



What Do Bill Clinton, Steve Wynn, John Mackey, and Mike Tyson Have in Common?

These four powerful men have all declared themselves in favor of a vegan diet. I know of no other similarities between this ex-president, hotel tycoon, supermarket builder, and ex-prize fighter. At first glance you might think that the public support for not eating animals would be a reckless decision. Traditionally a vegetarian diet has been considered a sign of weakness—associated with an image of a pale listless hippy hanging out in the back of a health food store. These four men must have found reasons to ignore this common myth. Finding a fountain of youth becomes especially important as health declines with age, causing people to make desperate changes—as radical as replacing burgers and bacon for barley and beans.

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- Calcium Supplements Are Harmful

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Comments on the [Colonoscopy Article](#) August 2010 Newsletter

I am pleased that my August 2010 [article](#) on screening for colon cancer with a sigmoidoscope exam has received so much interest. The colonoscopy exam may save lives but it also takes lives, and the costs and adverse effects are significant. My overall recommendations that I share with you in my newsletter are made only after thorough investigation of the science and considerable thought of all the possible consequences. I think a second read of my article would help some of you to come to a better understanding of my position on the issues. My [December 2002](#) newsletter and my book, [Dr. McDougall's Digestive Tune-up](#), have vital information on the cause of colon cancer and polyps. Your efforts for cancer prevention should be solidly focused on the matter that is inside your colon: the remnants of your meals.

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What have these four men discovered that other men, women, and children have yet to learn?

The gladiator-like strength gained by adopting a vegan diet.

*That's right, extraordinary strength from plant-food. The men who centuries ago risked their lives for entertainment in public arenas of the Roman Empire were [vegan](#). The remains of 60 Roman gladiators who fought and died more than 1,800 years ago in Ephesus (what is now Western Turkey) were recently found in a 200-square-foot plot along the road that led from the city center to the Temple of Artemis. Isotopic analysis of their bones for calcium, strontium, and zinc determined that the world's fiercest fighting men were vegans. In the historical accounts of the lives of gladiators, these warriors are sometimes referred to as *hordearii*—literally, "barley men." The starch barley provided the bulk of the*



nutrients for their remarkably strong muscles and bones, and for their endurance to win the ultimate sport of life and death. A Timewatch [documentary](#) is available to view. (Please note that the archeologists' bias about starches "making people fat" lead to the wrong conclusion that the gladiators' diet of barley and beans made them obese].

The Four Food Warriors

After losing 24 pounds, on September 21, 2010, Wolf Blitzer of CNN asked Bill Clinton, "How do you lose so much weight? What kind of diet did you go on? Our 42nd President answered, "The short answer is I went on essentially a plant-based diet. I live on beans, legumes, vegetables, fruits."



Bill Clinton

Steve Wynn who operates several Las Vegas hotels made it mandatory over the summer of 2010 that every restaurant

at his Vegas properties provides several vegan options. Although Mr. Wynn has not declared that he personally follows an animal-product free diet, his support has resulted in an extensive [vegan menu](#) at his restaurants.

John Mackey, founder of Whole Foods Market, began following a vegan diet six years ago. Two years

ago he gave up the olive oil and shed 20 pounds of excess body fat. His efforts to encourage customers to pass by the high profit meats, dairy, and processed foods for whole plant foods has been accompanied by rising profits for the market and its stockholders.

Once famous for biting off his opponent's, Evander Holyfield's, right ear, during a fight in Las Vegas, Mike Tyson has changed to a vegan diet and lost 130 pounds over the past year.

All of these powerful men have made a dietary choice that enhances their strength, personal appearance, and vitality.

Power by Plants

Making the change to a starch-based diet and forgoing animal-based foods, along with the other malnourishments found in the Western diet, results in many immediate changes:



1) Effortless loss of unattractive body fat. [Studies](#) show overweight people are less likely to succeed in business and other areas of life.

2) Improvement in the circulation affecting the performance of every organ and tissue in the body. Clearer thinking and enhanced agility are easily recognizable benefits.

3) Endurance is improved by the same foods that power marathon and triathlon winners (carbohydrates).

4) Reduction in the risk of crippling diseases, like heart attacks, strokes, and cancers. Nothing zaps power like paralysis or heart failure.

5) Improvement in personal appearance. After weight loss, "better looks" are most apparent from a person's complexion, which turns from purplish-gray to pink as the flow of blood to the skin improves. (Dark-skinned people show a similar glow to their complexion.)

6) Pleasant body odor. Smell is an important form of communication. Replacing the repugnant substances that make up meat, poultry, fish and dairy with plants, cures BO and halitosis.

7) Sexual vitality is enhanced by the renewed strength and endurance gained from a vegan diet. Circulation to the penis is improved encouraging erectile function. A trimmer, fitter body with a pleasant odor is noticeably more attractive.

8) Respect from others follows. Most people know about the serious adverse health and environmental consequences of eating animal-derived foods. They are just too weak to make appropriate changes themselves, at least for right



now. Powerful men, women, and children "who do the right thing" gain the admiration of others.

The Pendulum Now Swings toward the McDougall Diet

These four food warriors have announced the rebirth of dietary sanity by their actions and words. In the seventies and eighties there was a trend for giving up meat and dairy products and eating more vegetables and fruits. At that time I had several books on the national best selling lists (The McDougall Plan and The McDougall Program: Twelve Days to Dynamic Health being the top two). I was an important author at Penguin Books USA Inc. up until the early 1990s. Then there was a renewal of the Atkins Diet. I was approached by my book editor and told that it was time for me to change my writing style. "Dr. McDougall, your high carbohydrate books are of the eighties. The new diets will focus on meat and other high-protein foods. We would like you to make this change in your future books." My response was, "You must be crazy. Essentially all of the respected science to date says that a diet high in animal products will give you heart disease, cancer, diabetes, and obesity. For the past seventy years researchers have clearly shown that a diet of starches, vegetables, and fruits is right for people." "Besides," I told my editor, "do you think I write these books just to make money?" As history shows, Penguin Books was right about the direction that diet books were headed at that time. But the pendulum is now swinging back towards the truth about the powers bestowed upon those who follow a healthy vegan diet.

Favorite Five Articles From Recent Medical Journals



Few Benefits from Mammography, Yet Physicians Are Forced to Prescribe It

Effect of Screening Mammography on Breast-Cancer Mortality in Norway by Mette Kalager published in the September 23, 2010 issue of the *New England Journal of Medicine* found, "The reduction in mortality between the current and historical groups that could be attributed to screening alone was 2.4 deaths per 100,000 person-years, or a third of the total reduction of 7.2 deaths."¹ The remainder of the reduction (4.8 deaths) may have been due

to an increased awareness over the past two decades of the importance of promptly seeking care for breast abnormalities and the widespread use of adjuvant hormone and chemotherapy. An accompanying editorial by H. Gilbert Welch, M.D., M.P.H made this point, "The 10-year risk of breast-cancer death for a 50-year-old woman in the United States is now about 4 per 1000 women."² If we assume that this risk already incorporates the benefit of screening mammography, the risk estimate without mammography would be about 4.4 per 1000 women" (a 10% relative benefit). This is an absolute benefit of 0.4 deaths per 1000 women who have routine mammograms over 10 years. In other words, 2500 women would need to have a mammogram every other year to save one life. On the side of harm, with this effort for "early detection," 1000 women would also have a false positive result and require further testing and evaluation. Even worse is the over-diagnosis problem: according to Dr. Welch, "Between 5 and 15 women would be expected to be needlessly treated for a condition that was never going to bother them, with all the accompanying harms." In other words to save one life, you essentially destroy 5 to 15 women and their families.

Comment: Failure to diagnose, or a delay in the diagnosis of breast cancer, is the second most prevalent and expensive source of [litigation against physicians](#) (exceeded only by claims related to neurologically impaired infants). As a result your doctor is likely afraid to offer a science-based prescription for screening for cancers, especially for recommendations for mammography. Doctors practice "fear-based medicine." They are afraid of being sued and they are afraid of criticism from their colleagues. Doctors worry that patients will interpret their reservation to order extensive testing as incompetence. If they do not order sufficient numbers of mammograms, their "physician's report card" will receive low marks. Medicare and health maintenance organizations (HMOs) track and measure physicians' behaviors by the number of exams they order.

Therefore, even though the science has been clear for at least two decades that the benefits of mammography as a screening method are overrated and the harms are understated, the malpractice continues. Money drives this trend. The American Cancer Society once told women, "If you haven't had a mammogram, you need more than your breasts examined." With fear mongering like this it is no wonder that this society is the world's [wealthiest nonprofit organization](#), with a large portion of its budget coming from industries, including the pharmaceutical industries.

I recommend against routine screening mammography for women of all age groups. I also recommend against doing routine breast self-examination (as does the Canadian Task Force on Preventive Health Care and the US Preventative Services Task Force).^{3,4} The reason is because these practices cause more harm than good. So how do you find out if you have breast cancer? Casual examinations (without unnecessary anxiety) performed by a woman, say while showering will suffice. If an abnormality (a lump) is found, then further investigation should be done.

In almost all cases, if this investigation leads to a diagnosis of breast cancer then the appropriate treatment is the removal of the lump only (the specimen's margins should be free of cancer). I have been recommending this approach for more than 30 years, and modern medical practices are just starting to catch up with me. In general, I do not recommend lymph node dissection, radiation, or chemotherapy. I mildly recommend hormone treatments (removal of the ovaries, tamoxifen, or aromatase inhibitors). I strongly recommend that women eat a low-fat starch-based diet, do regular exercise, and lose weight. After the initial treatment is complete, then I recommend no routine follow up doctors' visits, mammograms, or any other unnecessary meddling.

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2) Welch HG. Screening Mammography—A Long Run for a Short Slide? *N Engl J Med*. 2010 Sep 23;363(13):1276-8.

3) US Preventive Services Task Force. Screening for breast cancer: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2009 Nov 17;151(10):716-26, W-236.
[<http://www.annals.org/content/151/10/716.full.pdf+html>]

4) Baxter N; Canadian Task Force on Preventive Health Care. Preventive health care, 2001 update: [should women be routinely taught breast self-examination to screen for breast cancer?](#) *CMAJ*. 2001 Jun 26;164(13):1837-46.

Statins Fail to Save Lives

Statins and all-cause mortality in high-risk primary prevention: a meta-analysis of 11 randomized controlled trials involving 65,229 participants by Kausik K. Ray published in the June 28, 2010 issue of the *Archives of Internal Medicine* concluded that, "This literature-based meta-analysis did not find evidence for the benefit of statin therapy on all-cause mortality in a high-risk primary prevention setup."¹ The average characteristics of the participants were: age 62 years, systolic blood pressure (top number) of 141 mmHg, and an LDL ("bad" cholesterol) of 138 mg/dL. The average length of treatment with the statin drug was 3.7 years.

An accompanying article, Cholesterol lowering, cardiovascular diseases, and the rosuvastatin-JUPITER controversy: a critical reappraisal by Michel de Lorgeril, launched the strongest critique of any medication that I have ever seen in a respected medical journal.² The authors made these statements about this well publicized study (JUPITER) of the cholesterol-lowering medication Crestor (rosuvastatin):

"The trial was flawed."

"The JUPITER trial involved multiple conflicts of interest."

"It was conducted by a sponsor with obvious commercial interests."

"Nine of 14 authors of the JUPITER article have financial ties to the sponsor."

"These failures strongly suggest that the presumed preventive effects of cholesterol-lowering drugs have been considerably exaggerated."

The authors also took this important position: "The emphasis on pharmaceuticals for the prevention of CHD

(heart disease) diverts individual and public health attention away from the proven efficacy of adopting a healthy lifestyle, including regular physical activity, not smoking, and a Mediterranean-style diet."

Comment: Statins are among the top-selling medications worldwide. Lipitor and Crestor are the two most heavily promoted drugs in this class. The initial findings of the JUPITER study were released November 10, 2008. That day I sent you [my critical report](#) of this study. Two years later, even with all of the negative publicity, Crestor remains a solid profit generator for its maker, AstraZeneca.

Cholesterol-lowering medications do have value. Statins have been shown to reduce the risk of death among individuals with strong clinical histories of coronary heart disease: patients who have had heart attacks, angioplasties, and/or bypass surgeries. Because these patients are at a very high risk of having another event in the very near future, benefits can be seen in this group from statins. However, for people with a lower risk of an impending heart tragedy (the average American with elevated blood cholesterol levels), cholesterol-lowering medications are so ineffective that benefits cannot be detected. Plus any benefits present may be overshadowed by the harms caused by these drugs.

The arteries, and the rest of the body, are diseased from the toxic effects of the "free" vegetable oils and animal-foods (meat, dairy, eggs, fish, etc.) consumed by affluent people. The Western diet also lacks the health-supporting ingredients found in plants that allow the body to heal and stay healthy. Cholesterol-lowering drugs do simply that: they lower blood cholesterol levels. But they do not correct the underlying disease (the atherosclerosis). The end result is that people suffer and die with better looking numbers. The sick arteries stay sick until the cause is removed. Changing to a starch-based (no-cholesterol, low-fat) diet [supports the natural health](#) and healing capabilities of the body.

1) Ray KK, Seshasai SR, Erqou S, Sever P, Jukema JW, Ford I, Sattar N. Statins and all-cause mortality in high-risk primary prevention: a meta-analysis of 11 randomized controlled trials involving 65,229 participants. *Arch Intern Med.* 2010 Jun 28;170(12):1024-31.

2) de Lorgeril M, Salen P, Abramson J, Dodin S, Hamazaki T, Kostucki W, Okuyama H, Pavy B, Rabaeus M. Cholesterol lowering, cardiovascular diseases, and the rosuvastatin-JUPITER controversy: a critical reappraisal. *Arch Intern Med.* 2010 Jun 28;170(12):1032-6.

Glucosamine and Chondroitin Do Not Help Arthritis

Effects of glucosamine, chondroitin, or placebo in patients with osteoarthritis of hip or knee: network meta-analysis by Simon Wandel, published in the September 22, 2010 issue of *the British Medical Journal* concluded, "Compared with placebo, glucosamine, chondroitin, and their combination do not reduce joint pain or have an impact on narrowing of joint space. Health authorities and health insurers should not cover the costs of these preparations, and new prescriptions to patients who have not received treatment should be discouraged."¹ They went on to say, "Our network meta-analysis of all 10 available large scale patient blind randomised trials in 3803 patients with knee or hip osteoarthritis showed no clinically relevant effect of chondroitin, glucosamine, or their combination on perceived joint pain."

Comment: The most common form of arthritis afflicting humans is osteoarthritis, often referred to as degenerative arthritis, because the joints slowly deteriorate as a result of "normal wear and tear associated with aging." Doctors commonly advise people to lose weight, especially if they have disease of the joints of the lower extremities, and to avoid prolonged and strenuous use of the affected joints. Non-steroidal anti-inflammatory drugs (NSAIDs), such as Motrin and Advil, are commonly taken for pain relief. Paradoxically, these NSAIDs also accelerate the loss of cartilage in the joints and delay bone healing.^{2,3} This then worsens the osteoarthritis.

Taking cartilage constituents, such as glucosamine and chondroitin, has been recommended for osteoarthritis, and many studies support its use. In my [April 2004 newsletter](#) I recommended glucosamine for arthritis based on the research I had available then. However, in the past six years I can recall no patients telling me of pain relief or improved mobility that they have achieved from taking this cartilage supplement. Therefore,

I am changing my recommendation. Because of the low cost and few side effects, you may still wish to do your own personal trial with glucosamine, but I can no longer tell you that I believe it is beneficial. (I reserve the right to change my opinions on all medications and supplements because the research is always changing and most of it cannot be trusted as reliable in the first place. In case you are wondering, I will not be changing my opinion on the best diet for you.) I have never recommended chondroitin because it is derived from cow cartilage. This cow matter may contain infectious microbes, such as those that have been found to cause mad cow disease.⁴

The overall benefits of a healthier diet and weight loss for osteoarthritis are well established.⁵ Three-hundred and sixteen older, overweight or obese, sedentary men and women with x-ray evidence of knee osteoarthritis were randomly assigned to one of four 18-month treatments: healthy lifestyle control, diet-induced weight loss, exercise, and diet plus exercise. Those who lost weight due to an improved diet showed a decrease in inflammation measured by a variety of tests. Exercise did not seem to make a positive difference in this study.

I recommend people with osteoarthritis take very good care of their diseased joints. This means in many cases that they should avoid certain exercise. Someone with disease of their hips, knees, or ankles should not be running, and maybe should limit their walking. Instead, exercise for them should be bicycling, swimming, and/or rowing. The best diet for weight loss and overall joint health is the McDougall diet.

1) Wandel S, J, ni P, Tendal B, N, esch E, Villiger PM, Welton NJ, Reichenbach S, Trelle S. [Effects of glucosamine, chondroitin, or placebo in patients with osteoarthritis of hip or knee: network meta-analysis.](#) *BMJ*. 2010 Sep 16;341:c4675. doi: 10.1136/bmj.c4675.

2) Vuolteenaho K, Moilanen T, Moilanen E. Non-steroidal anti-inflammatory drugs, cyclooxygenase-2 and the bone healing process. *Basic Clin Pharmacol Toxicol*. 2008 Jan;102(1):10-4.

3) Ding C, Cicuttini F, Jones G. Do NSAIDs affect longitudinal changes in knee cartilage volume and knee cartilage defects in older adults? *Am J Med*. 2009 Sep;122(9):836-42.

4) Mad cow disease and chondroitin sulfate. *Harv Health Lett*. 2001 May;26(7):3.

5) Nicklas BJ. Diet-induced weight loss, exercise, and chronic inflammation in older, obese adults: a randomized controlled clinical trial. *Am J Clin Nutr*. 2004 Apr;79(4):544-51.

Better Moods from a Vegetarian Diet

Vegetarian diets are associated with healthy mood states: a cross-sectional study in Seventh Day Adventist adults by Bonnie L Beezhold published in the June 2010 issue of the *Nutrition Journal* found, "The vegetarian diet profile does not appear to adversely affect mood despite low intake of long-chain omega-3 fatty acids."¹ Vegetarians reported significantly less negative emotion than omnivores, as measured by two tests of emotional state: the Depression Anxiety Stress Scale (DASS), and the Profile of Mood States (POMS) questionnaires. The authors note that, "Emerging evidence suggests that fish consumption has a protective effect on mental health due to the long-chain omega-3 fatty acid content." However, vegetarians have low intakes of these omega-3 fats (EPA and DHA) because they do not eat fish, and yet were found in this study to have better moods. But vegetarians do have a high intake of the basic omega-3 fat, alpha linolenic acid (ALA), which is the precursor to all of the long chain omega-3 fats, most important being eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

Comment: Hardly a month goes by without a new study on fish or fish oil claiming prevention and/or cure for Alzheimer's disease, arthritis, asthma, cancer, depression, heart disease, obesity, strokes and/or elevated cholesterol and triglycerides. Many doctors, dietitians, scientists, and supplement salespersons tell you that by avoiding fish or fish oils you will risk malnutrition.

In humans, there is research that finds the conversion of ALA to EPA and DHA is small (5-17 percent conversion to EPA and 0.5-0.7 percent to DHA).²⁻⁴ From these findings the claim is made that this is a physiological limitation that means we need to eat high quantities of elongated fats (EPA and DHA) in order to be healthy.

However, this theory assumes people, and especially pregnant women, need a high rate of conversion. This is wrong—the conversion rate is sufficient for all men and women. There is no evidence of actual neurological disease (dementia) or any other deficiency condition in populations getting enough ALA (from plants) and low intake of the long chain fats, EPA and DHA, (from fish).⁵⁻⁸

To the contrary, research shows that people who never eat fish have a similar risk of developing dementia, including Alzheimer's Disease, as those people who have a high fish intake (on average, one ounce, 29.6 grams, daily).^{9,10} Don't be bullied into eating fish or taking fish oil by those who say you risk brain or any other health damage. [The truth](#) is avoiding these sea animals and their oil concentrates results in weight loss, lower environmental chemical consumption, and lower cholesterol, as well as many other benefits. The fish are much happier with this smarter decision, too.

1) Beezhold BL, Johnston CS, Daigle DR. Vegetarian diets are associated with healthy mood states: a cross-sectional study in Seventh Day Adventist adults. *Nutr J*. 2010 Jun 1;9:26.

2) Plourde M, Cunnane SC. Extremely limited synthesis of long chain polyunsaturates in adults: implications for their dietary essentiality and use as supplements. *Appl Physiol Nutr Metab*. 2007 Aug;32(4):619-34.

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4) Harnack K, Andersen G, Somoza V. Quantitation of alpha-linolenic acid elongation to eicosapentaenoic and docosahexaenoic acid as affected by the ratio of n6/n3 fatty acids. *Nutr Metab (Lond)*. 2009 Feb 19;6:8.

5) Langdon JH. Has an aquatic diet been necessary for hominin brain evolution and functional development? *Br J Nutr*. 2006 Jul;96(1):7-17.

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7) http://www.nap.edu/openbook.php?record_id=10490&page=471

8) Sanders TA. Essential fatty acid requirements of vegetarians in pregnancy, lactation, and infancy. *Am J Clin Nutr*. 1999 Sep;70(3 Suppl):555S-559S.

9) Welch AA, Shakya-Shrestha S, Lentjes MA, Wareham NJ, Khaw KT. Dietary intake and status of n-3 polyunsaturated fatty acids in a population of fish-eating and non-fish-eating meat-eaters, vegetarians, and vegans and the precursor-product ratio of {alpha}-linolenic acid to long-chain n-3 polyunsaturated fatty acids: results from the EPIC-Norfolk cohort. *Am J Clin Nutr*. 2010 Sep 22. [Epub ahead of print]

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11) Devore EE, Grodstein F, van Rooij FJ, Hofman A, Rosner B, Stampfer MJ, Witteman JC, Breteler MM. Dietary intake of fish and omega-3 fatty acids in relation to long-term dementia risk. *Am J Clin Nutr*. 2009 Jul;90(1):170-6.

Calcium Supplements Are Harmful

Effect of calcium supplements on risk of myocardial infarction and cardiovascular events: meta-analysis by Mark J Bolland published in the July 2010 issue of the *British Medical Journal* found, "Calcium supplements (without coadministered vitamin D) are associated with an increased risk of myocardial infarction. As calcium supplements are widely used these modest increases in risk of cardiovascular disease might translate into a large burden of disease in the population. A reassessment of the role of calcium supplements in the management of osteoporosis is warranted."¹ This analysis consisted of 12,000 participants from 11 randomized con-

trolled trials. Calcium supplements were associated with about a 30% relative increase in the incidence of myocardial infarction and small increases in the risk of stroke and overall mortality. The authors' simplified summary of the effects was, "treatment of 1000 people with calcium for five years would cause an additional 14 myocardial infarctions, 10 strokes, and 13 deaths, and prevent 26 fractures."

Comment: Calcium supplements, given alone, improve bone mineral density, but have little benefit in reducing the risk of fractures and might even increase the risk of fractures.^{2,3} Likely any benefits that they do provide are because of the alkalinizing effects of the supplement.⁴ For example, a commonly consumed supplement for bone health is the antacid TUMS, which is calcium carbonate. Rather than the benefits coming from the calcium (the cation), they are from the carbonate (the anion). The [carbonate neutralizes the loads of dietary acids](#) that are consumed from the Western diet in the form of meats, poultry, fish, and cheese. These dietary acids would, if not for the antacid supplement, dissolve the bones (to release alkaline materials) and eventually cause osteoporosis. Other antacids, without calcium, such as sodium bicarbonate and aluminum hydroxide, would have similar benefits on neutralizing dietary acids and preventing bone loss.

In addition to being ineffective for preventing fractures, this study suggests taking calcium supplements would increase your risk of disease and death. There is no plausible explanation for why this would occur; however, there is circumstantial evidence that this may be the case. Primary hyperparathyroidism, a condition in which serum calcium levels are raised, is associated with an increased risk of cardiovascular events and death. Most concerning is the finding that calcium supplements accelerate blood vessel calcification and increase mortality in patients with renal failure.⁵⁻⁷

Certainly, taking isolated concentrated minerals, such as calcium, creates physiological imbalances in the body. Immediately after consuming calcium supplements the calcium in the blood increases. Thereafter, the body must adjust to this large burden of minerals. One of the adverse effects appears to be artery damage. Multiple studies have demonstrated taking [isolated concentrated nutrients](#), such as vitamins (beta-carotene, folic acid, and vitamin E), increases the risk of cancer, heart disease, and death. Just to be on the safe side, my recommendation is to consume calcium only from its most natural sources: plants. (Calcium originates in the ground, and then is taken up by various plants. Cows and people get their calcium from plants.)

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Comments On [Colonoscopy Article](#) (August 2010 Newsletter)

I am pleased that my August 2010 [article](#) on screening for colon cancer with a sigmoidoscopy exam has received so much interest. The colonoscopy exam may save lives but it also takes lives, and the costs and adverse effects are significant. My overall recommendations that I share with you in my newsletter are made only after thorough investigation of the science and considerable thought of all the possible consequences. I think a second read of my article would help some of you to come to a better understanding of my position on the issues. My [December 2002](#) newsletter and my book, [Dr. McDougall's Digestive Tune-up](#), have vital information on the cause of colon cancer and polyps. Your efforts for cancer prevention should be solidly focused on the matter that is inside your colon: the remnants of your meals.

John McDougall, MD

Letters:

I enjoy your newsletter every month, but I've been planning to write you ever since receiving the August newsletter to say how very much I appreciated it--especially the article on colonoscopy. My doctor in Illinois urged me to have a colonoscopy when I turned 50. I managed to put it off until I was 52. It went fine, and there were no polyps. However, that was 10 years ago--and so now he is urging me to have one again. I made a copy of your article to hand to him if he keeps urging me to have one. DH

I am a nurse case manager and follow patients who have been discharged from the hospital. I see patients who have had perforated colons from colonoscopy from time to time. At one period of time I was following 5-6 patients who had colon perforations and then surgery for resections. I am over 50 and told my doctor that I did not want the test. She asked why, and I told her about the patients I was following at the time. She did not say anything--just remained silent. I just told her to write on the documentation that the patient (me) declines having a colonoscopy. Information that people receive on the procedure makes it sound as simple as having your teeth cleaned at the dentist! Anonymous

As a practicing gastroenterologist for 36 years, I want to make a few comments regarding your recent newsletter article pertaining to colonoscopy. To begin with, I agree entirely that the gastroenterologist that saw Mary should be reported to the local medical board for improper conduct. However, I do not feel you should characterize all of us as caring mostly about money. I can assure you there are other specialists like myself who continue to practice past age 65 solely because of our love for medicine and our patients. Your recent article, as are all your articles, is supported by an abundance of sound medical references. I agree that the cost is out of control. I don't agree that the procedure complication rate quoted by you reflects all of our experiences. As for myself I have performed over 14,000 colonoscopies over 36 years without a single perforation. Furthermore, the usual duration of the procedure is far less than 30 minutes, as many gastroenterologist often reach the cecum in 2 to 4 minutes. As you are aware, it is the duration of withdrawal time that is important in terms of polyp detection. What bothers me the most about your article and the literature cited is that you have basically given up on the 1/3rd of screening patients who do have right-sided polyps based on existing data. In my opinion, we have not lowered the cancer mortality rate from right-sided lesions because of poor colon preps, inexperienced gastroenterologists, and mucosal microsatellite instability which makes polyps in the right colon far more dangerous because these turn to cancer with metastases much quicker than the 20 to 35 year time table you quote. Rather than giving up on these patients, shouldn't we improve the preps, train the gastroenterologists better, and lower the costs? In addition, let's see what this new era of magnifying colonoscopes will do in the right-sided polyp detection rate, particularly flat lesions, and ultimately the number of lives saved as a result. The center where I practice has recently replaced all existing colonoscopes with this new technology. One last point I want to make is that a sigmoidoscopy without sedation is generally mildly to moderately painful. This is because the most difficult (and most dangerous) area of the colon to negotiate is the sigmoid colon, even by trained hands. TP (medical doctor)

I appreciate your updates. I especially appreciated the one about colonoscopies. A friend's mother died of a perforated bowel that happened during a colonoscopy. She was a perfectly healthy 64 year old woman when she was advised to have a routine screening. MG

After your recent article about colonoscopies I thought this [piece](#) by Dave Barry might interest you. JM

Thanks very much for your article on colonoscopy. I wish I had been able to see that before I went through mine. But I can share a story about this topic with you that you might find amusing. About 17 years ago - in my late 50s and shortly before I became a vegan, my personal physician suggested a flexible sigmoidoscope and I agreed. He found a number of polyps and diverticuli, which he mapped out on a diagram, and wanted to do more testing. But at about the same time, we discovered severe coronary artery blockages and following advice from books by you and Dean Ornish, I changed my lifestyle to low-fat vegan. I told my physician that I was going to concentrate all my efforts on reversing the heart disease and I wanted to wait a year before I addressed the colon problem. A year went by and he asked me to undergo another sigmoidoscope exam, which I did. He spent a very long time with that tube up my ass and apologetically told me that the device must be faulty, that I'd have to come back in a week or so for another exam. When I returned for the second exam, he also took much more time than the original exam. When he finished, he told me that he was amazed that there were no signs of the polyps or diverticuli he had carefully noted a year before. He had assumed the instrument was faulty because he couldn't find them. Then, some 15 years later, he recommended a colonoscopy. I kept putting it off, and finally told him that I didn't want one, but I'd undergo a virtual colonoscopy, instead. So, we set that up. The three days of preparation, which I followed precisely, was much more disagreeable than I expected, and there was no sedative given at the procedure. A medication to immobilize peristalsis was given through an IV (without my being informed) and then the procedure, with air blown up my rectum, lasted about a half an hour. It was quite uncomfortable, but the worst was yet to come. The air that inflated my intestines was trapped, and the medication to freeze all movement didn't wear off for about a half an hour afterward. The pain was the most severe I'd ever experienced, and lasted until I was able to expel the trapped air. The results came back that I had a nodular tumor in my cecum, 90% chance of being malignant. This led to the "requirement" of a standard colonoscopy. I was told that this was absolutely necessary in order to biopsy or remove the tumor in my cecum. I was also told that it was a matter of great urgency; it could not wait. Following three days of prep, I went in for the procedure. There was no discomfort and at what felt like a few seconds later, the GI specialist doing the procedure told me to look at the screen. The cecum was perfectly clear, as were the rest of my intestines. There was no tumor. When the device was removed and I was able to sit up, the GI told me it was most likely some fecal matter that had been thought a tumor. I asked him how the radiologist could have made that mistake, and he replied, Those radiologists - they don't know shit. Neal

The specific recommendations for colon cancer screening change every few years based on new studies. The important thing is to have some type of screening done. There are noninvasive methods such as stool testing that are risk free. Sigmoidoscopy also carries the risk of bowel perforation, though the rate is 4 times lower than colonoscopy. Most perforations occur in people with a history of abdominal surgery, which can cause tight areas in the bowel. Less than 10% of those with bowel perforation due to endoscopy die. Those who die after a perforation usually are those having a therapeutic endoscopy for intestinal bleeding and are very ill to begin with. Presently, there are five advocated options for elective screening in asymptomatic patients: 1) yearly stool testing for occult blood starting at age 50, 2) an air-contrast barium enema of the large bowel at age 50 and every five years thereafter if the findings are normal, 3) flexible sigmoidoscopy (FS) at age 50 and every five years thereafter if the findings are normal, 4) computed tomography colonography at age 50 and every five years thereafter if the findings are normal, and 5) colonoscopy at age 50 and every ten years thereafter if the findings are normal. When I turn 50, I will probably go with a colonoscopy for colon cancer screening since the risk is greater of dying from colon cancer than from colonoscopy. With just a sigmoidoscopy I would worry about the rest of my colon all the time. When I turn 70, I probably will just go with the stool tests. JO (medical doctor)

I enjoyed your article on colonoscopy. Here at the VA, we screen our asymptomatic patients annually with Fecal Occult Blood Tests x 3. If this is positive then we refer for colonoscopy. This cuts way down on the colonoscopies at the VA, which really helps since we have so many patients and too few GI docs to do as many as they do on the outside. HF (medical doctor)

Thank you so much for the article on colonoscopy. I've been fighting that battle for a very long time. I had the sigmoidoscopy and have been vegetarian for 20 years. I will continue to say no thanks. Dorothy

I've had this done twice now and I can assure you it won't happen again. BTW, You failed to mention that even the purging regimen can be dangerous to kidney function if you are not rigorous in taking the large

quantities of water necessary. The place where I had this done was the new Endoscopy Suite at Mercy Hospital (a private hospital; we also have the tertiary care center U of Iowa Hospitals and Clinics, the largest teaching hospital in the country). They can do FIVE (5) of these procedures simultaneously in their fancy new addition. Tell me they don't need to amortize that cost. Before I had my procedure the first time I DID ask the doctor how many colons he had perforated. He was completely upfront with me and not insulted since he knew I had every right to know. He had perforated one (out of several thousand) and explained why it happened. He felt the risk was worth it in detecting or forestalling colon cancer so I went on with it. The reason for going to him in the first place was I had had a free sigmoidoscopy at the UIHC and they had found a polyp or two and suggested it. No conflict of interest there as they knew, I would have it done at the other hospital, completely different set of doctors. The interesting thing to me was in both cases they removed a couple small polyps, which, in both cases were in the first two feet or less of the colon. Were I to want another exam I would certainly go with the sigmoidoscopy but at nearly 66 and in excellent health with a very low fat, low sugar, complex carbohydrate diet I see no reason for further tests. SH

I recently saw a Dr. Oz TV show and he showed his experience with his colonoscopy that he said "saved my life". They found a precancerous polyp. I thought of your recent newsletter article on colonoscopies. How could he be so narrow-minded? He must be part of the "business". He said nothing of the risks involved or doing a flexible sigmoidoscopy or of the research that shows the lack of necessity of colonoscopies. He actually encouraged everyone 50 and over to get colonoscopies! MG

I read your article about the dangers of colonoscopy. I wish I had read it sooner. I am 41 years old and had occult bleeding in my stool. The doctors said I had to have a colonoscopy and endoscopy. The procedures were a nightmare. They overdosed me during the procedure because I woke up screaming for them to stop. The outcome was that I have gastritis. I currently blend my food because I have constant pressure and burning in my chest. I am hoping to start your program soon so I can feel good and get rid of the digestive issues I have. KM

Thank you very much for your Colonoscopy article. I am 69 and I have had 4-5 of these procedures over my lifetime with no polys ever been found. My doctor wants to do one every five years since my grandfather died of colon cancer when he was 69. Your article convinced me to forgo the procedure for the rest of my life. FM

Had I not had a colonoscopy at the age of 42 I would not be here today. There are many others, young and old, who have normal tests, including the fecal test, and find out only with a colonoscopy. Everyone is different and for some it is not a slow growing cancer. T

Your latest newsletter is as outstanding as always. However, this one was very timely for me as I'm almost 52 and WAS considering a colonoscopy. The only reason I've put it off is that I've been vegan for 20 years and figured the odds of me getting it had to be many times less than your average meathead. You just saved me a lot of misery and quite a few bucks. I'd like to donate \$100 to your organization. DG

Recently my father-in-law had a colonoscopy. We forwarded your recent article to him prior to the test, but he still went through with it. He was told his colon was not clean. He said that the last time he had one, they told him he also was not clean which made the procedure a lot more difficult. So this time he did not eat for 60 hours, and everything coming out was "clear", but they said he was not clean. He said he plans on not doing more and is taking the article to the doctor when he goes for his follow up. He said he is going to show her the article and see what she says. He stopped smoking on his own almost 3 years ago, started eating oatmeal and an apple for breakfast, and runs a lot. We are looking forward to him becoming even healthier. AS

More comments are found on my [Discussion Board](#).
Also add any further comments you may have here.



Featured Recipes

Creamy Golden Gravy

This gravy is made with brown rice flour instead of wheat flour. The great thing about using rice flour instead of wheat flour for thickening is that it doesn't form lumps like wheat flour often does. This does not have to be stirred constantly to prevent lumps. I have walked away and forgotten to stir this gravy and it still comes out smooth and lump free because of the rice flour.

Preparation Time: 5 minutes

Cooking Time: 10 minutes

Servings: makes 2 cups

2 cups vegetable broth
2 tablespoons low sodium soy sauce
2 tablespoons tahini
¼ cup brown rice flour
freshly ground black pepper

Place all the ingredients, except the pepper, in a small saucepan. Stir well to mix. Cook over medium-low heat, stirring occasionally until smooth and thick. Season with freshly ground black pepper to taste. Serve at once.

Hints: This may be made ahead and refrigerated. It will thicken slightly more when refrigerated. To reheat, place in a saucepan, add a small amount of water, whisk to combine and then heat slowly, stirring occasionally, until hot.

Tofu Mayonnaise

I am frequently asked about mayonnaise substitutes, since many of those found in most markets are mostly made of fat. This one is lower in fat because of the tofu, easy to make and store in the refrigerator, and it tastes good too!

Preparation Time: 5 minutes

Resting Time: 1 hour or longer

Servings: makes 1 ½ cups

1 12.3 ounce package silken tofu
1 ½ tablespoons lemon juice
1 teaspoon sugar
½ teaspoon salt
½ teaspoon dry mustard
1/8 teaspoon white pepper

Place all ingredients in a food processor and process until smooth.

Store in a covered container in the refrigerator.

Creamy Black Bean Soup

Here is another recipe that I get requests for all the time. It is so quick to put together, yet it tastes like you've been cooking it all day. The spiciness of the soup can easily be adjusted by the type of salsa that you choose to blend with the beans; mild, medium or hot.

Preparation Time: 5 minutes

Cooking Time: 10 minutes

Servings: 2-4

3 15 ounce cans black beans, drained and rinsed
1 $\frac{3}{4}$ cups vegetable broth
1 cup fresh salsa
 $\frac{1}{4}$ teaspoon ground oregano
 $\frac{1}{4}$ teaspoon chili powder (or more to taste)
 $\frac{1}{8}$ teaspoon smoked chipotle chili powder (optional)
several dashes hot sauce (optional)

Reserve 1 cup of the beans in a separate bowl, place the remaining beans, the vegetable broth and the salsa in a blender jar. Process until fairly smooth, then pour into a saucepan. Mash the reserved beans slightly with a fork or bean/potato masher. Add to the saucepan with the remaining ingredients. Cook over medium heat for 10 minutes to blend flavors. Adjust seasoning to taste before serving.

Hints: This is great to make ahead of time and then heat just before serving. Make a double batch so you can enjoy a quick bowl of soup when you are hungry.

Chocolate Decadence Pudding

By Heather McDougall

This is one of the favorite desserts during the McDougall Programs and I always get asked for the recipe. Most people think it is made with tofu and are very surprised to discover that it is made with soymilk and cocoa powder.

Preparation Time: 5 minutes

Cooking Time: 5 minutes

Servings: 4

$\frac{1}{2}$ cup unsweetened cocoa powder (Wonderslim)
 $\frac{3}{4}$ cup sugar
3 tablespoons cornstarch
3 cups soymilk
1 $\frac{1}{2}$ teaspoons vanilla

With a whisk, combine cocoa, sugar, cornstarch, and soymilk in a medium saucepan. Bring to a boil over medium-low heat, stirring constantly until thickened. Remove from heat and add vanilla. Mix well. Pour into a bowl, cover with plastic wrap, and chill for 4 hours. Spoon into individual bowls and serve cold.

Hint: This may also be placed in individual sized serving dishes, covered and refrigerated until serving. Be sure to bring this to a boil *slowly*, while stirring constantly, for a smooth and creamy result.

Baja White Bean Stew

This is a quick and easy bean dish that is so delicious at this time of the year with fresh produce available everywhere. I have been making this often lately with fresh tomatoes and lacinato kale from our garden.

Preparation Time: 20 minutes

Cooking Time: 30-35 minutes

Servings: 6

1 $\frac{1}{2}$ cups vegetable broth
1 onion, chopped
2 cloves garlic, minced

1 cup corn kernels, fresh or frozen
3 cans white cannellini beans, drained and rinsed
2 cups chopped fresh tomatoes
1 4 ounce can chopped green chilies
1 teaspoon chili powder
1/2 teaspoon ground cumin
1/4 teaspoon smoked paprika
1/8 teaspoon crushed red pepper
3 cups fresh chopped, kale, chard or spinach
hot sauce to taste (optional)

Place 1/2 cup of the broth in a large pot. Add onion and garlic. Cook, stirring occasionally, for 10 minutes, until onion is soft. Add remaining broth, corn, beans, tomatoes, chilies, and seasonings. Mix well. Bring to a boil, cover partially and simmer over low heat for 15 minutes, stirring occasionally. Add greens and cook for an additional 10 minutes (only 3 minutes for spinach). Season with hot sauce to taste.

Serve over baked or roasted potatoes, whole grains, or rolled up in a tortilla. This is also wonderful served in a bowl with some fresh bread on the side.

Hints: When fresh corn is in season, slice the kernels off 1 or 2 ears to use in this recipe. To use frozen corn, thaw first under cold running water (place in a strainer and hold under the water for about a minute). Bottled minced garlic may be used, you'll need about 1 1/2 teaspoons. Smoked paprika is available in most natural food stores. It adds a delicious flavor to this dish. If you cannot find it, leave it out or use regular paprika instead. Any leafy green is delicious in this recipe. Adjust the cooking times according to the greens used.

African Yam Stew

This is a rich and creamy stew because of the peanut butter used. Each serving only contains a small amount of this richer ingredient, and serving it over whole grains cuts the fat content down even more because the serving size will be smaller. To make this a bit less rich, use only 1/8 cup of the peanut butter and add a few splashes of hot sauce to the stew, if desired. I like this with some sriracha hot sauce over the top.

Preparation Time: 20 minutes

Cooking Time: 40 minutes

Servings: 6-8

1/3 cup water
1 onion, chopped
2 jalapenos, seeded and finely chopped
2 teaspoons minced fresh ginger
1 teaspoon minced fresh garlic
2 teaspoons ground cumin
1/2 teaspoon ground cinnamon
1/4 teaspoon crushed red pepper
1/4 teaspoon ground coriander
5 cups peeled and chunked Garnet yams
2 14.5 ounce cans chopped tomatoes
2 14.5 ounce cans garbanzo beans, drained and rinsed
1 1/2 cups vegetable broth
1/4 cup natural peanut butter
2 cups chopped fresh chard or kale
1/4 cup chopped cilantro

Place the water, onion, jalapenos, ginger and garlic in a large pot. Cook, stirring occasionally for 5 minutes. Add cumin, cinnamon, red pepper and coriander. Cook and stir for 1 minute. Add yams, tomatoes, garbanzo beans, vegetable broth and peanut butter. Bring to a boil, reduce heat and simmer for 20 minutes, stir in chard or kale and cook for about 10 more minutes until yams and greens are tender. Stir in cilantro and let rest for 2 minutes. Serve over rice or other whole grains.

MCDUGALL ADVANCED STUDY WEEKEND SEPTEMBER 10-12, 2010

Stephanie Roston, RD was the chef for the cooking demonstration at the Advanced Study Weekend. She prepared **Savory South Indian Breakfast Foods** and also taught some very helpful cooking techniques for cooking grains and beans as well as how to use your knife. The recipes and cooking techniques are included here along with her bio. I hope you enjoy them as much as all the folks at the weekend did!

Stephanie Roston, RD is both a chef and nutritionist. After completing her B.S. in Food Science and Human Nutrition, she spent over five years as a Medical Nutrition Therapist in a variety of healthcare settings. Having witnessed the long-term effects of poor food choices, she changed the focus of her career to culinary education and provides her students with the knowledge and inspiration to create tasty healthy cuisine. She received her professional chef's training at the National Gourmet Institute for Food and Health in New York City. Over the past few years, Stephanie has been a chef at Millennium Restaurant. A key player on Executive Chef Eric Tucker's team, she helps prepare the dishes that have made Millennium San Francisco's best and most recognizable vegan restaurant. As a Food for Life cooking instructor for The Cancer Project, Stephanie teaches classes emphasizing plant-based nutrition for cancer prevention and survival. She also serves as a spokesperson for The Physician's Committee for Responsible Medicine and provides individual and group nutrition education for hospitals, fitness centers, and corporations.

Sambhar with Carrot and Zucchini

Recipe by Stephanie Roston, R.D.

Yields 2 ½ quarts or 10 cups

½ cup water (in place of oil)
1 medium yellow onion, small dice (about 2 cups)
1 Tbs. minced garlic
1 Tbs. minced ginger
2 Tbs. curry powder (containing coriander, cumin, fenugreek, turmeric, chili, etc.)
1 tsp. brown mustard seed
½ tsp. whole cumin seed
¼ tsp. caraway seed
1 cinnamon stick
¼ tsp. ground mace
¼ tsp. ground cloves
¼ tsp. ground black pepper
3-4 Roma tomatoes, chopped (about 3 cups)
1 cup toovar dal (can substitute red lentils, yellow split peas, or chana dal)
8 cups water
2-3 carrots, medium dice
2-3 small zucchini, medium dice
1 Tbs. tamarind concentrate (another option: ¼ block of tamarind pulp which has been soaked in hot water and strained)
1/8 tsp. asafoetida
1-2 tsp. sugar if needed to balance bitterness of spice
Squeeze of lime juice to taste if needed

Heat a medium to large heavy bottomed pot on high. When pot is preheated, add 1 Tbs. water, onion, garlic, and ginger. Sauté adding small amounts of water as needed. When onions start to soften and become lightly caramelized, add spices from curry powder through black pepper. Stir continuously for 3-5 minutes allowing spices to toast to maximize flavor. Next, add tomatoes and cook for 3 minutes. Add dal and water then cover pot and reduce heat to a simmer. Cook for about 20 minutes or until the dal is tender (time will vary depending on the type of dal used). Next, add the carrots and continue to simmer for 10 minutes or until carrots are almost tender. Add zucchini and season with tamarind and asafoetida. Cook until the zucchini is done which takes only 5-10 minutes. Taste and adjust seasonings if needed by adding a squeeze of lime juice, a little sugar, or more tamarind. Enjoy sambhar on its own or serve with uppma, idli, uttapam, dosa, or rice.

To store leftovers, cool to room temperature then cover and refrigerate. Sambhar will keep refrigerated for up to 3-4 days.

Rava Uppma

Recipe by Stephanie Roston, R.D.

Yields about 4 cups

1 ½ cups *rava (sooji)
½ cup water (instead of oil)
½ medium onion, small dice
2 tsp. minced garlic
½ green chili, sliced (can use serrano, jalapeño, Thai, or Indian)
½ tsp. brown mustard seed
½ tsp. whole cumin seed
6 curry leaves, sliced thin (optional)
1-2 Roma tomatoes, chopped (1 cup)
½ cup frozen peas
2 ¼ cups water
Juice of ½ a lime or more to taste
Black pepper to taste
¼ cup chopped cilantro

Heat a medium sauté pan on medium high and add rava. Stir continuously for about 3 minutes or until the grain smells nutty and toasted. Remove rava from the pan and set aside. Return pan to the stove and add 1 Tbs. water along with onion, garlic, and chili. Sauté until onions soften and then add mustard seed, cumin seed, and curry leaf. Cook until spices are toasted and onions and garlic are completely cooked. Next, add tomatoes and cook for 3-5 minutes. Add frozen peas, water, and bring to a boil. Slowly add toasted rava while whisking continuously to avoid clumping (this process should take about 2 minutes). Cover and turn off the heat. Allow rava to steam for about 5 minutes. Remove cover and fluff with a spoon or fork. Season with lime juice, pepper, and cilantro. Serve uppma on its own or as a side.

To store leftovers, cool to room temperature, cover, and refrigerate for up to 3 days.

*Look for a coarse rava at an Indian market. Rava or Sooji is ground semolina wheat. It is similar to cream of wheat but not as fine. An easy substitute for rava is couscous, which is easy to find at most grocery stores.

Dairy Free Chai Tea

Recipe by Stephanie Roston, R.D.

Yields about 4 cups

2 cinnamon sticks
6 cloves
4 black peppercorns
1 tsp. whole coriander seed
4 green cardamom pods, smashed
2 star anise (can substitute 1 tsp. fennel seed)
2 bay leaves
5 cups low fat milk alternative (such as soymilk, almond milk, hazelnut milk)
1" piece ginger, sliced
¼ tsp. ground nutmeg
4 tsp. strong loose leaf black tea (such as Darjeeling)
4 tsp. sugar (optional) (can use brown sugar, agave nectar, maple syrup, etc)

Heat a small saucepan on medium heat and add cinnamon sticks through bay leaves. Toast spices until fragrant, being careful not to burn (should take about 2 minutes). Add milk alternative, ginger, and nutmeg. Bring to a boil and reduce to a simmer. Simmer uncovered for about 10-15 minutes to allow flavors to infuse. Next, add the tea and turn off the heat. Cover and steep for an additional 3-5 minutes, or longer, depending on desired strength. Strain and add sugar if using. Serve hot or allow chai to cool slightly and pour over ice.

Allow leftover tea to cool to room temperature and place in refrigerator for up to 2 days.

Cooking Techniques

Here are a few cooking methods which will allow you to cook healthy low fat meals that maximize nutrition.

Steam-fry- Refers to using water or vegetable stock in place of oil or other fat when sautéing. Start by heating a small amount of water or stock in the cooking vessel and then add ingredients to be sautéed. Small amounts of additional liquid may need to be added throughout cooking. The trick is to wait until food starts to stick to the pan before you add liquid. It is important not to add too much liquid at one time because this will create too much steam which will compromise flavors and textures.

Sauté- Refers to cooking food quickly over direct heat. This usually involves a small amount of oil or other fat but can easily be done using the steam-fry method.

Caramelize- Means to cook food until the natural sugars start to brown which enhances flavor. Use the steam-fry method instead of oil.

Steam- Food is cooked by steam rather than direct contact with liquid. Steaming can be achieved by using a steaming basket that is placed over boiling water. Or, since vegetables already contain water, steam can be created by simply placing a lid over your cooking vessel.

Stir-fry- When bite sized pieces of foods are cooked in a wok. This method is quick due to the high heat of the wok and the small pieces.

Dry Toasting- This is when ingredients are placed over heat without any liquid. Toasting can bring out the flavor of dried spices and grains.

Boiling- When ingredients are cooked in hot bubbling liquid. Par-boiling refers to partially cooking vegetables which will be fully cooked at a later time.

Blanching- This term refers to plunging vegetables or fruits into boiling liquid for a few seconds or minutes followed by shocking (placing in ice water). Blanching brings out the color in vegetables, allows peels to slip off easily, and preserves texture.

Poaching- Cooking in liquid (water, stock, juice) that is just shy of boiling. Tiny bubbles should be visible.

Simmer- Means cooking at a gentle rather than a rolling boil.

Braising- When food is covered partially with liquid and left to cook slowly. Often the food is seared in the pan prior to adding liquid. The cooking liquid is often reduced and served as part of the dish.

Stewing- Similar to braising only more liquid is added. The liquid is usually thickened and served as part of the dish.

Grilling- When food is cooked over an open flame. Food should be kept 4 to 6 inches away from the heat source.

Broiling- When food is cooked below a direct heat. Keep food at least 4 to 6 inches away from the source of

heat. Leave the oven door slightly open when using the broiler to prevent the temperature from rising too high.

Roasting and Baking- Both refer to dry heat cooking in the oven. Roasting is done at a higher temperature than baking. The goal of roasting is to brown or caramelize food to enhance flavor.

Reducing- Evaporating liquid for the purpose of concentrating flavors and or thickening.

Using Your Knife

Setting up your cutting board- If your cutting board does not have a nonslip side, place a moist towel under it to prevent slipping. Always keep your cutting board clear of items that you are not using.

Holding your knife- Grip the knife around the bolster which is the area where the blade and handle meet (sometimes knives will have a band of steel). The bolster is the balance point of the knife and finger guard. Your thumb and index finger should be on opposite sides of the blade and only your last three fingers should rest on the handle. By holding the knife this way, the knife becomes an extension of your hand.

Guiding Hand- Your hand that does not hold the knife is your guiding hand. It stabilizes the food as you are cutting. Make sure that your fingers are curled inward and your thumb tucked underneath. Your knuckles should touch the side of the blade. Go slowly, as this takes practice.

Tips for cutting fruits and vegetables-

Stabilize what you are cutting by always having a flat side facing down on the cutting board. It can be dangerous to cut a rolling item. Simply slice off a thin side of the fruit or vegetable to create a flat surface before you start cutting. Or, cut the fruit or vegetable in half.

Stop cutting when the piece of food becomes so small that you can no longer stabilize it. You might be able to finish the cutting by rotating the food. Or, it might be best to compost the scraps or save them for stock. It is not worth risking an injury for the root end of an onion.

Recipes may use unfamiliar terms when it comes to slicing and dicing. Here is a quick guide:

-A dice refers to a square cut:

**Brunoise 1/16", *Small dice is 1/4", *Medium dice is 1/2", * Large dice is 3/4"*

- Chopping is similar to dicing only without precision of shape and size.

- A rough or coarse chop refers to larger, imprecise pieces. Usually used when the vegetable or fruit is going to be pureed.

-Julienne refers to a cut that is 1/8" by 3" with squared edges. Batons are cut the same way but into larger pieces.

-Matchstick is an Asian cut similar to the julienne only with tapered edges.

-Sauté slice refers to thin slices of an onion made by cutting in the direction of root to tip.

-Salad slice refers to thinly slicing an onion in the opposite direction of root to tip.

-Chiffonade refers to tightly rolling greens or herbs and then thinly slicing crosswise.

-Mincing is when something is finely chopped.

- Rounds, coins, or medallions refers to cutting parallel slices into long rounded vegetables like zucchini, carrots, or cucumbers.

Diagonal slices are when vegetables are sliced on an angle. Often seen in Asian dishes.

Onion- Carefully remove both ends of the onion with your knife, making sure not to entirely cut off the root end. Remove the peel. Slice the onion in half from root to tip. Place the flat side of one half down on the cutting board with the root end facing nine o'clock. With your guiding hand, secure the onion with your palm and lift your fingers upward. Take your knife and slice horizontal slices starting towards the bottom of the onion and working upward. Make sure your slices come close to the root end but do not go through the root. You will usually make two or four slices depending on the size of the onion and desired dice. Next, turn the onion so the root end is at twelve o'clock. Make vertical cuts starting from the right side. Once again, cut close to the root but not through it. Remember to curl your fingers inward and tuck your thumb. Last, turn the root end back to nine o'clock and make vertical slices from the right side towards the root end. Squares of onion should fall to the cutting board with each slice.

Sharpening- A dull knife is a very dangerous tool. A sharp knife requires less pressure and easily moves through food which makes it safer. If you are not comfortable sharpening your own knife, locate a sharpening service near your home and take your knives a couple times a year or as needed. Between sharpening, you can use a steel to hone your knife. A steel rod will help keep the edge on your knife and prolong the time between sharpening. Because the angle of a knife's edge will vary, ask your sharpening service for specific instructions on honing your knife.

Tips for Preparing Beans and Lentils

Sort and rinse beans or lentils prior to soaking or cooking to remove any stones or dirt.

Soak beans to increase their digestibility and decrease cooking time. Soak in plenty of cold water preferably overnight or 8 hours. This will help reduce gas causing carbohydrates and will neutralize phytic acid which will allow certain minerals to be more efficiently absorbed. The soaking water should be discarded and replenished with fresh cold water for cooking. Alternatively, you can use the "quick soak" method. Start with plenty of cold water and bring beans to a boil for a couple of minutes. Then, turn off the heat and allow the beans to soak for at least 30 minutes and up to 2 hours. Drain the water from the beans and replenish with fresh water or unsalted vegetable stock for cooking.

Do not add salt or acid (tomato products, lemon juice, vinegar) to beans while cooking as they will not cook to tenderness and the skin will remain tough. Wait until beans are almost fully cooked before adding salt or acidic ingredients.

Cook in plenty of water or unsalted stock. The beans should be covered by several inches.

Be patient when cooking beans. Once beans have come to a boil, reduce heat to a simmer and cook slowly. This will yield a tender bean with a smooth texture. Continuously boiling beans may cause them to crack and have a mealy texture.

Cooking times of beans will vary depending on the bean type and how old it is. For example, black-eyed peas may cook in as little as 30 minutes whereas chickpeas can take well over an hour. A bean is done when it is tender. Undercooked beans can be difficult to digest.

Increase digestibility by adding a strip of kombu (a type of seaweed) to your bean cooking liquid. Kombu also adds essential minerals. Other spices and herbs that are known for aiding in digestion include fennel, cumin, caraway, turmeric, and epazote.

Lentils do not need soaking and require shorter cooking times. Lentils will often cook in as little as 15-20 minutes. As with beans, do not add salt or acid during cooking.

The fastest cooking legume is dal (also spelled daal, dhal, dahl), which is a term used to describe beans or lentils that have their outer hull removed and are often split. A common example is red lentils. Unlike other beans and lentils, dal requires less cooking time and can tolerate salt and acid during cooking.

Tips for Preparing Grains

Grains such as rice or quinoa require a precise amount of cooking liquid. Following the package directions can be helpful but do not be afraid to adjust the amount of cooking liquid if you do not like the outcome.

Common liquid to grain ratios are as follows:

--1.25:1 for most white rice, couscous, bulgur wheat

--1.5:1 for brown rice, red rice, black rice, sushi rice, and quinoa

--1.75:1 for millet

--3:1 for barley

--4:1 for polenta

Some grains can be boiled like pasta and then drained once they are done. This method works well for wild rice, spelt, wheat berries, barley, and other hard grains.

Most grains should be washed and allowed to dry before cooking. This is especially important for quinoa which contains a bitter soapy substance called saponin.

Dry toast grains to enhance flavor. This is done by placing the grains in the cooking vessel prior to adding the liquid. Use medium to high heat and stir constantly for a few minutes or until you smell a nutty aroma.

For fluffy chewy grains, make sure the cooking liquid is boiling before adding to the hot, toasted grain. If a sticky grain is desired, such as with sushi rice, add cold cooking liquid.

Add salt, if using, during cooking.

Some whole grains, like steel cut oats or wheat berries, can require long cooking times. This makes preparing these healthy foods an inconvenience, especially at breakfast. To reduce cooking time, grains can be soaked overnight. Unlike beans, the soaking liquid does not need to be discarded. Recommend measuring the soaking liquid to equal the amount needed for cooking and then cooking the grain in the soaking liquid. Alternatively, a pressure cooker can be used to cut cooking time or a slow cooker with a timer can be used to cook grains overnight.