



## INFORMATION FOR YOUR HEALTH

### FISH AND FISH OIL ARE "SECOND LINE" THERAPIES

For many years investigators have wondered why the Eskimos, who live on a diet high in meat (whale, walrus, and fish), rarely suffer from heart disease. Some scientists thought that their short lifespan never allowed enough years to develop clogged arteries. Others suggested that during periods of food scarcity any atherosclerosis that had built up was burnt off as energy. More than a decade ago another theory explaining the rarity of heart disease among meat-eating Eskimos appeared in the medical literature, when scientists discovered a high concentration of a biologically active fat known as eicosapentaenoic acid in the blood of the Eskimos. They traced this fat to their food, the cold water marine fish.

One of the biological activities of this fat is to prevent the blood clotting elements known as platelets from sticking together and forming a clot. The clot is important in heart attacks, because it finally and completely plugs up diseased blood vessels and leads to the death of the heart muscle. Inhibition of platelet activity may also slow over years the progression of hardening of the arteries (atherosclerosis).

The original source of eicosapentaenoic fat is plants. These fats are located in the cell structure of the plants (chloroplast membranes); they are not derived from the seed fats (such as corn oil, safflower oil, etc) that are processed commercially to make food. Fish do not synthesize these biologically active fats (nor does any animal.) Marine plankton, and other sea plants that these fish live on, synthesize the fat. These plant fats are then stored in the fishes' fatty tissues—to be consumed later by people. Eicosapentaenoic acid is present in high concentrations only in cold marine (salt-water) fish—by nature, these are also very fatty fish (high fat content of tissues.)

### THE ADVANTAGES OF FISH FAT

There is a little bit of truth in most claims—this fish fat has been demonstrated to have some positive effects. Its use should be thought of as a drug—something that is administered to people to obtain a desired effect. The benefits are not the result of replacing a missing nutrient (an essential fat), but rather from causing changes in the body functions. Eicosapentaenoic acid is often referred to as fish oil, EPA, and as omega-3 fatty acids.

#### Use in inflammatory arthritis (rheumatoid)

Patients with active rheumatoid arthritis treated with this fish oil have experienced improvement in their symptoms—less morning stiffness, less pain—as well as fewer signs of inflamed joints. (Kremer J. Lancet 1:184, 1985) The eicosapentaenoic acid appears to act by inhibiting the production of hormones called prostaglandins and the activity of certain white blood cells (neutrophils and monocytes); all of which are involved in the inflammatory reaction (Lee T. New England Journal of Medicine 312:1217, 1985). The studies used

between 1.8 to 3.2 grams of the active ingredient in fish oil (eicosapentaenoic acid). In one study this amounted to 18 capsules of Max-EPA a day.

#### Use in Lowering Cholesterol and Triglycerides

Fish oil has been found to lower blood cholesterol and triglycerides (Phillipson B. New England Journal of Medicine 312:1210, 1985). Some people with very high triglyceride levels showed considerable falls in their levels when their diets were supplemented with almost an ounce of fish oil a day. The mechanism of action for lowering triglycerides is believed to be a decrease in the synthesis of the blood fats (VLDL) by the liver, or possibly an increase in their removal by the tissues. On the other hand, cholesterol is lowered by increased excretion through the liver with the addition of fish oil to the diet.

#### Use in Lowering Blood Pressure

Fish oil has been reported to lower the systolic blood pressure (top number) in normal people and patients on kidney machines (Norris P. British Medical Journal 293:104, 1986.) To date the blood pressure lowering effects of fish oil on people with hypertension have not been reported.

### ADVERSE AFFECTS—A PRICE TO BE PAID

There are some drawbacks to treating ailments with fish oil. This approach is not a cure—arthritis, elevated cholesterol and triglycerides, and hypertension are not due to "fish oil deficiency."

All oils—including fish oils—are loaded with calories. Fats are approximately 20 times more concentrated in calories than fresh vegetables and fruits. Taking these fish oils every day contributes to obesity.

Commercial fish oils are loaded with cholesterol (Hepburn F. JADA 86:788, 1986).

#### OIL

mg of cholesterol/  
100 g (3½ oz.) oil

Cod liver	570 mg
Herring	766 mg
Menhaden	521 mg
Salmon	485 mg
Max EPA	600 mg

There are other generous sources of these beneficial fats that are plant-derived, and therefore cholesterol-free: walnut oil and walnuts, wheat germ oil, rapeseed oil, soybean lecithin, soybeans and tofu, common beans, butternuts and seaweed. Purslane is a vegetable eaten extensively in Greece, where the incidence of both heart disease and cancer is low. Purslane is the richest source of these beneficial fats of any plant studied (New England Journal of Medicine 315:833, 1986). Because of this finding you may see this vegetable becoming popular in the United States.

Don't Forget! Fish flesh *itself* is also high in cholesterol (mackerel-95 mg, tuna-63 mg, haddock-60 mg, halibut-50 mg per 3½ oz. compared to beef at 70 mg. and chicken at 70 mg.)

Cod liver oil contains significant amounts of two potentially toxic vitamins, A and D. Some cod liver oil products actually recommend levels of intake that can result in hypervitaminosis A and D. "Hain Norwegian High Potency Cod-Liver Oil" lists its contents of vitamin A at 35,000 units (toxic level 25,000 units) and Vitamin D 3,500 units (toxic level 2,000 units) daily.

Oils are believed to promote cancer, contribute to gallbladder disease and cause oily hair and skin with resulting acne. Studies on the effects of fish oil on the enhancement of tumor growth in animals are conflicting. However, some studies have shown that fish oils, even in small amounts, can promote cancer growth (Hopkins G. JNCI 66:517, 1981).

Fish oil may increase the length of normal pregnancy and thereby increase birthweight and risk to the newborn baby. Changes in hormones and body functions that give some of the above benefits (antiinflammatory, cholesterol lowering, etc), also appear to delay the onset of delivery of a baby. Birthweights in Faroe Islands are among the highest in the world (about 7 oz. higher than babies born to women in Denmark.) The intake of fish fat is much higher in the people of the Faroe Islands than the Danish. In Faroes, half of the main meals are based around fish. The health of an infant depends upon the birthweight—bigger is not better. Death rates during late pregnancy are almost twice as high in the Faroes Islands compared to babies born to Danish women. The fat in the fish is the suspect.

Fish oils thin the blood and increase the tendency to bleeding. There is some concern that this excessive bleeding could result in serious problems. Eskimos are known to have fatal nose bleeds which is felt to be due to the large amount of fish oils in their diet.

Fish oils, if used at all, should be thought of as "second line" treatment—like a medication. Our first approach is to take all advantages of correcting our diet and lifestyle. Then look for help from these fats, just as you might take advantage of aspirin for arthritis, Questran for lowering cholesterol, as well as other medications.

## MEDICAL RESEARCH

**TREATMENT OF HIGH BLOOD PRESSURE: SHOULD CLINICAL PRACTICE BE BASED ON RESULTS OF CLINICAL TRIALS?** by R. Wilcox (British Medical Journal 293:433, 1986) The results of nine trials involving 50,000 patients were summarized and evaluated to determine any benefits from treating high blood pressure with a variety of medications. This review failed to find a consistent benefit from lowering blood pressure with medication as determined by a decrease in heart attacks, strokes and death, for all but the most severe cases of high blood pressure. The following conclusions were reached by the authors:

- 1) Patients with malignant (accelerated) hypertension need to be treated, but for the vast majority of patients who have nonmalignant hypertension there is no "cut off" pressure above which treatment is mandatory... what evidence there is suggests that treatment is necessary when diastolic pressures (lower number) exceeds 115-120 mm Hg. There will be no appreciable benefit to an individual patient from treating a diastolic pressure of less than 100 mm Hg.
- 2) There is no evidence that any particular level of systolic pressure (top number) should be treated, and thus there is no reason to treat patients with isolated systolic hypertension...

**COMMENT:** This important review of essentially all of the

studies upon which the justification for drug treatment of high blood pressure is based, shows this approach is a failure for almost all treated patients. This means that millions of people are on medications that are doing them no good, costing them money and subjecting them to potentially serious side effects. The reason drug therapy fails is that it deals only with the sign of the disease and not the cause. The cause is a "sick" blood vessel system, that is clogged up by atherosclerosis, blood vessel spasms and sludged blood. As a result the blood has less places to flow and the pressure goes up—just like when you put your finger over the end of a garden hose. Drugs do nothing to improve the health of the blood vessel system, therefore they fail to give health benefits—just as treating the fever caused by an infected toe with an aspirin fails to save the toe.

High blood pressure is a sign that the blood vessels are in trouble and unless you do something about this, you are likely to have a catastrophe—a stroke, heart attack or death. Proper action is to stop shoveling the fat, cholesterol, and salt into our bodies with our knives and forks. Most patients are able to reduce their blood pressure to normal following a change to a low-fat, low sodium, high complex-carbohydrate diet and adding some moderate daily exercise. When I care for patients on medication I have them stop small amounts (one or two diuretics or a very low dose of beta-blocker) immediately upon starting the diet; patients on larger doses and/or multiple medication (especially beta-blockers) are slowly withdrawn (under physician supervision.)

**EFFECT OF MILK ON PATIENTS WITH DUODENAL ULCERS** by N. Kumura (British Medical Journal 293:666, 1986). Sixty-five patients with duodenal ulcers confirmed by direct observation of the stomach with a special visual instrument (endoscopy), were placed on a routine hospital diet or one consisting entirely of milk for a month. Both groups were also given an antacid drug (Tagamet) that inhibits acid secretion. Reexamination at the end of the month showed healing to have occurred in 78% of those on the routine hospital diet and only 53% of those on the milk diet. The authors conclude that a diet high in milk has an adverse effect on ulcer healing and should not be recommended.

**COMMENT:** A diet high in milk has long been recommended to patients with ulcers, even though it has been known since 1958 that milk failed to favor ulcer healing (Doll R. Lancet 1:5, 1958) and it has also been known since 1960 that milk stimulates acid production in the stomach (Bingle J. Gut 1:337, 1960). The high calcium and protein content of milk produces more acid output. There are other reasons for not recommending milk, such as heart attacks, strokes and cancer from this high-fat, high-cholesterol product.

## PATIENT PROFILE



**VERN EDWARDSON**  
(professional architect)

- 'Tis the season and Vern could easily have played the man with the jolly face and a belly shaped like a "bowl full of jelly." Even though he smiled on the outside, inside he didn't feel well at all. In addition to too many aches and pains to count, he was depressed over his health—and rightly so.

- More than forty years ago when Vern tried to enlist as a Naval Aviator he was found to have blood pressure too high to pass the physical. Only because of his high scores on his entrance exams and the extraordinary efforts of a cooperative medical team was a blood pressure reading obtained that allowed him to enter the military service.

Vern never had his pressure checked again for fear he would be discharged from the service. After his military years he went to school to become an architect and eventually started his own company. During his successful career he designed medical facilities all over the world; like the University of Hawaii Bio-Med Building, Stanford Hospital, and Eisenhower Medical Center. He traveled a lot, ate in the finest restaurants, and generally lived the good life. He was a success in every part of his life except one—his health.

- His military weight of 156 lbs. crept up into the 200's after marriage. He was rated on his life insurance at age 26 years old because of his blood pressure, and he was started on pills to control the pressure. At age 47 he lost about 25 lbs from his usual 260 lbs, but his friends were telling him he looked poorly. His visit to the doctor showed more failing health—diabetes and more pills. He didn't see many reasons to change—his friends and business associates saw him as a likeable fellow, even if he was fat. But, every doctor he saw told him to lose weight, and many gave him diet recommendations. All of these were failures as were all the diet books he bought over the years that guaranteed instant weight loss.

- At age 55 Vern suffered a bike accident that put him in the hospital; from then on the treatment of his diabetes required insulin, as much as 100 units a day. Vern was dissatisfied with his diabetes and entered two different University studies with the hope that they would find a cure for his condition—no such luck. One study found that he did better on a combination of pills and insulin.

- Vern faithfully saw his doctors every 2 to 4 months and the pills piled up. About 2½ years ago he decided to look into a more holistic approach—he studied diabetes and started to take one doctor's warning seriously and cut his weight down to 200 lbs. That lasted until 1½ years ago when he had a minor stroke, which left him with a minor paralysis and a major depression—followed by a rapid weight gain of 40 lbs.

A few months ago Vern started looking again for a weight reducing program that might save his life—he really believed the doctors that he had to lose weight or he'd die. After a long search he looked into the Weight Management Program at St. Helena Hospital and Health Center, Napa Valley, CA. The secretary on duty listened to his story and suggested because of his high blood pressure and diabetes he was more a candidate for The McDougall Program.

He skimmed the McDougall Plan book and decided this was for him. He looked at this program as a last chance effort and a survival course. He had to survive; even more, he could not become an invalid dependent on his new wife.

- Vern entered the McDougall Program at St. Helena on September 21 st, 1986. His blood pressure was 160/100 on Lopressor 25 mg twice a day, Minipress 2 mg twice a day, Dyazide once a day. He was taking 30 units of insulin in the morning and another 30 units in the evening, along with (Micronase) diabetic pills twice a day; the result of all this medication was very erratic blood sugars ranging from 85 mg/dl to 385 mg/dl. He also took Persantine 25 mg to thin his blood in hopes of decreasing the risk of another stroke - a total of six different medications daily.

The first day of the program the dosage of insulin was cut in

half, Dyazide was stopped and the other blood pressure pills were reduced. At the end of the first week his insulin requirement was down to a single dose of 20 units a day and his blood sugars were very stable around 200 mg/dl. His blood pressure was approximately 140/80. The remainder of the blood pressure medication was stopped over the next week and his blood pressures stayed at about 130/80. Vern finally left the program on only 5 units of insulin in the morning. Over the next week at home he stopped all of the insulin and he now runs blood sugars in the 180 to 200 range. His weight is down 20 lbs in one month.

- Most important, Vern feels great and for the first time in years he has hope. He'll succeed not only because of his positive attitude, but because he has a loving wife that supports his efforts for better eating and regular daily exercise. The program gave Vern time to think and time to learn. He has had the experience of feeling good again. And as Vern says, "you won't take that good feeling away from me again." He's now 61 years old and feels like he's been reborn to health. He has many more years to contribute his architectural talents and enjoy living at his home on San Francisco Bay.

**COMMENT:** Vern is an exception only in that he took the steps to get his life in order. Studies show that most people on blood pressure pills can get off their medication by a change in diet and lifestyle; and 75%-90% of those on diabetic pills can get off all medication with a change to a low-fat, high-complex carbohydrate diet, and 75% of those on insulin can get off all their insulin with these changes (Barnard R. Diabetes Care 5:370, 1982.) The added benefit is a reduction in risk of complications such as stroke, heart attacks, blindness and death because this diet is also low in cholesterol, saturated fat and salt. Such a simple treatment for diseases that effect millions of Americans. Such a pity it's so seldom used. If only someone could find a way to put it in a pill and sell it for a profit. You can write Vern c/o our POB.

## RECIPES

### **SWEET & SPICY GARBANZO STEW**

Makes 2 quarts

Preparation Time: 20 minutes

Cooking Time: 4 hours

1 cup garbanzo beans  
7 cups water  
1 onion, coarsley chopped  
2 yams or sweet potatoes, chunked  
1 carrot, sliced  
1 stalk celery, sliced  
1 leek, sliced  
2 cups broccoli pieces  
1 tbsp. lemon juice  
1 tbsp. low sodium soy sauce  
1 tsp. ground coriander  
1/2 tsp. ground cumin  
2 tsp. pure prepared horseradish  
1/8 tsp. Tabasco sauce  
dash or two of cayenne pepper (optional)

Place beans and water in a large pot. Soak overnight. Bring to a boil, cover, reduce heat and cook until tender, about 2-3 hours. Add onion, potatoes, carrot, celery and leek. Cook for 30 minutes. Add broccoli and seasonings. Cook an additional 30 minutes. Serve over brown rice or other whole grains, potatoes, on top of whole wheat bread, or by itself in a deep bowl.

**Helpful Hints:** This can easily be made in a slow cooker. Add all ingredients at once and cook on the high heat setting

for 8-10 hours. Be sure to soak the beans overnight before you begin.

### MEXICAN VEGETABLE SAUCE

Makes 1½ quarts

Preparation Time: 15 minutes      Cooking Time: 30 minutes

1 onion, chopped  
1 carrot, cut in half, then sliced  
1 stalk celery, chopped  
1 green pepper, chopped  
6 green onions, chopped (use greens too)  
1 clove garlic, pressed  
1 zucchini, chopped  
1½ cups frozen corn kernels  
2 cups cooked pinto beans  
1/4 cup chopped green chilies (canned)  
1 tbsp. chili powder  
1 tsp. cumin  
1 tsp. oregano  
1/8 tsp. cayenne pepper  
1/4 cup water

Saute first 6 ingredients in ½ cup water for 10 minutes. Add remaining ingredients (and the water) and mix carefully. Bring to a boil, cover, reduce heat and cook over medium-low heat for 20 minutes, stirring occasionally. Serve over brown rice or potatoes, or use it to fill a chapati (burrito) shell and garnish with chopped tomatoes, chopped green onions, shredded lettuce, sprouts and your favorite salsa.

### SLOPPY MEXICAN CASSEROLE

The following recipe was sent in by Jackie Lange as a delicious use for some leftovers. She calls it Sloppy Mexican Casserole.

Using the recipe for Sloppy Lentils from The McDougall Plan (pg. 304) she adds whole wheat elbow noodles to make the Sloppy Lentils a casserole consistency. Then stir in about 8 corn tortillas torn into 1 inch pieces. Season with cumin to taste, spoon into a 13 x 9 inch pan and bake at 350 degrees for 30 minutes.

### NEW TESTING DEVICE FOR SULFITES

Many people are allergic to chemicals known as metabisulfites or sulfiting agents (see the McDougall Plan page 146.) These chemicals are used in restaurants, found in beer and wine and are common on salad bars. There is now a test strip that can be dipped into suspect foods and this strip changes from white to pink in the presence of sulfites. Available without prescription: 100 strips for \$22.50; write Contact Center Laboratories 35 Channel Drive, Port Washington, NY 11050 or call 1-800 645-6335.

### NEW BOOK RELEASE

Paperback edition of McDougall's Medicine—A Challenging Second Opinion by New Century—\$8.95. Reminder: Volume II of the Cookbook is available \$7.95; Volume I—\$7.95; The McDougall Plan—\$8.95 (**CHRISTMAS GIFTS FOR THOSE YOU REALLY CARE ABOUT**) In book stores or add postage (\$2 first book—\$1 each additional)—send to POB 1761, Kailua, HI 96734.

### SUBSCRIBING INFORMATION

The McDougall Newsletter is published bimonthly. Send \$8 to POB 1761, Kailua, HI. 96734 (**Another great Christmas present idea**).

### LETTERS TO THE MCDUGALL'S

• I write for a couple of reasons. First, my wife, my children (ages 9 and 12) and I are enthusiastic supporters of your health supporting diet. We have been following it for more than two years now and have reaped considerable benefit. These include substantial weight loss, and a great satisfaction in knowing so much more about diet and personal health, and confidence in what we are putting in our mouths and those of our children. Second, I share your frustration at the lack of research examining the relationship between diet and physical health. My mother has severe rheumatoid arthritis. Last spring I conducted a comprehensive computer search of empirical research at the University of Vermont Medical Library exploring the relationship between rheumatoid arthritis and diet. I found virtually the same scant number of citations you have reported in Vegetarian Times and in your McDougall's Medicine book. I would like to offer what little assistance I can to support your own research in the area of diet and health. I respect very much the attention you pay to grounding your writing in research, and I congratulate you for the contributions you are making to the field of public health. B.C. Waterbury Center, VT

• Thank you for writing your marvelous book, The McDougall Plan. My husband and I have followed a lacto-ovo-vegetarian diet for several years, and eat no refined sugar, flour, junk foods, additives, etc. Your tremendous book has pushed us over the final hurdle, eliminating dairy, eggs and fats. We are very excited about feeling that we now really have a handle on our continued excellent health. I am curious to know if there are any other souls out there who follow your plan. We get so frustrated from time to time, never having an opportunity to talk to people who eat the way we do or even understand the concept of health resulting from proper eating. We have suffered a lot of teasing and ridicule, living here in the midst of barbeque and chicken-fried steak land! We have also educated a lot of people and exposed them to some delightful vegetarian meals....but it would be so nice to have a group of friends who also follow your basic eating plan. Any groups meeting monthly for potluck delights and sharing? We would love to meet other people of like mind. Any suggestions? K.R. Bellaire, TX

**Ed. note:** If there are any of you that would like to respond to this letter, send me your name and address and I will see that K.R. receives them.

• My family and I were introduced to your book by some friends shortly after our arrival in Hawaii. It provided the "missing link" so far as I was concerned. I had a heart attack at age 36, a streptokinase treatment, and two balloon angioplasties. Now at age 39 and having adopted your health-supporting diet-philosophy, I am optimistic about the future. Although I had classic symptoms, the routine tests indicated I was normal (as you said in McDougall's Medicine) and I was happy to believe it. Besides, I was the last one to have heart disease; didn't smoke, wasn't overweight (by most standards) and I was an avid runner and physical conditioning enthusiast. As I said, your program provided the missing pieces of the puzzle for me. The book makes sense. Our family has been on The McDougall Plan since January 1986. My weight dropped about 15 pounds, my cholesterol rate is down to 151, and I have resumed a full program of exercise. Now I "eat to live" not "live to eat". Thank you and keep up the good work—there is a tidal wave of support growing out here. R.S. Honolulu, HI

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