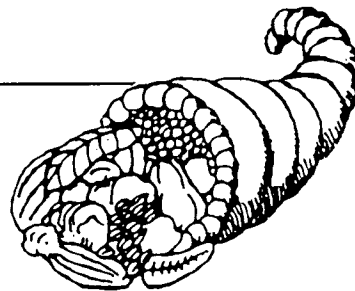


THE MCDUGALL NEWSLETTER

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INFORMATION

CHOLESTEROL LOWERING DRUGS

Diet Is First Line Therapy

A no-cholesterol, low-fat diet will lower cholesterol an average of 12% (or 28 mg/dl) in 11 days. Many people can drop their cholesterol over 100 mg/dl in this short time. Cholesterol continues to decline rapidly for about 4 weeks with reports of 25% to 37% reduction in cholesterol levels by diet alone. Each 1% drop in cholesterol reduces your risk of dying from heart disease by 2% to 3% (JAMA 251:351 & 365, 1984.) Thus, in 11 days your risk is down 24% to 36% and in a month your risk can be 50% to 100% less than before your dietary change.

The Making of a Heart Attack

To understand the immediate benefits from a change in your diet, you must know the sequence of events that closes down the circulation. The arteries become diseased from years of eating rich foods--too high in fat and cholesterol. The disease, known as atherosclerosis, deteriorates (rots) the blood vessel walls. Soon the inner surfaces of these walls develop swellings filled with fat and cholesterol, called plaques. A fat-stuffed plaque swells to a critical size; the tension from within causes the plaque to rupture, *like a pimple exploding on a teen-ager's face*, discharging its contents into the blood stream. This spurt of fat causes the blood to clot, instantly and permanently stopping the flow of blood. This final catastrophe closes a critical artery to the heart, brain or other organ, causing death and disability.

An Immediate Reduction of Risk

A low-fat, no-cholesterol diet changes the dominant flow of cholesterol and fat from *into* the artery wall, to *out of* the artery wall. This change quickly reduces pressure inside the plaque; reducing the risk of rupture.

ATHEROSCLEROSIS

ARTERY WALL

HIGH CHOLESTEROL

PROGRESSION

PLAQUE (ATHEROSCLEROSIS)

LOW CHOLESTEROL

REGRESSION

In addition to the profound cholesterol lowering effects of a low-fat, no-cholesterol diet there are many other benefits of a healthy diet that reduce the risks of heart attacks and strokes almost overnight.

Animal (saturated) fats are the strongest promoters of blood clotting that we contact daily. The day you stop eating animal fats is the day your blood "thins" out; and in the event one of your plaques does rupture the blood is less likely to clot (the blood vessel remains open.) The reason aspirin and fish oil reduce heart attacks is because they also lessen the tendency for blood to clot (they "thin" the blood.)

Animal fats increase the production of prostaglandin hormones that cause the blood vessels to constrict which may slow the flow of blood and increase the chance of the blood clotting. One last factor is the sludging of blood cells that follows meals high in any kind of fat. Fat from the food enters the blood stream and coats the blood cells causing them to stick together. The clumped blood moves slowly and clots easily.

Thus because of the multiple benefits of healthy food, *diet is the foundation* of any therapy intended to keep you alive and functioning fully.

I Can Change My Mind.

For more than a decade I treated cholesterol problems and atherosclerosis-related diseases [coronary artery disease, angina, cerebral artery disease, TIAs (transient ischemic attack), and peripheral artery (leg) disease] with diet alone. Even if the blood cholesterol failed to reach an ideal level, I reasoned, "The patient is eating no cholesterol. The cholesterol that appears in the blood is from body stores, atherosclerotic plaques, and body synthesis." In the past, I would not give medication because of my concerns for side effects.

With this purest medical philosophy not all of my patients did so well. Some couldn't or wouldn't follow the diet strictly--and a few who were spartan, still couldn't lower their levels below 180 mg/dl. Scientific studies were revealing an ideal cholesterol--a level where heart disease is not found. This same level became a goal for pioneer researchers demonstrating reversal of atherosclerosis. **Ideal cholesterol is 150 mg/dl.**

Over the past two years I have been prescribing cholesterol lowering medications for those people who are not able to reach the ideal of 150 mg/dl or less by diet alone. If the person has a history of artery disease (past heart attack, bypass surgery, angioplasty, TIA, stroke, etc.) then I am even more devoted to lowering their cholesterol quickly in an effort to reduce the risk of a tragedy. The decision boils down to this question: **Does the risk of death and disability due to artery disease exceed the side effects, costs and inconvenience of taking cholesterol-lowering medication?** There is no clear cut answer--incomplete studies and research information, judgment and guess work lead to a course of action.

Because there is no one right answer, the patient must be take part in the choice. My father-in-law, who suffered a near fatal heart attack 5 years ago takes his 2 packages of cholestyramine and 1 (20 mg) tablet lovastatin daily with no complaints. My father, who suffered incapacitating angina, among other life-threatening health problems 8 years ago hates the medications and more often than not refuses to take them. Both men follow their diets strictly; with diet alone their cholesterols are about 180 mg/dl; the addition of small doses of medications lowers their levels to 130 mg/dl in a few days.

Cholesterol Lowering Medications:

SUMMARY OF EFFECTS AND COSTS

Agent	% Cholesterol Lowering	Cost/day
Cholestyramine	5-20	\$2.96 (4 scoops)
Colestipol	5-20	\$2.40 (4 scoops)
Gemfibrozil	5-15	\$1.90 (1200 mg)
Lovastatin	20-32	\$3.20 (40 mg)
Niacin	15-30	\$0.60 (3000 mg)
Oat Bran*	10-20	\$0.42 (1 cup)
Psyllium	5-10	\$0.75 (3 tsp.)
Probucol	10-15	\$2.00 (1000 mg)

*Based on consumption of 2/3 to 1 1/2 cup dry weight oat bran/day.

Cholestyramine (Questran) adsorbs and combines with bile acids (the sole precursor of bile acids is cholesterol) and cholesterol in the intestine to form an insoluble complex which is excreted with the feces. The total and LDL cholesterol are lowered.

Side Effects: Constipation is common (1/3 of patients), followed by abdominal discomfort, gas, and nausea. Rarely a bleeding tendency from low vitamin K deficiency.

Dosage: Two to 6 scoops (or packages) a day based on tolerance of side effects.

Cost: Powder in cans is much cheaper than packages--Can 378 g (42 scoops) for \$31; 60 (4 g) packages for \$66; Cholebars 25 (4 g) for \$36. Prescription required.

Colestipol (Colestid) works like cholestyramine, and has similar side effects.

Dosage: Three to 6 packages a day.

Cost: Can (500 g) for \$60; 30 (5 g) packages for \$29. Prescription required.

Gemfibrozil (Lopid) lowers serum lipids (fats) primarily by lowering triglycerides with variable reduction in cholesterol. HDL "good" cholesterol may be increased. Action may be by decreasing breakdown of fats, and by slight increase in cholesterol excretion.

Side effects: Mostly intestinal disturbances such as abdominal pain, diarrhea, and nausea. Also fatigue, joint pains, abnormal liver tests.

Dosage: 600 mg twice a day.

Cost: 100 (300 mg) \$48; 60 (600 mg) for \$55. Prescription required.

Lovastatin (Mevacor) causes a decrease in production and an increase in the breakdown of cholesterol (especially LDL cholesterol). HDL "good" cholesterol is increased.

Side effects: Lovastatin is generally well tolerated, with only 1-2% of people stopping medication due to side effects. Mild abdominal distress occurs in about 5% of people; headaches in 9%. About 2% of people suffer an elevation of liver function tests greater than 3 times normal levels (the medicine must be stopped, then the tests return to normal.) Liver enzymes should be checked before therapy and every 6 weeks for the first 15 months of therapy. Should not be combined with niacin, gemfibrozil, or immunosuppressive drugs because of the potential for serious adverse effects.

Dosage: 20 mg to 80 mg/day in a single or divided dose.

Cost: 60 (20 mg) for \$95; 60 (40 mg) for \$183. Prescription required.

Niacin (vitamin B3) lowers cholesterol and triglycerides. It works by causing a decrease in release of fatty acids into the blood stream from fat stores, and it reduces the liver synthesis of triglycerides and cholesterol. Niacin can be bought in health food stores, drug stores and supermarkets without a prescription. Niacinamide (another form of niacin) will not lower cholesterol or triglycerides.

Side effects: Flushing, GI distress, malaise, and fatigue. May worsen diabetes by increasing blood sugar, raise uric acid levels and aggravate peptic ulcers. It can cause drug-induced hepatitis, middle ear disease and eye problems (macular edema.) Liver function tests should be checked periodically while on niacin. Symptoms of flushing are reduced by taking "time-release" capsule, taking niacin with meals and by taking aspirin 1/2 hour before dose.

Dosage: Begin with low dosage of 250 mg time-release capsules twice a day and build dosage to 3000 mg/day based upon tolerance of side effects. Some people take 6000 mg/day. You should be under doctor's supervision if you're treating cholesterol with this drug.

Costs: 100 (500 mg) time-release capsules for \$9.

Oat Bran is a natural (water) soluble fiber which combines with bile acids and cholesterol in the intestine causing them to leave with the feces, rather than be reabsorbed. Soluble fibers are found in all plant foods, but are abundant in oats and beans. Oat bran requires no prescription. Purchase in grocery store.

Side effects: Abdominal discomfort and gas due to the fiber. There is a largely theoretical concern, based on animal studies, that oat bran may increase the long term risk of colon cancer by making the colon more acidic (from bile acids and fermentation.) This should only be important to someone who plans to take oat bran for decades.

Dosage: 1/2 to 2 cups dry weight/day divided dosages.

Cost: In bulk \$1.69/pound; Packaged \$1.84/ pound.

Psyllium (Metamucil and generic brands) works like oat bran, and has similar side effects. Purchased in drug store without prescription.

Dosage: Three rounded teaspoons/day; 1 teaspoon mixed in 8 oz. of water 3 times a day.

Cost: 7 oz. (28 teaspoons) for \$7 (Metamucil), and 14 oz. (54 teaspoons) for \$7 (generic.)

Probucol (Lorelco) lowers cholesterol without lowering triglycerides. Lowers HDL "good" cholesterol. Acts by increasing the breakdown of cholesterol and also slightly inhibits synthesis and absorption of cholesterol.

Side effects: Diarrhea, gas, heart (EKG) changes, headaches, rash, and others.

Dosage: 500 mg twice a day.

Cost: 120 (250 mg) for \$60; 100 (500 mg) for \$90.
Prescription required.

My Choice of Therapy:

A no-cholesterol, low-fat diet is the foundation of your care. Exercise will not lower cholesterol, but it is important for general health and does lower risk of heart attacks. Don't smoke. Alcohol in small amounts may lower your risk of heart disease, but may increase risk of accidents and liver disease. Alcohol is not "health food." I use oat bran in everyone in need of lower cholesterol, who can tolerate it, because it is cheap, safe, over-the-counter and effective. Then I add other drugs.

For those people looking for a more natural, and also inexpensive approach, niacin is effective. But you must remember niacin is a powerful drug with lots of side effects. For those people able to afford and willing to take prescription drugs I like lovastatin and cholestyramine. With many patients, especially those with serious artery disease and high cholesterol levels, I use lovastatin with cholestyramine or colestipol. This combined therapy is even more effective than either alone (JAMA 257:33, 1987.) Patients given Lovastatin 20 mg and colestipol 10 g (both) twice a day had a 36% decrease in cholesterol (48% decrease in LDL cholesterol) in two months.

A Three Front Cholesterol Attack:

- 1) Eat no cholesterol, very little fat
- 2) Reduce cholesterol synthesis with lovastatin
- 3) Remove cholesterol with oat bran, and/or cholestyramine or colestipol

This triple approach can reduce almost everyone's level of cholesterol down to the ideal of 150 mg% or less in a short time, and keep it there.

Regulating Dosage:

Once you find a medication schedule that will lower your cholesterol to the ideal of 150 mg% (without significant side effects) then I recommend you stay on this dosage for 6 months.

After 6 months you should try reducing one medication at a time and see if your cholesterol remains ideal (150 mg/dl or less.) Your goal is to take as little medication as possible to achieve the desired effects.

RECIPES

PINEAPPLE-RAISIN SLAW

- 1 medium size cabbage
- 2 (8 oz.) cans crushed pineapple (in own juice)
- 1/2 cup seedless raisins (washed and drained)
- 2 Tbs. celery seed
- 2 Tbs. apple cider vinegar
- 1/2 cup Tofu mayonnaise (Vol. I cookbook)

Wash, shred and chop cabbage (remove core). Combine with pineapple, including juice, raisins, celery seed, vinegar and mayonnaise. Stir and refrigerate 2 hours. A Rich Food.

Serves 12

BANANA CAKE

Contributed by Grace Burgess

- 6 ripe bananas, mashed
- Hot water, enough to make 3 3/4 cups, with the mashed bananas.
- 1/2 cup honey (or less)
- 3 tsp. vanilla
- 2 Tbs. yeast
- 4 cups whole wheat flour

Combine all but whole wheat flour, let set 15 minutes in warm place to raise. Add flour, mixing well. Let rise 30 minutes in non-stick cake pan, or tube pan. (You can use a little cornmeal sprinkled in pan to prevent sticking.) Bake 50 minutes at 350 degrees. Cool before removing from pan. Dates, nuts or raisins are optional ingredients that may be added with the flour, if desired.

Lemon Sauce (optional):

Pineapple juice with added lemon juice, and thickened with cornstarch. Pour over banana cake.

CARROT BRAN MUFFINS

Contributed by Teri Crowe

- 2 1/2 cups whole wheat flour
- 1/2 cup wheat bran
- 2 tsp. baking powder
- 1/2 tsp. baking soda
- 1/2 cup walnuts, chopped (optional)
- 1/2 cup dried apricots, chopped
- 1/4 cup raisins
- 3 tsp. egg replacer (Ener-G)
- 6 Tbs. water
- 1/2 cup rice milk*
- 3/4 cup fresh squeezed orange juice
- 1 cup grated carrots, unpeeled
- 1/2 cup honey

In large mixing bowl, combine dry ingredients. Use food processor to chop nuts and apricots. Add nuts, apricots and raisins to dry ingredients, blending thoroughly to prevent large lumps. Beat egg replacer and water in blender until foamy. In food processor, blend replacer mixture, rice milk, carrots and orange juice. Pour liquid ingredients into dry ingredients, add honey and mix with a wooden spoon just until moistened. Lightly oil (if necessary) non-stick muffin tins, fill each tin and bake in a 350 degree oven for 30 to 35 minutes. Makes 15 muffins.

*Rice Milk: Blend until smooth; 1/2 cup water, 2 Tbs. cooked brown rice and 1/8 tsp. pure vanilla.

LETTERS

***When I bought your books I did not do so with the intent of following your diet. I bought them because I have had a long-time interest in the effect of diet on health and physiology, and I found your books to be extremely well researched and documented. However, your arguments were so convincing that I tried your recommendations - with some

spectacular and positive results!

As someone who works with doctors every day, I find you to be refreshingly broad-minded for an American doctor. I don't know of any physicians in my area following your program, or a similar one, but I'm looking. B.B., R.N. Hampton, CT.

***I am a 57 year old retired R.N. For years I have suffered from hypertension and my doctor had prescribed Lanoxin 0.25 mg qd, Dyazide qd, and Tenormin 100 mg h.s. (bedtime). Even so, my blood pressure remained at 180/100 - 160/100. I am 5' 4 1/2" and my weight crept up to 197. I had become a lacto-vegetarian 10 years ago for humane reasons, but used a lot of milk, butter and cheese. Then, in May of '88, I had a routine blood check and discovered that my FBS (blood sugar) was 241 mg, cholesterol 255 mg % and triglycerides were 647 mg. My doctor immediately prescribed Diabinese 250 mg qd and suggested a 1000 calorie diabetic diet. I was scared and recalling my nursing of diabetic patients and how poorly they fared under conventional treatment, I refused to take the Diabinese. Most fortunately, I am a subscriber to Vegetarian Times and I had read Dr. McDougall's column with interest. I immediately ordered 'A Challenging Second Opinion' and as soon as I read it, I ordered 'The McDougall Plan'.

What really encouraged me more than anything was reading, "This is not an all or nothing plan - the more you do the more you gain!". I, at this point, felt I could not live without my cheese, but I did find a local brand called So-Lo with 2-g of fat per oz. and I switched to that allowing myself 2 oz. per day.

I also continued to have 2 cups of coffee (large 12 oz.) and to smoke. Other than these three things, I followed the McDougall plan.

In 6 months, my FBS was normal, cholesterol was 160 mg % and triglycerides went down to 164. My weight dropped to 140.

I have continued with your diet and now weight 125 lb. I still smoke, but I recently felt strong enough to cut my cheese (low fat) to 1 oz. per day. I still drink my 2 cups of coffee per day. I am now taking 0.125 mg Lanoxin per day, Dyazide every other day and 25 mg of Tenormin at h.s. My blood pressure is down to 138/76. I feel wonderful and have more energy than I've had in 25 years.

My doctor can't believe that diet alone could accomplish this. He is a good doctor in that he really cares about his patients, but he believes in "a pill for every ill". I intend to give him 'A Challenging Second Opinion' in the near future. F.B. Prospect Harbor, MA.

***I wanted to write and thank you for your wonderful health program. My fiance recently received your 8-tape cassette package (and 2 recipe books) and started the program about a week ago. He is looking and feeling better already!

In the last 3 days I have listened to 5 of your tapes (soon to be 8). From the very first one I was enthralled with the information, as well as impressed with your sincere presence, truthfulness and sense of ethics. On that first day I began your "diet":

I have wanted to do this for so long - that is, save my life by changing my eating habits - but I just didn't know what to do! My fiance, having more of a weight problem than I, has

delved into all sorts of solutions, including Pritikin, the no mixing of fruits/veggies one (can't remember the name of it!), Jenny Craig, NutriSystems and on and on and on. Three years ago he was on your diet and lost 40 lb., but as he said, he thought he could maintain without staying on the diet. Not so.

Well, we are BACK TO STAY! And for this reason I wish to thank you. I feel that through your study and knowledge which you have made available to us, we have been able to make the choice to save our own lives. I am just so excited about this - I am going to live a healthy life! Weight loss is secondary - what a relief!

The tapes are fabulous because the information on them is the truth. All I can say is, thank you so very much. You have made a tremendous difference in our lives!! J T-W Cardiff-By-The Sea, CA

***I do so appreciate your newsletter, and your three recipe books. I gave a party at Christmas and made oodles of your recipes. My guests were "puzzled, intrigued and enjoyed". I've already been asked for some recipes and I have directed them to buy your books.

My rheumatoid arthritis is so remarkably improved since I embarked on your diet... J.S. Vancouver, BC

***Let me briefly tell you my story. I was diagnosed with iron-deficiency anemia at age five and began taking prescription iron to control it. Three years ago, at age 21, I was told I had a calcium deficiency, even though I consumed plenty of dairy products at the time, I was put on Oscal-500. It was not until after reading your book that I removed dairy products from my diet. Amazingly to me, my doctor and my family, both of these conditions vanished. It was confirmed by blood tests that both my calcium and iron are normal. (After 17 years.) I therefore no longer take any medication and have gone in twice to have both conditions checked - they are always normal. My doctor says I no longer need to come in for testing "to keep doing whatever I'm doing." He doesn't know of my elimination of dairy products. J.R. Omaha, NE

DONATIONS

The McDougall Lifestyle Change Research Fund--2574.1040 will be money I personally manage for research and education. The McDougall Program Fund--2574.1039 will be money managed by The McDougall Program administrative staff, and used for research and education. Send to The McDougall Program, c/o St. Helena Hospital, Deer Park, CA 94576. ALL TAX DEDUCTIBLE.

MORE HELP

Books and Audio Cassettes: The McDougall Plan--\$8.95; McDougall's Medicine--A Challenging Second Opinion--\$10.00 (Hardcover); Volume I & II of the Cookbooks--\$7.95 each, add postage (\$3 first book--\$2 each additional)--McDougall Program Audio Cassette/Album--\$59.95, add \$5 postage. **The McDougall Program** at St. Helena Hospital, Deer Park, CA. Two weeks of physician supervised live-in care designed to get people off medication, out of surgery and living again--call 1-800-358-9195 (outside California) or 1-800-862-7575 (California). **The McDougall Newsletter** is published bimonthly. Send \$8/yr. Previous issues available at \$1.50 per copy (Vol. 1, No. 1-8; Vol. 2, No. 1-6; Vol.3, No. 1-3).

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