



John A. McDougall, M.D.

Vol. 1, No. 10

July 2000

Dr. John A. McDougall's

# To Your Health

## Soy—is it *really* a health food?

I've noticed a funny thing recently in my local grocery store. Suddenly, soy products are everywhere. Soy cheese, soy milk, and even soy "lunch meat," hot dogs, and burgers—all readily available in a chain supermarket, and not hidden in the "health-food" aisle either. The packaging proudly proclaims the ingredients—usually with an extra bold banner, touting the product as a good source of *soy protein* or *isoflavones*.

While I certainly applaud the availability and variety of vegan foods, I am still skeptical of this trend. I think many people have a misconception that they should make soy a huge part of their everyday diet and believe that eating as much soy as possible is good for them.

Yes, soy products *can* be part of your diet. Yes, they can be a healthy alternative to unhealthy animal products. But in people's rush to jump on the soy bandwagon, many important facts about these foods are being overlooked. Read on to learn the *real* scoop on soy—and what benefits *and problems* you can expect to gain from eating it.

### Soy "nuts" high in protein...and FAT

Let's start with the basics. Soy foods are made from soybeans. But soybeans are very different from kidney beans, black beans, or garbanzos. In fact, soybeans are not *really* beans at all. They are a good source of protein and fiber, as are most legumes, but they are also very high in fat. Soybeans are actually much closer, nutritionally, to nuts. Did you know that raw **soybeans are 46 percent fat** and 38 percent protein? In comparison, **peanuts are 61 percent fat** and 17 percent protein, while **real beans like navy beans are only 3 percent fat** and 27 percent protein. So, while soy products are high in fiber and protein, and contain no cholesterol, they can still make you FAT.

### Phytoestrogens key to soy's health benefits—and risks

The current popularity of soy seems tied to the *phytochemicals* it contains. Most of soy's purported health

benefits are tied to its rich array of these substances, particularly phytoestrogens like isoflavones.

What exactly are phytochemicals? Technically, they are chemical substances produced by plants. Commonly, however, the term *phytochemicals* refers to specific plant chemicals that are believed to have health benefits. Phytoestrogens are a specific type of phytochemical—known as *plant estrogens*—and are structurally similar to human estrogen. Isoflavones (the estrogens found in soy) are what we're hearing about these days, but there are many other phytoestrogens, including lignans (found in flaxseed, cereals, fruits, vegetables, legumes, and soy), coumestrol (found in red clover), and triterpenoid glycosides (found in black cohosh).<sup>1</sup>

Phytoestrogens occur naturally in plants and, once ingested, can act similarly to human estrogen. Human estrogen is secreted by a variety of organs and glands in the body and binds with other cells and organs on

### Phytoestrogen use for HRT may have hidden risks

Despite the lack of supporting evidence, many women are turning to phytoestrogens as an alternative to traditional hormone-replacement therapy. And even more troubling is the fact that instead of getting these plant estrogens from foods, many women are taking them in pill form. It may seem that phytoestrogens would be "all-natural," but remember that phytoestrogen pills, like drugs, are made of chemicals. Yes, they occur naturally, but nature did not intend for them to be taken as isolated substances, in man-made concentrations. Just like synthetic HRT drugs, phytoestrogens must be taken with care and with a realistic outlook. They are no more a magic cure-all than synthetic drugs. (See the May 2000 issue of *TYH* for a complete discussion of HRT alternatives.)

<sup>1</sup> *The Medical Letter*, 42:17-18, 2000

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John A. McDougall, M.D.

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**Our mission:** For over 27 years, Dr. John McDougall has been fighting to bring nutrition to the forefront of mainstream medicine. Frustrated by the establishment's resistance to logic, and years of evidence from his clinic, he set out to educate health-conscious people about the medicinal qualities of food for the treatment and prevention of many of today's most threatening diseases. He is dedicated to teaching you how to transform your life and to achieve optimum health and appearance by using the life-giving foods that were designed for your body. In addition, each month he will bring you news of his latest healing and weight-loss discoveries.

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estrogen receptor sites. Phytoestrogens can also bind on these receptors, though they are considerably weaker than human estrogens.<sup>2</sup>

While phytoestrogens act as estrogen "mimics," they can also inhibit natural estrogen production. The simple explanation is that since phytoestrogens are filling up the estrogen receptor sites, the body thinks it doesn't need to make more estrogen. When the weaker phytoestrogens are bound to the estrogen receptors, they prevent the attachment to and action on the cells of stronger estrogens, such as those produced by the ovaries. Researchers are still exploring this relationship, to determine how changes in the variables of phytoestrogens and human estrogen concentrations, estrogen receptor status, and the type of organ or cell involved can affect the results.<sup>3</sup> The truth is, not enough research has been done to allow us to fully understand phytoestrogens and their effects on the body.

**Can isoflavones fight cancer?**

There have been claims that the phytoestrogens in soy could protect us from cancer. This is also because of their estrogen-lowering effects. Many studies hypothesize that lowering the amount of estrogen produced by the body could curb the development of breast cancer. This theory was supported in several animal studies, including a trial that specifically tested the role of soy isoflavones.<sup>4</sup>

But there have been no large, long-term clinical human trials to support these findings. And artificially altering the hormonal balance in the body is always problematic. Remember that supplemental estrogen after menopause increases the risk of endometrial cancer, and now scientists are questioning the effects of progestin/estrogen combination HRT on the risk of breast cancer.<sup>5</sup>

Some fear that phytoestrogens may have similar effects. And there is cause for concern. In a study of 48 women with benign or malignant breast disease, for example, a daily supplement of 60 grams of soy (45 mg of isoflavones) was linked to breast-tissue proliferation (a sign of increased risk of breast cancer).<sup>6</sup> More research is needed before we can conclusively say how these plant estrogens affect the human body.

Many of soy's purported health benefits are based on circumstantial evidence, such as the fact that populations with a traditionally high soy intake have lower rates of many "Western" diseases.<sup>7</sup> Osteoporosis; breast, colon, and prostate cancer; and the unwanted symptoms of menopause all occur less frequently among Asian populations that consume relatively large quantities of soy foods. Soy *may* have something to do with it, but, then again, it may *not*. The focus on soy ignores the many other factors that enter into that equation, such as fat and fiber intake, environmental and chemical contaminants, and levels of physical activity.

**Could soy make you stupid?**

As I reported in the February 2000 issue of *To Your Health*, high tofu consumption in middle age has been linked to cognitive impairment and

*Continued on page 4*<sup>2</sup> *Am J Clin Nutr*, 68:1333S-1346S, 1998<sup>3</sup> *Ibid.*<sup>4</sup> *Ibid.*<sup>5</sup> *Journal of the National Cancer Institute*, 92:328-332, 2000<sup>6</sup> *Am J Clin Nutr*, 68:1431S-1435S, 1998<sup>7</sup> *Am J Clin Nutr*, 70:464S-474S, 1999

# The hunter/gatherer theory: not healthier...but full of holes

**M**ost vegetarians have, at one time or another, been presented with the argument that hunter/gatherers were healthy people...and *they* ate meat. Contentious meat eaters often point to our prehistoric ancestors as justification for their own omnivorous diet. If they could live on a protein-based diet, the theory goes, and avoid the "diseases of civilization" like cancer and heart disease, why can't we?

This theory takes such liberties with history, anthropology, and science that it hardly seems worth refuting at this point. However, a new study in the *American Journal of Clinical Nutrition* has brought the debate to the surface again and has caused nutritionists to point out the theory's myriad holes. I'd like to do the same.

This study attempts to recreate the dietary habits of "preagricultural" humans.<sup>1</sup> The lone source is a book called *The Ethnographic Atlas*, which provides a variety of anthropological data on more than 1,267 of the world's societies, compiled through literature searches. As one aspect of each society's culture, the book lists information about their dependence on various food sources. As many as 229 societies were identified that depended completely on hunting, gathering, and fishing for sustenance.

By analyzing the data in the book, the study's authors concluded that hunter/gatherers consumed 45 to 65 percent of their total energy from animal foods whenever possible. They also reported that only 14 percent of

those societies gained more than 50 percent of their energy intake from plant foods.

## Taking the hunter/gatherer theory to task

So...it would *seem* that with statistics like those reported above, sticking to a healthy, low-protein, low-fat diet is superfluous; after all, hunters and gatherers were healthy and ate all the meat, fat, and animal proteins they wanted. But, as with most studies done on this historic group and its eating habits, this particular study's methods are highly tainted.

**Most vegetarians have, at one time or another, been presented with the argument that hunter/gatherers were healthy people... and they ate meat.**

It uses an admittedly "indirect" source, which is based on other indirect sources. Gathering nutritional data was not even the ethnographers' mandate—they were compiling dietary information as just one other piece of the anthropological puzzle.

Second, it's important to keep in mind that archeology cannot present a fair representation of a plant-based, gathering diet. The accoutrements of gathering the remains of plant-based meals would disappear long before the bones, spears, and other byproducts of hunting that are more often found and studied.

## No correlation between the modern world and the hunter/gatherer lifestyle

OK, so we know that the hunter/gatherer research is going to be weak, but the more important point is this: Even *if* primitive hunter/gatherer societies lived primarily on animal foods, why would anyone in modern society suggest that we should follow suit? There are almost no similarities between our societies.

Hunter/gatherers had little choice in the food that they ate. They ate what they had, for survival, not for pleasure or entertainment, as many do today. In fact, I would venture to say that often for stretches as long as several months these people would go without meat of any type.

They were also "catching" their dinners—strenuous physical activity was a daily part of life in hunter/gatherer societies; rarely the case in our world, where we no longer have to budge to change a television channel.

Also, the types of meats eaten were very different from the types eaten today. Fat content of wild game is typically lower than that of farm-raised animals. The grains were in their whole natural form, not processed.

## Humans are built for eating plants

An accompanying editorial, in response to the above study, reviewed other research on "hunter/gatherer societies" and concluded that for most societies the bulk of their diet was from wild plant foods.<sup>2</sup> In fact, there is general agreement that our ancestors

<sup>1</sup> *Am J Clin Nutr*, 71:682-692, 2000

<sup>2</sup> *Am J Clin Nutr*, 71:665-667, 2000

## Soy—is it really a health food?

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brain atrophy among the elderly.<sup>8</sup> In a study of 3,734 Japanese-American men in the Honolulu Heart Study, researchers found that the men were more likely to have cognitive impairment or Alzheimer's disease if they ate tofu more than twice a week. Dr. Lon White of the Pacific Health Research Institute theorizes that tofu's phytoestrogens clog up the brain's estrogen receptor sites, preventing the brain from utilizing human estrogen properly. Again, this is one isolated study, and further research is needed to clarify its results.

### Soy can help keep your heart healthy

Of all of the claims about soy, the food's positive effects on cholesterol and cardiovascular health can probably be supported by the most evidence. For example, more than 40 studies have found that soy foods help to lower cholesterol. While some of soy's cholesterol-lowering effects can be attributed to its high fiber content, some studies have found that even isolated soy protein (without the fiber) still lowers cholesterol levels. In a meta-analysis of 38 clinical trials, 89 percent of the participants realized a net decrease in cholesterol levels when they consumed an average of 47 grams of soy protein per day.<sup>9</sup> The FDA has recognized soy's cholesterol-lowering benefits and has allowed soy-food manufacturers to include these claims in their packaging.

Studies have shown that soy may have other heart-healthy benefits as well. Laboratory tests have shown that a type of isoflavone called genistein may inhibit the development of atherosclerotic lesions.<sup>10</sup> Also, animal studies have suggested that isoflavone-rich soy foods may help coronary arteries dilate, which is similar to the effects of human estrogen.

### Salt, pepper, soy...that's the rule

If you're following a healthful plant-based diet, you're already getting all the phytochemicals you need—including isoflavones—from a variety of sources. So if you don't want to eat soy, don't do it for "health reasons." If, on the other hand, you would like to incorporate soy foods into your diet, go ahead. Soy products can add variety and versatility to a plant-based diet. I always recommend using soy foods as condiments, not as main parts of a meal. Sprinkle some soy cheese on your baked potato, pour soymilk on your cereal in the morning, or enjoy a soy/veggie burger now and then. But stick to vegetables, fruits, and whole grains as the foundation of your diet. That way, you'll have the best strategy yet for staying healthy.

## Pay attention to the labels when shopping for soy

There are many different types of soy to choose from, including low-fat soymilk, varieties of tofu, tempeh, and miso; and soy cheeses and burgers. But don't be fooled by packaging when shopping for soy. Just because a product contains soy does not mean that it's good for you. The nutrient content can vary widely among different types of soy foods—and even from one brand to another. For instance, a half-cup of raw, firm tofu contains only 2.9 grams of dietary fiber, as compared with the 10.3 grams of fiber in a cup of boiled mature soybeans.

Isoflavone content also can vary widely from food to food. One of my biggest concerns is the overconsumption of burgers, hot dogs, and lunch meats that can contain as much as 70 percent of the calories as isolated soy protein. In addition to producing some undesired phytochemical effects, this much concentrated protein can cause bone loss and kidney-stone formation.<sup>11,12</sup>

<sup>8</sup> *Journal of the American College of Nutrition*, 19:1-14, 2000

<sup>9</sup> *ibid.*

<sup>10</sup> *J Nutr*, 125:624S-630S, 1995

<sup>11</sup> *J Nutr*, 128:1051-1053, 1998

<sup>12</sup> *Am J Clin Nutr*, 69:267-271, 1999

## The hunter/gatherer theory

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were herbivores. Modern human nutritional requirements, such as the need for vitamin C (which is only found in plant foods) and the long human intestine (designed to digest plant foods) suggest that our daily diet consisted of plant foods with perhaps an opportunistic intake of animal foods.

The author of this editorial concludes with the following observation: "No hunter/gatherer society, regardless of the proportion of macronutrients consumed, suffered from diseases of civilization (heart disease, diabetes, cancer, etc.). Most wild foods lack high amounts of energy (sugars and fats found in refined foods), and this feature, in combination with the slow transit of food particles through the human digestive tract, would have served as a natural check to obesity and certain other diseases of civilization." Our modern diet of meats, dairy products, and processed foods is very high in energy, and the only practical way to avoid common degenerative diseases is to focus your diet on fresh fruits and vegetables that are low in energy and high in nutrients.

## Great summer recipes

by Beth Ranum

*In May 2000, we ran the first 12-day McDougall Program in Lakeland, Florida. We imported our Minnesota McDougall-program chef, Beth Ranum, for the food preparation and daily food demos. Her efforts won her a standing ovation.*

### SWEET POTATO SALAD

**Servings:** 4

- 2 pounds sweet potatoes, chunked
- 1/4 cup fresh parsley
- 2 tbs. red wine or balsamic vinegar
- 1 tbs. maple syrup
- 1-2 tbs. Dijon mustard
- 1/2 tsp. salt
- 1/4 tsp. black pepper

Place sweet potatoes on a dry baking sheet. Roast in a 400-degree oven until tender—about 20-30 minutes; turn occasionally. Combine the remaining ingredients and toss with the sweet potatoes. Serve warm or at room temperature. **Note:** Instead of roasting the sweet potatoes, you can steam them.

### COLORFUL QUINOA AND CORN

**Servings:** 2-4

- 1 cup rinsed, uncooked quinoa
- 2 cups water
- 1/2-1 cup fresh or frozen corn kernels
- 1 small or 1/2 large red bell pepper, diced
- 2 green onions, sliced
- 2-4 tbs. lemon or lime juice
- 1/4 cup fresh parsley or cilantro, chopped
- 1/2 cup diced jicama
- 1 can or 1 1/2 cups cooked black beans (optional)
- Salt and pepper to taste

Boil water. Add the quinoa and return to a boil. Reduce heat and simmer 10-15 minutes, or until the quinoa is tender and has absorbed the water. Be careful not to overcook.

Transfer the quinoa to a large bowl and cool to room temperature or immediately combine the quinoa with the vegetables and seasonings. Serve warm or cold.

**Variation:** Use buckwheat or bulgur instead of quinoa.

### GARBANZO SALAD SANDWICH

**Servings:** 2-3

- 1 can or 1 1/2 cups cooked garbanzo beans
- 2 stalks celery
- 2 tbs. onion

## Mary's Corner

# Recipe

OF THE MONTH

By Mary McDougall



- 2-4 tbs. fat-free Noyonnaise (tofu mayonnaise)
- 2 tbs. lemon juice
- 2 tsp. prepared yellow mustard
- 1/2 tsp. salt, or to taste
- 1/4 tsp. black pepper, or to taste

**Optional:** pickles or pickle relish to taste

**Bread:** whole wheat or pita

**Vegetables:** Lettuce, alfalfa sprouts, tomatoes, cucumbers, shredded carrots

Chop the celery and onion finely, using a knife or a food processor. Put them into a mixing bowl. Mash the garbanzo beans a bit, using a potato masher or food processor, and add them to the vegetables. Add remaining ingredients and stir well. Season to taste. This spread keeps for 5 days refrigerated. **Variation:** Use steamed, shredded tempeh instead of the garbanzo beans.

### FIESTA SALAD

**Servings:** 4

- 1 can or 1 1/2-2 cups cooked black, red, or pinto beans
- 2+ cups fresh or frozen (and then thawed) corn
- 1/2 green or red bell pepper, chopped
- 1 or 2 fresh tomatoes, chopped
- 3 green onions with tops, chopped
- 1/4 cup parsley or cilantro, chopped
- 3 or 4 tbs. lime or lemon juice
- 2-4 garlic cloves, minced
- 1 tsp. or more whole cumin seeds
- 1/2 tsp. salt, or to taste

#### Serving options:

- Combine everything and stir well. Let the salad sit at room temperature for up to 30 minutes, so the flavors will blend. Adjust seasonings.

- Combine leftover salad with leftover cooked pasta and serve your Fiesta Pasta salad warm or cold.

- Turn it into soup! For each cup of salad, add a cup of water and simmer in a saucepan until the vegetables are the desired tenderness and the soup is hot. Add salt to taste. For a richer-tasting soup, use prepared tomato soup instead of water or add some prepared salsa.

- Wrap it up in a whole wheat tortilla.

## Why your morning “Cuppa joe” may be hazardous to your health

Over the last decade, there's been a lot of talk about a substance called homocysteine. It's been linked with everything from early miscarriages<sup>1</sup> to osteoporosis and cognitive decline.<sup>2</sup> Perhaps the most compelling connection has been noted between homocysteine levels and heart disease. Now, research suggests that regular consumption of unfiltered coffee can raise homocysteine to dangerous levels.

### Coffee drinking raises homocysteine levels

A Dutch crossover study of 64 volunteers found that daily consumption of one liter of unfiltered coffee for two weeks raised homocysteine concentrations by 10 percent.<sup>3</sup> The participants were randomly assigned into two groups, one that consumed coffee and one that consumed a variety of other beverages. After an eight-week “washout” period, the two groups switched, testing the other group's response to coffee. Researchers found that during the coffee period, participants' homocysteine levels increased 10 percent, as did their cholesterol and triglyceride levels.

This is not the only study to find a link between coffee and homocysteine. The Vitamin, Teachers, and Longevity Study found that the adjusted difference between coffee drinkers' and non-coffee drinkers' homocysteine concentrations was 1.3 micromoles per

liter (about a 10 percent difference).<sup>4</sup>

### Filtered and unfiltered coffee affect homocysteine levels

Different types of coffee may have different effects on homocysteine levels. This study used unfiltered coffee, and most commercially made and home-brewed coffee available in the United States is filtered (as through paper filters used in coffee makers); this eliminates some of the harmful “diterpenes” found in stronger unfiltered types. But some of the studies supporting the coffee-homocysteine link used regular, filtered coffee, so it is doubtful that the diterpenes are entirely to blame.

Another theory places the blame on caffeine, which is known to leach vitamin B<sub>6</sub> from the body. Since elevated homocysteine levels are often caused by B vitamin deficiencies, this may be an important connection.

To better guard against elevated homocysteine and promote a healthy heart, increase your intake of foods that are rich in folic acid and B vitamins like fruits, vegetables, beans, lentils, and grain products. Spinach and other green leafy vegetables are particularly high in folates, and bananas are high in B<sub>6</sub>. And, while an occasional cup of coffee may not negate an otherwise healthy diet, these studies confirm that coffee drinkers should cut back.

<sup>1</sup> *Am J Clin Nutr*, 71:962-968, 2000

<sup>2</sup> *J Nutr*, 130:365S-368S, 2000

<sup>3</sup> *Am J Clin Nutr*, 71:4880-484, 2000

<sup>4</sup> *Am J Clin Nutr*, 69:467-475, 1999

## New Food Cure

## Walnuts help lower total and LDL cholesterol

Walnuts may be the newest food cure for lowering your cholesterol levels, particularly LDL cholesterol. In a new study conducted in Spain, the consumption of walnuts helped participants lower total cholesterol and LDL levels even further than the control group following the supposedly heart-healthy “Mediterranean” diet.

The randomized, crossover trial included 49 men and women with high cholesterol (serum LDL cholesterol concentrations greater than 130 mg/dL) who were divided into two groups. The control group followed a typical Mediterranean diet, rich in fish, vegetables, and olive oil. Nuts were prohibited for the control group. The other group consumed between 41 and 56 grams of raw, shelled walnuts each day (about eight to 11 whole walnuts) in place of approximately 35 percent of the monounsaturated fats in the control diet. Each group followed its assigned diet for six weeks and then switched to the other diet for another six weeks. Aside from the walnuts, both

diets were similar, with daily intake ranging between 1,600 and 2,200 calories.

While participants followed the walnut diet, their mean total cholesterol levels fell by 9 percent.<sup>1</sup> In comparison, mean total cholesterol levels fell only 5 percent during the control phase. Mean LDL cholesterol levels fell *twice as much* (11.2 percent) during the walnut-diet phase as during the control phase (5.6 percent).

While this study shows significant results, it is important to realize that the walnuts ingested daily in this study contain about 35 grams of fat (amounting to 315 calories of fat that is very easy to wear). You may not want to consume that many walnuts each day, but you can enjoy them as a crunchy afternoon snack, add some crushed walnuts to breads and cereals, or sprinkle some on your salad. Take a look at Mary's recipe for Walnut Spirals, featured in your May issue.

<sup>1</sup> *Ann Intern Med*, 132:538-546, 2000

# Keeping up with Dr. McDougall

## Recommended Books:

(Half-price Sale on Books!)

We would like to help you or a friend get started on the McDougall program. *The McDougall Program-12 Days to Dynamic Health* (regularly \$14.95, now \$7.50); learn how to do the world-renowned hospital-based McDougall program *at home*. *The New McDougall Cookbook* (regularly \$13.95, now \$7.00); over 300 of our favorite, healthy recipes; tel. (800)570-1654 or (707)576-1654, Web site: [drmcDougall@drmcDougall.com](mailto:drmcDougall@drmcDougall.com). \$4 S&H for first book and \$2 for each additional book in the US (outside US \$7/\$3); 7.5% sales tax in California.

## Instant healthy meals

Dr. McDougall's Right Foods include 16 delicious meals. Try Oatmeal & Barley w/ Peaches & Raspberries, Mashed Potatoes—Country Garden Style, or Chili w/ Beans & Corn Chips. Available through grocery and natural food stores. Ask about Dr. McDougall's Maximum Weight Loss Kit. Look and feel great this summer! Call (800)367-3844, fax (650)635-6010, or Web site: [www.rightfoods.com](http://www.rightfoods.com).

**Because of an overwhelming response, we've scheduled two more 10-day programs.**

Aug. 11 and Sept. 8, 2000, begin special 10-day programs that save you time (only one week off work!) and money. Transform your life for good in California's beautiful Napa Valley. Look and feel better in just 10 days. The McDougall program will change your life forever and put you on the road to dynamic health.

- Reach toward your ideal weight.
- Watch your cholesterol and blood-sugar levels fall.
- Decrease your dependence on medications.
- Manage stress.
- Increase endurance for work and play.
- Control serious health problems, such as diabetes and high blood pressure.
- Reduce risk for cancer, arthritis, and heart disease.

The McDougall Program at the St. Helena Center for Health was rated the No.1 weight-loss and health-enhancing program in the country by the Physicians Committee for Responsible Medicine.

Take charge of your health. Experience the program that has enabled thousands to change their diet and improve their health and quality of life. Join Dr. John McDougall and his team of professionals in the Napa Valley—the residential programs begin on Aug. 11 and Sept. 8, 2000. For reservations and information, please call us or visit our Web site:

[www.sthelenahospital.org](http://www.sthelenahospital.org)

**McDougall Program at the St. Helena Center for Health**  
**(800)358-9195 or (707)963-6207**

**12-day programs begin July 9, Oct. 8, and Nov. 26.**

## McDougall Costa Rica Adventure

July 31-Aug. 8, 2000

*"We want to thank you and your lovely family for all your hard work in giving us the nicest, most organized trip we ever experienced. We now truly know the meaning of adventure. We especially liked the food, and that was the main reason I wanted Wesley to go on this trip."*

Jeannine Uffelman, Napa, CA.



## Join us in El Ocotal, a paradise on the northwest coast of Costa Rica

Our first night will be spent in San Jose and then we depart for the El Ocotal Hotel, a first-class luxury ocean-side resort with views that will take your breath away. Each room has its own terrace overlooking the blue Pacific. The lobby and restaurant, perched atop a knoll surrounded by water on three sides and with El Ocotal's third swimming pool below, is regarded as one of Costa Rica's most picturesque spots. In addition, John and Mary McDougall will be providing education on the McDougall program. All meals are pure-vegetarian, low-fat, and delicious. The bar offers tropical cocktails, a varied wine list, and both local and imported spirits...and yes, the tap water is safe to drink.

Our own naturalists will guide us to the national parks, wildlife reserves, nearby towns, and other points of interest. We have five daylong excursions planned for you, including horseback riding or a wagon ride through the rain forest, Class 1 to 2 (not rough) white-water rafting, swinging through the canopy of the forest, and boating up an estuary. The animal and plant life are exotic. You can spend as much time as you want relaxing, swimming, snorkeling, scuba diving, or on land excursions.

The total cost of the trip is \$1,450 per person (singles \$1,850) and is all-inclusive except for airfare and transportation to and from San Jose. **This means all activities, adventures, boat trips, scuba diving, snorkeling trips, meals, alcoholic and nonalcoholic beverages (local spirits, wines, and beers), and transfers are included.**

We have arranged special low-cost, group-based fares and have other money-saving tips and discounts to offer. Please call us for details today at (800)570-1654.

**For more information or reservations, call (800)570-1654 or (707)576-1654 today!**

## Milk protein linked to autism and schizophrenia

Two new studies suggest that autism and schizophrenia may be caused by an allergy to dairy products. In two related animal studies, researchers at the University of Florida injected rats with the milk protein beta-casomorphin-7 in order to observe its effect on the brain and behavior.

In the first rat study, researchers found that the protein was taken up by 32 different parts of the brain, including areas responsible for vision, hearing, and communication. The study further noted that the same areas of the brain have been found to be either functionally or anatomically altered in schizophrenics and that many of the same areas have been found to be functionally altered in autists.<sup>1</sup>

In the second study, treated rats exhibited extreme behavior as soon as one minute after administration and their behavior swung radically for the next hour. Their behaviors, similar to those typically seen in autistic and schizophrenic people, included restlessness, aggression, isolation, hyperdefensiveness, and a lack of response to sound.<sup>2</sup>

Researchers hypothesize that autists and schizophrenics are unable to properly break down milk proteins, possibly due to a missing enzyme. When the proteins are not properly digested, morphine-type compounds called exorphins are produced. The exorphins are then taken up in the brain, causing a variety of dysfunctions—such as those seen in cases of schizophrenia and autism.

The same research team is now testing the theory on humans, and initial findings are promising. **Ninety-five percent of the 81 autistic and schizophrenic children being studied had twice the normal levels of the milk protein in their blood and urine.** After the children

adopted a milk-free diet, autistic and schizophrenic symptoms faded or disappeared in 80 percent of them.

<sup>1</sup>Autism, 3:67-84, 1999

<sup>2</sup>Autism, 3:85-96, 1999

## Clogged arteries linked to lower back pain

There are many causes of chronic back pain: sciatica, osteoarthritis, poor posture, injuries and accidents, osteoporosis, and more. Now, a new study from Finland indicates that an insufficient blood supply, due to atherosclerosis, may be a cause of lower back pain.

The trial compared two groups of participants: a group of 29 people who regularly experienced lower back pain and a control group of 52 people who did not have any back pain.

Participants in both groups were examined for the presence of atherosclerosis in the abdominal aorta. Fifty-five percent of the pain group had atherosclerotic calcification (built-up plaque), while only 11 percent of the no-pain group experienced such calcification. When the researchers broke down the groups by age, they found an even more striking difference: Forty-eight percent of participants in the pain group under the age of 50 already showed calcification, while only 8 percent of the control participants under age 50 had suffered damage.<sup>1</sup>

The researchers suggest that poor blood circulation caused by atherosclerosis leads to disc degeneration and rupture which causes pain.

Atherosclerosis is caused primarily by a high-fat, high-cholesterol diet. If you experience lower back pain, adopting a low-fat, low-cholesterol diet may provide relief, even if damage has already been done. The accompanying weight loss will further reduce your back pain.

<sup>1</sup>Spine, 24:2080-2084, 1999

## Issue wrap-up

The articles in this issue confirm that food can be your best medicine...or your worst enemy. The things we eat and drink can help us—as walnuts do in lowering cholesterol—or they can hurt us, perhaps by causing psychiatric problems or raising homocysteine levels. It's important to stay well-informed and make the right choices about what you feed yourself and your family.

*John A. McDougall M.D.*

Next month, I'll reveal how the pharmaceutical industry can underhandedly affect our health care; I'll also dispel some of the recent negative news stories about the vegetarian diet.

**John A. McDougall, M.D.**, graduated from Michigan State University Medical School and completed his residency training in internal medicine at the University of Hawaii. He is a board-certified specialist in internal medicine and one of the world's leading experts on health and nutrition. As medical director of a revolutionary program at St. Helena Hospital in Napa Valley, California, he has attracted national acclaim for helping people of virtually all ages to overcome chronic illnesses and reverse life-threatening conditions.

Dr. McDougall is the author of several nationally best-selling books, including *The McDougall Plan*, *McDougall's Medicine: A Challenging Second Opinion*, *The McDougall Program: 12 Days to Dynamic Health*, and *The McDougall Program for Maximum Weight Loss*.

Dr. McDougall's face will be familiar to many from his television appearances on CNN, *The Phil Donahue Show*, and other programs. He also hosts his own nationally syndicated television program, *McDougall, M.D.*, shown throughout the country.