



McDougall Newsletter

Volume 7 Issue 05

Peaceful
Sunrises
and
Majestic
Golden
Sunsets



Costa Rica
Waits
For You

July 16-23, 2008

More Information
Registration

www.drmdougall.com

International Year of the Potato, 2008

Because of the ease and efficiency of production, and the superior nutritional qualities, the humble potato is humankind's best hope for, resolving the current worldwide epidemic of obesity, diabetes, heart disease, and cancer, and eventually, thriving in the near future. The potato plant produces more nutritious food, quicker, on less land, and in harsher climates than any other major crop. For these reasons potatoes are the world's fourth most important food source after rice, wheat, and corn.*

PAGE 2

Favorite Five Articles from Recent Medical Journals

- Should You Drink 8 Glasses of Water Daily?
- Animal Fat May Accelerate Prostate Cancer
- Monitor Blood Pressure at Home Says the AHA
- Eat Yourself Impotent
- Vitamin Supplements May Increase Breast Cancer

PAGE 5

Further Discussions on the Use of Fosamax for Osteoporosis

My April 2008 newsletter carried an article, Patients Commonly Receive Misinformation on Osteoporosis Treatments by Gillian Sanson who is a woman's health educator and researcher in Auckland, New Zealand and the author of several books, including *The Myth of Osteoporosis*. I would like to continue this discussion beginning with a response from Jerry Donnelly, D.M.D of a men's osteoporosis support group, maleosteoporosis.org. Following Dr. Donnelly's concerns is a reply from Ms. Sanson.

PAGE 10

Featured Recipes

- Lite Gazpacho
- Green Goddess Potato Salad
- Stuffed Potato Boats
- Potato Enchiladas
- Mexican Potato Stew
- Baked Beans

PAGE 14

CELEBRITY CHEF WEEKEND



Kevin Dunn
Mary McDougall
Bryanna Clark-
Grogan
Colleen Patrick-
Goudreau
Jill Nussinow, RD
Miyoko Shinner
Susan Voisin
Eric Tucker

A Weekend
Dedicated
to Cooking

June 27-29
Santa Rosa

Click Here for Sign-up
Information

Next
McDougall 10 Day Live-in Program
August 1-10, 2008

[More Info and Registration](#)

International Year of the Potato, 2008



Because of the ease and efficiency of production, and the superior nutritional qualities, the humble potato is humankind's best hope for, resolving the current worldwide epidemic of obesity, diabetes, heart disease, and cancer, and eventually, thriving in the near future. The potato plant produces more nutritious food, quicker, on less land, and in harsher climates than any other major crop. For these reasons potatoes are the world's fourth most important food source after rice, wheat, and corn.* With climate changes brought on by global warming, the potato will soon become the world's most important crop. Historically, this common vegetable has gained a well-deserved reputation for protecting populations from starvation and improving the lives of ordinary people.

[According to the FAO \(Food and Agriculture Organization of the United Nations\):](#)



"The International Year of the Potato (2008) aims at raising global awareness of the potato's key role in agriculture, the economy and world food security. Celebration of the International Year of the Potato (IYP) will raise awareness of the importance of the potato - and of agriculture in general - in addressing issues of global concern, including hunger, poverty and threats to the environment."

The potato is produced in 130 nations (more nations than any other crop, except corn). Potatoes can be grown at almost any elevation and in most climates. Although it originated in the cold, dry Lake Titicaca region of Peru and Bolivia (elevation 12,500 feet) between 7,000 to 10,000 years ago, the potato thrives in wet, warm costal areas. The potato plant requires very little water, matures in as little time as 50 days, and can produce four times more food on the same amount of land, than can wheat or rice. One acre of potatoes can feed 10 people for a year. After being harvested from the ground the potato can be stored for six months or more under cool, dry, well-vented conditions—thus providing food all year long.



The potato has been regarded as poisonous, tasteless, boring, fattening, hard to digest, and as an aphrodisiac; it has been considered cattle- and pig-food, reserved only for times of famine and for the poor. In truth, science and history have consistently judged a potato-based diet correctly: a diet ideal for supporting human health and productivity.

Starch is the predominant form of carbohydrate found in potatoes. Human beings are anatomically and physiologically designed as a "starch-eaters." (See my October 2007 newsletter article, "[DNA testing proves humans are designed as starch-eaters](#).") Called by the French, "pommes de terre," these apples of the Earth provide ideal sources of energy, proteins, fats, vitamins, minerals, and fiber. Their abundant proteins easily provide all of the essential amino acids required for healthy adults and children. They are anti-scurvy (Vitamin C) and excellent sources of all vitamins and minerals (except B12). Potatoes are a complete food: People can and have lived for extended periods on potatoes as their sole source of nourishment. (For more information on how potatoes keep people trim and healthy see my April 2002 newsletter article: "[Potatoes Are the Pillars of Worldwide Nutrition](#)."

*Potatoes are consumed by more of the world's population than any other vegetable (in distinction to grains). Corn is mainly used for animal feed.

A Medicine and a Poison

The potato is from the plant family Solanaceae. This family also contains the tomato, peppers (capsicum), and eggplant, along with powerful poisonous plants, including mandrake, henbane, tobacco, and the deadly nightshade. The most pharmacologically active compounds found in the potato are the solanine glycoalkaloids (α -solanine and α -chaconine). Their primary purpose is to defend the potato plant against bacteria, fungi, viruses, insects, animals, and humans. However, at appropriate levels these glycoalkaloids have medicinal effects for people.

Known Medical Benefits from Extracts of Solanine

Lowers cholesterol
Anti-diabetic
Anti-allergic
Anti-itching
Anti-inflammatory
Antibiotic (bacteria, fungi, parasites, viruses)
Anticancer

Like most medicines, solanine can become poisonous when delivered in high concentrations. Farmers have known for centuries that potatoes could poison their cattle and pigs. The highest concentrations of glycoalkaloids occur just under the skin and in areas of high metabolic activity, such as the eyes. Hence peeling potatoes reduces their toxic potential. The glycoalkaloid levels in the plant's parts increase with age and exposure to light.

In people, the clinical effects are due primarily to their anti-cholinesterase activity, and include headache, diarrhea, nausea, vomiting, weakness, depression, and finally paralysis. A rare skin disease called 'potato eruption' begins as red papules that can progress to pustular crusted lesions. Death from solanine poisoning from potatoes is rare. These chemicals are resistant to cooking and may stay in the body for several days. To eliminate the risks, do not eat spoiled potatoes; which usually means those potatoes with green discoloration under their skin and/or sprouted potatoes, having "growing eyes."

The Versatile and Enduring Potato

For millennium, the five thousand potato varieties found worldwide have been consumed fresh (boiled or roasted) or reconstituted in stews from dried forms. Potatoes are outgrowths (enlargements) of the

Common Methods of Serving Potatoes:

Mashed
Baked
Roasted
Boiled
Steamed
Microwave
Hash Browns
Potato Pancakes
French Fries
Potato Chips



Potatoes need no sophisticated equipment for cooking.

roots of the potato plant—called tubers. The primary purpose of the tuber is to store energy to keep the potato plant alive during the winter months and through droughts. Secondly, these ***starch-rich, underground storage organs (USO)*** benefit us by providing a high energy, nutritionally complete food for people, during times of feast and famine.

Common Potato Types:

Russet potatoes (the classic potato; also called Burbank and Idaho) are long, slightly rounded and have a brown, rough skin and numerous eyes. Excellent for baking and for French fries.

Irish potatoes are waxy, and ideally suited to boiling, as they will hold their shape well. They can also be roasted, broiled, or turned into potato salads and fried potatoes.

Yukon Gold potatoes are roughly spherical in shape, with dull brown to gold skin, and are usually waxy. They are delicious in soups and make excellent mashed potatoes.

Red Bliss potatoes have a red flaky skin with a white flesh.

Round Red potatoes are waxy boiling potatoes with smooth skins.

Peruvian Purple potatoes have dark purple skins and pale purple flesh.

Fingerling potatoes naturally grow much smaller than conventional potatoes, and are elongated and slightly knobby—thus, finger-like in shape. They are roasted, broiled, baked, grilled, or boiled.

New potatoes are potatoes that have not fully matured.

Chip potatoes (Atlantic and Snowden) are grown especially for potato chip production and not available in the supermarkets.

Preserving Potatoes

The single disadvantage of the potato, compared to wheat and corn, is they cannot be stored and carried over from year to year in their harvested form because the tubers rot. Fortunately, various drying methods will preserve them as future food. Since ancient times, people of the Andes would “freeze-dry” potatoes. The process involved freezing, trampling by foot to remove some water and skins, and then refreezing in the cold night air. This product, known as *chuño*, would last in good condition for 10 years when stored in a dry, sealed room. Another traditional product is *papa seca* (“dehydrated potato”). The tubers are boiled, peeled, cut into chunks, sun-dried, and then ground into a starchy staple that is often eaten with tomatoes, and onions. These days, *papa seca* is consumed more widely than *chuño* and can be purchased in supermarkets. Sun-drying potatoes is a cottage business in India and Asian countries—this new growth industry provides an inexpensive way to preserve potatoes and to smooth out seasonal gluts.

You can order dried potatoes in bulk:

[North Bay Trading Co.](#)
[Harmony House Foods](#)

The manufacturer states they will last about 2 years. However, with proper storage in a cool dry place, they will last much longer.

You may want to start your own "victory garden" to offset your food expenses and prepare for a future where the potato will be your most reliable food source. You-Tube has instructional videos on how to grow and harvest potatoes.

Videos on How to Grow Potatoes

Doug Smitty of Smitty's Gardening Services

[Getting Started](#)[Preparing to Plant Potatoes](#)[Digging a Trench](#)[Hilling Potatoes](#)[Harvesting Potatoes](#)[Curing Potatoes](#)[Stopping Beetles](#)[Planting Potatoes](#)[Fertilizing Potatoes](#)

The Anti-famine Food

Adoption of a potato-based agriculture is credited with the virtual elimination of famine in Europe by the early nineteenth century. As a testament to the capacity of the potato to support people, between 1801 and 1851, the populations of England and Wales doubled to almost 18 million people, and the Irish population was able to double to eight million between 1780 and 1841 as a direct result of the widespread cultivation of the potato. Fortunately, the common potato is now being rediscovered as a nutritious crop, producing a delicious food, which will cheaply feed an increasingly hungry world. This enlightenment has the potential to save the human race from starvation, as it has done for so many communities in the past. The United Nations has declared 2008 the "International Year of the Potato," and for good reason: to raise "global awareness of the potato's key role in agriculture, the economy and world food security."

References:

Lee MR. The Solanaceae: foods and poisons. *J R Coll Physicians Edinb*. 2006 Jun;36(2):162-9.

Friedman M. Potato glycoalkaloids and metabolites: roles in the plant and in the diet. *J Agric Food Chem*. 2006 Nov 15;54(23):8655-81.

Favorite Five Articles from Recent Medical Journals

Should You Drink 8 Glasses of Water Daily?

Just add water by Dan Negoianu published in the June 2008 issue of the *Journal of the American Society of Nephrology* examines the validity of the commonly heard advice to drink 8 glasses of 8 ounces, or more, of water daily for better health and to remove dangerous poisons from the body.

Points made by the authors:

- People cannot survive more than a few days without water.

- Hot weather and exertion increase water needs.
- Fluid intake may prevent kidney stones.
- Increased water intake does increase the clearance of various substances by the kidney, but the importance of this change is unknown.
- Water may fight obesity by increasing satiety and thermogenesis (heat production). However, the overall impact is unclear.
- Studies have shown decreased fluid intake is associated with more heart disease, bladder cancer, and colon cancer. But this may be because sick people drink less water, rather than the opposite.
- Relief of headaches and improved skin tone has been attributed to more water intake.

The overall conclusion of the authors was, "There is no clear evidence of benefit from drinking increased amounts of water...we concede there is also no clear evidence of lack of benefit. In fact there is simply lack of evidence in general."

Comment:

Health advocates often present advice to drink 8 and more glasses of water a day. However, scientific research has not adequately addressed the ideal volume of water that we should consume daily. I encourage people to drink water, based on the intensity of their thirst drive. This highly sensitive, effective drive has kept humans and other animals alive and well for eons. Without a thought, our needs are met. Increased activity and warmth lead to water loss due to perspiration, and this loss is compensated for by more fluid intake driven by more thirst. The kidneys make further adjustments by retaining or losing water and associated matter. People do not have to give any extra conscious thought to drinking water.

I personally like to drink water. Of course, this leads to many more trips to the bathroom than most people experience. I hope all this excess fluid provides me with extra benefits, such as more efficient removal of toxins from my body. I know of no evidence of harm from drinking lots of water (except for water intoxication, which rarely occurs in people with a serious psychiatric disorder).

Certainly, the water you drink should be clean, and especially, free of environmental chemicals. This can be accomplished by buying (glass) bottled water, using an osmotic filter, or by distilling. Plastic water bottles scare me because of the presence of Bisphenol A (BPA) — a chemical commonly found in hard plastics that has been linked to female reproductive disorders and breast cancer.

Negoianu D, Goldfarb S. Just add water. *J Am Soc Nephrol*. 2008 Jun;19(6):1041-3.

Animal Fat May Accelerate Prostate Cancer

Saturated fat intake predicts biochemical failure after prostatectomy by Sara Strom in the June 2008 issue of the *International Journal of Cancer* showed, "that high prediagnostic saturated fat (HSF) intake was associated with a 2-fold increased risk of biochemical failure in this cohort of 390 Caucasian men with localized PCa treated with prostatectomy...Men who were both obese and consumed HSF diets had the shortest biochemical-failure-free-survival (19 months), and nonobese men who consumed LSF diets had the longest biochemical-failure-free-survival (46 months, $p < 0.001$)."¹The study was based on a food frequency questionnaire. Biochemical failure was determined by a significant rise in prostate specific antigen (PSA) levels.

Comment:

Studies of populations of people and laboratory studies of animals consistently show that foods, especially

meat, dairy, and added free fats cause and promote the growth of prostate cancer. This study says the diet eaten by a patient with prostate cancer can influence the growth of the cancer. Saturated fat, which is primarily found in red meat, chicken, milk, and cheese, cuts in half the time it takes for the cancer to come back (based on PSA). It is fair to assume this same rich diet will cause the patient to die sooner.

Saturated fat is just one cancer-promoting component of the rich Western diet. The cholesterol, animal protein, and environmental chemicals found in these foods are also known to make cancer grow faster. Just as important are the missing ingredients. Dietary fiber, vitamins and minerals, and thousands of other plant-derived (phyto) chemicals keep the body healthy by discouraging cancer growth.

A study by Dean Ornish has begun to show the benefits of a truly healthy diet, like ours, for prostate cancer patients.² Published in the September 2005 issue of *The Journal of Urology*, his research found, "Intensive lifestyle changes may affect the progression of early, low grade prostate cancer in men." A total of 93 men with elevated PSA levels (4 to 10 ng/ml), with a Gleason score of less than 7, and who had not undergone conventional treatments, were split into two groups. For one year, one group followed a low-fat vegan diet and the other continued with the American diet (control group). Because of a rise in PSA levels or signs of disease progression, 6 in the control group eventually underwent conventional therapy (surgery, radiation, chemotherapy) – none in the vegan diet group required further treatment. PSA decreased 4% in the vegan diet group and rose 6% in the control American-diet group.

Because money for research comes primarily from pharmaceutical companies, and secondarily from food companies making their money from the products that are causing and promoting cancer, too little research proving the benefits of a low-fat, plant-food based diet is likely to ever be done. The result is simply more suffering and death of your friends and relatives.

1) Strom SS, Yamamura Y, Forman MR, Pettaway CA, Barrera SL, DiGiovanni J. Saturated fat intake predicts biochemical failure after prostatectomy. *Int J Cancer*. 2008 Jun 1; 122(11): 2581-5.

2) Ornish D, Weidner G, Fair WR, Marlin R, Pettengill EB, Raisin CJ, Dunn-Emke S, Crutchfield L, Jacobs FN, Barnard RJ, Aronson WJ, McCormac P, McKnight DJ, Fein JD, Dnistrian AM, Weinstein J, Ngo TH, Mendell NR, Carroll PR. Intensive lifestyle changes may affect the progression of prostate cancer. *J Urol*. 2005 Sep; 174(3): 1065-1070.

Monitor Blood Pressure at Home Says the AHA

Call to Action on Use and Reimbursement for Home Blood Pressure Monitoring: Executive Summary. A Joint Scientific Statement from the American Heart Association, American Society of Hypertension, and Preventive Cardiovascular Nurses Association by Thomas G. Pickering in the May 2008 issue of the journal *Hypertension* noted, "There is a rapidly growing literature showing that measurements taken by patients at home are often lower than readings taken in the office and closer to the average BP recorded by 24-hour ambulatory monitors, which is the BP that best predicts cardiovascular risk. Because of the larger numbers of readings that can be taken by HBPM than in the office and the elimination of the white-coat effect (the increase of BP during an office visit), home readings are more reproducible than office readings and show better correlations with measures of target organ damage." HBPM = Home Blood Pressure Monitoring.

They offered the following recommendations:

1. It is recommended that HBPM should become a routine component of BP measurement in the majority of patients with known or suspected hypertension;
2. Patients should be advised to purchase oscillometric monitors that measure BP on the upper arm with an appropriate cuff size and that have been shown to be accurate according to standard international protocols. They should be shown how to use them by their healthcare providers;
3. Two to 3 readings should be taken while the subject is resting in the seated position, both in the morning

and at night, over a period of 1 week. A total of ≥ 12 readings are recommended for making clinical decisions;

4. HBPM is indicated in patients with newly diagnosed or suspected hypertension, in whom it may distinguish between white-coat and sustained hypertension. If the results are equivocal, ambulatory BP monitoring may help to establish the diagnosis;
5. In patients with pre-hypertension, HBPM may be useful for detecting masked hypertension;
6. HBPM is recommended for evaluating the response to any type of antihypertensive treatment and may improve adherence;
7. The target HBPM goal for treatment is $<135/85$ mm Hg or $<130/80$ mm Hg in high-risk patients;
8. HBPM is useful in the elderly, in whom both BP variability and the white-coat effect are increased;
9. HBPM is of value in patients with diabetes, in whom tight BP control is of paramount importance;
10. Other populations in whom HBPM may be beneficial include pregnant women, children, and patients with kidney disease; and
11. HBPM has the potential to improve the quality of care while reducing costs and should be reimbursed.

Patients should purchase oscillometric monitors* with cuffs that fit on the upper arm. They should use a proper fitting cuff, and ask a healthcare provider the correct way to use the monitors. Wrist monitors are NOT recommended. The authors suggest that a quality monitor costs \$50 to \$100 on the Internet and at pharmacies.

* Oscillometric monitors use the oscillometric technique, which measures the mean arterial BP directly from cuff pressure, then calculates the systolic and diastolic BP's according to an algorithm that is unique to each device or manufacturer. No stethoscope is used.

Comment:

I agree and recommend to all my patients with concerns about their blood pressure that they buy a good quality blood pressure cuff and use it to monitor their blood pressure. I suggest they then record the values and take them to their private doctor for a discussion about their importance, and any recommended treatments. Diet and exercise should be the first recommendations any patient gets, but all doctors are taught that their patients are too stupid and disinterested in themselves to eat better and go for a walk. And many doctors also believe their patients are barely smart enough to take their pills and write the check at the end of the office visit. So, as a consequence, the patients stay sick and carry around a bag full of blood pressure medications. With home blood pressure monitoring many more patients can stay out of the medical businesses, and this is good for the patient.

The American Heart Association and the British Hypertension Society appear on the surface to exist for patients' welfare, but in truth these organizations are funded by blood pressure monitor manufacturers and drug companies, just to name a few of their potentially corrupting sponsors. I disagree with these organizations' aggressive policies on treatment, such as when to initiate drug therapy (they say above 140/90 mmHg and I say above 160/100 mmHg) and how aggressively to treat (they say treat to a pressure below 135/85 mmHg or lower, and I say do not reduce blood pressure below 140/85 mmHg). You can read more about how I treat high blood pressure by turning to my Hot Topics on hypertension.

Pickering TG, Miller NH, Ogedegbe G, Krakoff LR, Artinian NT, Goff D. Call to Action on Use and Reimbursement for Home Blood Pressure Monitoring: Executive Summary. A Joint Scientific Statement From the Ameri-

can Heart Association, American Society of Hypertension, and Preventive Cardiovascular Nurses Association. *Hypertension*. 2008 May 22.

Eat Yourself Impotent

Erectile dysfunction: the new harbinger for major adverse cardiac events in the diabetic patient by Carmine Gazzaruso in the May 2008 issue of the *Journal of the American College of Cardiology* found, "...ED is a powerful predictor of cardiovascular morbidity and mortality in diabetic patients with silent CAD..."¹ An accompanying study, **Erectile dysfunction predicts coronary heart disease in type 2 diabetes**, in this same issue by Ronald Ching-Wan Ma found, "In type 2 diabetic men without clinically overt cardiovascular disease, the presence of ED predicts a new onset of CHD events. Symptoms of ED should be independently sought to identify high-risk subjects for comprehensive cardiovascular assessments."²

Comment:

The same diet that closes the arteries to the heart (heart attacks) and brain (stroke) also closes the arteries to the penis—the result is erectile dysfunction (ED), which means a delay in time to maximal erection, reduced rigidity, and decreased ability to sustain an erection. An interesting question asked in an accompanying editorial was, "Why does ED seem to precede symptoms of CAD in patients with a vascular etiology for ED?"³ The answer, "...this phenomenon relates to the size or diameter of the blood vessels. For example, the penile artery has a diameter of 1 to 2 mm, whereas the proximal left anterior descending coronary artery is 3 to 4 mm in diameter. An equally sized atherosclerotic plaque burden in the smaller penile arteries would more likely first compromise flow and cause ED compared with the same amount of plaque in the larger coronary artery causing angina."

People with ED also have higher risks for heart attacks, heart surgery, strokes, transient ischemic attack (TIA), congestive heart failure, cardiac arrest, and cardiac arrhythmia. The reason is these conditions are all diseases of sick blood vessels—atherosclerosis. Patients with health problems are also more likely to be taking medications, such as blood pressure pills, that commonly cause sexual dysfunction.

Fortunately, with a change in diet and a little exercise most of our patients are able to lower their blood pressure and get off of their "erection deflating" medications, and they are able to reduce their "plaque burden" by reversing the underlying atherosclerosis. My male patients (and sometimes their mates) often share with me tales of their renewed vigor and vitality. Now there's a valid reason to eat vegetables. For more on the damage to male sexual functions from meat- and dairy-eating see the end of my July 2003 newsletter article, "[Meat in the Human Diet](#)."

1) Gazzaruso C, Solerte SB, Pujia A, Coppola A, Vezzoli M, Salvucci F, Valenti C, Giustina A, Garzaniti A. Erectile dysfunction as a predictor of cardiovascular events and death in diabetic patients with angiographically proven asymptomatic coronary artery disease: a potential protective role for statins and 5-phosphodiesterase inhibitors. *J Am Coll Cardiol*. 2008 May 27;51(21):2040-4.

2) Ma RC, So WY, Yang X, Yu LW, Kong AP, Ko GT, Chow CC, Cockram CS, Chan JC, Tong PC. Erectile dysfunction predicts coronary heart disease in type 2 diabetes. *J Am Coll Cardiol*. 2008 May 27;51(21):2045-50.

3) Kloner RA. Erectile dysfunction: the new harbinger for major adverse cardiac events in the diabetic patient. *J Am Coll Cardiol*. 2008 May 27;51(21):2051-2.

Vitamin Supplements May Increase Breast Cancer

Multivitamin-multimineral supplement use and mammographic breast density by Sylvie Bérubé in the May 2008 issue of the *American Journal of Clinical Nutrition* reported that, "Regular multivitamin-multimineral supplement use was found to be associated with higher mean breast density among premenopausal women...Because breast density is strongly and positively related to breast cancer risk, these findings do not support any benefit from multivitamin-multimineral supplement use on breast cancer risk. Instead, they suggest that such multivitamin-multimineral supplement use should be studied for its possible association with an increased risk of breast cancer."¹

Comment:

Taking various vitamin supplements, like beta-carotene, vitamin E, and/or folic acid has been found in multiple studies to increase the risk of cancer, heart disease, and overall death.² Many observational studies have found that a high intake of fruits and vegetables, which are also filled with antioxidant, folic acid, and other vitamins, is associated with a decreased risk of cancer. Foods are not the same as supplements. When isolated, concentrated nutrients are ingested, as with multivitamin and multimineral supplements, chemical imbalances are created within the cells—the end result, as many studies have shown, is an increased risk of disease and earlier death.²

More than half of the women in the US take supplements; therefore, even a small percentage increase in illness will mean many people are affected. People should be getting their nutrients in their original packages—starches, vegetables, and fruits. Supplements should be considered medicines, at best, and should carry appropriate warnings on their labels, at least.

1. Bérubé S, Diorio C, Brisson J. Multivitamin-multimineral supplement use and mammographic breast density. *Am J Clin Nutr.* 2008 May;87(5):1400-4.
2. Bjelakovic G, Nikolova D, Simonetti RG, Gluud C. Antioxidant supplements for prevention of mortality in healthy participants and patients with various diseases. *Cochrane Database Syst Rev.* 2008 Apr 16; (2):CD007176.

Further Discussions on the Use of Fosamax for Osteoporosis

My April 2008 newsletter carried an article, Patients Commonly Receive Misinformation on Osteoporosis Treatments by Gillian Sanson who is a woman's health educator and researcher in Auckland, New Zealand and the author of several books, including *The Myth of Osteoporosis*. I would like to continue this discussion beginning with a response from Jerry Donnelly, D.M.D of a men's osteoporosis support group, maleosteoporosis.org. Following Dr. Donnelly's concerns is a reply from Ms. Sanson. For my thoughts on this subject see my [Hot Topics](#) on osteoporosis:

May 1, 2008

Dr. McDougall,

I'm disappointed in the information in the latest newsletter regarding osteoporosis and Gillian Sanson's letter you printed. Osteoporosis, and bisphosphonates for its treatment, is a complex medical problem often fraught with misinformation that doesn't make it easier for people to sort facts from fiction. Sanson's article, which could have been good, adds more misinformation. I'm particularly bothered by her cherry picking a few articles, particularly older ones, and then selecting sentences here and there to present her case without also covering other facts presented in the articles, or elsewhere. I do agree on all but one topic, which I'll discuss below, regarding what she says in the last segment about over-treating individuals who don't have frank osteoporosis, but that seems to get lost because of the faultiness of other information in the letter.

It is very confusing to say, "They [bisphosphonates] do not re-build bone, . . ." Exactly what do they do then? They certainly allow the body to rebuild bone, while not doing it themselves, but what is the difference? If my T-score was -2.5 (I had lost 25% of my bone density) when I first started taking Fosamax and it is now normal, is she saying there is no new bone? Bisphosphonates work because they prevent the breakdown of bone by interfering with osteoclasts. They have no effect on osteoblasts which continue to build bone. This gives a net effect of increased bone build up compared to pretreatment levels because the body can form more bone. If this is not rebuilding bone, what is it?

To say the anti-fracture benefit is minimal and then cite an eight- and a ten-year old study is not good science. There are too many subsequent studies showing the benefit of bisphosphonates on fracture reduction for me to cite. But I will give you two that show rather effectively that, not only do the bisphosphonates reduce fracture risk, they do it in proportion to how well the individuals adhere to the prescribed bisphosphonate dosing regimen. [To see any studies I cite, go to PubMed and paste in the numeric portion of the PMID] See PMID: 17999022 for a study by Rabenda V and others in Osteoporosis International in November 2007. In

summary this study showed that individuals who took their medications as they were expected to had a 60% reduction in fracture risk compared to those who did not follow dosing regimens and didn't properly take their medications. Note that the poorest compliance was among women taking the 5-mg daily alendronate and that greater compliance occurred when the 70-mg once-weekly dosing was used. Note also that the two studies Sanson cites regarding fracture efficacy were done when the only dose available was 5-mg daily. Even so this dosage was shown to be effective in preventing fractures, particularly in individuals with true osteoporosis, as would be expected.

Another study showing the effectiveness of fracture reduction when patients complied with recommended dosing levels was done by Siris ES and others in Mayo Clin Proc in 2006, PMID: 16901023. They found significantly fewer fractures at 24 months when compliance rates were above 50%, and particularly when 75% or greater. Note that in some studies compliance rates have been shown to be approximately 39%.

Once again for her citation on fracture reduction she recites the 12-year-old article by Black DM and others while ignoring 12 years of other articles on this topic. I'm sure she is aware of this, but her readers may not be. Any medication taken for osteoporosis is going to have a limited fracture reduction ability. If an individual with, e.g., 25% reduction in bone mineral density (BMD) never falls, that person will most likely never fracture. Those who will, however, expect to benefit are those who have regained BMD and who also happen to fall. If there were a way to know in advance exactly who would fall and who wouldn't fall we'd never need medications except for those with the most severe BMD loss. Unfortunately, no one has figured out how to predict falls yet, so we have to give the medications to all those at risk to prevent fractures in the few who do fall.

The information Sanson provides regarding brittle bones is extremely weak. The article that Dr. Ott writes her editorial about cited 9 older individuals, 3 of whom were also on estrogen and 2 of whom were on glucocorticoids. Considering the millions of individuals who have taken Fosamax, I certainly don't find these numbers alarming, and don't think any good scientist would pay them much heed without further evidence of the microfracturing problem. Additionally she cites an article regarding beagle dogs in which the authors note, "The doses of these bisphosphonates were six times the clinical doses approved for treatment of osteoporosis in humans." To cite that article and not mention that these animals were given six times the normal human dose is quite deceptive.

To cite a lawsuit in progress with absolutely no scientific evidence for any of the statements by the plaintiff is also deceptive. I'm taking Fosamax and noticed that my food didn't taste as good today, can I sue Merck and blame Fosamax and have that cited as a side effect of Fosamax? Come on!

Sanson states that there is only one long-term study on bisphosphonates, but this is incorrect. There is also a 7-year study for risedronate. See PMID: 15455188 for the study by Mellstrom DD and others in Calcif Tissue Int in 2004.

In her final sentence she mentions regular exercise and appropriate diet to maintain bone health. I'm a vegan now and follow your plan as much as I can. I was also mostly vegetarian when I was diagnosed with osteoporosis and I was active duty Army doing a regular exercise regimen of aerobic and nonaerobic exercise for the previous twenty years which didn't protect me from osteoporosis. I'm aware of no clinical trial showing that any diet and exercise regimen is effective in treating, especially postmenopausal osteoporosis, or any other form of osteoporosis either.

Sanson is bothered by what she considers as too great an emphasis on the positive for bisphosphonates and not enough emphasis on the negative. She, in my opinion, suffers from having the exact opposite overemphasis on the negative aspect of bisphosphonates without giving them enough credit for their beneficial actions. Reality is somewhere between these two levels, and that is what I think your readers should know.

Bisphosphonates are certainly not the ideal medication that I would suggest for anyone with osteoporosis, but there are few alternatives at this point especially for men, and there were none in 1995 when I was diagnosed with osteoporosis. The Sanson letter never mentions men who comprise about 20% of those with osteoporosis, and she suggests no real options that have been shown effective in controlled clinical trials at regaining BMD for individuals with osteoporosis. To criticize that which has been shown effective at treating osteoporosis, albeit with some side effects, and offer no proven alternative to regain lost BMD, is not doing your readers a service. I've suffered vertebral compression fractures before I started Fosamax with none since. I also don't want more, or worse, a hip fracture. Thus I'm forced to stay with Fosamax, its side effects notwithstanding, until someone provides me with a safer clinically proven alternative to retain my currently normal BMD. I suspect many other men and women are in the same category.

Regards,

Jerry Donnelly, D.M.D (Doctor of Dental Medicine?)

www.maleosteoporosis.org

Reply fom Gillian Sanson

May 4, 2008

Dear Dr Donnelly

I appreciate the comments raised in your email of May 1st. It is the lack of information and widespread misinformation about osteoporosis diagnosis, prevention and treatment that concerns me also. However, rather than being polemic as you suggest, I believe I offer an evidence-based perspective that goes some way to redress the imbalance of information generated by an uncritical media, commercial influence in the reporting of clinical trials, and direct-to-consumer advertising of pharmaceuticals – all of which could be accused of 'cherry-picking' the research and selectively educating the public.

In my experience, consumers and doctors like to know as much as possible about potential benefits, side-effects and risks of treatments in order to better consider the pros and cons of embarking on treatment. It is also very helpful to understand medical concepts like numbers needed to treat, and the difference between relative and absolute risk in order to fully understand the effectiveness or otherwise of a treatment.

My letter published in the recent McDougall Newsletter addresses the issues raised by Dr Komaroff in his 'By the Way Doctor' column in the Harvard Health Letter in February this year. He was responding to questions about the safety of long term bisphosphonate use – more than 10 years - and about concerns that long term use could result in weaker bones and diseases in the jaw. In that context I referred to the lack of long term evidence, and to accumulating anecdotal and medical evidence that the drugs could be associated with increased risk for fracture. The reason I mentioned the woman taking legal action as a result of her fractures was that it made news at the time I was penning my reply and had relevance at that moment. No doubt you are also aware of the study by [Odvina et al.](#) which reports nine patients who had been taking alendronate (Fosamax) for 3 to 8 years and presented with unusual fractures with delayed healing. Although nothing is proved by this, the cases are important because they provide more clues about the potential adverse effects of bisphosphonates and their action of suppressing bone formation - something that we will not fully know the repercussions of for many years to come. The recent evidence for jaw necrosis and other bone necrosis associated with oral bisphosphonate use must serve as a warning that these are drugs with the potential for serious harm.

Obviously there is a distinction between osteoporosis prevention and the treatment of established osteoporosis. My letter did not cover the controversial issue of the diagnosis of pre-osteoporosis or osteopenia based on bone mineral density (BMD) alone, and the associated widespread prescribing of potent drugs to healthy individuals to reverse normal age-related bone loss. It did however acknowledge there is the potential for benefit from bisphosphonates in 'high risk' individuals, but observed that even then, the majority who take the drug will not benefit from it. Impressive sounding relative risk reduction percentages can be very misleading and mask the much smaller reductions in absolute risk. Even 'high risk' women and men are at low absolute risk for fracture and if fully informed may choose not to take medication for the small absolute risk reduction it offers.

Unfortunately, an increase in bone density does not necessarily equate with fracture prevention. Although you maintain it is not 'good science', the Phase III Fracture Intervention Trial (FIT) of 1996 and 1998 I refer to remains the largest randomised controlled trial (RCT) on alendronate (Fosamax) to date, and its two branches are still considered the definitive trials to this day – just as the similar size and vintage VERT and HIP studies remain the original and most cited trials of risedronate (Actonel). There is in fact no better science to be found on these drugs. In recent years there has been considerable re-analysis of data from these original trials.

The [new 2008 Cochrane reports](#) on both [alendronate](#) and [risedronate](#) are meta-analyses of all randomized controlled trials from 1966 to 2007. They therefore offer the most useful evidence on fracture outcomes to date. Their findings reflect almost exactly the same small fracture risk reductions as those reported in the early big trials mentioned above. They conclude that for 5 mg of risedronate daily there were no statistically significant reductions in the primary prevention of vertebral and non-vertebral fractures. A statistically significant benefit in the secondary prevention of vertebral, non-vertebral and hip fractures was observed, but not for the wrist. For alendronate, at 10 mg a day, the outcome was similar, except that for primary prevention there was a

clinically important reduction in vertebral fractures. Of note, the absolute risk reduction for secondary prevention of hip fractures was only 1 percent. This is the same as the outcome from the FIT trial.^[1]

You are right to point out that I made an error when I overlooked the 2 year extension of the risedronate trial which does offer data up to 7 years. However the 2 year extension was not placebo controlled and involved only 164 women. The fact remains that we do not have evidence from large long-term placebo controlled trials and the long term effects of bisphosphonates remain unknown. Meantime vast numbers of people continue to take these drugs which accumulate in the body and have an indefinite half life. It is my hope that as consumers we have learned from the mistakes of the past – in particular the prescribing of HRT to millions of women for over more than 4 decades when there was no evidence from large long-term placebo controlled trials determining short or long term safety. As a consequence generations of healthy women were put at increased risk for heart disease, blood clots, stroke, and breast cancer.

Unfortunately, bisphosphonates do not rebuild bone. They are not anabolic – i.e. they don't build up bone tissue, replace, or rebuild damaged trabecular bone. They do, in most cases, increase BMD, thus DEXA scans will show an increase in mineral density or quantity. Just how this impacts on bone quality long term is still not clear. Increased mineralization appears to increase the risk for more brittle bone. For an excellent explanation of the action of bisphosphonates, I refer you to Dr. Susan Ott's 2005 article '[Long-Term Safety of Bisphosphonates](#)' published in the journal of Clinical Endocrinology and Metabolism:

'The amino-bisphosphonates strongly inhibit osteoclastic bone resorption. During normal bone remodeling, osteoblastic bone formation follows resorption and occurs within the eroded cavities, so inhibition of bone resorption also results in inhibition of bone formation. Bone biopsy studies using double tetracycline labels show that the bone-forming surface is suppressed by 60–90% with usual doses of the bisphosphonates. **These drugs are certainly not anabolic!** [her exclamation, my bolding] The volume of bone does not increase. The bone density as measured by dual-energy x-ray absorptiometry, however, does increase. This is because the bone is no longer remodeling, and so there is not much new bone. The older bone is denser than the newer bone; there is less water and more mineral in the bone, and the radiographic techniques thus measure the higher density. Osteoporotic bone is generally undermineralized, so some increase in mineralization (or hardening of the bone) may improve the bone strength.'

Bisphosphonates are becoming easier to take, with once-a month and once-a-year doses now available. We don't have any evidence from clinical trials to reassure us that the side-effects with higher doses are not greater. [Susan Ott warns](#): 'The bisphosphonates in doses used today suppress bone formation to a greater extent than the other antiresorbing medications, so it is possible that microdamage accumulation would develop after 15 or 20 yr—just about the time between menopause and the usual onset of osteoporotic fractures. Certainly this is an issue that requires long-term, carefully designed research.'

The official in the FDA who recently raised the alert regarding the joint bone and muscle pain side-effect is concerned that this effect may be more apparent now because it is associated with the much higher doses. I am contacted almost daily by women who have taken Fosamax or Actonel, and are now suffering from crippling chronic pain. Some are even confined to wheel chairs and unable to manage the simplest of daily tasks. Most question why they were not warned of the potential for this serious side-effect. I worry that these women represent the tip of the ice-berg. How many out there are experiencing severe pain that is attributed by their doctor to osteoarthritis or even osteoporosis rather than the bisphosphonate?

Regular exercise and appropriate diet is a commonsense recommendation for prevention of osteoporosis and a host of age-related conditions. With respect, I did not make claims in my letter that there are clinical trials showing that either of these modalities will successfully treat established osteoporosis.

I am not an osteoporosis expert. I am a women's health educator and a health care consumer with a family history of osteoporosis who is looking for answers. Bisphosphonates are one of the few pharmaceutical options available to people at this time. I would be delighted if they were safe and effective treatments. It is up to each individual to determine whether the benefit of taking these drugs outweighs the risk in their situation. I don't claim to have answers, but I do think we are owed accurate information in our search for them.

Best wishes,

Gillian Sanson

www.gilliansanson.com

www.gilliansanson.wordpress.com

Featured Recipes

Lite Gazpacho

This is a not-so-spicy cold tomato soup that even my grandchildren enjoy. I usually have a batch of this in my refrigerator all summer for a refreshing snack or light meal. Since it is blended, it can just be poured into a cup or glass and enjoyed as a hearty drink. This will keep about a week in the refrigerator.

Preparation Time: 15 minutes

Chilling Time: 2-4 hours

Servings: 10-12

8 cups tomato juice

1 15 ounce can chopped tomatoes

1 ½ cups cucumber

4 stalks celery

1 green pepper

1 bunch green onions

1 4 ounce can chopped green chilies

1/3 cup flat leaf parsley

½ cup fresh salsa

Prepare all the vegetables by cutting them into chunks. Pour some of the tomato juice into a blender jar and add a few of the vegetables, along with the tomatoes and chilies. Process until well blended. Pour into a large storage container. Repeat until all juice and vegetables have been used. Mix well in container, cover and chill until serving time.

Hints: For a heartier soup, add some finely chopped vegetables (such as cucumbers, tomatoes, onions, bell pepper or celery) or corn kernels and/or beans to the soup when serving. Either put these items in the bowl before adding the soup, or after the soup is in the bowl place a spoonful into the center of the bowl.

Green Goddess Potato Salad

I saw a recipe for a simple green potato salad in a magazine a couple of months ago and the photo was so appealing that I decided to try something similar, without the mayonnaise and sour cream, of course. I made this with only potatoes, but if you like other vegetables in your potato salads, feel free to add chopped vegetables of your choice.

Preparation Time: 20 minutes

Cooking Time: 15 minutes

Chilling Time: 2-4 hours

Servings: 4-8

4 pounds red potatoes

Dressing:

1 12.3 ounce package soft silken tofu

¼ cup water

2 tablespoons white wine vinegar

2 tablespoons lime juice

2 tablespoons tahini

2 tablespoons soy sauce

½ tablespoon miso

1 bunch chopped green onions

1 cup chopped fresh flat leaf parsley

Freshly ground black pepper

Potatoes:

Scrub the potatoes but do not peel. Cut into approximately 1 inch chunks. Place in a pot with water to cover. Bring to a boil, reduce heat and cook for about 12 minutes until just tender. Drain. Allow to cool for 15 minutes.

Dressing:

Place the tofu and water in a blender jar and process briefly. Add the remaining ingredients and process until very smooth and green. Set aside.

Salad:

Place the cooled potatoes in a large bowl. Add other chopped vegetables if you wish at this time. Pour 1½ cups of the dressing over the potatoes and mix gently. Cover and refrigerate at least 2 hours before serving.

Hints: Reserve the remaining dressing for use later as a dip for raw veggies or a topping for salad greens.

Stuffed Potato Boats

Preparation Time: 15 minutes

Cooking Time: 1 ½ hours

Servings: 4

4 large russet potatoes

¾ cup almond milk

2 cups frozen mixed vegetables (see hint)

Paprika

Preheat oven to 425 degrees.

Scrub potatoes and prick them in several places with a fork. Place directly on the oven rack and bake for about 1 hour 15 minutes, or until tender. Remove from oven and let cool until they can be handled. Reduce oven heat to 350 degrees. Meanwhile, steam vegetables until tender and set aside. Carefully scoop out the centers of the potatoes, leaving a small amount of potato next to the skin. Place the potato centers in a mixing bowl and mash with a hand potato masher adding a small amount of the almond milk at a time. Continue to mash until creamy. Mix the cooked vegetables into the potatoes. Pile the potato mixture into the potato shells. Arrange on a baking sheet and sprinkle each half with paprika. Bake for 15 minutes, turning the broiler on low for the last 2-3 minutes to brown tops, if desired. Serve plain, or with sauce or gravy of your choice.

Hints: Use any combination of mixed vegetables in these potatoes; such as carrots, peas and corn, usually smaller cut vegetables work best. Some chopped onions are also a nice addition. Fresh steamed vegetables are also delicious in these potatoes; such as chopped broccoli, chopped peppers, chopped green beans. Amounts may easily be adjusted according to how many potatoes you are baking. These potato boats also re-heat well.

Potato Enchiladas

Preparation Time: 45 minutes

Cooking Time: 45 minutes

Servings: 6-8

12 medium potatoes, peeled and chunked

½ cup soy or almond milk

½ cup chopped green onions

½ cup frozen corn kernels, thawed

2 tablespoons chopped green chilies

12-14 whole wheat or corn tortillas(or more as needed)

6 cups Enchilada Sauce

Enchilada Sauce:

1 onion, chopped

2 cloves garlic, crushed

2 tablespoons water

1 28 ounce can crushed tomatoes

1 4 ounce can chopped green chilies

2-3 tablespoons chili powder

1 tablespoon soy sauce
½ teaspoon ground cumin
1 ½ cups water
3 tablespoons cornstarch

Put the potatoes in a large pot with water to cover. Bring to a boil, cover and cook until tender, about 20 minutes. Drain, place in a bowl and mash with the soy or almond milk until creamy, adding a bit more milk if desired to reach the proper consistency. Stir in the green onions, corn and green chilies. Set aside.

While the potatoes are cooking, prepare the enchilada sauce. Place the onion and garlic in a large saucepan with the water. Cook, stirring frequently for about 3 minutes until onion softens. Add the tomatoes, green chilies, chili powder, soy sauce, cumin, and one cup of the water. Mix well, cover and cook over low heat for 10 minutes. Mix the cornstarch with the remaining ½ cup of water. Stir into the sauce and continue to cook and stir until thickened.

Preheat oven to 350 degrees.

Spread about 1 ½ cups of the sauce over the bottom of a 9 x 12 baking dish. Spread a line of potatoes down the center of each tortilla. Roll up and place seam side down in the baking dish. Repeat until all potatoes are used. Pour the remaining sauce over the tortillas. Cover with parchment paper and foil and bake for 30 minutes, or until sauce is bubbly.

Mexican Potato Stew

Preparation Time: 10 minutes

Cooking Time: 30 minutes

Servings: 6

1 onion, chopped
1 bell pepper, chopped
2 cloves garlic, chopped
¼ cup water
1 15 ounce can Mexican-style stewed tomatoes
1 fresh tomato, chopped
½ cup fresh salsa
1 tablespoon parsley flakes
½ teaspoon ground cumin
2 15 ounce cans pinto or black beans, drained and rinsed
2 cups chunked potatoes
Freshly ground pepper
Chopped fresh cilantro

Place the onion, bell pepper, garlic and water into a large pot. Cook, stirring frequently, until vegetables soften slightly. Add stewed tomatoes, fresh tomato, salsa, parsley and cumin. Mix well and bring to a boil. Stir in the beans and potatoes. Cover and simmer over low heat about 25 minutes, or until potatoes are tender. Season with freshly ground pepper, if desired, and garnish with fresh cilantro. Serve in a bowl, or over brown rice or other whole grains.

Hints: Use a firm, waxy potato for best results in this dish. Fingerling potatoes are especially delicious in this recipe.

Baked Beans

These beans are nicely sweetened with just a touch of heat. They go together quickly using canned beans and cook in the oven for a "no-fuss" meal. Serve with steamed corn on the cob, baked potatoes and a tossed green salad.

Preparation Time: 15 minutes

Cooking Time: 1 hour, 15 minutes

Servings: 6-8

Preheat oven to 350 degrees.

4 15 ounce cans great northern beans
2 15 ounce cans mixed beans (see hints below)

1 onion, chopped
2 cloves garlic, minced
2 tablespoons water
½ cup molasses
1/3 cup ketchup
¼ cup vegetarian Worcestershire sauce
¼ cup brown sugar
3 tablespoons maple syrup
2 tablespoons dry mustard
1 teaspoon paprika
1/8 teaspoon cayenne pepper
Dash liquid smoke (optional)

Drain beans and place in a large bowl. Place the onion, garlic and water in a small saucepan and cook until softened and water has evaporated. Add to beans. Add remaining ingredients and mix well. Transfer to a covered casserole dish. Bake covered for 1 hour, then remove cover and bake an additional 15 minutes.

Hints: Mixed beans are sometimes called chili beans. They are usually a variety of kidney, pinto and black beans. Or use your own variation of canned beans in this recipe, 6 cans total. These are always a favorite at potlucks.