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The McDougall Newsletter

THE NEWSLETTER WITH JOHN & MARY McDOUGALL

MARY & JOHN McDOUGALL

INSIDE

Cookbook News

The **New McDougall Cookbook**, with over 300 recipes, is now available in paperback for only 13.95 plus S&H! See **page 8** for ordering information.

Monitoring & Enhancing BONE BUILDING

Osteoporosis Means Less Bone

Bone is constantly being formed and it is broken down by a process known as resorption--all at the same time so that about 10% of the adult skeleton is remodeled each year. With osteoporosis the bone mass is decreased, indicating the rate of bone resorption is greater than the rate of bone formation. Osteoporosis is defined as an absolute decrease in the amount of bone, resulting in reduced bone strength, leading to fractures with minimal trauma. (Please notice osteoporosis is not defined as a loss of calcium, but rather a loss of all bone material. The idea that this is a disease of dietary calcium deficiency is a commercial ploy to sell you more calcium pills and dairy products.)

Bones grow until a maximal skeletal mass is achieved in young adulthood. Insufficient accumulation of bone mass during the growth years predisposes to fractures later in life. At about age 35 years bone begins to be slowly lost (about 1% per year) in both men and women. After menopause women have an additional, rapid, loss of bone attributed to estrogen deficiency. This excess loss may be 10 to 15 percent in the arms and legs, and 15 to 20 percent for the spine during the first 4 to 8 years after menopause. About 15 to 20 years after menopause women begin to develop fractures when the bone mass has decreased by 50 to 75 percent. The most common sites of fracture are the hip (femoral head), spinal (vertebrae), and wrist (radius). The remaining lifetime risk of an osteoporosis-related fracture in a 50 year old US woman is 17.5% for the hip, 11% for the spine, and 13% for the wrist.

Clinical Diagnosis

A thorough history and physical examination, followed by basic laboratory tests should be done to rule out endocrine diseases, such as hyperthyroidism, hyperparathyroidism, and adrenal cortisol excesses, as well as gastrointestinal diseases of malabsorption and bone cancers.

Fractures seen on x-ray are one way to diagnosis osteoporosis. Since up to half of spine fractures are asymptomatic, x-rays are necessary to detect existing fractures. However, osteoporosis cannot be diagnosed from the appearance of the bone on a plain x-ray--bone density measurements are necessary to quantify osteoporosis. The existence of fractures is a risk factor for future fractures. For example, women with a spine fracture have about 3 times the risk of a future fracture compared to women with no spine fractures. Women with 2 or more spine fractures have 6 to 9 times the risk of future fractures *(Ann Intern Med 114:919, 1991)*.

THE COSTS OF OSTEOPOROSIS

Osteoporosis causes 1.5 million fractures and costs $10 billion in the United States each year.

The lifetime cumulative fracture risk for a 50 year old white woman may be as high as 60%.

Average length of hospitalization for hip fracture is 20 to 30 days.

As many as 21% of nursing home patients are admitted for hip fractures.

Half of all patients with hip fractures do not recover the ability to walk independently.

The chance of dying from a hip fracture is about the same as dying from breast cancer.

The presence of previous fractures indicates the fragility of the bones and also the tendency to injure oneself. A combination of low bone mass and just one vertebral fracture increases the relative risk of a second fracture by as much as 25-fold.

Bone Mineral Density (BMD) Diagnosis

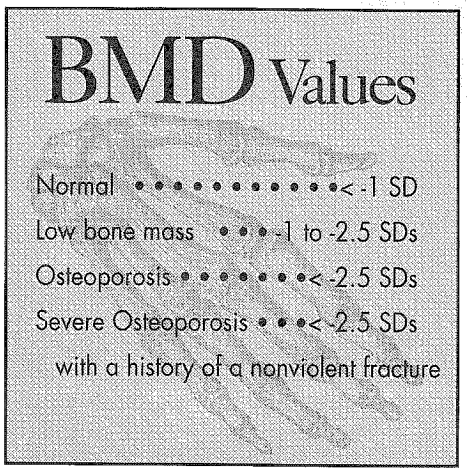
Bone mass is a "risk indicator"--a major determinant of bone strength to estimate the risk of fractures before they happen. This mass can be measured by a variety of techniques, and expressed as "**bone mineral density" (BMD)**. During the average lifetime, BMD of the hip decreases by 50% in women and 35% or more in men in the United States. BMD is derived from the degree of attenuation of a beam of photons from a radioactive source or x-ray tube after passing through bone and the surrounding soft tissue. BMD is expressed in relation to reference data known as standard deviation scores. These scores represent the density of the bone compared to reference values of young adults or of age-matched people with healthy bones.

Normal is defined as a value within one standard deviation (SD) of the reference. Standard deviations below -2.5 are defined as osteoporosis, and scores in between, -1 and -2.5, define a low bone mass, known as osteopenia. Fracture risk increases approximately 1.5 to 2.5 times for every one standard deviation below normal. Women in the lowest BMD group have 8.5 times the risk of fracture compared to those in the highest density group *(Lancet 341:72, 1993).* The gradient of risk of fracture is continuous and it is not possible to define a cut off point below which fractures will occur and above which they will not.

With new profitable drugs on the market, the pharmaceutical industry is pressuring the scientific and medical communities to increase therapy for osteoporosis. One part of this commercial campaign is to simplify the treatment decision for women by use of a BMD value of -2.5 SDs (Ann Intern Med 125:623, 1996). However, the matter of treatment is not so simple. Specific bone mineral cut offs alone are not indications for treatment; most authorities believe other criteria--such as age, tendency to fall, and previous fractures-- must also be considered both for starting therapy and monitoring the effectiveness. A single low BMD measurement should not be the sole criteria to start treatment.

BMD Testing is Big Business

BMD testing is big business. Money is made by the doctors, clinics, and hospitals who own the BMD testing equipment. Manufacturers of the equipment also have a strong financial incentive for women to get BMD testing. However, the biggest promoter of testing are the drug companies, such as Merck & Co. who sell Fosamax. These financial interests have introduced programs for testing healthy women at places of business and in shopping malls. The efforts are to create a market for their equipment and drugs.



It is often stated in scientific articles that BMD should be used for screening because the results are just as good as using cholesterol levels to predict heart attacks and blood pressure to predict strokes. All of these screening programs have been used primarily to increase the market share for the pharmaceutical and medical businesses. Furthermore, these three diseases also have in common their origin and treatment limitations: they are all due to the rich western diet and the drug therapies are of limited effectiveness with high costs and many serious side effects.

BMD is only one of many risk factors that predict an osteoporosis related fracture in women; others with similar predictive value are a history of maternal hip fracture, weight loss since age 25, and standing for less than 4 hours a day--all of this data requires no expensive tests to obtain *(N Engl J Med 332:767, 1995).* Dr. Deborah Marshall of the Swedish Council of Technological Assessment in Health Care wrote in the August 31, 1996 issue of the *Lancet*, "There are no data from controlled clinical trials about the consequences of screening by measuring BMD in terms of fractures averted, although trials are in progress in Britain and Sweden. Furthermore, it is not enough to identify individuals correctly as being at high risk: one must also be able to treat those identified with effective treatments. There are currently too many unanswered questions about available treatments--including their effectiveness in terms of preventing fractures, compliance rates, and the loss of benefit after treatment is stopped--to justify endorsing a screening programme." *(313:561).*

The case for screening (checking large numbers of healthy women) at menopause is not strong, and the consensus view is population based screening cannot at present be justified. Also of concern to our health-cost-conscious country is that it would cost $6 billion to "screen" every woman in the US near menopause for BMD. Health care providers interested in cost effectiveness are waging a war on those purely interested in the profits of medicine.

Use of BMD Tests

Assessment of bone mass is justified in those cases in which the *results obtained will influence decisions about the treatment*, and for monitoring bone loss caused by disease.

Such indications for BMD tests might include:

- A woman who lost her ovaries at a young age to determine if hormone replacement therapy (HRT) or other therapy is indicated.
- A person with long standing hyperthyroidism or hyperparathyroidism to determine the amount of bone damage that has occurred and if treatment, such as surgery, needs to be done.
- A person on bone-losing corticosteriod therapy to determine if the steroid should be reduced.
- To determine if a fracture was likely due to bone loss (low BMD).
- To determine if spine deformity is due to bone loss (low BMD).
- Possibly to motivate patients or (help them decide) to accept or to continue with a therapy.

When BMD should not be used:

- In someone who is already known to have osteoporosis and needs treatment. For example, a 75 year old woman with a history of spinal fractures or loss of height would be diagnosed from this information alone, and aggressive treatment would be prescribed. BMD would add no further useful information for her management.
- Someone at a very low risk of hip fracture. For example, a 35 year old woman worried about osteoporosis with no history of unusual fractures, and otherwise healthy. BMD would be a waste of money and may add to her worry, since treatment would be unwarranted regardless of the findings, because a fracture is so unusual in someone this young. The test might do her further disservice by causing her doctor to con-

demn her to a lifetime of expensive and potentially toxic therapy, like Fosamax.

• When the outcome of treatment is predictable. People working in the BMD testing business and drug companies recommend frequent monitoring to determine the effect of bone building drugs like estrogen (HRT), bisphosphonates (Fosamax) and calcitonin (Miacalcin). This doesn't make sense since the drugs almost always work: 97% of the time Fosamax increases BMD and 95% of the time HRT increases BMD. Any variance seen would more likely reflect machine error rather than actual changes in bone.

Consideration must be given to the potential risks and harms of screening; such as "labeling" a person with a disease (osteoporosis), causing anxiety and distress; discrimination for employment and health and life insurance; and dependency on medications with serious side effects.

Deciding on HRT and Other Treatment

The most common situation where BMD is used in medical practice today is when a woman is going through menopause at about age 50 to 55 and she cannot decide whether to take a life long therapy, like HRT. The test may help those teetering on indecision. However, most of the time doctors will recommend, and most women will choose, HRT based on perceptions of the general benefits and risks of this treatment, such as "it's good for the heart and bones," or "there is too great a cancer risk." BMD measurement will rarely be a deciding factor.

Hormone replacement therapy (HRT) does work for osteoporosis. In the November 6, 1996 issue of the *Journal of the American Medical Association* the results of the Postmenopausal Estrogen/Progestin Interventions Trial were published, showing in a properly designed study those women on placebo lost 1.8% of the spine and 1.7% of the hip by BMD. Those on estrogen alone or on a combination of estrogen and progestin (Provera) gained about 3 to 5% BMD of the spine and 1.7% at the hip over 3 years *(JAMA 276:1389, 1996)*. Other studies show estrogen replacement therapy for 6 years or more leads to BMD values 10% higher than those of untreated women and reduces the risk of hip and other fractures by about 50% *(Ann Intern Med 122:9, 1995)*. But, there are side effects, like cancer. (Please refer to the Nov/Dec 1995 issue of the *McDougall Newsletter* for a review of HRT).

Once bone is lost a commonly prescribed treatment is a class of drugs called bisphosphonates, like Fosamax, which inhibit bone resorption. In one study, 994 postmenopausal women with osteoporosis were treated with Fosamax or placebo *(N Engl J Med 333:1437, 1995)*. Those receiving the drug had progressive increases in BMD at all skeletal sites, whereas those receiving placebo showed loss. The difference was 8.8 percent in the spine, 5.9 percent in the hip. There was a 48 percent reduction spine fractures, and a reduced loss of height. However, there was no significant difference in the number of other (nonvetebral) fractures between the treated and placebo groups. Abdominal pain, muscle pain, nausea, esophagus and stomach irritation, constipation and diarrhea are common side effects.

Calcitonin is a hormone produced by the thyroid gland of mammals, but similar substances have been found in birds, fish, fungi and bacteria. Calcitonin inhibits the activity of cells involved in bone resorption. Because it is digested in the intestine, calcitonin must be given by injection or a nasal spray. Patients with fast bone turnover rates seem to be particularly benefited by this form of treatment. Long-term treatment results in increases in BMD of the spine and hip, and a reduction in fractures at both sites. It also decreases bone pain and reduces the duration of bed confinement and use of pain medication in patients with fractures. It is safe and devoid of any long term side effects *(Am J Med 95:44S, 1995)*.

Measuring Machines

There are a variety of methods to assess the density of the bone and all produce reliable results. Any skeletal site (heel, wrist, hip, etc.) is equally useful for making the diagnosis of osteoporosis or osteopenia in elderly people. Even though the density at the wrist or heel reflects the density at other sites, measurement at the site of potential fracture, at least in the case of the hip and spine, provides the best prediction of fracture risk.

Dual energy x ray absorptiometry is the most popular method for measuring bone density. It also has a high level of precision allowing for the determination of very small changes of bone density. By using two photon beams of different energies that are absorbed differently by bone and soft tissue, more accurate estimates of BMD can be made. This is the most common tool used to assess both the spine and the limbs. The results are highly reproducible with a low dose of radiation--about 20% as much radiation as a chest x-ray. It takes 10 to 15 minutes and costs $100-$200. The machine costs between $60,000 to $120,000/unit.

Single energy x ray absorptiometry measurements can be made only in the limbs, usually the forearm. The machines are portable and less expensive, the results are highly reproducible and deliver a very low dose of radiation. The machine costs about $25,000 per unit.

Quantitative computer tomography uses a CAT scan machine and can separate out the types of bone. The equipment is expensive and the radiation dose is relatively high. It is also less reproducible and can only measure the wrist and spine, not the hip.

Broadband ultrasound transmits sound waves through the bone. It is accurate, and radiation free, and the machines are cheap and portable. Ultrasound gathers more information on the quality of the bone and strength than the other techniques.

Biochemical Markers of Bone Loss

When estrogen production drops at menopause there is a dramatic increase in bone turnover that peaks at 1-3 years after cessation of ovarian function and slows down thereafter for the next 8-10 years. This process can be detected directly by a bone biopsy followed by microscopic studies, but this is a painful, invasive procedure. Indirectly, bone metabolism can be studied by analyzing the substances released into the blood, and eventually the urine, during bone formation and resorption.

A product of collagen, called deoxypyridinoline crosslinks (Pyrilinks-D), released during bone resorption is the best commercially available biochemical assay for bone resorption, and the single most sensitive method for monitoring acute (short term) changes in bone metabolism. These crosslinks are measured in the urine. They are significantly increased after menopause and return to premenopausal levels with a few months of hormone replacement therapy. Even though additional information is provided, most doctors do not use this test because they feel BMD provides all the information they need about the bone to decide upon the necessity of treatment.

Combining BMD and Biochemical Markers

The information you are seeking about your bones is: how strong are they now and what is the likelihood of a future fracture? BMD alone can give you a hint about your present risk. Urinary deoxypyridinoline crosslinks can tell you about present activity. Combined, they can help predict the future. A recent 12-year study found women classified as "fast losers" of bone, based on urine tests for crosslinks, lost 50% more bone than slow losers *(BMJ 303:961, 1991)*. Therefore, a combination of a low BMD and high levels of crosslinks would be helpful in determining which patients should be treated. Another study predicted which women

would respond to calcitonin. Those with high bone turnover showed a significant increase of bone in the spine after one year of therapy, whereas no increase was seen with the same therapy in the low bone turnover group *(J Clin Invest 82:1268, 1988).*

This test for deoxypyridinoline crosslinks (Pyrilinks-D) is noninvasive and easily obtained by the patient. You can order it for about $80 without a doctor's prescription by calling Aeron LifeCycles at (800) 631-7900. You can get BMD testing at your local hospital with a doctor's prescription, or you might find testing at a local shopping center without prescription. For most women the best age for the BMD test is around 60 to 65. This is 10 to 15 years before she is likely to suffer a serious fracture and still early enough that treatment, when necessary, with HRT or Fosamax will be helpful in restoring lost bone.

What To Do Next?

Once you have the information, the question is what are you going to do with it? Certainly you will want to be on a very low animal protein diet regardless of your test results, because consumption of meat, poultry, fish, and eggs is the biggest cause of bone loss--and there are no adverse consequences to eating sensibly. You will also want to exercise. In adults physical activity helps to increase or maintain BMD at the site of greatest physical force, and reduces fracture risk. Most studies indicate the magnitude of force is more important than the frequency of exercise. You will also want to "clean up" bad habits, like caffeine, salt, and smoking. In a study of 84,484 nurses those with the highest consumption of coffee had 3 times the risk of hip fracture compared to those in the lowest group *(Am J Clin Nutr 54:157, 1991).* Salt restriction reduces biochemical markers of bone resorption *(Arch Intern Med 151:757, 1991).* Women who smoke one package of cigarettes each day throughout adulthood will by the time of menopause lose an average of 5 to 10 percent more than nonsmokers in BMD. The role of dietary calcium remains controversial, but taking a supplement won't do much harm *(BMJ 309:691, 1991).* (Don't use dairy products because of the many associated health hazards). Also take steps to avoid injury. About 20% of white women aged 60 to 64 fall each year, and 30% at ages 80 to 84 years. Only about 1% of falls result in hip fractures.

The next decision--to take lifelong prescription medication--is much more difficult, because of the many side effects and unanswered questions. Your decision to take drugs should be carefully thought out, and never rushed into, because the treatments are for years and no one is certain who will benefit.

RESEARCH

ALCOHOL RAISES ESTROGEN

Effects of Alcohol Ingestion on Estrogens in Postmenopausal Women in the December 4, 1996 issue of the *Journal of the American Medical Association* by E. Ginsburg found acute alcohol ingestion in women taking hormone replacement therapy (HRT) raised their circulating estradiol (a powerful estrogen made by the ovaries and in pills) 327 % higher than expected with the pills alone *(JAMA 276:1747).* Alcohol did not change the estradiol levels in women who were not on estrogen pills. Twelve healthy postmenopausal women receiving estradiol 1 mg/day and Provera (medroxyprogesterone) were compared with 12 women not using hormones. Each group drank alcohol or a sugar drink. The alcohol was Absolut vodka (40% alcohol) at a dose of 2.2 ml/kg which would translate for a 110 pound woman into about 3 2/3 ounces of straight vodka--this caused them to reach a legal limit of intoxication. Estradiol levels began to rise in 10 minutes when the alcohol levels were still low.

COMMENT: Previous studies have shown that acute alcohol ingestion will raise estradiol levels in premenopausal and postmenopausal women using transdermal estrogen (patches or creams). Even postmenopausal women, not on HRT, who are moderate drinkers have higher levels of estradiol than women who abstain. The rise in estradiol levels may be caused by several different mechanisms. Vasodilatation of the skin may cause transdermal preparations to be absorbed faster. Oral preparations may also be absorbed faster when alcohol is present in the gut. Alcohol may also decrease the elimination of estrogens from the body.

Elevated estradiol levels may promote breast and uterine cancer. Even two drinks a day will increase the risk of breast cancer by 25%, regardless of the type of beverage *(Cancer 74:1101, 1994).* Fibrocystic disease of the breast with tenderness and lumps would be more common. However, the risk of osteoporosis should be less. Based on these findings women who drink alcohol and also choose to take HRT should be on a lower dose of medication. The best way to determine the correct dosage would be with blood or saliva levels of estrogen. Adjusting the dosage based upon readings. Saliva estradiol levels can be obtained without prescription from Aeron LifeCycles at (800) 631-7900.

ASPIRIN AND STOMACH BLEEDS

Risk of Aspirin-associated Major Upper-gastrointestinal Bleeding with Enteric-coated or Buffered by J Kelly in the November 1996 issue of the *Lancet* found no important difference in the risk of bleeding attributed to plain, buffered, or enteric coated aspirin in 550 cases of upper gastrointestinal bleeding (UGIB). The authors concluded: "Use of low doses of enteric-coated or buffered aspirin carries a three-fold increase in risk of major UGIB. The assumption that these formulations are less harmful than plain aspirin may be mistaken *(348:1413).*

Aspirin coated with a combination of cellulose, silicon, and other inactive ingredients have been found to cause less gastric erosion and microbleeding than plain aspirin when the stomach is examined through a gastroscope. Aspirin buffered with calcium carbonate, magnesium oxide, and magnesium carbonate show the same amount of erosion and bleeding as plain aspirin, but seem to be better tolerated by the patient.

COMMENT: Low-dose aspirin (less than one adult 325 mg tablet) is being recommended to prevent heart attacks, strokes and colon cancer. In the US 9% of older healthy adults regularly take aspirin; even though it has only been shown to be helpful in people with a high risk for heart attacks or strokes, such as a person with a previous heart attack or stroke, or a history of bypass surgery or angioplasty. Therefore, the risk of bleeding could be reduced by recommending its use only for those people. The risk of bleeding is dose dependent, so a lower dose, say 75 mg, would be safer, and this smaller dose is also more effective than the larger dose for heart attack prevention.

Serious bleeding due to aspirin may be due to erosion of the stomach lining due to direct contact, to weakening of the mucosal barrier caused by the inhibition of stomach hormones (prostaglandins) that make a protective mucosal layer, and an increase in acid production. Aspirin also "thins" the blood by inhibiting platelet activity. People should not assume they are safer from serious bleeding problems when they use the more expensive coated and buffered aspirins. Plain aspirin is much cheaper than buffered or coated and apparently just as safe.

CHOCOLATE GOOD FOR THE HEART

Inhibition of LDL Oxidation by Cocoa by K Kondo in the November 30, 1996 issue of the *Lancet* reported the presence of antioxi-

dant substances, called flavonoid polyphenols, in the main ingredient of chocolate, cocoa *(348:1514)*. Twelve male volunteers consumed about an ounce of defatted cocoa, then their blood was analyzed. They found oxidation of LDL cholesterol was inhibited 2 hours after consumption. Since oxidized cholesterol damages arteries, inhibition of oxidation will reduce the risk of atherosclerosis and related complications like heart attacks and strokes. The caffeine content of cocoa is low (.009%), compared to coffee (.04%), and black tea (.06%), and green tea (.01%).

COMMENT: People love chocolate and articles like this might encourage binges of this sweet. Most chocolate is mixed with milk and sugar making it about 50% fat (mostly atherosclerosis producing saturated fat) and 43% sugar. Someday "Dr. McDougall's Right Foods" may be able to make a nonfat chocolate dessert with cocoa and a little sweetener. Plan on it.

SMOKE GETS IN YOUR EYES

A Prospective Study of Cigarette Smoking and Age-related Macular Degeneration in Women by J Seddon in the October 9, 1996 issue of the *Journal of the American Medical Association* found cigarette smoking is an independent and avoidable risk factor for macular degeneration. Women who smoked had 2.4 times the risk compared to nonsmokers and past smokers still had twice the risk *(276:1141)*. **A Prospective Study of Cigarette Smoking and Risk of Age-related Macular Degeneration in Men** by W. Christen in the same journal found 2.5 times the risk in male smokers compared to nonsmokers *(276:1147)*. Past smokers had 1.3 times the risk.

COMMENT: Macular degeneration is the most common cause of severe visual impairment among the elderly. About 30% of people over 75 have early disease and 7% have late disease. The macula is the center of the posterior part of the retina, at a point where the sense of vision is most perfect. It makes it possible for us to read fine print, read signs, recognize faces and colors. Loss of central vision is characteristic of this degenerative disease. Diagnosis is made by examination of the retina with visual loss.

Because there is no effective treatment, prevention is of utmost importance. Macular degeneration is associated with cardiovascular risk factors. Smoking may adversely affect the blood flow to this area of the eye causing hypoxia (low oxygen supply), ischemia (low blood supply), and microinfarctions which would lead to degeneration. Smoking may also increase free-radical production which may cause oxidative damage to the macula.

However, just like with heart disease, the rich American diet is the primary underlying cause of macular degeneration. Smoking aggravates the damage to the arteries initiated and promoted by the wrong foods. Artery disease of the heart requires the bad diet before the smoking can take a serious toll. The best examples of this comes from heavy cigarette smoking populations, like Japanese men; where 60% smoke, yet heart disease is rare because of their rice based diet.

SMOKERS HALF AS LIKELY TO LIVE

Life Expectancy in Men Who Have Never Smoked and Those Who Have Smoked Continuously: 15 Year Follow Up of Large Cohort of Middle Aged British Men by A Phillips in the October 12th, 1996 issue of the *British Medical Journal* found smokers had almost half the chance of being alive at age 73 than non smokers *(313:907)*. Only 42% of lifelong smokers were alive compared to 78% of non smokers. Of the group of 7735 men 76% had smoked at some time and had begun smoking at a median age of 16. Only 12.7% started after the age of 20 years and 1.3% after the age of 30 years.

COMMENT: The life threatening effects of smoking are undeniably revealed with this kind of hard hitting data. Share these facts with your family and friends. Furthermore, the cigarette industry targets children with advertisements because if you can't get them hooked when they're young, you won't have a customer, according to this study.

LACTATION FOR BIRTH CONTROL

Effectiveness of Lactation Amenorrhea in the Prevention of Pregnancy in Manila, the Philippines: Non-comparative Prospective Trial by R Ramos in the October 12th, 1996 issue of the *British Medical Journal* found as much protection with breast feeding as with non medicated intrauterine devices and barrier methods *(313:909)*. (Amenorrhea means absence of menstrual periods). When used correctly, lactation was 99% effective for up to six months in full or nearly full breast feeding women. This is called the lactation amenorrhea method. When used incorrectly the pregnancy rate was 2.48% at the end of six months. The difference is small suggesting the method is tolerant of less than perfect use.

Correct practices required no periods less than six months after delivery and fully or nearly fully breast feeding. They were taught breast feeding practices that maximize milk production and the period of infertility.

This study controlled for sexual activity to be sure the effects were not secondary to the absence of sexual intercourse. Three-quarters of the women were sexually active by 3 months. Most women started giving supplemental feeding by 6 months and two thirds of women were menstruating by 12 months.

COMMENT: The benefits of breast feeding to prevent pregnancies and space births have been known since ancient times. Women however, become increasingly fertile as time passes after birth even if they continue to breast feed, and their periods are absent. About 5% of breast feeding women conceive during amenorrhea during the first year after birth. However, in this study the risk was only 2.56% at the end of a year. Therefore, the use of breast feeding for birth control is reliable and should be encouraged more by doctors--at least for the first six months. The benefits are for both mother and child (see the May-June 1996 *McDougall Newsletter*).

COW'S MILK AND DIABETES

Cell-mediated Immune Response to B Casein in Recent-onset Insulin Dependent Diabetes: Implications for Disease Pathogenesis by M Cavallo in the October 5, 1996 issue of the *Lancet (348:926)* found cow's milk triggers a specific immune response to one of the cow's milk proteins which cross reacts with the cells in the pancreas that produce insulin.

COMMENT: In August of 1996 the media reported countrywide a study in the *Journal of the American Medical Association* that found no relationship between milk drinking and childhood diabetes *(JAMA 276:647)*. In contrast to this one article, more than a dozen scientific papers have been published in the past year incriminating cow's milk as the cause of this debilitating disease. None of these made headlines.

In fact, the last article to be reported publicly was published in July of 1992, when 142 children were studied and found to have high levels of antibodies to a segment of 17 amino acids on one cow's milk protein. These same amino acids are found on the insulin producing cells of the pancreas. Cow's milk protein causes the body to attack itself–in this case causing diabetes.

Recipes

Recipe Contribution of the Month
by Jayne DeLawter of Sebastopol, CA

BASMATI RICE SALAD

Servings: 4
Preparation Time: 10 minutes (need cooked rice)
Cooking Time: optional

2 cups cooked basmati rice
1 16 ounce can corn, drained and rinsed
1 15 ounce can black beans, drained and rinsed
2 green onions, chopped
4 radishes, thinly sliced
⅓ cup lime juice
1 teaspoon ground cumin
cayenne pepper to taste
1-2 tablespoons chopped cilantro

Mix all the ingredients, except the cilantro, in a bowl. Eat at room temperature or heat for 3-4 minutes in microwave, stirring once halfway through the cooking time. Sprinkle cilantro on top before eating.

BLACK BEAN SLOPPY JOE

Servings: 6
Preparation Time: 10 minutes
Cooking Time: 10 minutes

1 onion, chopped
1 green bell pepper, diced
⅓ cup water
1 15 ounce can black beans, drained and rinsed
1 8 ounce can tomato sauce
¼ cup quick cooking oatmeal
1 tablespoon soy sauce
½ tablespoon prepared mustard
1 teaspoon honey
1 teaspoon chili powder
6 whole wheat buns

Place the onion and bell pepper in a saucepan with the water. Cook, stirring frequently, until vegetables soften, about 5 minutes.
Meanwhile, mash the beans with a bean or potato masher (do not use food processor). Add beans and remaining ingredients (except buns). Cook over low heat until heated through, about 5 minutes.
Serve on the buns with accompaniments of your choice.

Hint: Canned pinto beans also work well in this recipe.

DISORDERLY LENTILS

This recipe makes up into a saucy dish that we like to serve over bread or rolls. It could also be served over baked potatoes or grains.

Servings: 6
Preparation Time: 15 minutes
Cooking Time: 30 minutes

2 cups red lentils
4 cups water
1 onion, chopped
1 green bell pepper, chopped
½ cup grated carrot
2 cups tomato sauce
2 tablespoons soy sauce
2 tablespoons parsley flakes
1 bay leaf
½ teaspoon fresh chopped garlic
½ teaspoon basil

Combine all ingredients in a medium pot. Bring to a boil, reduce heat, cover and simmer for 30 minutes. Serve over toast, fat free crumpets, fat free English muffins, or whole wheat rolls.

Hint: This recipe freezes well and reheats well.

ASIAN GARBANZO SPREAD

This is excellent as a dip or a spread.

Servings: makes about 2 cups
Preparation Time: 10 minutes

1 15 ounce can garbanzo beans
2 green onions, chopped
¼ cup cilantro leaves
¼ cup orange juice
2 tablespoons rice vinegar
1 tablespoon soy sauce
1 teaspoon Dijon mustard
½ teaspoon minced fresh garlic
¼ teaspoon minced fresh ginger root
¼ teaspoon ground coriander
¼ teaspoon ground cumin
¼ teaspoon turmeric

Place all ingredients in a food processor and process until smooth. Serve with Baked Pita Wedges.

CROCK POT RISE & SHINE

Servings: 4-6
Preparation Time: 2 minutes
Cooking Time: 8-10 hours

1 cup Stone-buhr Hot Apple Granola
5 cups water

Place the cereal and water in a crock pot. Cover and cook on low heat for 8-10 hours.

Hint: This cereal has so much flavor built in from the raisins, apples and cinnamon that your whole family will wake up to these delicious smells in the morning. Variations of this are easy to make using the same amounts of cereal and water, but varying the grains with cracked wheat, oat flakes, barley flakes, whole oats, barley, wheat berries or brown rice. Add raisins, bits of dried apples, and a dash of cinnamon, nutmeg and/or mace for extra flavor.

CURRIED SWISS CHARD SOUP

Servings: 4
Preparation Time: 15 minutes
Cooking Time: 20 minutes

⅓ cup water
2 leeks, thinly sliced
1¾ cups vegetable broth
1 14.5 ounce can chopped tomatoes
1 15 ounce can white beans, drained and rinsed
2 teaspoons curry powder
2 teaspoons minced fresh gingerroot
1 teaspoon sugar
4 cups finely chopped Swiss chard

Place the water in a large soup pot. Add the leeks and cook stirring frequently for 2 minutes. Add remaining ingredients, except for the swiss chard. Bring to a boil, cover, reduce heat and simmer for 15 minutes. Add the swiss chard, stir, and cook until wilted, about 1 minute. Serve at once.

Hint: Chop the swiss chard in a food processor to save time.

BULLETIN BOARD

Women's Health

A new book presently titled the **McDougall Program for Healthy Women** is now being written, and I need your help. Please share with me any experiences you have had with a healthier diet and lifestyle, and problems that are common (but not exclusive) to women. If you have any story that needs to be told to other women, here is your opportunity – Send a letter with your experience to The McDougall Program for Healthy Women, P.O. Box 14039, Santa Rosa, CA 95402. Thank you.

John McDougall, M.D.

The New McDougall Cookbook now in paperback!

Three hundred meatless, dairyless, high carbohydrate and virtually fat-free recipes in the soft cover version of *The New McDougall Cookbook* are now available at a very affordable $13.95 plus S&H. See page 8 for ordering information or call **(800) 570-1654.**

McDougall TV Show on Primestar

"McDougall" the TV show airs across the country on 150 stations. Consult your local directory. Call **(805) 373-7681**, ask for Chauncy, if you need more information or know of a TV station that would like to carry us.

Nationwide McDougall Seminars

We're expanding our reach to your neighborhood. Help us improve the lives of the people you love. John and Mary McDougall will deliver their life-altering half- day seminar on a weekend, day or evening. You can have a group sponsor them or help us arrange for people to sign up at the seminar by calling our 800 number. If we sponsor the seminar, we need at least 150 people to make it work. One of the best ways to help us is to arrange media contacts such as talk radio, newspapers and TV. We also need seminar rooms. Call Louise at **(800) 570-1654** for information.

'97 Cruise to Costa Rica

Cruise the Western Coast of Costa Rica with John and Mary McDougall from August 2 through August 9 aboard the *Temptress Explorer*. Last year's trip was such a success that we decided to repeat it! The food is all McDougall style. All tours, food, alcoholic and nonalcoholic drinks, and entertainment are conveniently included in the price. **Call (800) 570-1654 for information and reservations.**

Upcoming McDougall Programs at St Helena Hospital

Call **(800) 358-9195** for information and reservations.

12-Day Live-in Programs beginning:

March 9

April 6

May 4

Upcoming Half-Day Classes

A lively and informative presentation that may change your life!

Tulsa, Oklahoma:

Feb. 28 and March 1, 1997

Detroit, Michigan:

March 16, 1997

Honolulu, Hawaii:

April 5, 1997 (Sat).
Hilton Hawaiian Village. 1-5pm

Portland, Oregon:

May 4, 1997

Call **(800) 570-1654** for more information

New Web Site!

Visit us at:
http://www.drmcdougall.com

McDougall 's Right Foods

Dr. McDougall's tasty instant vegetarian cuisine is now available in food stores and supermarkets in Northern California and in many locations throughout the country. They also may be ordered by mail and sent factory direct to you - call the toll-free line at 1-800-367-3844 to order or to receive the new Dr. McDougall's Right Foods Color catalog. Also look for them in your favorite store or ask your store manager to carry these healthy vegetarian instant meals.

Dr. McDougall's Right Foods
101 Utah Avenue
South San Francisco, CA 94080
(415) 635-6000
FAX (415) 635-6010
Toll-Free Ordering (800) 367-3844
On the Web:
http://www.rightfoods.com

Dr. McDougall's Right Foods Instant Vegetarian Meal Cups

Oatmeal & Wheat with Real Apples & Cinnamon

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Tortilla Soup with Baked Chips

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Ramen Noodles Beef Flavor

Tamale Pie with Baked Chips

Pinto Beans & Rice Southwestern Style

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Rice & Pasta Pilaf Chicken Flavor

Rice Pudding with Real Vanilla & Cinnamon

RIGHT FOODS™
Dr. McDOUGALL'S

McDOUGALL ORDER FORM

ITEM	PRICE/UNIT	QUANTITY	TOTAL
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The McDougall Program for Maximum Weight Loss (soft cover)	$12.95		
The New McDougall Cookbook (soft cov)	$13.95		
The McDougall Program	$12.95		
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McDougall's Medicine	$12.95		
The McDougall Health Supporting Cookbook, Volume I	$9.95		
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New Audiotape A Concise Introduction to the McDougall Program 40 min.	$9.95 NEW!		
The McDougall Audio Tapes (6 tapes)	$39.95		
New Video Dietary Myths that Make You Fat & Sick 60 min.	$14.95 NEW!		
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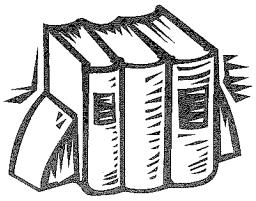

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The McDougalls,
P.O. Box 14039, Santa Rosa, CA 95402.
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Send US funds only! Add extra postage for foreign orders. American Express, Mastercard, VISA & Discover accepted.

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from August 2 - August 9 aboard the *Temptress Explorer*. Last year's trip was such a success that we decided to repeat it! The food is all McDougall style. All tours, food, alcoholic and nonalcoholic drinks, and entertainment are conveniently included in the price.

Call 1-800-570-1654 for information and reservations.

Visit us on the Web at http://www.drmcdougall.com

Our website has all the latest news on McDougall events – classes, trips, as well as McDougall educational materials.

Talk to us via E-mail – we'd love to hear from you!

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