The McDougall Newsletter

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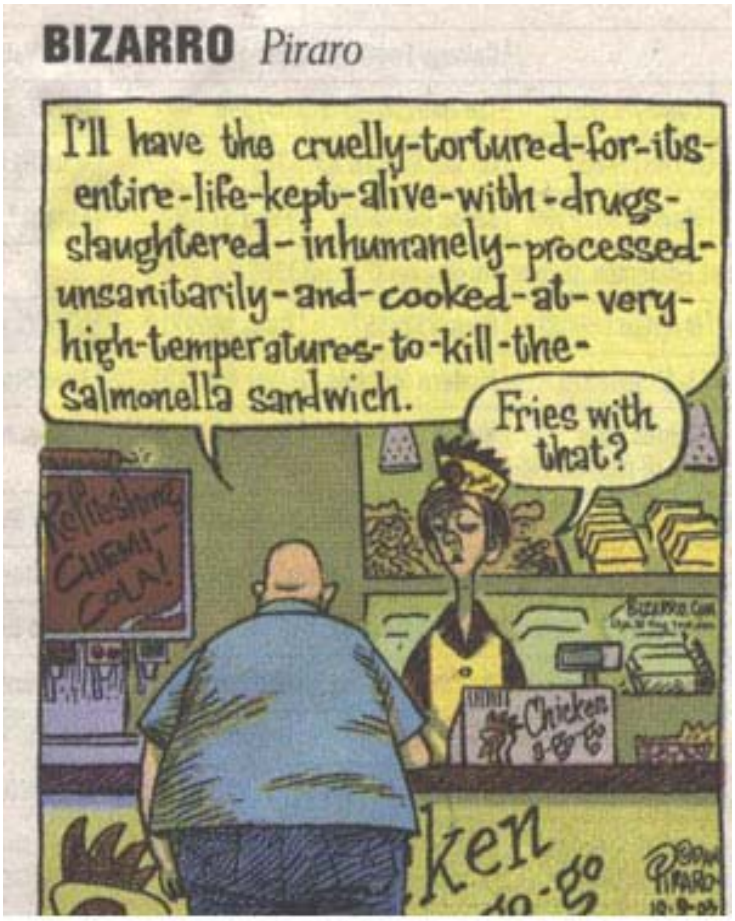
How to Help a Meathead



10/9/03 Dan Piraro. Reprinted with Special Permission of King Features

Meat is ideal nutrition for my body, I once thought – after all, my own body is made of meat – like muscles, liver, kidneys, brain, and associated, more-or-less, edible substances, like fat, blood vessels, lymph nodes, tendons, nerves, bone, skin, etc. Most of my friends still believe meat is essential for vigorous health and they don't hesitate to tell me so. I hear too often, "McDougall, if you ate a few more Tri-tips (a popular cut of beef) you'd be stronger, and be able to windsurf

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Acne Has Nothing to Do with Diet – Wrong!

Standard dogma from your medical doctor is that your oily skin and acne have nothing to do with the foods you eat. Next time you hear this message, ask for the evidence. You will find this learned professional speechless and almost empty-handed , because this incorrect information dates back to a single article published by Dr. James Fulton in the *Journal of the American Medical Association* almost 35 years ago (in 1969). Furthermore, the results of this study have been justly criticized and effectively discounted for more than 25 years.[2] Still countless millions suffer needlessly.

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longer." I answer, "For these benefits, do I have to eat the blood vessels, too?" They're left speechless.

Everyone Knows Meat is a Serious Health Hazard

With very few exceptions, everyone clearly understands that eating meat is damaging to our health. Notice the reaction when you order a vegetarian meal. People will say, "I know, I should have ordered that" and "I usually eat vegetarian." Or worse, they become defensive, explaining, "I could never live without my meat. Life would be so boring." And I freely admit, life on a meat-based diet is pretty exciting – you never know what new pain or failed body part will turn up next.

The hazards of meat are so well known they make the material for jokes:

This Bizzaro cartoon would not be funny if these important issues were not widely recognized and understood. Yet knowledge in this case fails to result in a call to action for most people.

Possibly having better knowledge of the damaging details would make a difference for some people. The following chart provides a summary of the problems with meat, and at the end of this article I have expanded the discussion on each of these points for you.

Three (False) Reasons People Eat Meat

Nutrition

Meat is supposed to be good nutrition. Undoubtedly, it is a source of concentrated calories, primarily of fat and protein. Once, during times of scarcity, that quality may have been valuable, but in our obesity-plagued society, few people need more calories. Meat has been touted as a good source of iron, zinc, and B12 – but I have never seen anyone with deficiencies of these nutrients due to eating too little meat – have you? On the other hand, everywhere I look I see problems from too much meat.

Taste

Meat tastes good. Really? If it tastes so good then why don't people salivate over plain boiled chicken? Why don't you find, featured on the menu of the finest restaurants "baked beef with no added sauce or salt?" The truth is meat is flavorless, at best; either bland in taste – or at worst, repulsive to the human tongue and nose. The only way most people can stomach the taste of meat is to cover the natural flavors up with sauces made of sugar, salt, and spices – like ketchup, barbecue sauce, steak sauce, sweet and sour sauce, and marinara sauce. The tips of our tongue have taste buds that respond to salt and sugar.[4] Our noses savor the aromas of plant-derived spices. So much for meat tasting good – it is the toppings we like.

Status

Throughout history, meat at the dinner table has been considered a sign of success.[5] The strongest and bravest members of a society captured the most game. (This was almost exclusively a male venture). Hunting serves as a test of manhood, after all, chasing and killing animals is much more difficult and dangerous than picking raspberries or pulling up potatoes. Successful hunters obtain status (and as a prize, more women and more desirable ones).

Even today people refer to the accomplishments of a successful breadwinner in the family as "bringing home the bacon."

Fortunately, today, in 21st century society, bringing home meat has lost all status. In fact, more intelligent people view this activity as a sign of stupidity – akin to cigarette smoking and the two-martini lunch – two offensive behaviors not too long ago considered status symbols.

Summary of Nutritional Problems with Meat

Quality		Health Problems
High calorie	=	obesity, diabetes, heart disease, cancer
High fat	=	obesity, cancer, and diabetes
High in saturated fat	=	heart attacks and strokes
Deficient in essential fats	=	degenerative diseases, multiple sclerosis
High protein	=	osteoporosis, kidney damage and stones
High in acid	=	osteoporosis, kidney stones
High cholesterol	=	atherosclerosis (strokes, heart attacks)
High in iron	=	atherosclerosis (strokes, heart attacks)
No dietary fiber	=	constipation, hemorrhoids, IBS
No carbohydrate	=	fatigue, poor endurance
No vitamin C	=	poor tissue healing (scurvy)
No calcium	=	poor tissues, but needs are very small
Environmental contaminants	=	cancer, Parkinson's disease, brain damage
Carcinogens from cooking	=	cancer
Multiple microbe infections	=	infectious disease (E. coli to mad cow)

Additional Human Costs:
Harmful to environment with deforestation, destruction of natural resources, pollution; inhumane treatment of animals - both when they are alive and when they are slaughtered - and it is expensive for everyone, with dramatic increases in food and medical bills.[1]

My parents lived through the Great Depression of the 1930s. My mother told stories of her family's only foods being beans, corn, cabbage, parsnips, peas, rutabagas, carrots, onions, turnips, potatoes and bread for 5 cents a loaf – a little hamburger was their only meat. During my childhood she often reminded me of their poverty, and the promise to herself that her children would never have to suffer as she had, without an easy supply of meat and milk. Her need to provide this bountiful table caused far more suffering for my immediate family in the form of constipation, stomach aches, eczema, a stroke, and heart disease than she ever experienced. The influence of family values on my life and eating habits also came from my grandparents and great-grandparents.

Grandparents Are the Ultimate Justification for Meat-Eating

So why does almost everyone continue to eat meat when scientific research solidly condemns this behavior and predicts a shorter, more miserable life for those who make meat the center of their diets? The reason is feelings of invincibility that are hard wired into our brains. Naturally, even in the face of overwhelming facts to the contrary, we know these terrible consequences will never happen to us. And as proof we have grandparents. You've heard people defending their diet with, "My grandparents lived on a farm, ate meat their whole life, and they lived to be ninety." Of course, never mentioned are the vast majority of grandparents who die of heart disease, strokes, diabetes, and cancer long before they hit their mid-seventies. Thus, those few hearty grandparents, too stubborn to die, serve as the justification for our belief that we will beat the odds and are the reason we are slow to change destructive behaviors in the face of overwhelming facts.

I have two grandparent examples from my own life that could have served nicely as justification for my not changing my diet. My grandfather lived to be 88 and my great-grandmother was mentally sharp at 106 years old, and they both ate meat every day. Why should I pay any attention to the health hazards of meat with the genes that I had?

"Old Pop" Was a Survivor

My grandfather lived to 88 years old. As long as I can remember he ate eggs for breakfast, and meatballs and onions for dinner. All his adult life he wore his potbelly with pride, claiming it was due to a swayback and not abundant fat, and suffered from a multitude of problems. In his sixties he underwent a bowel resection after almost dying from infected diverticular disease of his colon (diverticulitis) – all due to his years of eating a very low-fiber diet. During his later years he lived with intermittent claudication – meaning the arteries in his legs were severely closed by atherosclerosis (hardening of the arteries). The blood flow to his legs was restricted so much that he could walk no more than 15 feet before excruciating calf pain stopped him dead in his tracks.

Raymond Henry McDougall,
May 17, 1891 – December 15, 1979

Yes, my grandfather lived to 88, eating lots of meat, but he lived in pain. He, like so many people, was deceived by the remarkable resilience of the human body. It survives two packages of cigarettes inhaled, ½ bottle of whiskey drunk, physical activity restricted to TV channel-changing, and a diet of grease and sugar in the form of Krispy Kreme donuts – and it lives! – but in pain and with disability.

Moderation Saved "Old Mom"

I have an even better grandparent story – it is about my great-grandmother who lived to be 106 years old and ate meat every day. When I was a youngster she admonished me for eating too much meat – and I did eat a lot of meat back then. In my late 20s I became a strict vegetarian. On one of my visits to her home (she was about 103) she asked me to go out to the neighborhood McDonald's and buy her a regular hamburger – you know, a simple burger with a paper thin slice of ground beef between two halves of a white bread bun, 2 pickle slices and a blob of mustard and ketchup. She proceeded to cut the hamburger into quarters. She raised one quarter to my face and told me, "If you ate a little more meat you would be healthier." Then she ate 2 quarters and put the rest away for later. She was a very moderate person – far different from my personality. Moderate people – those who eat small amounts of rich food, drink ¼ cup of diluted coffee, have a glass of wine on holidays – survive well – simply because of their reserved behavior.

Laura May Bristow,
May 3, 1876 – December 21, 1982

How I Saved My Life in a Meat-Eating World

I am an enthusiastic (lustful) person. In my hamburger-eating-days I would down two double cheeseburgers, fries and a milk shake for a single meal, and still be looking for more to fill my bottomless stomach. My childhood was plagued by stomachaches and chronic constipation; as a teenager my face was full of pimples and I had the energy of a sloth. I was shocked into the reality of my vulnerability when I was felled by a massive stroke at age 18 that caused the entire left side of my body to be completely paralyzed. In my early twenties I carried an extra fifty pounds of fat. My likely destiny would be to suffer a fatal heart attack before 35. Fortunately, in my late twenties I learned the importance of a diet based on starches, vegetables, and fruits – and to leave meat alone. I may have great genes, but you're not going to find me testing them any more.

I can't change my personality – my exuberance for life – my uncontrollable enthusiasm for everything – so I have learned to focus all of this energy upon healthy behaviors. Since my late twenties, I have occupied myself with activities that best support my appearance, feelings of well-being, functioning, and longevity. Saving my own life is one more reason why you find me an unrestrained proponent of healthy eating.

The Detailed Qualities of Meat

Meat is High in Calories

Compare the calorie content of various foods:

Calories in 3 ½ ounces (100 grams):

Beef	291
Chicken	239
Fish (Cod)	104
Cheddar Cheese	403

Potato	105
Peas	118
Wheat Flour	339
Banana	92
Apples	59
Spinach	23
Tomatoes	21

Calories consumed above those utilized are often stored, especially when those calories are from fat. Fat is almost effortlessly moved from your fork and spoon to your body fat.[9] To make matters worse there is no carbohydrate or fiber in meat. Carbohydrate is the primary substance for satisfying your hunger drive.[10] Fiber provides no calories; therein helping with weight loss. All things considered removing meat from your diet is a giant step to losing excess body fat and staying trim without ever being hungry.

Consuming calories in excess of need promotes the growth of cancer.[11] Compounding matters, body fat makes estrogen which stimulates the growth of breast and uterine cancer.[12] Excess estrogen also causes precocious puberty, fibrocystic breast disease, PMS, ovarian cysts, heavy menstrual bleeding, and fibroids of the uterus. Overweight people have generally poorer health and shorter lives.[13]

Do Feed Your Cat Meat

A vegetarian diet fails to supply adequate amounts of protein, taurine, arachidonic acid, and retinol (vitamin A) for a cat.

Even if you are a purist vegetarian who wants to convert all of those around you, stop short of your cat. Cats are designed to eat meat – they are carnivores. Cats may enjoy a few fruits and vegetables, but too much fiber and polyunsaturated plant fats may be detrimental to your cat's health. High fiber foods can fill the cat's digestive system without providing the necessary nutrients in sufficient concentrations. Excess polyunsaturated fatty acids in vegetable oils can lead to vitamin E deficiency related illnesses.[6]

Consider that the tongue of a cat has taste buds that respond to proteins (amino acids), but none for enjoying sugars (carbohydrates).[7] This would be expected because their natural diet is meat. I have never been able to get my cat to purr for a slice of banana. I have no doubt that if I wrapped a thin slice of beef around that sweet nugget of fruit it would be gone in one gulp.

Cats require large amounts of protein and this can be a problem on a vegetarian diet. Cats, unlike humans, cannot synthesize an amino acid called taurine – for a cat this is an essential amino acid.[8] Inadequate amounts in a cat's diet can cause eye damage, even blindness, and heart damage (cardiomyopathy). The only rich source of taurine is meat. Arachidonic acid is an essential fatty acid for cats – it must be in their diet, because they lack the essential enzymes to synthesize it. Meat is the only major source of this fat. Humans can synthesize arachidonic acid from linoleic acid, found abundantly in plant foods.

Unlike humans, cats cannot utilize beta carotene, the provitamin A, found abundantly in plant foods. Humans readily convert this provitamin A to preformed vitamin A (retinol). Retinol is abundant in animal foods and the richest source is liver.

Meat is High in Fat

Compare the fat content of various foods:

(% Calories from fat)

Beef	60
Chicken	51
Fish (Cod)	7
Cheddar Cheese	74
Potato	1
Peas	1
Wheat Flour	5
Banana	4
Apples	6
Spinach	9
Tomatoes	10

Fat is very high in energy. Fat contains 9 Calories per gram compared to pure protein and carbohydrate, each containing 4 Calories per gram. Energy in excess of need promotes obesity. To make matters worse our hunger drive is insensitive to the fat we eat; therefore fatty foods are very easy to over-consume.[14] In addition to providing excess calories, fat itself directly promotes cancer growth.[15] The predominant kind of fat in beef and chicken is saturated, which raises blood cholesterol and easily becomes oxidized fat, which damages the arteries.[16]

Certain fats must be present in the diet of humans – these are called *essential fatty acids.* The two that are essential for humans are *linoleic acid* and *linolenic acid*. Only plants can synthesize these two kinds of essential fats – however, once made, animals can store them in their body fat. These essential fats are necessary for formation of most of our body tissues, and especially the nervous system. A diet deficient in essential fats (a diet high in meat and dairy products and low in plant foods) early in life may cause the development of a weakened nervous system, which is highly susceptible to degenerative diseases, like multiple sclerosis.[17]

Meat is Excessively High in Protein

Compare the protein content of various foods:

(% of Calories from protein)

Beef	37
Chicken	46
Fish (Cod)	87
Cheddar Cheese	25
Potato	9
Peas	28
Wheat Flour	16

Banana	5
Apples	4
Spinach	37
Tomatoes	15

Small amounts of protein are necessary in the diet to provide the raw materials for the building blocks of body parts, such as hormones and muscle cells. However, our need is very small – no more than 2 ½ % of the total number of calories consumed must be protein.[18] Excess protein is not stored; it is eliminated from the body by the liver and kidneys. The amount of protein consumed on the Western diet places a serious burden on these organs – overworking them and causing them to wear out prematurely. For example, by age 70 one-third of a person's kidney function has been lost due to the typical high-meat Western diet.[18] Because of the organ-preserving effects of a low-protein diet, this is standard treatment for people with failing livers and kidneys.[19] Animal protein is much more damaging to the body than is an equal amount of vegetable-derived protein.

Excess protein, and especially animal protein, causes the body to lose calcium, contributing to calcium-based kidney stones, and osteoporosis.[20,21] Animal proteins can cause autoimmune diseases, especially those affecting the joints (inflammatory arthritis).[22]

Protein, and especially protein from meat and dairy products, increases the amount of a powerful growth stimulating hormone in the body, called *Insulin-like Growth Factor – 1 (IGF-1*). This substance stimulates the growth of a large number of common cancers, like breast, prostate, colon and lung cancer.[23]

Meat is High in Acid

Compare the acid load of various foods:
(Renal Acid Load per 100 Calories)

Beef	6.3
Chicken	7.0
Fish (Cod)	9.3
Cheddar Cheese	10.0
Potato	-5.0
Peas	1.0
Wheat Flour	1.0
Banana	-6.0

(A positive value indicates acidic, whereas a negative value indicates alkaline.)

If you grind up various foods and then measure their pH (acid-alkaline balance) you will find meats to be very acidic –

Apples	-5.0
Spinach	-56.0
Tomatoes	-18.0

fruits and vegetables, on the other hand, are alkaline (grains and legumes are slightly acidic).[24] The human body is slightly alkaline (pH of 7.35 to 7.45 – a pH of 7 is neutral). The body protects its acid-alkaline balance very carefully, because all of the other chemical reactions in the body depend upon a proper pH level. Dietary-derived acid, primarily from meats and cheeses, must be neutralized.[25] The primary acid-neutralizing mechanism of the body depends on the bones; which dissolve to release alkaline materials to neutralize the acid. The end result of slowly dissolving the bones for decades is osteoporosis. Some of this dissolved bone solidifies in the kidney collecting system creating calcium-based kidney stones. Over 90% of stones found in people on the Western diet are made primarily of calcium.

Meat is High in Cholesterol

Compare the cholesterol of various foods:
(Milligrams per 100 Calories)

Beef	32
Chicken	37
Fish (Cod)	53
Cheddar Cheese	26
Potato	0
Peas	0
Wheat Flour	0
Banana	0
Apples	0
Spinach	0
Tomatoes	0

People who switch from red meat to chicken do not reduce their cholesterol; nor do they reduce their risk of heart disease. Chicken muscle has the same amount of cholesterol as beef, and pork. Most importantly, the blood cholesterol level – a very strong predictor of heart disease and stroke risk – stays the same when people switch among various muscle foods (including to fish muscle).[26] Just remember, a muscle is a muscle is a muscle and switching from reddish-colored to yellowish-colored muscles makes virtually no difference at all.

Meat is Claimed to Be Essential for Iron

Compare the iron of various foods:
(Grams per 100 Calories)

Beef	0.9
Chicken	0.5

Peas	1.1		
Wheat Flour	1.1		
Banana	0.3		
Apples	0.3		
Spinach	15.3		
Tomatoes	2.1	Fish (Cod)	0.5
Cheddar Cheese	0.0		

One of the advertised benefits of meat is the iron. Realize that the iron in all meats originated in the ground (earth). To get into the animal, it first had to go through plants. Iron, as well as all minerals, dissolves in watery solutions and is absorbed by the roots of plants and then is incorporated in the roots, stems, leaves, flowers, and fruits of plants. Note above that plant foods are loaded with iron. The animals eat the plants in order to obtain these minerals.

The iron in meat is said to be more easily absorbed and utilized. Actually, vitamin C found in plants makes the plant-form of iron readily absorbed and utilized, too.[2] A healthy vegetarian diet supplies plenty of iron and is never the cause of iron deficiency. Most cases of iron deficiency are due to diseases that cause blood loss, and from dairy products,[27] which block the absorption of iron into the body. A common end result from depleted iron stores is iron deficiency anemia.

You don't want too much iron in your body. Excess iron is associated with heart disease.[28] This may be because iron can act as a powerful free radical donor (an oxidant) and damage the arteries.

Meat has No Dietary Fiber

Compare the fiber content of various foods:

(Grams per 100 Calories)

Beef	0.0
Chicken	0.0
Fish (Cod)	0.0
Cheddar Cheese	0.0
Potato	2.2
Peas	7.0
Wheat Flour	3.6
Banana	2.6
Apples	4.6
Spinach	10.4
Tomatoes	5.4

Dietary fiber is indigestible carbohydrate and is only found in plants. Dietary fiber transits the entire small intestine without being digested, finally forming the bulk of the stool (feces). Since meat of any kind has absolutely no dietary fiber,

people on high meat diets are usually constipated with tiny rock-hard, infrequently-passed, stools. Seventy percent of people following the nearly all-meat Atkins diet complain of constipation (see my November 2002 Newsletter). Chronic constipation causes hemorrhoids, varicose veins, hiatal hernia, and prolapsed uterus (see my lead articles in the September and October 2002 newsletters). Dietary fiber also plays important roles in deactivating cancer-causing chemicals, preventing excess sex hormone levels from accumulating in the body, and slowing the entry of sugar into the bloodstream.[29]

Meat Contains No Carbohydrates

Compare the carbohydrate content of various foods:
(Grams per 100 Calories)

Beef	0
Chicken	0
Fish (Cod)	0
Cheddar Cheese	1
Potato	91
Peas	72
Wheat Flour	86
Banana	91
Apples	90
Spinach	64
Tomatoes	75

Carbohydrate (commonly known as sugar) is the body's preferred fuel for energizing itself for daily activities. Fatigue results when the body runs out of carbohydrates.[30] The human brain and other nervous tissues use carbohydrates as fuel almost all the time, and only burn fat under duress, such as during starvation. Red blood cells and cells of the kidney will only burn carbohydrates – if none are available, then the body will make carbohydrates out of protein (by gluconeogenesis). Carbohydrate burns clean, leaving only carbon dioxide to be exhaled by the lungs and water eliminated by the kidneys.

The human body seeks carbohydrate and derives great pleasure from consuming these sweet-tasting substances – remember the sweet-tasting taste buds on the tip of your tongue. Consumed carbohydrates satisfy the hunger drive and regulate the body's intake of food – keeping the body weight at the correct level, thereby preventing obesity.[10] Carbohydrates are healthiest when consumed in an unrefined, unprocessed state, like in potatoes, rice, asparagus, oranges, etc. As processed simple sugars, refined flours, and polished grains they can cause problems for the body.

Meat has No Vitamin C

Compare the vitamin C content of various foods:
(Milligrams per 100 Calories)

Beef	0

Chicken	0
Fish (Cod)	0
Cheddar Cheese	0
Potato	15
Peas	0
Wheat Flour	0
Banana	10
Apples	10
Spinach	42
Tomatoes	88

Meat-eating animals (carnivores and omnivores) can make ascorbic acid from the raw materials found in meat. Animals that are basically vegetarian, like humans, must have preformed ascorbic acid in their food – this is called vitamin C. Deficiency of this vitamin results in scurvy – a disease that affects all of the body's tissues causing loose teeth, bleeding, fragility of the blood vessels, compromised immunity, and anemia. (A diet centered around grains and/or legumes must have added fruits and vegetables to supply vitamins A and C.)

Meat has Almost No calcium

Compare the calcium content of various foods:
(Milligrams per 100 Calories)

Beef	2	
Chicken	6	
Fish (Cod)	13	(with bones)
Cheddar Cheese	51	
Potato	10	
Peas	11	
Wheat Flour	10	
Banana	7	
Apples	12	
Spinach	580	
Tomatoes	23	

Unless you eat the bones of the animal, eating meat of any kind results in almost no calcium intake. Fortunately our requirement for calcium is very low – actually 150 to 200 mg of calcium per day is adequate.[31] Obviously, recommendations to consume 800 to 1500 mg of calcium a day are far in excess of our needs (but promote the dairy and calcium supplement industries' needs). People get confused when they fail to realize bone loss is actually due to the excess protein and acid in the animal foods, rather than any deficiency of calcium.

Meat is Full of Environmental Contaminants

The animals that we slaughter for meat are high on the food chain and as a result environmental chemicals are concentrated in their bodies. The main sources of these toxic chemicals are the grasses they graze on, and the grains they eat.[32,33] When cattle, poultry, or fish eat plants with even low levels of contaminants, those chemicals are stored and concentrated in their fatty tissues, where they can remain for many years. Those fatty tissues are the same tissues that eventually find their way onto your plate. Estimates are 89% to 99% of the environmental chemicals in our body are from our food, and most of this is from foods high on the food chain – meat, poultry, fish, and dairy products.[34,35] Growing plants do not absorb many of these contaminants, rather they are carried on their surfaces (therefore plant-foods can be largely freed of these chemicals by peeling or washing them).

But not all of the contaminants found in meats are from environmental pollution - some are deliberately fed to the animals by the farmers who raise them. Hormones, stimulants, and antibiotics are routinely used by farmers to speed growth and combat infectious diseases in crowded conditions.[36,37] If you eat beef or poultry raised under these types of conditions, you are consuming an assortment of powerful animal drugs as well.

Once they are deposited in your body fat they stay there indefinitely. These chemicals can then affect you later in life, threatening the fetus developing in a woman's uterus and the baby nursing from her breasts. These chemicals damage the nervous system causing a decrease in mental function and neurologic diseases as life-threatening as Parkinson's disease.[38,39] Major cancers are started and promoted by these chemicals.[40,41] With weight loss, these stored chemicals are released into the blood stream and eliminated from the body. [42,43] After elimination, by following a healthy diet with plant foods low on the food chain, you can prevent re-accumulation of these toxins in your body. You will become cleaned out!

Cooking Meat Produces Carcinogens

Animal foods can create a whole other set of toxic chemicals during cooking. Studies have shown that meat cooked over high heat, like a charcoal fire, can produce a powerful carcinogen, called benzopyrene.[44-46] In animal tests, benzopyrene causes lymphomas, thymomas, stomach cancer, and leukemia. But it's not just charcoal cooking that causes the formation of cancer-causing chemicals of many kinds; any high-temperature cooking method of meat puts you at serious risk.

Meat Is Teeming with Microbes

Humans are physiologically similar to all other animals. Therefore, we are susceptible to the wide range of bacteria, parasites, and viruses that infect the animals we eat. More than 200 diseases are transmitted through food. The infectious microorganisms include salmonella, trichinella, toxoplasmosis, parasites, "mad cow," hepatitis viruses, and cancer viruses. Estimates are that each year in the United States there are approximately 76 million cases of food-borne illness. Most of these illnesses are undiagnosed, but approximately 325,000 cases result in hospitalization, and 5,000 cases are fatal.[47] To compound the problems, bacteria which cause infections are becoming ever more resistant to antibiotics because of the use of these drugs in animal farming.[48]

It's true that plant foods are subjected to plenty of exposure to bacteria, parasites, and other infectious agents. However, the biochemical makeup of plants is so different from ours, that the microorganisms that infect them rarely affect us. You

have no friends with Dutch elm disease or aphids. If a plant food does contain an organism that threatens our health, then it is almost certainly a contaminant from an animal source, usually feces. Proper food handling and preparation will avoid animal waste contamination of healthy vegetable foods.

Take a Giant Step Forward

By now I hope I've convinced you that all types of meat - even fish (for more information see the February 2003 – "Fish is Not Health Food," and the July 2003 – "Meat in the Human Diet," Newsletters) – are not nutritionally necessary, and short and long-term consumption can result in a wide variety of diseases that commonly afflict people following Western diets. But I know that old habits are hard to break, and that pressures from family and friends can be very powerful. As a doctor I feel obliged to teach you the best. When you tell me you don't want lung cancer and ask me how many cigarettes you should smoke, I have only one answer for you – none. If you have had a heart attack and don't want another one, when you ask me how much meat (cholesterol and fat) you should eat, I have only one answer. However, this is not an all or nothing approach, so you can expect improvements even with a shift toward more starches, vegetables, and fruits.

You may be thinking, OK, I'll cut back on meat and only eat it once in a while. That can't hurt me too much, right? Well, you may be lucky. However, I truly believe that the easiest way to make the change to a healthier life is to do it all or nothing. People respond better when they have clean breaks with old habits. Have you ever met a smoker who quit by cutting down? Or an alcoholic who switched to beer to dry out? I haven't. And so it is with food. Take the attitude that you want to permanently leave behind your poor health and portly appearance by making a serious decision. This way you can get all the old favorite foods out of the refrigerator. You are then placed in the position of finding and learning to like new healthy foods. The big improvements you will see in your health will keep you motivated to eat well and exercise.

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My Favorite Five Articles for this Month

All articles are chosen for the relevance of people's need for greater knowledge for better health.

Treatment of Blood Pressure Can Make You Stupid

"Blood pressure and cognitive functioning among independent elderly" by Esther Paron in the October 2003 issue of the *American Journal of Hypertension*, found low blood pressure was associated with poor thinking, and mild hypertension was associated with better thinking.[1] Over-aggressive lowering of blood pressure with medication was thought to decrease the flow of blood to the brain. By this means, function of the brain in the elderly was thought to be impaired. The best brain function was associated with a blood pressure of about 159/85 mm Hg. These findings are consistent with research that shows an increase in risk of stroke and heart attacks by over-aggressive treatment of blood pressure with medications.[2,3] (Lowering blood pressure too much with medications decreases the perfusion pressure of blood to the heart and other vital tissues causing these organs to become ill.) Too many doctors have been educated by the drug companies that the goal of blood pressure treatment is to achieve a "normal" pressure of 110/70 mm Hg or lower and that can be a dumb and deadly recommendation. With medication blood pressure should not be brought down below 140/85 mm Hg. Without medication, an ideal blood pressure is 110/70 mm Hg or lower – this is best achieved with a healthy diet and lifestyle (exercise, no coffee, no alcohol, etc.).

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Pharmaceutical Industries Selectively Report (Lie about) Scientific Findings

"Industry-sponsored economic studies in oncology vs. studies sponsored by nonprofit organizations" by M. Hartman in the October 2003 issue of the *British Journal of Cancer* found drug companies manipulate research findings in order to support their products (Big surprise). Three times as many studies with positive rather than negative conclusions about costs of cancer drugs were published in medical journals. Furthermore, if a study was sponsored by a drug company it was twice as likely to show positive results as studies sponsored by nonprofit organizations. These studies directly influence prescribing practices of doctors, and as a result, not only cheat patients out of their money, but this dishonesty also physically harms patients. The authors of this review recommended full disclosure of the financial influences of all research. The influence of the pharmaceutical industries on research is so pervasive and powerful that I no longer know what to believe about the benefits and harms of drugs on the marketplace. The best advice I can give patients is to be well and in this manner avoid the medical and pharmaceutical industries as much as possible. Always question your doctor about the need for you to be placed on or to continue every medication. Doctors are afraid to reduce and stop medications because that is how they have been educated by the drug companies to practice – so you have to take the lead if any changes are going to be made.

Hartmann M. Industry-sponsored economic studies in oncology vs studies sponsored by nonprofit organizations. *Br J Cancer.* 2003 Oct 20;89(8):1405-8.

Do Microwave Ovens Destroy Nutrients in Food?

"Phenolic compound contents in edible parts of broccoli inflorescences after domestic cooking" by F. Vallejo in the October 2003 issue of the *Journal of Science, Food and Agriculture* found cooking by various methods destroyed, to different degrees, potentially healthful natural plant chemicals, such as flavonoids.

Loss of Flavonoids from Broccoli:

Microwave	97%
Boiling	66%
Pressure Cooking	47%

Light steaming was found to be the preferred way to preserve these chemicals. Raw would be the best.

These finding caused the emotions of opponents of microwave cooking to overflow with excitement. Headlines over the Internet read, "Microwave cooking is bad for your health." However, as this paper goes on to point out, other studies do not show a high loss of these substances with microwaving. For example, the following two studies show microwave cooking is better at preserving flavonoids than other methods:

1) Loss of Flavonoid compound from Potatoes:

Baked	100%
Microwave	45%
Boiling	60%

2) Loss of Flavonoids from Tomatoes:

Microwave	65%
Boiling	82%

Natural plant chemicals (phytochemicals) play an important role in preventing cancer and artery disease (atherosclerosis, like stroke and heart attack); therefore, efforts should be made to preserve these substances. The best way to accomplish this is to eat the fruits and vegetables lightly cooked or raw. Other nutrients, such as vitamins, are also affected by all methods of cooking. But even so, plant foods are so overabundantly supplied with nutrients that even thoroughly cooked they provide excellent nutrition.

The microwave has been the focus of many attacks, but concerns are usually unsupported by the scientific facts. After looking over the present data, I still conclude that microwave cooking is as safe as other methods of cooking. Research has been extensive over the last 50 years, so I doubt any future studies will cause a shift in my position. (Do avoid having microwaves contact you by making sure your oven does not leak.)

Vallejo F. Phenolic compound contents in edible parts of broccoli inflorescences after domestic cooking. *J Sci Food Agric* (2003) 83:1151-16.

Take a Tomato, Not a Pill, for Your Prostate

Prostate carcinogenesis in N-methyl-N-nitrosourea (NMU)-testosterone-treated rats fed tomato powder, lycopene, or energy-restricted diets by Thomas Boileau in the November 5, 2003 issue of the *Journal of the National Cancer Institute* found tomatoes with all their nutrients reduced the development of prostate cancer in male rats – but feeding the individual nutrient, lycopene, had no benefit. Increased consumption of tomato products and greater blood concentrations of lycopene, the principle carotenoid in tomatoes, are associated with less prostate cancer in men. Therefore, some scientists, and many manufacturers of supplements, conclude the solution to prostate cancer is to have men take capsules filled with manufactured lycopene to prevent this cancer. Not so! For this benefit men need to eat the lycopene in its natural packages – along with hundreds of other valuable plant chemicals (phytonutrients) – all present in the natural food in proper balance and proportion. The majority of lycopene intake (82%) in men in America is tomatoes. However, all other yellow and orange fruits and vegetables contain these valuable carotenoids. I am not surprised that taking lycopene supplements to prevent and treat prostate is a wasted effort – see my lead article in my July 2003 Newsletter. For real cancer and heart disease prevention you must focus on fruits and vegetables, which is, harder than taking a pill and without much profit for any industry – but that action works.

Boileau TW . Prostate carcinogenesis in N-methyl-N-nitrosourea (NMU)-testosterone-treated rats fed tomato powder, lycopene, or energy-restricted diets. *J Natl Cancer Inst.* 2003 Nov 5;95(21):1578-86.

Don’t Stop Aspirin if You Are a Heart Patient

Aspirin withdrawal increases risk of heart problems by Kathryn Senior in the November 8, 2003 issue of the *Lancet* reported on a study presented at a recent American College of Chest Physicians Conference which showed people who suddenly stopped taking aspirin had an increased risk of heart attacks and other serious heart problems. A doctor’s recommendation – like to prevent bleeding during a scheduled operation – was a frequent reason for stopping the aspirin. Aspirin is beneficial for preventing future heart problems in people with a high risk of heart disease (like those with a history of heart attacks, angioplasty or bypass surgery). I recommend a baby aspirin (81 mg) for my patients with this high risk, but it should not be taken regularly by those at low risk for a future heart attack, because side effects, like bleeding, far outweigh the benefits in low risk people. Apparently, once the body gets used to the blood thinning effects of aspirin, sudden withdrawal causes a “rebound effect” with the blood clotting more easily causing closure of the coronary arteries, followed by heart attacks. Therefore, people on daily therapy should not stop it suddenly. No one has tested gradual withdrawal to see if that is safer. But one safe and sure way to help prevent dangerous blood clots from forming in all people is to eat a healthy diet – animal fat is the strongest “blood clotting” substance people eat. Remove the meat, chicken, and cheese from your diet and your blood will naturally become “thinner” – thus preserving the blood flow to your vital organs.

Senior K. Aspirin withdrawal increases risk of heart problems. *Lancet* (2003) 362:1558.

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Dr. Fulton studied 30 adolescents (14 girls and 16 boys) attending an acne clinic and 35 young adult male prisoners with mild to moderate acne. The Chocolate Manufacturers Association of America provided the study with two kinds of candy bars – one with and one without chocolate. Both bars were made mostly of fat and sugar and had similar amounts of calories (557 to 592 calories per bar). The subjects then added one or the other bar to their usual daily food intake for the next 4 weeks. Nothing else was changed in their diet during the experiment, except for the addition of the candy bars. Dr. Fulton and colleagues then counted the pimples on their young faces. Forty-six of the 65 subjects stayed the same, 10 were better and 9 were worse. (Not unexpectedly, the rate of sebum excretion increased by 60% with the addition of either kind of the high-fat, high-sugar candy bar (with or without chocolate) in all subjects.[3]) (Sebum is a fatty substance secreted by the skin.) Yet the results of this single, seriously flawed, and completely irrelevant (it only tested the effects of chocolate candy bars), experiment are the heart and soul of the claim that ***"diet has nothing to do with acne."***

The "Acne Plague" is Found Only Where Rich Food is Eaten

Acne develops when the pores in the skin (sebaceous follicles) become blocked with dead skin (hyperkeratinization); then fatty materials (sebum) accumulate within the blocked pore. This overstuffed pore then becomes infected by bacteria, resulting in inflammation – the pimple. The bacteria eat the sebum and thrive. Prevention and treatment are now directed at unblocking the pore, reducing the accumulation of the sebum, lessening inflammation, and killing the bacteria, by various pharmaceuticals sold over-the counter and by prescription. As with all Western diseases, there is a better way – and that is attacking the cause and invoking the cure with a healthy diet.

Incidence of acne in Western Countries[4]

Adolescents	**79% to 95%**
Older than 25	**40% to 54%**
Middle aged	**3% to 12%**
Incidence of acne in underdeveloped countries: often 0%	

Multiple studies of people living on their traditional native diets – almost all of which are low fat-diets, based on starches, vegetables, and fruits – have found these people have little or no acne. When these healthy people learn the Western diet, acne becomes an epidemic – as do the other diseases of modern civilization (obesity, heart disease, diabetes, prostate and breast cancer). Examples of well-studied populations include the Kitavan Islanders of Papua New Guinea who live on a diet of 70% carbohydrate from plant foods, and the Ache' of Eastern Paraguay with a diet of about 70% of the calories coming from manioc (cassava – a root vegetable).[4] Acne is completely absent – not a single sufferer – in these two populations living primarily on unprocessed, low-fat plant-foods.

People living in Africa on plant-food-based diets show similar freedom from acne. Southern African Bantu adolescents have an incidence of acne of 16%, compared to the whites in Africa with a 45% incidence.[4] Zulu have been reported to develop acne only after they move from the villages to the cities and learn a Western diet.[5] People in both Kenya and Zambia have far less acne than do blacks in the USA.[5] People from Malaysia living on rice-based

diets have been reported to have no acne problems.[6] A rice-centered diet is also the reason people in rural Japan have very few skin troubles. Even those Europeans on lower-fat diets (Crete, Southern Italy) have less acne compared to those in Western Europe on higher fat diets.[6] The Yemenite Jews following a healthier, lower-fat diet than European Jews report less acne, too.[6] The picture is clear to me: switch from a plant-based-diet to a high fat Western diet centered on meat and dairy, and your face lights up.

Undoubtedly, there are components of the Western diet that cause the skin to become unsightly – this is not a normal, natural condition – this is a disease.

Ways Diet Causes Acne

1) A high-fat diet increases the amounts of fats in and on the skin (sebum). With extreme changes in food intake such as almost total avoidance of fat (like the McDougall diet) or inclusion of fat as the sole source of food the amount of sebum production has been found to be greatly altered.[3] Please note that it does not take much fat on the skin to plug the pores, feed the bacteria, and cause acne in susceptible people. Also note the bacteria eat vegetable oil as well as animal fats.

2) The rich Western diet increases sex hormones causing precocious puberty (girls mature at 12 rather than 16 – boys mature earlier too). Earlier maturation of women is known to be associated with more severe acne.[7] Excess male hormones (androgens) in men and women are well known to cause acne and increase production of sebum.

3) Growth hormones adversely affect the sebaceous glands causing them to become easily plugged. Insulin-like growth hormone-1 (IGF-1) is known to be increased by dietary protein (meat, poultry, etc.), and especially by dairy products. Research shows elevated IGF-1 levels are associated with more acne.[4]

Other factors that may play a lesser role are:

4) Acne is promoted by lack of antioxidants and other plant-derived nutrients that keep the skin healthy.[8]

5) Poor circulation to the skin from a high-fat diet allows the skin to be more susceptible to acne.[9,10]

6) Fat and oils, brought to the skin by hands picking up greasy French fries and burgers, cause acne – this directly-applied grease plugs the pores and feeds the bacteria.

Preventing and Curing Acne

Everyone knows that acne is related to surging hormones during adolescence, but to blame acne on puberty is like blaming heart disease on old age. People get more heart disease as they get older, but only when they eat the wrong diet. Heart disease does not exist where people eat healthy, such as in rural Africa and Asia. Heart disease is also cured when sick people change to a healthy diet. ***Same story with acne***

Acne may be the best angle you will ever use to sell a healthy diet to your teenage children. After changing to plant-based, low-fat foods you (and they) should expect to experience a noticeable reduction in the oiliness of your face and hair within about 4 to 7 days. The pimples start to resolve shortly after that, but sometimes it takes as long as a month to

start to show improvement. Strict adherence to the diet is absolutely essential, because I have found that small indiscretions result in a crop of pimples within a day or two. One night out to the pizza parlor will mean a face-full of flare-ups before you can say, "I shouldn't have ordered the extra cheese and pepperoni." This means you must follow a diet based on starches with fruits and vegetables – strictly avoiding all added fats, including nuts, seeds, avocados, olives, soybeans, and vegetable oils – even the so-called "good" fats. Wash all oils from your hands before touching your face, shampoo the oil from your hair daily, and use a "buff pad" to help open your pores and thoroughly clean your skin. If your skin is not improving, then my first guess is ***you are not adhering strictly enough to your diet and skin care.*** After all, millions of people living in Papua New Guinea, Paraguay, rural Africa and Asia who eat a plant-based diet are acne-free throughout their lives – so why can't you also be acne-free, if you behave like they do?

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Report from the First Alumni Weekend (Held November 7 to 9, 2003)

The conference room was packed with more than 100 people when Dr. Dean Ornish delivered a riveting hour-long presentation on effectively treating heart disease and cancer with a low-fat vegan diet. His well-received presentation was followed by a very scientific discussion on cancer and the Macrobiotic diet by Dr. Lawrence Kushi. There wasn't a wasted moment during the whole weekend. Dr. McDougall gave two brand-new presentations: "Diet vs. Drugs in the Medical Business" and "Meat in the Human Diet." His lecture on "Marketing Dairy and Disease" was also new to most attendees. The McDougall Staff psychologist, Dr. Doug Lisle, proved to everyone that he was the best and the funniest in the business with his lecture on "The Pleasure Trap" – based on his new book. The McDougall Staff dietitian, Jill Nussinow, demonstrated how to make holiday appetizers. Mary McDougall showed how to prepare her Thanksgiving feast – which was the dinner that Saturday evening. Attorney Michelle Simon gave people the inside information on food politics, and cookbook author Meredith McCarty added to the audience's healthy living by introducing some food products unfamiliar to most of them. Saturday evening, a very talented comedian, Ross Turner, brought the house down with a roast of Dr. McDougall (who was totally surprised). This entertaining event was complemented by a surprise birthday party for Mary's parents – they both turned 92 years that weekend.

Dean Ornish, M.D. Presents

People were extremely pleased with the meals – two soups, two entrées and many salads, followed by two different desserts for each lunch and dinner – breakfasts were outstanding, too. The task of convincing people that our eating plan is delicious has been my biggest challenge throughout my 27-year career as a "diet doctor." At times, I have wished that I could take people home to enjoy Mary's cooking so they would know how delicious the foods can taste. I have never been able to find a way to have them properly prepared in an institutional setting, like a restaurant or hospital – until now. The foods prepared by the chefs at our clinic have accomplished this dream and goal of mine. Following every meal I hear people say, "Wow! That was amazing. I never knew healthy vegetarian food could taste so good." Not just a few people say this – but almost all of them – and not just those used to vegetarian cooking – but, even the most hardcore meat-eaters.

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Our **next Alumni Weekend** will be in May, 2004. **An Introductory McDougall Weekend** for people new to the program, as well as anyone interested in a great weekend at an inexpensive price, will be held January 23 to 25, 2004 at our clinic in Santa Rosa, California. The cost will be $395 for the weekend, includes all meals (plus room charges are separate). Call (800) 941-7111 or e-mail office@drmcdougall.com to sign up.

Recipes

SOUTHWESTERN WHITE BEANS

My family really likes bean dishes and so I am always trying out new and interesting recipes. I have made this one several times during the past month with the different variations and served it in several different ways. It is quick and easy to prepare and is also great for lunch or a snack the next day or two, if it lasts that long.

Preparation Time: 20 minutes
Cooking Time: 30-35 minutes
Servings: 6

1 1/2 cups vegetable broth
1 onion, chopped
2 cloves garlic, minced
1 cup corn kernels, fresh or frozen
3 cans white beans, drained and rinsed
2 cups chopped fresh tomatoes
1 4 ounce can chopped green chilies
1 teaspoon chili powder
1/2 teaspoon ground cumin
1/4 teaspoon smoked paprika
1/8 teaspoon crushed red pepper
3 cups fresh chopped, kale, chard or spinach
hot sauce to taste (optional)

Place 1/2 cup of the broth in a large pot. Add onion and garlic. Cook, stirring occasionally, for 10 minutes, until onion is soft. Add corn, beans, tomatoes, chilies, and seasonings. Mix well. Bring to a boil, cover partially and simmer over low heat for 15 minutes, stirring occasionally. Add greens and cook for an additional 10 minutes (only 3 minutes for spinach) Season with hot sauce to taste.

Serve over baked or roasted potatoes, whole grains, or rolled up in a tortilla. This is also wonderful served in a bowl with some fresh bread on the side.

Hints: When fresh corn is in season, slice the kernels off 1 or 2 ears to use in this recipe. To use frozen corn, thaw first under cold running water (place in a strainer and hold under the water for about a minute). Bottled minced garlic may be used, you'll need about 1 1/2 teaspoons. If fresh tomatoes are unavailable, or not very appealing at certain times of the year, use drained, canned chopped tomatoes instead. Any variety of canned white beans may be used. Try either small, white beans or large cannellini beans. Smoked paprika is available in most natural food stores. It adds a delicious flavor to this dish. If you cannot find it, leave it out or use regular paprika instead. Any leafy green is delicious in this recipe. Adjust the cooking times according to the greens used.

POTATO ENCHILADAS

You will need a batch of the enchilada sauce from the May 2003 newsletter recipe for Bean Enchilada Casserole. You may either make one-third of the recipe amount to use in this dish, or make the full recipe amount and serve the extra sauce on the side for those who enjoy more sauce on their food. (It is easy to reduce this sauce recipe by thirds-I make this frequently to serve with our favorite bean burritos.)

Preparation Time: 15 minutes
Cooking time: 50 minutes
Servings: 4-6

4 medium-large firm potatoes, peeled and diced
1 onion, chopped
1-2 cloves fresh garlic, minced
1/2 to 3/4 cup vegetable broth
2 jalapenos, seeded and minced
1 teaspoon chili powder
freshly ground pepper
1 cup fresh spinach, thinly sliced
½ cup grated soy cheddar cheese
8 fat free flour tortillas
2 ½ cups enchilada sauce

Preheat oven to 350 degrees.
Cook potatoes in water to cover until almost tender, about 5 to 7 minutes. Drain and set aside.

Place the onions and garlic in about ¼ cup of the broth in a large non-stick frying pan. Cook, stirring frequently until onion softens slightly. Add jalapenos and another ¼ cup of the broth. Cook for an additional minute. Add potatoes, mix well and continue to cook and stir. Add the remaining broth, the chili powder and several twists of freshly ground pepper. Cook and stir for another minute. Add the spinach and soy cheese. Mix well. Remove from heat and set aside.
Place ½ cup of the enchilada sauce in the bottom of a **lightly** oiled baking dish. (To lightly oil a baking dish, place a small amount of oil on a paper towel and rub over the bottom of your baking dish.)

Take 1 tortilla at a time and spread a line of about ¼ cup of potato mixture down the center of each tortilla. Roll up and place seam side down in the baking dish. Repeat until all filling is used. Pour remaining sauce over the tortillas. Cover and bake for 30 minutes.
Serve with extra enchilada sauce on the side or with some fresh salsa.

Hints: Any type of fresh, firm potatoes may be used in this recipe. Try red potatoes, Yukon Gold, Yellow Finn, white or purple potatoes. Bottled minced garlic may be used instead of fresh garlic. If you do not have fresh jalapeno peppers, use 2 tablespoons of canned, chopped green chilies instead. Add some fresh or frozen (thawed) corn kernels to the potato mixture along with the spinach for variety, if desired.

SWEET POTATO BISQUE

This is the time of the year when sweet potatoes and yams are found in abundance in all of our markets. Choose firm, smooth potatoes of either type for this recipe. The varieties that are sold in most markets in the US are all sweet potatoes. The yams are not really true yams, but are so labeled to distinguish them from the lighter fleshed sweet potatoes. The ones that are labeled yams have a brighter orange color and their flesh is more moist.

Preparation Time: 20 minutes
Cooking Time: 60 minutes
Servings: 6-8

1 onion, chopped
4 ½ cups vegetable broth
2 jalapenos, seeded and chopped
3 cups peeled, chunked sweet potatoes or yams
3 carrots, peeled and sliced
1 cup soy or rice milk
1-2 tablespoons fresh slivered basil
1 tablespoon brown sugar
dash cayenne pepper (optional)

Place ½ cup of the broth in a medium pot. Add the onion and cook stirring occasionally for 3-4 minutes. Add the jalapenos and cook for another 2 minutes. Add the remaining broth, the potatoes and carrots. Bring to a boil, reduce heat, cover and cook for about 45 minutes or until vegetables are tender.

Process in batches in a blender and return to pan, or use an immersion blender and process until the soup is smooth. Add soy or rice milk, basil, brown sugar and cayenne, if desired. Simmer for about 5 minutes, stirring occasionally.

POLENTA TRIANGLES with ROASTED RED PEPPER RELISH

By Jill Nussinow, MS, RD

Jill is our very talented cooking instructor at the McDougall Program in Santa Rosa, CA. During our first McDougall Alumni Program that took place from November 7 thru November 10, 2003 she demonstrated some delicious holiday appetizers. This is one of those recipes.

Preparation Time: 10 to 30 minutes
Cooking Time: 10 minutes
Servings: 8-10 as an appetizer

Polenta:
1 ¼ cups coarsely ground cornmeal

3 ½ cups water
1 teaspoon salt

Bring the water to a boil in a medium pot. Stir in cornmeal. Reduce heat. Cook, stirring constantly for 5 to 10 minutes, or until spoon will stand straight up in the cornmeal mixture. Pour onto a baking sheet and flatten into a thin layer. Refrigerate for 15 to 20 minutes until cooled. Cut into triangles and place on plate. Serve at room temperature topped with the relish.

Variation: Add some fresh chopped herbs when cooking the polenta. To save some time: buy precooked polenta (sold in "logs" in natural food stores), slice and bake for 10 minutes. Cool. Cut each slice in half and proceed with the recipe.

Relish:
1 ½ cups roasted red peppers(sold in jars) or 2 large red peppers, roasted
2 tablespoons capers
1 tablespoon chopped fresh Italian parsley
1 tablespoon chopped fresh basil
1 clove garlic, pressed
2 teaspoons balsamic vinegar

Finely chop the roasted red peppers, either by hand or in a food processor (don't let them get mushy). Combine with the remaining ingredients. Let this mixture sit at room temperature for at least 30 minutes to allow flavors to meld. Serve on top of the polenta.

APPLE-PRUNE CRISP with HAZELNUT TOPPING

By Roberta Joiner

Roberta is a McDougall Program alumnus and she teaches a very creative cooking class at most of the regular McDougall Programs. This is a recipe she adapted into a healthy dessert. It is delicious! This would make a wonderful addition to your holiday dessert menu. Remember: this is meant for a special treat, not an everyday dessert.

Preparation Time: 30 minutes
Cooking Time: 40 minutes
Servings: 9

Filling:
1/3 cup sugar
3 tablespoons brown sugar
1 tablespoon unbleached white flour
2 teaspoons ground cinnamon
1 teaspoon apple pie spice
2 large Granny Smith apples (about 20 ounces), peeled, cored and diced
½ cup pitted prunes, chopped

Topping:

1/3 cup packed brown sugar

¼ cup unbleached white flour

¼ cup rolled oats

¼ teaspoon salt

¼ cup prune puree (see hints)

1 cup hazelnuts, toasted and chopped (see hints)

Preheat oven to 375 degrees.

Filling:

Mix sugars together in a large bowl. Stir in flour, cinnamon and apple pie spice. Mix in apples and prunes. Let stand about 5 minutes. Place in a **lightly** oiled 8 inch baking dish. (See directions in recipe for Potato Enchiladas on how to lightly oil a baking dish.) Bake until beginning to bubble at edge, about 20 minutes.

Topping:

Mix sugar, flour, oats and salt in a medium bowl. Add prune puree. Mix with your fingers until clumps form. Add hazelnuts and mix well. (This is very sticky. Use disposable gloves, if desired.) Scatter topping over pre-cooked filling. Continue to bake for another 20 minutes, until topping is golden and juices are bubbling thickly. Cool slightly before serving. Serve with soy ice cream or the vanilla sauce from October 2003 newsletter.

Hints: There is an easy recipe for prune puree in the Quick & Easy Cookbook, page 281. Store the extra puree in the refrigerator in a covered jar. Use as a fat replacer in other dessert recipes. (Remember, when replacing fat in one of your old recipes, the general rule is to replace the fat in the recipe with half that amount of replacer. For example, if you have a recipe that calls for ½ cup of oil or butter, use about ¼ cup of fat replacer.) Toast the hazelnuts in a non-stick pan, stirring almost constantly until lightly browned, or toast in the oven until lightly browned, then chop in your food processor. This topping may also be used on other fruit desserts to replace the usual butter-filled toppings.