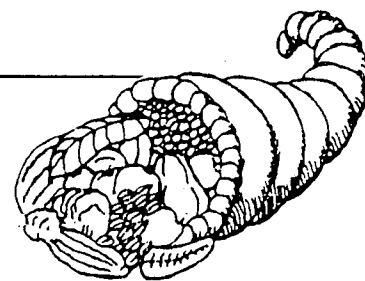


THE MCDUGALL NEWSLETTER

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INFORMATION LOW FAT FOODS A TRADE-OFF

In the 1980s the advertisements for better health focused on cholesterol. Vegetable oils carried labels boasting "NO-CHOLESTEROL." Big deal--all vegetable products are free of cholesterol. They didn't bother to advertise on their label the important nutritional facts about their product: "100% FAT", "NO CARBOHYDRATE," "TOTALLY FIBER DEFICIENT," or "EMPTY CALORIES."

In the 1990s the catch phrases in advertising are "LOW-FAT," "FAT-FREE," and "FAT-REDUCED." Still, no mention is made of other unhealthy components that are in the food, nor do they boast of the important nutrients missing from the product. To enhance their taste, texture, and shelf life--and the bottom line, profitability--many of these products are liberally laced with salt, sugar, preservatives, stabilizers and flavors. The weighty list of additives confuses and concerns us.

When the fat is taken out to make these lower fat products the relative contributions of animal protein and/or refined carbohydrate increase, causing other problems. My greatest concerns are: Milk and egg proteins, the first and second leading causes of food allergy, are troublesome for as many as 60% of people. Excess animal protein overloads the kidneys causing a consequential loss of calcium, resulting in osteoporosis. The calcium spilling into the urine provides an excellent environment for crystallization, forming calcium kidney stones. Animal protein causes a greater rise in cholesterol than vegetable protein and may be a factor in the development of atherosclerosis. Excess protein overworks the liver and kidneys, aggravating serious disease in people with previous damage to these organs.

In other low-fat products, sugar replaces the fat leading to sugar-related problems such as high triglycerides in sensitive people; and tooth decay. The carbohydrate in milk, lactose, causes diarrhea, stomach cramps and gas; especially for non-white people.

DISGUISED FAT IN PACKAGED FOODS

Sometimes the ingredient list misrepresents the actual fat content by using names many people do not recognize as fat. For example, two varieties of fats, monoglycerides and diglycerides, are commonly found on ingredient lists. You may fail to identify these as fat unless you connect the similarity of their names to a more well known fat, triglycerides.

Lecithin is another ingredient that few people recognize as fat. Scientific research shows the cholesterol lowering effects are only the result of the polyunsaturated content (especially

the linoleic acid content) of the lecithin, just like any vegetable oil (Jan Knuiaman Am J Clin Nutr 49:266, 1989).

FAT-FREE AND FAT-REDUCED

To qualify as "fat-free" a product must contain less than 1/2 gram of fat per serving. In this case the fat content in the nutritional information section of the label can be listed as 0 (zero). However, when the actual ingredients are examined you may find lard or a vegetable oil prominently listed. This is accomplished by keeping the serving size small enough to meet the definition of less than 1/2 gram per serving.

"Fat-reduced" refers to a reduction in fat compared to the content of fat usually expected in this product. There is no rule on how much reduction is required to claim fat-reduced. Fat-reduced may still mean half or more of the calories are from fat. For example Lite-Line (Borden Inc), a brand of fat-reduced cheese is 51% fat compared to regular cheese at 70% fat. Farm Rich Light Non-Dairy Creamer claims 40% less fat on the label compared to the original formulation. But in the ingredient list says 73% of the calories are from fat. Outrageously offensive is Cool Whip Lite (Kraft, Inc.) made from skim milk, corn syrup and hydrogenated coconut and palm kernel oil. These two oils are the two most saturated fats found in nature, and to make them even more saturated, they hydrogenate them. (Saturated fat raises cholesterol causing heart disease).

KRAFT FREE SALAD DRESSING--NOT!

Kraft food company recently began marketing a line of salad dressings called, "FREE--Fat-Free, Cholesterol-Free." Their original formulation was not free of fat. For example, the Italian dressing listed soy bean oil as the fifth ingredient. A serving size is 1 tablespoon and contains 6 calories. The definition for fat-free is less than 1/2 gram of fat per serving, which means up to 4.5 calories per serving can be fat (9 calories per gram times 1/2 gram). In this case, the Italian dressing could be 75% fat (4.5 divided by 6 times 100%). However, the label states 4 of the calories are provided by carbohydrate which still could leave the product 33% fat, and still labeled "fat-free." Furthermore, who eats only a tablespoon of dressing on their salad?

After numerous questions and complaints from consumers Kraft has been reformulating their dressings. The newer version removes the soy bean oil and adds buttermilk, sodium alginate, and food starch-modified to replace the thickening and adhesive properties of oils that make salad dressings stick to the salad leaves. All the calories appear to come from carbohydrate now.

EGG SUBSTITUTES

Packaged frozen egg substitutes using mostly egg whites are found in the market. Some are low-fat, like "Healthy Choice Cholesterol Free Egg Product" (ConAgra Frozen Foods). Other egg substitutes have added soybean oil in their ingredients, like "Scramblers" (Worthington Foods, Inc);

bringing them up to 42% fat. "Second Nature No Cholesterol Egg Product" adds enough corn oil to the egg whites to make the product 30% fat. Thus you are confronting problems of food allergy, calcium loss from excess animal protein, and sometimes lots of fat. The list of additives is formidable.

FAT SUBSTITUTES

A fat substitute is simply an ingredient that replaces the fat in a product with a substance with the smooth taste texture characteristic of fat. When used in packaged foods, fat substitutes may account for 30% to 40% of the ingredients. (Most other food additives account for 1% to 2% of a food). Therefore, they have the potential to be consumed in large quantities and have a significant impact upon your health.

Fat substitute classification is based upon their derivation from fats, proteins, and carbohydrates of natural and synthetic origin.

PROTEIN-BASED:

Made by whipping milk and/or egg proteins into polymers that simulate the feel of fat. This high shear, cooking, and blending process is called microparticulation. The products contain about 1.3 calories/gram.

Used in dairy products such as ice cream, sour cream, cheese, yogurt, frozen desserts and baked goods. Cannot be used for frying, but can be used in many high-temperature products; for example pizza, lasagna and cheesecake.

Substitutes: Simplese, Simplese 100, Trailblazer, Ultra-Bake, Ultra-Freeze.

My Concerns: Egg and dairy protein cause food allergy. Excess protein leads to osteoporosis, kidney stones, burdens on the liver and kidneys.

FAT-BASED:

Made from vegetable fats (monoglycerides and diglycerides), milk fat or nonfat dried milk base, modified food starch, and/or guar gum mixed with water to dilute the fat. Some of the fats are only partially absorbed reducing their effective calorie content from 9 calories/gram down to 5 calories/gram.

Used in cake mixes, cookies, icings, and dairy products. Many calorie reduced margarine are made by mixing water and oil.

Substitutes: Ceprenin, Duro-Lo, N-Flate, Veri-Lo.

My Concerns: This is still 100% fat, just diluted with water or less able to be digested. All the adverse effects from fat, including obesity, are expected from this class of fat-substitutes.

CARBOHYDRATE BASED:

Made from extracts of plant parts, such as corn, oats, potatoes, kelp, wood fiber, and dextrose. They include dextrins, modified food starches, polydextrose and gums. They provide 0 to 4 Calories/gram. Modified starch refers to alteration of natural starches to make them easier to digest or to increase their thickening and gellifying properties.

Used in sauces, frozen desserts, spreads, margarine, cereals, snacks, and salad dressings to modify texture and add body. Also mixed with processed meats and ground beef to reduce fat content. They are heat stable and can be used in baking; but because they do not melt they cannot be used in frying.

Substitutes:

Cellulose: Made from wood pulp; noncaloric; examples: Avicel, Cellulose Gel.

Gums: Plant extracts; examples; xanthan, guar, locust bean, gum Arabic, Carrageenan.

Dextrins: Bland, nonsweet, fully digestible, made from hydrolyzed starches; examples: N-Oil (tapioca), Oatrim (oat fiber), Leanesse.

Multodextrins: Lycadex, Maltrin (corn), Paselli SA2 (potato), Star-Dri.

Modified Food Starch (STA-SLIM 143).

Polydextrose (Litesse).

My Concerns: This is the safest kind of fat alternative. Cellulose, and gums are natural dietary fibers. Gums have been shown to reduce cholesterol and lower blood sugar. However, others are synthetic polymers of simple sugars that lack the beneficial properties of natural dietary fiber.

EXAMPLES OF FAT-FREE PRODUCTS

New fat-free products enter the market daily. You must read the ingredient list carefully to determine if you want to include them in your diet.

CHEESES

These "cheeses" are made from cheese cultures, salt and enzymes. Other dairy products such as cheese, skim milk, whey and buttermilk may be present. Sugars like corn syrup and maltodextrin, and salt are added. "Ricotta cheese" begins with a base of whey (a byproduct of cheese production).

Examples:

Kraft Free Singles (Kraft, Inc.)

Alpine Lace Free N' Lean Singles (Alpine Lace Brands Inc.)

Alpine Lace Free N' Lean Shredded (Alpine Lace Brands Inc.)

Frigo Truly Lite No Fat Ricotta (Frigo Cheese Corp.)

COTTAGE CHEESE

Made from nonfat milk, sugar (dextrin), and modified food starch.

Examples:

Knudsen Free Nonfat Cottage Cheese

ICE CREAMS

Made from skim milk and sugars and ice cream flavorings. Some contain fruit, milk protein, Simplese, artificial sweeteners, egg yolk, salt, flavorings, and additives.

Examples:

Simple Pleasures Light

Knudsen Fat Free Nonfat Frozen Dessert

Knudsen Free Nonfat Frozen Dessert Bars

Lucerne Fat Free Nonfat Frozen Dairy Dessert

SNACK FOODS:

FAT-FREE CAKES, COOKIES, AND PUDDINGS

Prominent ingredients are sugar, white flour and nonfat milk. Other kinds of simple sugars may also appear in the ingredient list such as corn syrup, brown sugar, dextrose, polydextrose dextrose, dextrin, and maltodextrin. Fats like hydrogenated vegetable (soybean) oils, as well as monoglycerides and diglycerides, and lecithin are commonly found in "fat-free" desserts. Eggs may be present.

Examples:

Entenmann's Fine Baked Goods

Golden Loaf Cake

Apple Cinnamon Twists

Raspberry Twist

Oatmeal Raisin Cookies

Lovin' Lites (Pillsbury)

Light Devil's Food Cake Mix (Betty Crocker)

Light Fudge Brownie Mix (Betty Crocker)

Ultra Slim-Fast Chocolate Pudding Snack (Slim-Fast Foods Company)

Sara Lee Lights-Carrot Cake (Kitchens of Sara Lee, Inc)

SOUR CREAM

Made principally of non fat milk, modified food starch and sugar.

Examples:

Knudsen Free Light Sour Cream Substitute

SPREADS:

The prominent ingredients include simple carbohydrates such as corn syrup, and sugar, and modified food starch. Dairy proteins and egg whites are present with a multitude of chemical additives. Sprayed dried butter, in Butter Buds, contributes about 20 mg of cholesterol per 100 grams of dry mixture. Significant amounts of sodium are present.

Examples:

Weight Watchers Fat-Free Mayonnaise Style Dressing

Kraft Free--Fat Free, Cholesterol Free--Nonfat Mayonnaise Dressing

Butter Buds

Molly McButter

HEALTHY USE OF FAT-FREE PRODUCTS

With the exception of products using natural gums, such as low-fat salad dressings, most low-fat packaged products cannot be placed on the "McDougall Approved List." However, you may decide to use some of these foods especially if your primary health concern is your weight. As a consequence, some problems like food allergies, arthritis, osteoporosis, kidney stones, liver failure, kidney failure, and high triglycerides may be made even worse by the low-fat products. Even so, for most people, the lower fat products will be a considerable improvement over the original formula high in fat. But, they will never come close to providing the excellent nutrition from natural low-fat starches, vegetables and fruits.

MEDICAL RESEARCH

CHOLESTEROL VARIATIONS

Blood Lipid Measurements-Variations and Practical Utility by Gerald Cooper in March 1992 JAMA (267:1652), describes the factors that cause a variation in blood cholesterol results. (Triglycerides are the fats in the blood; cholesterol is a waxy substance. Both often rise and fall together, but not always.) Many of you wonder why your blood tests change so much. Variation has several sources:

BEHAVIORAL SOURCES:

Diet: Saturated fats (especially palmitic acid) and dietary cholesterol raise cholesterol. Each increase of 100 mg of dietary cholesterol/1000 Calories raises blood cholesterol by 10 mg/dl (After 500 mg of cholesterol daily the effects are much smaller). Cholesterol absorption through the intestine varies among people from 18% to 75%; greater absorption means higher blood cholesterol. Coffee (especially unfiltered) raises cholesterol slightly. Complex carbohydrates, monounsaturated and polyunsaturated fats lower cholesterol levels. Oat bran modestly lowers cholesterol and other dietary fibers lower cholesterol mainly by replacing saturated fats. Fish oil inhibits synthesis of VLDL triglycerides. Strict vegetarians have a 37% lower LDL-C, and a 12% lower HDL-C than non-vegetarians. Lacto-ovo vegetarians have a 24% higher LDL-C and a 7% higher HDL-C. (LDL-C is the "bad" cholesterol; HDL-C is the "good" cholesterol.)

Obesity: Weight loss lowers triglycerides about 40% and LDL-C 10%; increasing HDL-C 10%.

Smoking: increases LDL-C and triglycerides, and decreases HDL-C by 11% to 14%, and is dose-dependent.

Exercise: lowers triglycerides and LDL-C, and increases HDL-C.

Alcohol: greatly increases triglycerides, increases HDL-C, and decreases LDL-C

CLINICAL SOURCES:

Cholesterol and triglycerides increase with various stresses on the body; for example during infection. During pregnancy total cholesterol and LDL-C increase and triglycerides often more than double. In the winter cholesterol is an average of 2.5% higher than the summer.

SAMPLING SOURCES:

Fasting: Triglyceride levels are lowest about 3 A.M., rise after midafternoon and then decrease until after midnight. Triglycerides increase after eating, but eating has little effect on cholesterol. Prolonged fasting for 6 days raised total cholesterol and triglycerides by 18%, and decreased LDL-C by 22% (as fat came out of the body fat to supply energy needs). When juice is added to a 10-day fast (reducing use of body fat); total cholesterol falls 21%.

Posture: Standing concentrates the blood (water pools towards the legs with gravity, as blood components float) and raises cholesterol and triglycerides about 10% compared to a sample taken after 30 minutes of lying down.

ANALYTIC SOURCES:

Instruments: Precision and accuracy of modern instruments is remarkably good. Calibration and standardization with reference laboratories is improving the accuracy--there must be less than a 3% variation to be certified.

Biologic: Within the day cholesterol measurements vary 2.5%; and 4.8% within the week; and 6.1% with the year. Triglycerides vary greatly; as much as 36% within the day. Triglycerides are greatly affected by eating, physical activity, emotions and other stresses.

COMMENT: When measuring cholesterol and triglyceride values you must take into account your present health, fasting state and posture. Ideally your time without food should be the same before each test; your eating patterns the previous day should be similar, and tests should be taken after maintaining a similar posture. Ideally no alcohol should be consumed within 3 days of the test and you should not be under any unusual stresses, like an illness or pregnancy.

If an unexpected result is obtained then assume one of the values is not a true representation of your levels--a variation or error occurred. Your response should be to obtain further test results for an accurate picture of your cholesterol and triglycerides. An ideal cholesterol is less than 150 mg/dl and triglycerides should be less than 200 mg/dl (ideally about 100 mg/dl; remember they change greatly in hours). Based on multiple tests assess your condition and determine your need for further treatment (Refer to previous McDougall Newsletters and McDougall Books).

RECIPES

CHUNKY POTATO MEDLEY

(one of our favorites for a fast, easy meal)

Servings: 2-4

Preparation time: 15 minutes (cooked potatoes needed)

Cooking time: 15 minutes

4 medium-large red potatoes, cooked and chilled
1 medium round onion, chopped
1 small green pepper, chopped
1 small red pepper, chopped
1/4 pound mushrooms, sliced
1 cup corn kernels
1/4 cup chopped fresh parsley or cilantro

Chop the potatoes in large chunks. Place in a large non-stick

frying pan with the onions and peppers. Cook, stirring constantly over medium heat for 2 minutes. Add 2 tablespoons of water and continue to cook, stirring frequently for 5-7 minutes. Add mushrooms and corn, continue to cook, stirring frequently for another 5-7 minutes, until potatoes are slightly browned and vegetables are tender. Add parsley or cilantro, cook and stir for another 30 seconds or so. Serve with your favorite sauce.

TORTILLA SOUP

Servings: 6-8
Preparation time: 10 minutes
Cooking time: 38 minutes

5-6 soft corn tortillas, cut into strips OR 2 generous handfuls of oil-free baked corn tortilla chips (found in stores)
1/3 cup water
1 large round onion, chopped
1-2 cloves garlic, crushed
1 large (28 oz.) can chopped tomatoes
1 can (16 oz.) garbanzo beans, drained and rinsed
1 can (16 oz.) kidney beans, drained and rinsed
4 cups water
1 can (4 oz.) chopped green chilies
4 small zucchini, chopped
1 cup corn kernels
1/2 cup chopped scallions
1 tablespoon chili powder
1/2 teaspoon ground oregano
1/2 teaspoon ground cumin

Preheat oven to 350 degrees.

Place corn tortillas on a dry baking sheet. Bake at 350 degrees for 10 minutes until crispy. Remove from oven and place in bowl. Set aside. (If you are using oil-free baked corn tortilla chips, the previous step can be omitted.)

Saute onion and garlic in 1/3 cup water for 5 minutes. Add remaining ingredients, except the tortilla strips, and mix well.

Cover, bring to a boil, reduce heat and simmer for 30 minutes. Add tortilla strips or chips, stir and continue to cook gently for 3 minutes, until tortillas soften slightly.

KNOCK OUT CHILI

Servings: 4
Preparation time: 10 minutes (cooked rice needed)
Cooking time: 45 minutes

1 onion, chopped
1-2 cloves garlic, chopped
1/4 cup water
1 jar (26-28 oz.) oil-free spaghetti sauce
1 can (16 oz.) black beans, drained and rinsed
1 can (16 oz.) kidney beans, drained and rinsed
1 cup oil-free sun-dried tomatoes
1 cup cooked brown rice
1/2 cup water
1/4 cup soy sauce
2 tablespoons chili powder (-)
1 tablespoon ground cumin
1/2 tablespoon basil
1/8 teaspoon cayenne

Saute onion and garlic in 1/4 cup water until softened, about

3-5 minutes. Add remaining ingredients. Mix well, cover and cook over low heat until flavors are blended, about 40 minutes.

Variation: To make this into a rich chili that will fool all your meat-eating friends, replace the rice with textured vegetable protein (sold in most natural food stores).

HELP

DONATIONS

TO THE MCDUGALL PROGRAM

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 Program--\$10.95; The McDougall Plan--\$10.95; McDougall's Medicine--A Challenging Second Opinion--\$10 (Hardcover); Volume I & II of the Cookbooks--\$9.95 each. The McDougall Video--\$25. McDougall Program Audio Cassette Album (8 tapes)--\$59.95. Add postage (\$4 first book, audio album, or video and \$2 each additional item)

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).

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