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Can We Afford Bad Health?

Three Levels of Education:

Insurance companies and standard businesses will profit from healthy members and employees, therefore I propose the following educational strategy to improve the health of their companies. Healthcare resources must be carefully allocated to yield the greatest return and this is best accomplished with a three-tiered approach.

Intensive: Patients who are high utilizers of the healthcare system require the most intense intervention, resulting in the greatest savings. These are people currently utilizing more than \$6000 per year in healthcare and/or who have problems that will soon

Nearly two-thirds of the residents of United States are overweight, and since 1991 the incidence of obesity has risen from 12% to over 25%. Obesity-related diseases, like type II diabetes, hypertension, arthritis, heart disease, and cancer are consuming most of our healthcare dollars. Spending on hospital and outpatient care is 36% higher and medication costs are 77% higher for obese people than for people in the normal weight range. Obesity has the same impact on chronic health conditions as does twenty years of aging; which exceeds the impact of smoking or problem drinking. Presently, each year, 300,000 deaths are attributed to obesity, and this epidemic costs our

Taming Elevated Triglycerides, Insulin Resistance, and Syndrome X

Triglycerides are the fats in the blood. To visualize their appearance, think of chicken soup left overnight in the refrigerator. The next morning you find an upper layer of yellowish fat formed over the brownish liquid below. When blood is drawn into a tube during venepuncture, and then

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require expensive care, such as heart disease, requiring heart surgery. These people will be enrolled in an 8 to 10-day live-in program where they learn a healthy diet and lifestyle. Medications for hypertension, type II diabetes, chronic pain, indigestion (GERD), and many other chronic diseases are reduced or eliminated, as the health problems are resolved. Afterwards, there will be follow-up care for one year. Estimated cost of initial program is \$3560. Follow-up care will be \$2000. Expected return on investment is less than 2 years.

Intermediate: Patients who are utilizing some healthcare yearly (up to \$6000 per patient), who have no immediate risk of catastrophic health expenses. These people will attend a weekend educational class with monthly follow-up for one year. One doctor's visit with the initial weekend and follow up visits with their primary care physician to carry out the recommendations of the program doctor. Monthly follow up educational visits. Estimated costs of \$1200 for one year per person. Estimated return on investment is 1.5 years.

General Population: Patients with low utilization at present and no immediate risk. Educational meetings to teach better nutrition exercise and lifestyle habits held regularly. Estimated costs of \$50 - \$175 per year per person. Companies insured under this progressive health plan would make changes in their employee dining room to support healthier eating and provide facilities for employees to exercise. Employees with tobacco, alcohol, and drug dependencies would have access to rehabilitation programs.

country \$118 billion.

Try to imagine what will happen to healthcare expenditures over the next three to five years when many of those who are now simply overweight become diabetic? And in five to ten more years when these diabetics develop kidney failure necessitating dialysis, and coronary artery disease requiring acute hospitalizations and heart surgery? Over the next five or ten years costs will skyrocket to the point where no one will be able to afford health insurance under the present model. Can we stop what appears to be an inevitable rise to "unaffordable healthcare for everyone?"

I believe the answer is yes – but not unless we change our focus of effort. Higher premiums, fewer benefits, lower physician reimbursements, more doctors, drugs, and hospitals have not been, and never will be, the answers. **The only effective and permanent solution to our healthcare crisis is to reduce the commodity: sick people.** By taking this approach everyone wins: the insurance companies spend less money and the insured have healthier, happier lives with lower premiums. The money saved can be spent to more fairly compensate physicians and other healthcare providers for their dedicated work.

The Cause of Our Healthcare Crisis:

The first step to solving our healthcare crisis is to identify (and admit to ourselves) the cause of all this poor health. The connection between obesity (along with the costly obesity-related diseases) and the consumption of rich foods (once eaten daily by kings and queens of olden times) is as solid as the connec

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tion between drinking and highway fatalities, and cigarette smoking and lung cancer. Unfortunately, this connection is hard for some people to see – especially those still dining at Burger King and Dairy Queen.

Two universal observations provide irrefutable evidence that the cause of obesity and related health problems is primarily due to a shift from a diet consisting mostly of unrefined plant foods to one based on animal-derived and highly processed foods, and secondarily to a decrease in physical activity. Poor health is now pandemic since the fast food industries have made rich foods available to everyone – even the most destitute of people. Americans shelled out more than \$110 billion on burgers, fried chicken, and other fast food delights in 2000, compared with \$6 billion in 1970.

First, throughout human history most people lived on diets based on common starches like rice (Asia), breads (Western Europe), pastas (Southern Europe), corn (American Indians), beans, potatoes and corn (Central and South America), sweet potatoes (New Guinea), and millet, beans and corn (Africa). These populations have been almost entirely free of obesity and related diseases. On special occasions, called “feast days” or “festivals,” members of these societies did unordinary things, like take a day off work, dance in the street, and eat “special” rich foods – they’d roast a pig over a fire pit or add a chicken to the pot of vegetable stew. Common folks could only afford to attend these festivals a few times a year. However, in every society there were a small number of wealthy people who had an opportunity to choose otherwise. These kings, queens and their fellow aristocrats could afford to, and did, eat these delicacies all day long, every day – and you have seen what these people looked like in the paintings of the past. As a result of the Industrial Revolution and the unprecedented wealth that followed, in America today everyone can afford to, and does, eat like the royalty of the past – every day is a holiday – and you have seen the results in hundreds of people who pass you every time you are in the shopping mall.

When I was growing up, as a child, we ate as if every day were a holiday. We started out every morning with Easter (eggs), went on to Thanksgiving (turkey with all the fixings) and Christmas (a plate of ham) for lunch and dinner, and every night after dinner we had a birthday party with cake and/or ice cream. All that feasting has two unquestionable consequences: obesity and chronic disease – *it did back then with the royalty, and it does the same today with all of us.*

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The second indisputable observation is that people living today on primarily plant food-based diets, like those from rural Africa, Japan, Korea, and China, are trim throughout life and have a much lower incidence of heart disease, diabetes, arthritis, multiple sclerosis, and breast, prostate and colon cancer than do Americans. When these people migrate to the United States and exchange their native grain- and vegetable-based diets for higher-fat, higher-protein, and lower-carbohydrate meals -- based around meat, dairy products and highly processed foods -- most become fat and sick. Unfortunately, many people are confused and think carbohydrates, like rice and potatoes, make people gain excess weight. If these carbohydrates were indeed "bad for you," then you would see the opposite -- Africans and Asians moving to our country and changing to our diet would become trimmer and healthier looking. And that's just not what you see.

The Solution to Better Health

What would happen to people you know who are overweight and suffering from dietary diseases, like type II diabetes, gout, and atherosclerosis, if they were sent on a one way journey to rural Japan to live with a country family, work on a community farm and eat the native rice and vegetable dishes? The answer is: they would become trimmer and healthier.

Over the past 25 years of my medical practice I have seen this transformation from obese and sickly to trim and healthy for thousands of people after making changes from rich foods to a plant food-based, low-fat diet, plentiful in unrefined complex carbohydrates. Scientific research available to all of us through the National Library of Medicine (www.nlm.nih.gov) solidly supports the fact that obesity, type II diabetes, hypertension, heart disease, inflammatory arthritis, and gout can be prevented and often reversed with this very same diet. These results are even better when people exercise daily.

My recent experiences with Blue Cross/Blue Shield of Minnesota (BC/BS/MN) will give you a good sense of the potential savings from a highly effective dietary and lifestyle program. Between 1997 and 2001, I ran three separate groups of patients, chosen for their high utilization of healthcare services, through an 8-day, live-in program with one-year of educational follow-up. For each group of

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patients, my program resulted in an average 44% annual reduction in healthcare costs. During the same time period, the cost for the rest of the insured for BC/BS/MN increased an average of 12% per year (which translates into a **56% average overall annual reduction in costs**).

In addition to cost savings due to reduced medication usage, doctor's visits, and hospitalizations, people became healthier. On average weight loss was 36 pounds in one year with a 10% reduction in cholesterol values.

The Motivation for Better Health:

Once we all agree on the cause and solution to our financially devastating healthcare problems, i.e., *making the sick, healthy*, then we can focus on implementation. People understand money best, and until we equate their health in these terms, they will not know why it is so important to make long overdue changes, and more importantly, they will not take action. We already have precedence for tying one's behaviors to the price they pay for insurance: automobile insurance rates rise appropriately for those who won't drive responsibly and life insurance is more expensive or unattainable for those who have high-risk behaviors. Why not apply the same standards for health insurance – for those costly people who can't keep out of the cookie jar or find a reason to go for a daily walk?

If I were in charge of a health insurance company, people's rates would go up in relation to the risk factors for diseases, over which they have direct control by the choices they make every day – risk factors such as body weight, cholesterol, blood sugar, smoking, alcohol abuse, and failure to wear seat belts. *You play, then you pay*. For example, I'd charge an extra dollar for insurance premiums each month for every pound over their ideal body weight (fatness) and for each point of elevated cholesterol. If a member of my insurance program received a DUI violation, then for the next year his premiums would be up \$100 per month. If during an examination, products of cigarette smoke combustion were present on urinalysis, then that risky behavior would cost an extra \$25 per month. Overnight, expensive eating, exercise, and drug habits would take on new importance for everyone, such as when auto insurance companies rate drunk drivers and life insurance

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companies financially penalize smokers. You may think this is cruel? Losing one's health insurance entirely because your insurance company goes bankrupt is much less kind. And I am not asking any more from the gluttons at the dinner table than I would ask from the alcoholics or the smokers. However, if it is you I am personally speaking to, then I am sure my message hurts.

To avoid being labeled "heartless," I would offer a temporary reprieve for those new to the concept of self-responsibility. Those people who show an interest in reducing their costly self- and society-destructive behaviors by enrolling in risk-reduction programs would be exempt from the additional fees as long as they were making efforts (and progress). Personally, I am tired of paying for someone else's irresponsibility; drunks, smokers, and people who choose to be unhealthy by eating like royalty and failing to exercise, must no longer be allowed to put this financial burden on the *"responsible minority."*

Practical Programs for Better Health:

The typical present day medical practice is based around dispensing expensive drugs, surgeries, and high-tech gadgets – many of which are useless and harmful (but that's a whole other article). Patient education plays a very small part in most medical practices. Obesity and obesity-related diseases are due to behaviors that must be changed to help people regain their lost health and appearance. Education punctuated with rewards and punishments is the key to changing behaviors. The rewards are better health and lower health insurance premiums. The punishments have always been physical, but so far the suffering from disease does not seem to have been enough to change most people's behaviors – so in the future the punishments must be financial, too. I believe this added emphasis will overcome the obstacles that have kept "health" out of our past efforts in health-care.

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left on the counter for a while, light-yellow fat (triglycerides) will rise to the top, leaving the more watery red blood below. When someone has very high triglycerides, you can actually see the fat separate from the blood in the tube even before the needle is removed from the patient's arm. People often confuse triglycerides with cholesterol, possibly because both are commonly elevated to unhealthy levels by life-long consumption of the American diet. Another reason is these two distinct substances subsist together in the blood in packages called *lipoproteins*. Even though people with high cholesterol often have high triglycerides, this does not have to be the case – both can be elevated independently.

Even with all these associations, cholesterol is a very different substance than triglycerides. Where as, triglycerides (fats) are chemically long chains of carbon atoms, cholesterol is a carbon structure made of 4 attached rings. Fats are primarily used to meet our future energy needs and are stored in our adipose (fatty) tissues. Cholesterol has many useful functions in the body including roles in membrane structure, brain tissue, fetal development, and the synthesis of bile acids and steroid hormones, like progesterone and vitamin D. When present in excess it collects in our tissues and plays a pivotal role in artery damage, known as atherosclerosis.

Sources of Triglycerides:

There are two common dietary sources of these blood fats. They can be derived directly from the fats in the foods we eat or the body can make them by turning carbohydrates into new fats (primarily in the liver) by a process called *de novo lipogenesis*. Although this process of new fat synthesis can make enough new fat to raise triglyceride levels (fats in the blood), production is so limited that it does not contribute significantly to body fat (weight) gain.¹ Therefore, people who say sugars turn into fats, and thus eating sugar is the primary reason people living under usual conditions become obese, are dead wrong, based upon the preponderance of scientific research.¹

Triglyceride elevation caused by eating fats from your foods is associated with an increased risk of developing diseases of atherosclerosis, such as heart attacks. Whether or not this relationship

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holds true for triglycerides elevated by their synthesis from excess carbohydrate intake is still unknown (but, I doubt it). Elevated triglycerides also cause the blood to clot – increasing the risk of heart attacks, strokes and deep vein thrombosis. With very high elevation of triglycerides the risk of pancreatitis is also increased.

Dietary Fats Become Triglycerides:

Saturated fat from the foods we eat moves through the intestinal wall into the bloodstream and becomes what is known as triglycerides.² Saturated fat also raises cholesterol, and most importantly the risk of heart disease. When polyunsaturated fats (especially omega-3 fats found in vegetable fats and fish oils) are substituted for saturated fats the triglycerides decrease.³ In addition, high-fat diets (of both the saturated and unsaturated kinds) have been found to raise insulin and sugar (glucose) levels in the blood higher, when compared to low-fat diets (also low in simple sugars).⁴ Insulin sensitivity improves when fat is removed from the diet; therefore, insulin resistance as discussed below, is reduced.

Carbohydrate Converted into Triglycerides:

A common teaching is that carbohydrates are bad for you because they cause your blood triglycerides to increase. These findings are based upon experiments where the carbohydrate provided was primarily in the form of simple sugars and/or people were required to eat more food than they can comfortably consume – they are force-fed.^{4,5} The rise in triglycerides is caused by an increase in synthesis of these blood fats in the liver and a decrease in removal of these fats from the body (primarily by the liver).

When people eat only as much as they want – as would be found in normal living conditions – of foods high in complex *carbohydrate*, their total cholesterol, LDL “bad” cholesterol and weight decrease and their triglycerides do not increase (as they do when overfed).⁵

One study looked directly at the effects of substituting sugar for starch in normal volunteers. The diet of simple sugars raised triglyceride levels; however, when starch was substituted for the sim

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ple carbohydrate, the triglyceride levels did not increase.² Therefore, on a healthy diet, high in complex carbohydrates (starches and vegetables), total and LDL “bad” cholesterol decrease and triglycerides do not increase. In fact, combining a diet high in complex carbohydrates with exercise, as we do in our program, results in dramatic reductions in the triglyceride levels.⁶ More specifically, results from our program show an average reduction in triglycerides of approximately 10 mg/dl in 11 days of healthy eating. Furthermore, people starting with high triglycerides – say over 600 mg/dl – accomplish, on average, over 300 mg/dl reduction in triglycerides in 11 days of our diet and daily exercise program.

One special note for those of you who are trying to lower your triglycerides; fruit raises triglycerides in sensitive people and needs to be severely limited – at least for several weeks – in people trying to lower triglycerides.⁷ Fruit (natural, dried, and as juice) is made of simple sugars and the primary sugar is fructose.

Syndrome X, the Metabolic Syndrome:

Elevated triglycerides are frequently associated with a set of complex metabolic abnormalities, including decreased high-density lipoprotein (HDL-“good”) cholesterol, an increase in small (dense) low-density lipoprotein (LDL-“bad”) cholesterol, central (abdominal) obesity, insulin resistance, hypertension, and type-2 diabetes. (Small, dense, low-density lipoprotein (LDL) cholesterol, is more atherogenic than large, more buoyant, LDL cholesterol.) This common complex of signs has been called *Syndrome X*, and is also known as *the metabolic syndrome* and *the insulin-resistance syndrome*. Insulin resistance is considered by many researchers to be the central component of this syndrome.

Insulin resistance develops as a protective response to the fattening effects of the American diet and lack of exercise. One of the main functions of insulin is to store fat in the body’s fat cells. As people get bigger, the efficiency of insulin decreases (insulin resistance develops) in an attempt to slow down the ever-expanding body fat stores (so people don’t get so fat they can’t fit through the doorway). Elevated triglycerides cause the insulin to become less effective, and therefore this

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change is a key player in the development of insulin resistance.⁸ Another very recent and important observation has been that the deposition of fat into skeletal muscle cells causes insulin resistance; and most importantly, the reduction of this muscle fat by a change in diet reverses insulin resistance.⁹

National surveys suggest syndrome X is very common, affecting about 25% to 35% of US adults. The syndrome is more common in older people and in Mexican Americans. People with the syndrome are about twice as likely to develop cardiovascular disease and over four times as likely to develop type-2 diabetes, compared with people who do not have this metabolic syndrome. While this syndrome may, to a small extent, have a genetic basis, an unhealthy diet and lack of exercise are the primary controllable causes.¹⁰

Many researchers believe the way to treat this problem is by substituting saturated fats (animal fats) and carbohydrates in the diet with monounsaturated fats (olive oil) and polyunsaturated fats (vegetable and fish oils).³ While many studies show some improvement with this kind of substitution, this approach never cures the syndrome – more concerning is the fact that these kinds of fats actually encourage weight gain, oily-skin, diabetes, life-threatening bleeding, and cancer.¹¹ The correct way to treat syndrome X is to correct the causes: a high-fat, low-carbohydrate diet and lack of exercise. This approach has been used with excellent benefits in experimental animals and people.^{6,12} For example, the effects of an intensive, 3-week dietary and exercise program (the Pritikin Program) were studied in people who had diabetes, insulin resistance and those with normal insulin. The results were remarkable with weight loss and reductions in triglycerides, cholesterol and insulin levels – essentially curing syndrome X.⁶

Lowering Triglycerides Naturally:What the Numbers Mean:

Normal: Less than 150 mg/dl

Borderline (but acceptable): 150 –199 mg/dl

Slightly High: 200 – 350 mg/dl

High: 350 to 600 mg/dl

Very High: Above 600 mg/dl*

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I have seen levels as high as 5688 mg/dl. Diet and exercise alone has reduced these very high levels to less than 1000 mg/dl in 2 weeks. Medication was required to further reduce them.

A diet high in complex carbohydrates (low fat) and low in simple sugars (even fruits and fruit juice) reduces triglycerides very effectively. It may be especially important to reduce the intake of the simple sugar fructose. Fructose has an especially potent effect on de novo lipogenesis; causing insulin resistance, raising glucose, insulin, and triglycerides, and causing hypertension in animal models.^{1,13} Fructose probably makes a much greater contribution to human obesity than any other sugar.¹³ The per capita fructose consumption (mostly as sucrose and high-fructose corn syrup) has increased by 26%, from 64 g/d in 1970 to 81 g/d in 1997. You will find this kind of sugar in soft drinks and many packaged foods.

Exercise is a very important approach for fighting elevated triglycerides. Exercise burns these fats up in the muscle tissues, lowering triglyceride levels.^{14,15}

Medications to Lower Triglycerides:

Several medications have been successfully used to lower triglycerides. These include the “natural cholesterol-lowering medications, like guggulipid and niacin; and prescription medications like “statins” (Mevacor, Lipitor, Zocor, Pravachol, etc.) and fibrates (Lopid – [gemfibrozil](#)).¹⁶ Medications should be used as a last resort after all benefits from diet and exercise have been achieved.

Niacin is one of the least expensive and most effective medications to lower triglycerides (and cholesterol).^{17,18} You can buy it over-the-counter. However, this vitamin (B3) can be very potent and toxic, and for these reasons I usually recommend people take it under doctor’s supervision. The most common side effect is flushing (a burning sensation all over your body). This side effect is reduced when niacin is taken with meals and when an aspirin is taken beforehand. The body adjusts to the flushing effects with time. Therefore, you should start with a low dose (say 250 mg a day) and gradually increase the dose based upon your ability to tolerate the flushing. Effective

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dosages are commonly in the 1000 to 3000 mg/day range (in divided doses). This drug can also cause liver inflammation (chemical hepatitis), especially when taken in time-released forms, and cause increases in blood sugar levels.

Summary in a Few Sentences:

Finally, to put all of this discussion together into a few concise sentences this is what happens: Simple sugars from the diet cause the liver to synthesize fat through de novo lipogenesis, which reduces the sugar in the blood, but raises the triglycerides. Fats in our foods also make a large contribution to blood triglycerides. Fat which accumulates in our muscles, and the high triglycerides in our blood, inhibit the actions of insulin – all this contributes to insulin resistance, which slows down the accumulation of body fat, but allows the blood sugars to rise and heralds the onset of diabetes. A diet high in complex carbohydrates (starches and vegetables) and exercise, with associated weight loss, reverses (cures) these problems.

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The Right Diet Can Save Your Bones

Two recent publications clearly demonstrate the effects of diet on bone health (osteoporosis) and kidney stone formation. On the destructive side, research from the University of Chicago looked at the effects of the high protein Atkins diet on calcium balance.¹ Data was collected for 2 weeks of the Atkins induction diet and 4 weeks on the maintenance diet. The induction diet contained 164 grams of protein a day and the maintenance 170 grams/day. The Atkins diet produced an acid load, because animal proteins are high in sulfur-containing amino acids, which break down into very potent sulfuric acid.² Dietary acids must be buffered to prevent an acidic build-up in the body. The bones provide the alkaline materials to neutralize the acids. The end result was a large increase in calcium loss into the urine caused by the breakdown of bone materials. (The calcium balances decreased by 130 mg/day and 90 mg/day, respectively on the two phases of the diet). Markers of bone resorption increased, suggesting loss of bone during this short 6 week trial. Eventually, chronic calcium loss results in osteoporosis. The large amount of calcium in the urine, along with other changes produced by a diet high in animal proteins, is a setup for calcium-based kidney stones. Over 95% of kidney stones in Western societies are made primarily of calcium.

On the constructive side, a study from the University of Applied Sciences in Germany examined vegans (on an all vegetable-foods diet with no animal protein) and found them to be in positive calcium balance – more calcium entered the body than left.³ The balance was a positive 119 mg/day. There were no changes in markers of bone resorption, suggesting the bones were not breaking down. The vegans consumed an average of 843 mg of calcium a day from their foods and calcium-rich mineral water.

These effects of animal protein on bone health are not limited to only 2 weeks as has been claimed by some poorly informed people (such as Robert Atkins claiming that the calcium losing effects of his diet are limited to 2 weeks, on the January 6, 2002 Larry King Live CNN-TV Show), but continues as long as the person's diet is high in protein.⁴ Therefore, to save your skeleton and prevent kidney stones, you need to follow a (vegan) diet based on starches, vegetables, and fruits; and limit rich foods to special events, such as turkey for Thanksgiving and fish for a special night out. Bone loss is reversible,⁵ and there is every reason to believe that with a healthy starch-

The Right Diet continued

based diet and exercise the skeleton will become stronger and the possibility of fractures will be lowered.

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The McDougall Diet Supported by the Most Ancient Clinical Trial – According to the New England Journal of Medicine

The *truth is the truth*, and you do not have to be a scientist, doctor, or dietitian to observe the truth. Throughout human history people have written that the kings, queens, and aristocrats, who eat rich foods, become fat and sick. Approximately 2600 years ago it was also reported that the McDougall diet cured people with these food-induced ailments, according to an article in this month's issue of the *New England Journal of Medicine*.¹

“The first published report of a clinical trial has biblical origins. In the Book of Daniel, reference is made to the unwillingness of the Israelite Daniel to accept the diet offered by the Babylonian king Nebuchadnezzar. The king's official had put a steward in charge of Daniel and his three friends (Shadrach, Meshach, and Abednego):”

Daniel said to the steward . . . “Test your servants for ten days; let us be given vegetables to eat and water to drink. Then let our appearance and the appearance of the youths who eat the king's rich food be observed by you, and according to what you see deal with your servants.” So he hearkened to them in this matter, and tested them for ten days. At the end of ten days it was seen that they were better in appearance and fatter in flesh* than all the youths who ate the king's rich food. So the steward took away their rich food and the wine they were to drink and gave them vegetables.”²

* “Fatter in flesh” refers to better nourished, not being overweight.

So those people who have followed Jenny Craig, Weight Watchers, Atkins, and the Zone should realize these approaches are based upon very weak foundations. Unless you can find reference

to any of these
ancient writings, I will have to assume they are all just passing fan

programs in

The McDougall Diet continued

cies, briefly capturing the attention of the desperate masses; and not worthy of the efforts of a person serious about his health and personal appearance.

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Featured Recipes

MOROCCAN BULGUR CASSEROLE

Preparation Time: 15 minutes

Cooking Time: 40 minutes

Servings: 6-8

3 cups water
1 onion, chopped
1 teaspoon minced fresh garlic
1 ½ teaspoons ground cumin
1 ½ teaspoons ground coriander
dash cayenne pepper
1 15 ounce can chopped tomatoes
1 15 ounce can garbanzo beans, drained and rinsed
1 cup uncooked bulgur wheat
2 medium sweet potatoes or yams, peeled and chunked
½ cup raisins
1/3 cup chopped fresh cilantro

Place ¼ cup of the water in a large pot with the onion and garlic. Cook, stirring occasionally, for about 5 minutes. Add the cumin, coriander and cayenne. Stir well to mix. Add the remaining water, the tomatoes, garbanzo beans, bulgur, and sweet potatoes or yams. Mix well, bring to a boil, reduce heat, cover and cook about 30-35 minutes, until potatoes are tender. Add raisins and cilantro, mix well. Remove from heat and let rest for a minute or two. Serve warm or at room temperature.

Hints: Sweet potatoes and yams are root vegetables, although the yams you see in most supermarkets in the US are not true yams. Usually the sweet potatoes that are a deeper orange color are labeled yams. They tend to be sweeter and more moist than those labeled as sweet potatoes. Both varieties will work in this recipe, but I most often use the kind that are labeled yams. Cut the peeled pieces into about ½ inch chunks. To make this a bit more spicy, increase the amount of cayenne pepper.

MCDUGALL FAVORITES

Some favorite recipes I have been making for years will be included in the next few newsletters. If you haven't tried them yet, put them on your menu soon.

BEAN SOUP

Preparation Time: 10 minutes

Cooking Time: 3-4 hours

Servings: 6

2 cups dried Great Northern beans
8 cups water

2 onions, finely chopped

Recipes continued

2 stalks celery, finely chopped

2 bay leaves

½ teaspoon rubbed sage

½ teaspoon ground oregano

2 tablespoons soy sauce

dash of liquid smoke (optional)

Put beans and water in a large pot. Bring to a boil, turn off heat and let rest for at least 1 hour.

Add onions, celery, bay leaves, sage, oregano, and soy sauce. Return to boil, reduce heat and cook, covered for at least 3 hours, until beans are mushy. Add a dash of liquid smoke at the end of the cooking time, if desired.

Hint: The liquid smoke gives the soup a delicious aroma, although it is entirely optional. I make it both ways. It is always a favorite with the family and we usually have a loaf of fresh bread with the soup. One of our sons likes to sprinkle some curry powder over the top of his soup, then stir it in before eating. You can easily vary this soup by adding other vegetables, such as carrots and potatoes, and it may also be pureed before serving. This also freezes well so you can keep some for use at a later date. Great for lunch the next day, too!

GARBANZO DELIGHT

Preparation Time: 20 minutes

Cooking Time: 50-60 minutes

Servings: 8

4 cups vegetable broth

1 onion, chopped

1 carrot, chopped

2 stalks celery, chopped

2 leeks, sliced (white part only)

2 yams, peeled and chunked

2 15 ounce cans garbanzo beans, drained and rinsed

2 ½ cups broccoli florets

1 tablespoon lemon juice

1 tablespoon soy sauce

1 ½ teaspoons pure prepared horseradish

1 teaspoon ground cumin

1 teaspoon ground coriander

dash cayenne pepper

dash Tabasco sauce

Place 2 cups of the broth in a large pot. Add onion, carrot, celery, leeks, and yams. Bring to a boil, reduce heat, and cook, uncovered, for 30 minutes. Add beans, broccoli, remaining vegetable broth, and seasonings. Mix well. Return to boil, reduce heat and cook an additional 20-30 minutes, stirring occasionally.

Serve over brown rice or other whole grains, whole wheat toast, potatoes or in a bowl by itself.