science and Environmental Epidemiology 2013; February 27th.



Iron Up or Act Up!

Iron supplements for low-birth-weight newborns could prevent behavioral problems later in life. In a study from Umea University in Sweden, 285 low-birth-weight infants were given 0 (the placebo group), 1, or 2 milligrams of iron/kilogram body weight each day from six weeks to six months of age. At age 3½ years of age, these babies and 95 normal-birth-weight controls were assessed with a psychometric test for intelligence and a questionnaire on behavioral problems. While low-birth-weight infants are more likely to be iron deficient with higher risks for behavioral problems, the infants supplemented with iron had significantly fewer behavioral issues by the time they were toddlers, including lower risk for emotional reactions, anxiety and depression, as well as sleep and attention problems. Almost 13% of the placebo-group babies scored high on behavioral issues, compared to only 3% of the iron-supplemented babies and the normal-weight comparison group. The

Topical Fruit

Berries are a great source of ellagic acid, a phytonutrient known to lower heart disease and possibly dementia risk. Now researchers at the Karolinska Institute in Sweden say topical application of this antioxidant also might help brighten skin. A topical product containing 0.5% ellagic acid and 0.1% salicylic acid was compared to a prescription generic 4% hydroquinone as a skin-lightening and dark spot removing aid. Fifty four multi-ethnic people were randomly assigned to use daily the topical formulations or the hydroquinone. At the end of 12 weeks, the formulations worked just as well as a skin depigmentation as did the hydroquinone and were just as well tolerated. In addition, topical ellagic acid/salicylic acid was better at improving skin texture and feel.

Dabl A, Yatskayer M, Raab S, et al: Tolerance and efficacy of a product containing ellagic and salicylic acids in reducing hyperpigmentation and dark spots in comparison with 4% hydroquinone. Journal of Drugs and Dermatology 2013; January 1st.

researchers conclude that, "...iron deficiency may be a direct cause of behavioral problems later in childhood," and iron supplementation early in life is an easy way to avoid these problems.

Researchers at the University of Pittsburgh report that low vitamin D status

during pregnancy increases the risk for having a low-birth-weight baby.

Berglund S, Westrup B, Hagglof B, et al: Effects of iron supplementation on LBW infants on cognition and behavior at 3 years. Pediatrics 2013;131:47-55.

Gernand A, Simhan H, Klebanoff M, et al: Maternal serum 25-hydroxyvitamin D and measures of newborn and placental weight in a US multicenter cohort study. Journal of Clinical Endocrinology and Metabolism 2013;98:398-404.

Iron Clad Rules for PMS

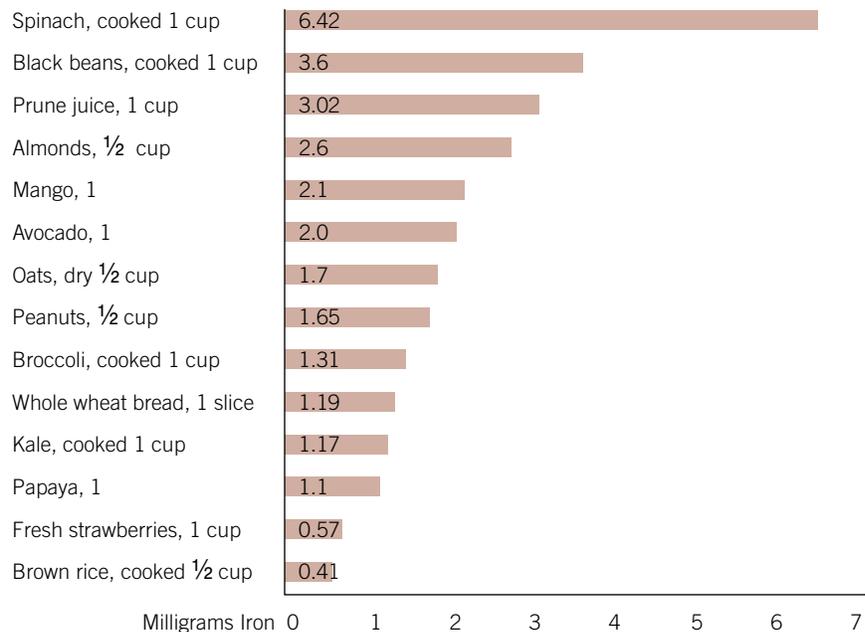
Diets rich in plant-based iron lower premenstrual syndrome (PMS) symptoms, state researchers at the University of Massachusetts, Amherst. Food intakes were assessed in 1,057 women with PMS and 1,968 controls. Results showed that women with the highest intake of iron from plant sources had a 36% lower risk for PMS compared to women who consumed little iron-rich produce. PMS risk dropped dramatically for women who consumed more than 20 milligrams of iron daily. High intake of zinc from supplements (10 milligrams/daily) had a small protective effect, while intakes of sodium, magnesium, and manganese were unrelated to PMS risk. The

researchers speculate that iron improves PMS symptoms by raising serotonin levels, a neurotransmitter that plays a role in clinical depression.

IN PERSPECTIVE: *It is important to note that iron can be toxic if consumed in excessive amounts. The nonheme iron found in plants is poorly absorbed, so should not be matched by supplements or by heme iron from meat without first having blood iron levels checked, including hemoglobin, hematocrit, serum ferritin, and TIBC (total iron binding capacity).*

Chocano-Bedoya P, Manson J, Hankinson S, et al: Intake of selected minerals and risk of premenstrual syndrome. American Journal of Epidemiology 2013;February 26th.

IRON IN PLANT FOODS





IN THE NEWS

- One in every four people who take niacin along with statins for the treatment of heart disease have adverse side effects, such as rashes, indigestion, muscle problems, and itching, according to a study presented at the American College of Cardiology annual meeting in San Francisco.
- Researchers at Miriam Hospital in Rhode Island report that people who eat a plant-based, Mediterranean-style diet, choose healthier foods, cut their food costs, and save themselves from food insecurity.
- In a study reported at the Annual Meeting of the American Academy of Orthopaedic Surgeons found that even in Southern California, with the potential for optimal vitamin D synthesis from sunlight, the majority of patients 18-years-old and older with hip fractures are low in vitamin D.

Salty Diet Linked to Autoimmune Diseases

Most people know that the typical American diet over-seasoned in salt is a major risk factor for hypertension. A study from Yale School of Medicine presents new evidence that all that salt also upsets the immune system, leading to an increased risk for autoimmune disorders, such as multiple sclerosis and rheumatoid arthritis. The researchers fed mice a high-salt diet and found that the salt overstimulated the immune system. The salt-fed animals produced a type of infection-fighting cell that is associated with autoimmune diseases and, as a result, developed a form of multiple sclerosis called autoimmune encephalomyelitis. One of the researchers concludes that, "If I had an autoimmune disease, I would put myself on a low-salt diet now. But, we have to do more studies to prove it."

Kleinewiefeld M, Manzel A, Titze J, et al: Sodium chloride drives autoimmune disease by the induction of pathogenic TH17 cells. Nature 2013;March 6th.

Vitamin D: New Recommendations

The European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO) has established new guidelines for vitamin D status. In their review of the research, they conclude that serum vitamin D levels less than 50nmol/L increase the risk for bone turnover, bone loss, and possibly demineralization effects, as well as increased frailty, nonvertebral and hip fractures, and all-cause mortality, compared to serum levels above this amount. ESCEO recommends that 50nmol/L (or 20ng/mL) should be the minimum serum vitamin D level to ensure optimal bone health. Below this level, people should supplement with 800 to 1000IU of vitamin D daily. One exception to the rule is elderly people who are

at elevated risk for falls and fractures. ESCEO recommends these patients aim for a serum vitamin D level of 75nmol/L (or 30 ng/mL). They also add assurance that vitamin D supplementation up to 10,000IU a day is safe.

Researchers at Boston University report that vitamin D plays a crucial role in a wide array of physiological functions and a deficiency has been linked with many acute and chronic illnesses including disorders of calcium metabolism, autoimmune diseases, some cancers, type 2 diabetes mellitus, cardiovascular disease and infectious diseases. Vitamin D deficiency is now recognized as a global pandemic.

Rizzoli R, Boonen S, Brandi M, et al: Vitamin D supplementation in elderly or postmenopausal women. Current Medical Research and Opinion 2013;January 15th.

Wacker M, Holick M: Vitamin D: Effects on skeletal and extraskeletal health and the need for supplementation. Nutrients 2013;5:111-148.

Don't Be the One in Three

The Alzheimer's Association just released new findings on the state of dementia and it is troubling news for seniors. According to their report, one in three seniors dies with Alzheimer's or another form of dementia. The incidence of dementia rose 68% from 2000 to 2010, with an annual cost of \$203 billion. The Association estimates that by the year 2050, 14 million people will have Alzheimer's disease, which will drive the annual cost up to as high as \$1.2 trillion.

IN PERSPECTIVE: *Dementia starts decades before symptoms develop. The good news is up to 66% of brain aging is within people's control if they eat a brain-healthy diet rich in omega-3s, antioxidant-rich produce, and other real food; maintain a healthy weight, stay physically active and socially engaged; and challenge their brains daily by learning new things. Of course, there are no guarantees in life, but those habits will stack the deck in favor of staying mentally sharp throughout life.*

Kallmyer B, Appleby B: Annual Report. Alzheimer's Disease Facts and Figures March 19, 2013.

Caprara M, Molina M, Schetti R, et al: Active aging promotion: Results from the Vital Aging Program. Current Gerontology and Geriatric Research 2013;2013:817813.

Diet and Healthy Eyes

Supplementing with lutein and the omega-3 fat DHA could help prevent progression of macular degeneration, according to a study from Clinica Universidad de Navarra in Spain. Placebos or nutritional supplements containing 12 milligrams lutein and 280 milligrams DHA were given daily to 44 patients with macular degeneration. After one year, the macular pigment optical density (MPOD) had increased significantly in the supplemented group, while the optical density had decreased in the placebo group. The researchers conclude, "Lutein and DHA supplementation is effective in increasing the MPOD and may aid in the prevention of age related macular degeneration."

Supplementation with lutein in the early stages of macular degeneration increased MPOD, in a study from the University of Manchester.

Garcia-Layana A, Recalde S, Alaman A, et al: Effects of lutein and docosahexaenoic acid supplementation on macular pigment optical density in a randomized controlled trial. Nutrients 2013;5:543-551.

Murray I, Makridaki M, van der Veen R, et al: Lutein supplementation over a one-year period in early AMD might have a mild beneficial effect on visual acuity. Investigative Ophthalmology and Visual Science 2013;54:1781-1788.



HOT TOPICS

1 People who drink four or more cups of caffeinated coffee a day have a significantly lower risk of death from cancers of the mouth and pharynx, state researchers at the American Cancer Society. *American Journal of Epidemiology* 2013;177:50-58.

2 Low intake of magnesium is common in the U.S. and a study from the University of Pennsylvania reports this deficiency contributes to an increased risk for atrial fibrillation. *Circulation* 2013;127:33-38.

3 Low vitamin D levels are associated with increased daytime sleepiness, in a study from Louisiana State University in Shreveport. *Journal of Clinical Sleep Medicine* 2012;8:693-697.

4 Supplementing infant formula with omega-3 fats, in particular the omega-3 fat DHA, improves baby's eyesight, according to a study from Yale University School of Medicine. *Pediatrics* 2013;131:e262-e272.

5 The omega-3 fat, DHA, encourages cancer cell death and helps inhibit cancer cell migration, thus playing a role in tumor invasion and survival, state researcher at Anhui Medical University in China. *International Journal of Clinical and Experimental Pathology* 2013;6:281-289.

6 The Amazon fruit, camu-camu, aided in weight loss in rats, according to a study from the Federal University of the Amazons in Brasil. *Anais de Academia Brasileira de Ciencias* 2013; January 22nd.

7 Increased fruit intake reduced the incidence of diabetic retinopathy in patients who ate low-fat, energy-restricted diets, in a study from Kyoto University in Japan. *Epidemiology* 2013;January 23rd.

8 The risk for type 2 diabetes increases as blood level of vitamin D decrease, according to a study from Seoul National University College of Medicine in Korea. *American Journal of Clinical Nutrition* 2013;97:524-530.

9 Contrary to opinion, drinking artificially sweetened beverages did not increase preferences for sweet foods and beverages in a group of women studied at the University of North Carolina, Chapel Hill. *American Journal of Clinical Nutrition* 2013;97:604-611.

10 An antioxidant-rich diet did not prevent older people from developing dementia, in a study on food intake from Erasmus Medical Center in The Netherlands. *Neurology* 2013;80:904-910.

11 Excess body fat in children increases their risk for asthma, according to a study from the University of Athens, while researchers at the University of Auckland found fast food consumption (3 times a week or more) also increased asthma risk in children. *Journal of the Academy of Nutrition and Dietetics* 2013;113:77-105/
Thorax 2013;68:351-360.

12 The good news is: Americans' consumption of fast food has decreased from 13% to 11% of total calories. The bad news is: The more fast food people eat, the fatter they get, according to a report from the Centers for Disease Control and Prevention in Atlanta. *CDC's National Center for Health Statistics Data Brief* 2013; February.

13 According to a report from the US Department of Agriculture, 18% of men and 11% of women drink too much alcohol and 8% of men and 3% of women are heavy drinkers in the United States. *Journal of the Academy of Nutrition and Dietetics* 2013;February 13th.

14 Kids who drink sugar-sweetened beverages consume more calories than other kids and the beverages are the direct reason for that higher calorie intake, according to a study from the University of North Carolina, Chapel Hill. *American Journal of Preventive Medicine* 2013;March 12th.

15 The more processed meats (such as bologna, hot dogs, sausages, and sandwich meats) a person eats, the higher the risk for dying young, with people who eat lots of these meats having a 44% higher risk of dying early compared to people who eat little or none, state researchers at the University of Zurich. *BMC Medicine* 2013;March 6th.

16 People with schizophrenia who have a "high-functioning FOLH1" gene respond better to folic acid supplementation with improvements in symptoms compared to patients without this gene, state researchers at Massachusetts General Hospital in Charlestown. *Journal of the American Medical Association Psychiatry* 2013;March 6:1-9.

17 Drinking even one cup of coffee or green tea a day could lower a person's risk for having a stroke by up to 20%, according to a study from the National Cerebral and Cardiovascular Center in Osaka, Japan. *Stroke* 2013;March 14th.

18 Being overweight increases the risk for a type of colorectal cancer called CTNNB1-positive, while daily exercise helps to lower that risk, state researchers at Harvard School of Public Health. *Cancer Research* 2013;February 26th.

19 People who are distracted by TV, playing games, reading, and other activities while eating consume more calories at that meal and are more prone to weight gain, according to a study from the University of Birmingham, UK. *American Journal of Clinical Nutrition* 2013;February 27th.

20 Two servings a week of farmed salmon (at least 6 ounces each) raises blood levels of the omega-3 fats DHA and EPA to levels associated with a lowered risk for heart disease, state researchers at USDA's Human Nutrition Research Center in Grand Forks. *Journal of the Academy of Nutrition and Dietetics* 2013; 113:282-287.



From Gut to Brain

Researchers at the University of North Carolina School of Medicine in Chapel Hill report that the health of a person's intestinal tract could well alter brain and nervous system function. In this review, the researchers discuss the role of gut bacteria on brain function and the implications for probiotic and prebiotic science. Gut bacteria alter epithelial function, gastrointestinal motility, and even perception and behavior. Gut bacteria and their environment interact with the enteric nervous system and the central nervous system via neural, neuroendocrine, neuroimmune, and humoral links. This preliminary information may well open new opportunities for psychological interventions with probiotics and prebiotics.

Sauhner D, Ringel Y, Heyman M, et al: *The intestinal microbiome, probiotics and prebiotics in neurogastroenterology*. *Gut Microbes* 2013;4:17-27.

HOT TOPIC: Following a Mediterranean-style diet lowers diabetes risk, according to a study from Sapienza University in Rome. *Metabolic Syndrome and Related Disorders* 2013;March 1st.

NUTRITIONAL ALERT

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REVIEW

The Regularity Diet

Constipation doesn't exactly make for good dinner conversation. Up to 80% of us suffer from constipation at some point in our lives, and knowing what to eat and drink can make a dramatic difference in whether we suffer and for how long.

Causes of constipation include numerous medications, pain-associated conditions like inactivity, irritable bowel syndrome, stress, obesity, and the use of sedatives and anti-depressants. By far the most common reason we get backed up is poor diet.

The typical American diet is a breeding ground for constipation. It is high in stool-binding fat and low in stool-softening fiber and water. Fatty foods, such as cheese, ice cream, French fries, eggs, and meat are some of the worst offenders. Combine that with a lack of daily exercise, and it's no wonder constipation is one of the biggest gastrointestinal complaints in the United States, accounting for almost three million physician visits a year. As food moves through our large intestine, excess water is absorbed and the wastes are formed into a stool that is pushed toward the rectum by muscle contractions. Constipation occurs when the colon has absorbed too much water or when the muscles that line the colon are sluggish, causing the stool to move too slowly and allowing more time for water to be absorbed.

One of the best diet tips a person can follow is to eat lots of fiber-rich foods and drink enough water. Fiber acts like a sponge in the intestines. It binds to water and increases stool bulk. The result is a soft stool that moves quickly through the colon. Optimal water intake helps swell fiber and increases its volume. Not drinking enough water - even with a high-fiber diet - can cause hard stools that are difficult to eliminate. The two main dietary rules for treating and preventing constipation are 1) cut back on food with little to no fiber and 2) up the intake of fibrous fare.

A fiber-rich diet is one packed with fruits, vegetables, whole grains, legumes, nuts, and seeds. The goal is to get at least 25 grams a day for women and 30 grams a day for men. Not an easy task for most Americans, who average less than half this amount. To meet that quota, consume daily at least five servings of fruits and vegetables, six servings of whole grains, and one serving of legumes.

Most colorful fruits and vegetables are good sources of fiber. Read labels on processed foods and choose those that have at least 3 grams of fiber per serving. Increase fiber intake gradually over a few days to prevent digestive upsets and excess gas. To get things moving initially, try a small bowl of high-fiber cereal for breakfast or an 8-ounce glass of prune juice, a natural laxative that contains nearly 3 grams of fiber. Then drink eight or more glasses of water throughout day—enough so your urine is a pale yellow.

Always consult a physician before taking a laxative. Excessive or chronic use of these digestive aids - even ones labeled "natural" - can cause loss of tone of the muscles that line the colon, which can cause laxative dependency and possibly electrolyte and fluid imbalances.

World Journal of Gastroenterology 2012;18:4593-4596./*British Journal of Nursing* 2012;21:711-714./*Journal of the Academy of Nutrition and Dietetics* 2012;112:725-729.

HOT TOPIC: Vitamin B12 levels were significantly lower and homocysteine levels as well as inflammatory markers were higher in people with elevated blood lipids at risk for heart disease, in a study from Deenanath Mangeshkar Hospital in Pune, India. *Journal of Cardiology* 2013;March 5th.