

Favorite Five Articles from Recent Medical Journals



Two-thirds of Women Have Bad Bones. Or Do They?

Bone-density testing interval and transition to osteoporosis in older women by Margaret L. Gourlay, published in the January 19, 2012 issue of the *New England Journal of Medicine*, concluded, "Our data indicate that osteoporosis would develop in less than 10% of older, postmenopausal women during re-screening intervals of approximately 15 years for women with normal bone density or mild osteopenia, 5 years for women with moderate osteopenia, and 1 year for women with advanced osteopenia." Investigators studied women from three general populations throughout the US who were 67 years of age or older. Advancement to osteoporosis was defined by a bone mineral density (BMD) reading, not by real life fractures, as the word "osteoporosis" might suggest.

Comment: The good news from this study is that for the minority (23%) of women who pass their initial BMD test, further bone deterioration over the remainder of their natural life (the next 15 years) is unlikely, and these women can forgo further BMD testing. However, the bad news is that the vast majority of women are diagnosed as being ill by their medical doctors.

Researchers included 5,470 women in this study from three communities forming a representative spectrum of women living in the US. Of these women, 1,255 were considered to have normal bones, whereas 4,215 suffered from osteoporosis or osteopenia (the precursor to osteoporosis) based on the BMD test. This means that of all women over the age of 67 living in the US, 77% are in need of more testing and treatment for their "diseased bones." There is something very wrong when most women are declared sick based on one single test and not on any real medical problems, such as a fracture.

The use of the BMD measurement is a classic example of "disease mongering:" turning healthy people into patients. This business-building approach begins by defining a disease with a test that will identify a large market of people as potential customers. In this case BMD captures about [two-thirds of women](#) over the age of 40.

The second step in disease mongering is to find customers. This has been effectively accomplished by pharmaceutical-company, disease-awareness campaigns, by providing inexpensive BMD testing at community fairs, workplaces, and local pharmacies, and by supplying affordable testing machines to doctors' offices nationwide. The results have been huge profits for drug companies and manufacturers of BMD equipment, and nationwide hysteria among women and their doctors.

Natural Bone Thinning

Osteopenia is a natural thinning of the bones that occurs as women age and does not result in unprovoked fractures. To repeat, this is a "natural thinning of the bones." The mineral content of bones decreases due to physiological changes intended to maintain the highest efficiency of a woman's body. Here is why it works this way: The biologic purpose of a woman is to reproduce offspring. To accomplish this, during her reproductive years she must store large amounts of minerals, including calcium, in her bones for the future growth of her fetus and for producing her breast milk for two years postpartum. Assessing her bones with a BMD test during these times will detect a plentiful supply of minerals.

After menopause a woman no longer needs these extra depots of minerals; they become unnecessary baggage. In the interest of efficiency, her body sheds the excess, and as expected, her BMD is found to be much diminished. Thus, she fails the test when she is compared with an inappropriate and unrealistic norm. "Normal" is defined by the bone status of a healthy 30-year-old adult female in her prime reproductive years. You can learn how these standards were created, and how the disease osteopenia was invented (with the help of three pharmaceutical companies), by listening to this very interesting [National Public Radio](#) (NPR) broadcast.

Connective Tissue Determines Bone Strength, not Minerals

Fortunately, the mineral content of a woman's bones has little to do with their strength. Bone strength comes from its dense pliable connective tissues, which are made up of proteins, fats, carbohydrates, cells, fibers, and fluids. Examples of connective tissue are found in tendons, muscles, fibers, capsules and ligaments around joints, cartilages, bones, adipose (fatty) tissues, and blood and lymphatic tissues. The extra minerals for reproductive uses are simply being stored within the matrix of bone connective tissue. Measuring the integrity of these connective tissues is difficult but attempts have been made using other technologies, such as ultrasound. All of these doctor-prescribed tests are so unreliable that knowing a woman's age, family history, past history of falls and fractures, activity level, HRT-use, and general health will more reliably predict the risk of a future osteoporotic-related fracture, than a medical test. Even though testing provides a hint about bone health, the only way to directly measure bone strength is to see how much force it takes to break them—of course this is an impractical test.

Diet, Sunshine, and Exercise Make Strong Bones

A woman's bones are designed to last a lifetime when cared for properly. Sunshine (producing vitamin D), moderate exercise, and an [alkaline diet](#) are the keys to strong bones. Osteoporosis is caused by several controllable factors; however, the most important one is the foods we choose to consume, especially the amount of [animal foods](#). Meat, poultry, fish, seafood, and hard cheeses (such as parmesan cheese) are very acidic in composition. After eating them, our body must neutralize these loads of acids, and the bones are the [primary source](#) of buffering materials. Carbonates, citrates, and other alkaline materials are released from the bones to neutralize these acids. Pouring dilute acid over your bones three times and more a day permanently damages and dissolves their connective tissues. The calcium and bone materials that are lost are excreted through the kidneys and can be found in the urine.

Fruits and vegetables are alkaline in composition, and as a result, a diet high in these plant foods will neutralize acid from other sources and help preserve the bones. Grains and legumes are slightly acidic, but the body can easily handle their small acid loads without causing bone loss. Animal foods are eight times more acidic than are grains and legumes. The levels of acidity produced from a diet of meat, poultry, fish, eggs, and cheeses exceed normal physiologic capabilities, and as a result bone is destroyed in an effort to maintain the body's acid-base balance. In the overall picture, the McDougall Diet is alkaline because it is made up of a plentiful supply of alkaline fruits and vegetables, which compensate for the slightly acidic grains and legumes. Not all vegan diets are so bone-friendly. Isolated soy proteins, found in abundance in the fake meats and cheeses that make up the diets of so many health-conscious people these days, also cause [significant losses of calcium](#).

Women with a diagnosis of osteopenia or osteoporosis based on a BMD are obviously worried about a future with fractures, especially the very serious kinds of the hip. These women should take one further step in their diet by minimizing acidic grains and legumes, and emphasizing alkaline starchy vegetables (i.e., potatoes, sweet potatoes and winter squashes). Green, yellow, and orange vegetables and fruits are excellent sources of base (alkaline materials) that should also be liberally added.

The Last Step: Medications

After the full benefits from sunshine, exercise, and diet have been taken advantage of, the last efforts will be on the judicious use of medications. Acidity in the body can be neutralized by taking over-the-counter antacids, such as TUMS (calcium carbonate). The alkaline carbonate, not the calcium, causes the benefits. Any antacid (sodium bicarbonate, potassium bicarbonate, etc.) will work; however, I do not recommend antacids that are made from citrate (like calcium citrate) because these forms cause the intestine to [absorb more aluminum](#) from the diet. Chronic aluminum poisoning causes [Alzheimer's disease](#). Two tablets of TUMS daily is my recommended dose only for those women at high risk of a fracture. Calcium supplements do have side effects, including iron deficiency, constipation, and an increased risk of death from heart disease.

As a final medical step, when I am very concerned that a woman is going to suffer in the near future a serious fracture due to weak bones, I will use estrogens applied to her skin daily. (I typically prescribe a combination of estradiol .05 mg with 20 mg of progesterone in one gram of cream base to be applied topically.) Estrogens always build bone, but have important side effects. I never use the most commonly prescribed class of medications, bisphosphonates (Fosamax, Actone, Bonevia, Zometa, Aclasta, Didronel, Bonfos, Loron, Skelid, etc.). These medications have very serious side effects and are of little benefit, especially for women with relatively healthy bones (those diagnosed with osteopenia).

Gourlay ML, Fine JP, Preisser JS, May RC, Li C, Lui LY, Ransohoff DF, Cauley JA, Ensrud KE; Study of Osteoporotic Fractures Research Group. Bone-density testing interval and transition to osteoporosis in older women. *N Engl J Med*. 2012 Jan 19;366(3):225-33.

Dark Chocolate Can Be a Small Part of the McDougall Diet

“Eating dark and milk chocolate: a randomized crossover study of effects on appetite and energy intake” by Lone B. Sorensen, published in the December 5, 2011 issue of *Nutrition and Diabetes*, found “...dark chocolate promotes satiety, lowers the desire to eat something sweet, and suppresses energy intake compared with milk chocolate.” The authors note studies that show dark chocolate is associated with lower blood pressure, lower risk of cardiovascular disease and type 2 diabetes, and lower mortality rate; but it is still generally accepted that chocolate is fattening. Dark chocolate has a more intense cocoa flavor than milk chocolate and this stronger sensory signal may lead to a stronger sensory satiety response.

In this study, 23 young, healthy, normal-weight men were fed a test meal consisting of 100 g (3.3 ounces) of either milk or dark chocolate first thing in the morning, and then 135 minutes later were served an all-you-can-eat (ad libitum) lunch of pizza with ham and cheese. Ratings of the desire to eat something fatty and savory, or sweet were all significantly lower, and energy intake was 17% lower after consumption of the dark chocolate compared with the milk chocolate. Why is dark chocolate more satiating than milk chocolate? There was 70% cocoa content in the dark chocolate compared with 30% in the milk chocolate, which results in a more intense flavor in the dark chocolate.

Comment: Chocolate is produced from the seed (beans) of the tropical *Theobroma cacao* tree. After fermentation, the beans are dried, then cleaned, and then roasted, and the shell is removed to produce the flesh of the bean, which is then ground into cocoa. Cocoa contains alkaloids such as theobromine and phenethylamine, which have physiological effects on the body. Cacao has been cultivated for at least three millennia in Mexico, Central and South America. Its earliest documented use is around 1100 BC. The majority of the Mesoamerican people, including the Aztecs, regularly consumed chocolate beverages.

Dark chocolate “candy” bars are sold as bittersweet, semisweet, and sweet dark chocolate, and their basic ingredients include, cacao beans, cocoa butter, sugar, an emulsifier such as soy lecithin to preserve texture, and flavorings such as vanilla. Cocoa butter is the cream-colored fat extracted from cacao seeds (cocoa beans). This butter will be most troublesome because of all the fat and calories it adds. Sugar is added to increase the palatability of chocolate bars.

We serve a few chocolate desserts (made with cocoa powder and sugar) at the McDougall Program and many such desserts on our adventure trips to Costa Rica. We use a product called Wonderslim Wondercocoa (100% pure cocoa powder, fat-free and 99.7% caffeine-free) for our chocolate brownies and puddings. Why do we serve desserts with chocolate? Because people love them. The McDougall Diet is not prison food. For most people, a little chocolate is not going to adversely affect their health. I put this food in the same category as other rich plant foods like nuts, seed, olives, and avocados. Trim healthy people can use these rich ingredients in small amounts.

How about the sugar in McDougall desserts? Nothing adds to the enjoyment of a food more than a little sweetness, which is naturally found in association with energy; and obtaining energy is a basic necessity for life and the primary reason for eating. This is a small price to pay for a real opportunity to stick with my starch-based diet and regain lost health and appearances caused by a lifetime of eating animal-foods and oils.

Sorensen LB, Astrup, A. Eating dark and milk chocolate: a randomized crossover study of effects on appetite and energy intake. *Nutrition and Diabetes* (2011) 1, e21; doi:10.1038/nutd.2011.17. [<http://www.nature.com/nutd/journal/v1/n12/abs/nutd201117a.html>]

White Rice Works for Most People

“Substituting White Rice with Brown Rice for 16 Weeks Does Not Substantially Affect Metabolic Risk Factors in Middle-Aged Chinese Men and Women with Diabetes or a High Risk for Diabetes” by Geng Zhang, published in the September 2011 issue of the *Journal of Nutrition*, found “that incorporating brown rice into the daily diet for 16 weeks did not substantially improve metabolic risk factors.” A total of 202 middle-aged adults with diabetes or a high risk for diabetes were randomly assigned to a white rice or brown (rice) group and consumed the rice ad libitum for 16 weeks. Metabolic risk markers, including BMI, waist circumference, blood pressure, glycated hemoglobin, and serum lipid, glucose, and insulin concentrations were measured before and after the intervention.”¹

Comment: Milling whole-grain, natural rice to remove its outer coating does not make it a more nutritious food. Processing removes 50% of the dietary fiber, 84% of the magnesium, 74% of the manganese, 80% of the thiamin, 85% of the vitamin B-6, and 69% of the total essential fats.¹ These factors are known to be important for health, including improving bowel function, and blood sugar and cholesterol levels.

However, this research article is one of several that have found only minimal differences between feeding whole and refined grains

to people. [Last month's newsletter](#) (December 2011) showed how adding either 12 slices of white or high-fiber bread to the diet of college-age men caused them to spontaneously lose weight: 14 pounds (6.26 Kg) with white bread and 19 pounds (8.77 Kg) with high-fiber bread over eight weeks. The bread worked by displacing more fattening and sickening foods, like meats, dairy products, and oils. Surprisingly, white bread caused a greater reduction in cholesterol than the high-fiber bread. Additional research has confirmed these findings. A four-week study of the replacement of refined grains (refined cereals and white bread) with whole grains (whole-meal bread and whole-grain oat or wheat cereals) reported that the blood pressure came down but cholesterol increased slightly with the whole grains.² In a large 16-week study no reduction in cardiovascular markers (weight, blood pressure, cholesterol, glucose, insulin, CRP, etc.) was seen when refined foods were replaced by whole grains (whole-grain breads and pastas, oats, brown rice, etc.).³

I pick my battles carefully so that I can eventually win the war. The reason people are fat and sick is primarily because of the meat, dairy, and oils they eat. We serve brown, whole-grain rice exclusively at the live-in McDougall Program. During our Adventure trips we offer an option of brown or white rice.

Switching to unrefined foods, like brown rice, is impractical for many people because these choices are viewed as less palatable, less available, and costlier. Refined foods have also defined social class. Traditionally in Asian countries, wealthier people could afford white rice, but the poor had to eat the less expensive brown rice. Many of my Japanese, Chinese, and Filipino patients have refused to eat brown rice because of bigotry associated with the kind of rice eaten. My solution has been a trade-off when necessary: Stick with your favorite white rice, but eliminate the most damaging culprits: meats, dairy products, and oils.

1) Zhang G, Pan A, Zong G, Yu Z, Wu H, Chen X, Tang L, Feng Y, Zhou H, Chen X, Li H, Hong B, Malik VS, Willett WC, Spiegelman D, Hu FB, Lin X. Substituting White Rice with Brown Rice for 16 Weeks Does Not Substantially Affect Metabolic Risk Factors in Middle-Aged Chinese Men and Women with Diabetes or a High Risk for Diabetes. *J Nutr.* 2011 Sep;141(9):1685-90.

2) Tighe P, Duthie G, Vaughan N, Brittenden J, Simpson WG, Duthie S, Mutch W, Wahle K, Horgan G, Thies F. Effect of increased consumption of whole-grain foods on blood pressure and other cardiovascular risk markers in healthy middle-aged persons: a randomized controlled trial. *Am J Clin Nutr.* 2010 Oct;92(4):733-40.

3) Brownlee IA, Moore C, Chatfield M, Richardson DP, Ashby P, Kuznesof SA, Jebb SA, Seal CJ. Markers of cardiovascular risk are not changed by increased whole-grain intake: the WHOLEheart study, a randomised, controlled dietary intervention. *Br J Nutr.* 2010 Jul;104(1):125-34. Epub 2010 Mar 23.

Mammography Causes Untold Harms

“Possible net harms of breast cancer screening: updated modeling of Forrest report” by James Raftery, published in the December 2011 issue of the *British Medical Journal*, concluded that, “This analysis supports the claim that the introduction of breast cancer screening might have caused net harm for up to 10 years after the start of screening.” The Forrest report in 1986, which led to the introduction of mammographic breast screening in the United Kingdom, largely ignored harmful effects of mammographic screening, such as false positives and overdiagnosis. Experts analyzing the overall impact of doing mammograms on a general population have come to the conclusion that, “for every 2,000 women invited for screening throughout 10 years, one will have her life prolonged, and 10 healthy women, who would not have been diagnosed if there had not been screening, will be diagnosed as breast cancer patients and will be treated unnecessarily. Furthermore, more than 200 women will experience important psychological distress for many months because of false positive findings. It is thus not clear whether screening does more good than harm.” Compounding matters, of the “10 women who had unnecessary surgery, all believed that it was necessary.”

Comments: A WHO (World Health Organization) report defined false positives and overdiagnosis: “The term false positive refers to an abnormal mammogram (one requiring further assessment) in a woman ultimately found to have no evidence of cancer. Overdiagnosis refers to the diagnosis and treatment of cancer that would never have caused symptoms. Thus a false positive result can be found only in a woman without cancer, while overdiagnosis can only be made for women with cancer.”

Many people believe that the benefit of saving a woman's life justifies any harm that might be done to her and others. I don't! To save one life, 10 women (and their families) must now live as cancer victims. These women will have undergone major physically disabling and deforming treatments (surgery, radiation, and chemotherapy), which they never needed. They now live under the shadows of sickness and dying, where new life and health insurance are unattainable. Possibilities for future employment are threatened. Friends, family, and the patient suffer with worry, anxiety, and depression. Half of all women submitting to the common recommendation to have mammograms every other year will have an abnormal mammogram requiring further testing and/or treatments within 10 years.

I do not recommend routine mammograms for screening for breast cancer in any age group. Furthermore, I do not teach or encourage breast self-examination. Both efforts cause real harms with questionable benefits. How does a woman find out she has cancer? By casual detection, such as when she is washing in the shower and finds a hard lump. That's the time to get into the medical business, but not before. And my usual recommendation for that hard lump is surgical removal of the lump only (with clear margins): no radical surgery (mastectomy), and no routine radiation or chemotherapy.

Much more can be learned on this subject from H. Gilbert Welch, MD, author of the national best-selling book *Overdiagnosed*, who will be our keynote speaker for the February 17 to 19, 2012 Advanced Study Weekend in Santa Rosa, CA.

Raftery J, Chorozoglou M. Possible net harms of breast cancer screening: updated modeling of Forrest. *BMJ*. 2011 Dec doi: 10.1136/bmj.d7627.

Steve Jobs: More on Pancreatic Cancer and Heavy Metals

"Pancreatic cancer risk and levels of trace elements" by Andre F S Amara, published in the online version of the December 2011 issue of the journal *Gut*, found, "Novel associations are reported of lead, nickel and selenium toenail concentrations with pancreatic cancer risk." Toenail clippings from 118 patients with the kind of pancreatic cancer that killed Steve Jobs (exocrine pancreatic cancer) were compared to controls without this cancer, looking for levels of 12 trace elements. Cadmium, lead, and arsenic were higher in those with cancer, whereas nickel and selenium levels were lower.

Comments: After publication of my November 2011 newsletter article ["Why Did Steve Jobs Die?"](#) a few experts questioned whether or not heavy metals, such as lead, were the likely cause of his cancer. This research supports this possibility. However, the main point I was trying to make was that inorganic and organic poisons found in the computer and other electronic industries are dangerous and cause cancer. Industry has spent millions of dollars in efforts to proclaim their innocence, telling us that we do not know what causes cancer, so no change is required. This profit-motivated message is scientifically incorrect. Heavy metals, such as lead and cadmium, are known to cause damage to our genes, inhibit DNA repair, and cause instability of our chromosomes, thus initiating and promoting cancer.

Amaral AF, Porta M, Silverman DT, Milne RL, Kogevinas M, Rothman N, Cantor KP, Jackson BP, Pumarega JA, López T, Carrato A, Guarner L, Real FX, Malats N. Pancreatic cancer risk and levels of trace elements. *Gut*. 2011 Dec 19.



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