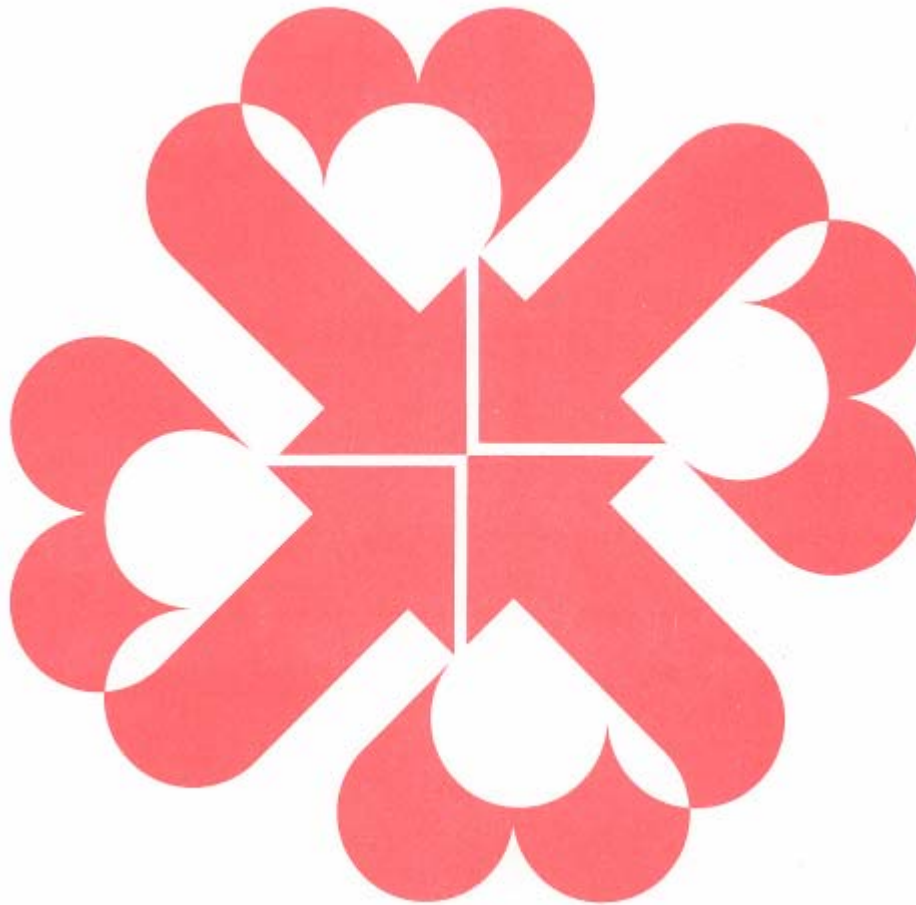


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healthy heart beats



Colorado State University Extension programs are available to all without discrimination.

Healthy Heart Program Updates

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In This Issue

According to a recent report from the American Heart Association (AHA) approximately 16 million people in the United States have coronary heart disease (CHD). Improved prevention measures and treatments have increased the survival rate of those with coronary heart disease. However, the quality of those extra years may be less than ideal, according to research reported in last month's issue of *Circulation: Journal of the American Heart Association*. The study highlights the need to prevent heart disease when possible with lifestyle changes that include nutrition. The research stated that:

- People with CHD report a worse "quality of life" than people free of heart disease.
- Heart patients who were younger than 50, female, and black or Hispanic were more likely to have lower quality of life scores.
- Quality of life is an important indicator of the socioeconomic impact of disease, the effectiveness of treatment, and long-term mortality.

Compared with adults without CHD, adults with CHD scored up to 9 percent lower on four scales measuring "quality of life." Patients with CHD were more likely to say they had poorer quality of life, or describe themselves as sick, said lead author Jipan Xie, M.D., Ph.D., former health scientist in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention in Atlanta, Georgia.

Focus on food selection as you plan educational programs to assist in life-style changes to lower risk of heart disease. The seasonal bounty of fruits and vegetables offers benefits from the antioxidants and bioactive ingredients that abound in the summer's harvest. This issue of Healthy Heart Beats includes research on berries that are filling farmers' markets and supermarkets. Select from the array of colorful fruits and vegetables and try new ones

to add variety. Did you know it takes 8-12 times for children to be willing to try new foods and some research points to as many as 12-15 times for adults! Consider adding tasting sessions of new and unusual foods that include some of the summer crops of berries, fruits, and different types of lettuces greens, peppers and colorful vegetables to your workshops. Savor the various textures, colors and flavors and get the benefit of antioxidants and phytochemicals in your diet.

These dietary recommendations appear to be prudent especially for women based on research conducted at the German Institute of Human Nutrition. Women who eat a "prudent" diet rich in vegetables, fruits, legumes, whole grains, fish and poultry may reduce their risk of death from cardiovascular disease. Women who follow a traditional "Western" diet of red and processed meat, refined grains, fries and sweets may increase their risk. That's the conclusion of researchers who reported the results of a Harvard School of Public Health study in *Circulation: Journal of the American Heart Association*. The study of 72,113 healthy women found that a "prudent" diet was associated with a 28 percent lower risk of death from cardiovascular disease and a 17 percent lower risk of premature death from all causes when compared to those with the lowest adherence. "These results highlight the importance of intensifying public health efforts to promote the adoption of a healthy overall diet including high intakes of vegetables, fruit, legumes, whole grains, fish and poultry and low intakes of red and processed meat, refined grains, French fries and sweets," said Christin Heidemann, Dr.P.H., M.Sc., lead author of the study.

Enjoy eating lots of colorful fruits and vegetables this summer!

Jennifer Anderson, Ph.D., R.D.
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Nutrition and Research Updates

Low Fat Dairy Foods Linked to Decreased Risk for Heart Disease

Researchers in the United States and Norway measured the kidney function of more than 5,000 adults who were participants in the Multi-Ethnic Study of Atherosclerosis and ranged in age from 45 to 84 years. Participants did not have clinical cardiovascular disease. Dietary patterns including both plant and animal foods were observed. The albumin-to-creatinine ratio (ACR) was used to measure kidney function which has been linked to risk for cardiovascular disease.

Daily low fat dairy food consumption and a dietary pattern rich in whole grains and fruits were inversely associated with ACR or healthier kidney function. Low fat milk and milk products was the only food group which showed that it alone was significantly linked to a reduced risk for kidney dysfunction. By contrast, a dietary pattern characterized with high consumption of beans, tomatoes, refined grains, high-fat dairy foods, and meat food groups and nondairy animal food consumption were each positively associated with ACR.

The study's authors cited other research suggesting milk protein, vitamin D, magnesium and calcium may additionally contribute to milk's possible heart health benefits, potentially improving kidney function. Additional studies are needed, but a DASH-like dietary pattern excluding meat likely could be successful.



Source: *American Journal of Clinical Nutrition*, 2008, 87(6): 1825-1836. (June)

Drinking Coffee May Reduce Heart Disease

Drinking up to six cups of coffee a day may lower the overall odds of dying prematurely, mainly because it cuts the risk of dying from heart disease. "Our results suggest that long-term, regular coffee consumption has several beneficial health effects," says Esther

Lopez-Garcia, lead author of the Harvard School of Public Health report. The study examined the relationship between coffee and mortality of 41,736 men and 86,216 women with no history of cardiovascular disease (CVD) or cancer. The men were followed for 18 years, the women for 24 years.



The results showed that as coffee consumption increases, the overall risk of death decreases. The association is explained mostly by a decrease in CVD deaths, Lopez-Garcia says. The inverse association between coffee consumption and mortality was stronger in women. Women who drank two to three cups of coffee a day, for instance, had a

25% lower risk of dying from heart disease than non-drinkers. “Coffee has some beneficial effects on inflammation and endothelial function, which are the first stages of CVD development,” Lopez-Garcia says.

Researchers warn that the study does not prove that coffee is linked to longevity because other factors may be protective, Lopez-Garcia says. A measurement error also could be possible, because consumption levels were self-reported. “More research is necessary to be able to recommend consuming coffee on a health basis,” she says. “Our study is not enough to make such a statement.” The findings suggest that a component other than caffeine explains the relationship between coffee and a lower risk of death, Lopez-Garcia says. Participants who drank both decaf and caffeinated coffee had lower death rates than non-drinkers.

Since the study was conducted among health care professionals, extrapolation of results to the general population should be made with caution. The conclusions also do not negate the potentially detrimental short-term health effects of drinking coffee with caffeine, such as anxiety and sleep problems.

Source: *Annals of Internal Medicine*, 2008, 148(12): 904-914. (June)

U.S. Obesity Trends

More than a quarter of all adult Americans over age 18 are now obese, the latest U.S. government figures show. The percentage of U.S. adults who reported being obese grew by nearly 2 percent between 2005 and 2007, from nearly 24 percent to 25.6 percent according to the Centers for Disease Control and Prevention. CDC researchers used data from the Behavioral Risk Factor Surveillance System, an annual telephone survey of more than 350,000 adults.



Alabama, Mississippi, and Tennessee had the worst rates, with 30 percent of adults reporting weights that made them medically obese. Colorado had the slimmest population, with 18.7 percent of people reporting weights that put them in the obese category—still higher than the Healthy People 2010 goal to reduce obesity to 15 percent or less.

Obesity is defined as having a body mass index (BMI) of 30 or above. BMI is calculated using height and weight. BMI takes into account variations in build for all but the most heavily muscled athletes. People are considered overweight when they have a BMI of 25, and

the health effects of obesity and overweight, such as diabetes, heart disease and cancer, increase steadily as weight goes up.

“The epidemic of adult obesity continues to rise in the United States indicating that we need to step up our efforts at the national, state and local levels,” said Dr. William Dietz, director of the

CDC's Division of Nutrition, Physical Activity, and Obesity. "We need to encourage people to eat more fruits and vegetables, engage in more physical activity, and reduce the consumption of high calorie foods and sugar sweetened beverages in order to maintain a healthy weight," Dietz said.

By region, people who live in the South are the heaviest with 27 percent reporting obese. Just over 25 percent of adults in the Midwest, 23 percent in the Northeast, and 22 percent in the West were obese. The CDC recently reported that the childhood obesity epidemic has leveled off after surging for about 20 years, with 16 percent of young people obese.

A government BMI table is available at http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm. For more information on obesity trends, including maps, go to <http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/>.

Source: <http://www.cdc.gov/media/pressrel/2008/r080717.htm> (July 17, 2008)

Are Ketogenic Diets Effective?

A two-year study comparing the effectiveness and safety of one of three diets: low-fat, restricted-calorie; Mediterranean, restricted-calorie; or low-carbohydrate, non-restricted-calorie (Atkins-like) was conducted using 322 obese individuals, most of whom were men. The rate of adherence at two years was nearly 85%. Both the length of time and the rate of adherence were longer than observed in previous studies. The participants ate their main meal together in a controlled cafeteria environment. The dieters were counseled on an eating plan for breakfast and dinner.

The low fat diet restricted cholesterol and calories from fat; low fat grains, vegetables and fruits were emphasized. The Mediterranean diet followed a similar regimen and included poultry, fish, olive oil and nuts. The low carbohydrate diet only set limits for carbohydrates, but not for calories or fat and dieters were urged to choose vegetarian sources of fat and protein.



Participants in the low carbohydrate group averaged a weight loss of 10.3 pounds. The Mediterranean diet group lost 10 pounds followed by 6.5 pounds in the low fat group. When the cholesterol levels were compared among the three groups, the Atkins-style dieters showed the greatest improvement in the ratio of cholesterol to HDL, a marker for heart disease. This group's ratio was 4 to 1. The American Heart Association recommends an optimum ratio of 3.5 to 1.

The researchers concluded that Mediterranean and low-carbohydrate diets may be more effective alternatives to low-fat diets than the traditional low-fat diet. Cholesterol levels improved more with the low-carbohydrate diet though all participants lost weight and improved cholesterol. "I think these data suggest that men may be more responsive to a diet in which there are clear limits on what foods can be consumed, such as an Atkins-like diet," said Dr. William Dietz, of the Centers for Disease Control and Prevention. "It suggests that because women have had more experience dieting or losing weight, they're more capable of implementing a more complicated diet."

Source: *New England Journal of Medicine*, 2008, 359(3): 229-241. (July)

Resources

New Website for the Center for Health and Nutrition Research

The Center for Health and Nutrition Research (CHNR), based at the University of California, Davis, Nutrition Department, has an updated website: <http://chnr.ucdavis.edu/>. This online resource contains online presentations on current nutrition topics: “Dietary Determinants of Obesity,” “Eat Smart-Play Hard,” “Fish Consumption Concerns and Interventions,” and “Health Benefits of Dietary Flavonols.” Also on the web site are summaries of current nutrition articles and a link to a bimonthly publication, “Nutrition Perspectives,” which provides research-based information on food and nutrition. Consumer fact sheets are divided into those used by consumers and those intended for professionals. The section which answers frequently asked nutrition questions covers current nutrition topics such as energy drinks, fish consumption, trans fats, chocolate, phytochemicals, free radicals, antioxidants and vitamin/mineral supplements.

Learn More about Nutrition and Food Safety

Whether you’re a dietitian, other health professional, or someone who wants to learn more about a nutrition or food safety topic, visit the web site for the International Food Information Council (IFIC): <http://www.ific.org/adacpe>. Thirteen education modules are available free of charge and each module offers at least one hour of continuing education credit for nutrition professionals affiliated with the American Dietetic Association. View the slide presentation, answer a short quiz, and print a certificate of completion. The topics covered include caffeine, food allergy, carbohydrates, sugar alcohols, dietary fats, consumer attitudes toward food and health, the connection between food science and nutrition, communicating nutrition to consumers, and biotechnology. The modules are updated as needed and the newest module is on low calorie sweeteners. New modules continue to be introduced.



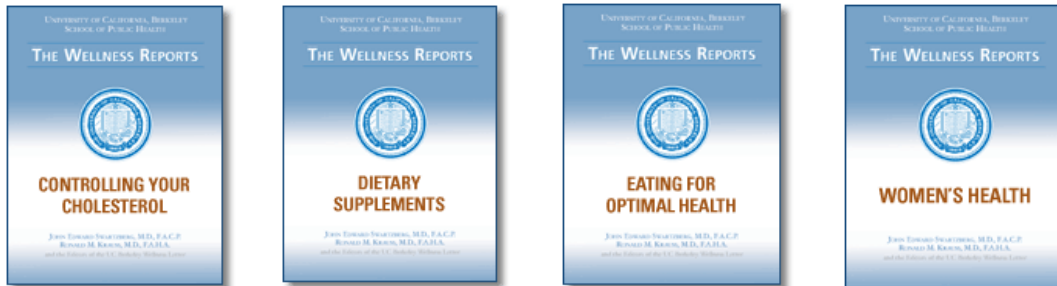
Updated Ketogenic Diet Information

The article for the continuing education course from Food and Health Communications: “Are Low Carbohydrate Ketogenic Diets the Key to Long-Term Weight Control and Better Health?” is available as a “read only” word file at no cost. View the recently updated article at http://www.foodandhealth.com/cpecourses/atkins_new.php. This very in-depth article covers the Atkins Diet, the South Beach Diet, other ketogenic diets, potential risks of a ketogenic diet, effects of a ketogenic diet on blood lipids and many more related concerns. See page 93 in the appendix for an ongoing discussion about topics and studies related to the Atkins diet. Additionally, there is a free “Carbohydrate 101” handout available: <http://www.foodandhealth.com/products.php?cat=5>.



Wellness Reports Published for 2008

Available for purchase are four 64-page publications providing the latest information on preventive health care: “Controlling Your Cholesterol,” “Dietary Supplements,” Eating for Optimal Health,” and “Women’s Health.” Obtain purchase information at www.ucbwellnessreport.com. Each report has been edited by an expert at the University of California Berkeley School of Public Health and compiles the most current information in one publication. There is also a free 30-day preview and a money-back guarantee.



America on the Move Tip Sheets



Tip sheets offering a variety of information on nutrition topics from cutting calories to healthy grocery shopping are available at the web site for America on the Move at:

<http://aom.americaonthemove.org/site/c.krLXJ3PJKuG/b.1776917/>.

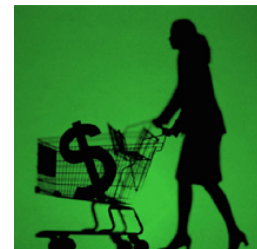
Additionally, find tip sheets for ways to add physical activity to each day and the connection between weight and health along with other health resources.

Eat Healthy on a Budget

With rising grocery prices eating healthy has become more of a challenge. The University of Nebraska-Lincoln Extension has put online 16 simple tips for saving on groceries. As always, use or adapt the information as best meets the needs of your clientele. Check the list for potential savings to your pocket book with small changes. The article and related printer-friendly pdf is at <http://lancaster.unl.edu/FOOD/ftm-j08.shtml>.

Additional money saving ideas may be gleaned from a nutrition column “Ten Tips to Ease the Bottom Line at the Grocery Store” written by Shirley Perryman, Extension Specialist, and posted on the Food Science and Human Nutrition Department website at Colorado State University. Click on the link –

<http://www.fshn.cahs.colostate.edu/perryman.asp>.





Healthy Shopping List

Find a “Healthy Shopping List” at http://www.foodandhealth.com/Shop_FACTS.pdf. With the emphasis of late on getting the healthiest bang for your buck, this easy-to-print list will give you a head start at the grocery store. For an added bonus, three steps for label reading are included as a reminder to focus on the best choices.

Tips to Include Fruits and Vegetables



As research continues to document the importance of including fruits and vegetables in our diet, it is timely that the University of Nebraska-Lincoln Extension has posted “9 ‘Bites’ for Better-Tasting Fruits & Veggies” on their website: <http://lancaster.unl.edu/food/ftj-a08.shtml>. Nine preparation and storage “bites” to enjoy the abundant produce at its peak of flavor, appearance and safety are included. The information may be used or adapted for educational activities.



Using Herbs and Spices to Eat Healthy

An updated PowerPoint on using herbs and spices and related handouts has been made available by the University of Nebraska-Lincoln Extension. Especially helpful are fat, sugar and salt reduction tips which would be useful to anyone wanting to make healthful changes in their diet. A handout on fresh and dried herbs is also available. Use or adapt the information to meet your educational needs. The information can be located at: <http://lancaster.unl.edu/food/spiceherb.shtml>.



Please remember to credit the source for free resources used as PowerPoint presentations, handouts, articles, etc.

Did You Know . . . ?

Q. I have heard that berries are a healthy addition to the diet. I know they taste good, but are they really that good for me? Can you shed more light on why this recent recommendation is getting so much media attention?

A. At the Lillian Fountain Smith Conference for nutrition educators in Fort Collins, Colorado, held in June of this year, a presentation by Christine Sardo, MPH, RD, showed that berries are chemo preventive agents and may control cancer in the following ways. First, berries are a rich source of phytochemicals, especially the polyphenols, and carotenoids. Additionally, berries are rich in fiber and vitamins A, C, E, and folic acid, and minerals such as potassium, calcium, selenium, iron, zinc and magnesium. Berries also contribute fiber to the diet. Second, berries have demonstrated anticarcinogenic activity through numerous experimental studies in animals. Third, berries offer a dietary approach using a whole food to prevent cancer. Berries do offer a “fruitaceutical” versus a “pharmaceutical” approach to disease prevention and may, in part, contribute to an enhanced quality of life with aging.



Sardo highlighted studies conducted at The Ohio State University Comprehensive Cancer Center and College of Public Health using strawberries and black raspberries. Berries were shown to prevent specific steps in the progression of cancer. The amount of fresh berries required to achieve adequate concentrations for chemo preventive outcomes was determined to be one to two cups per day. The studies used freeze-dried berries which could offer other forms for delivery of the chemo preventive components in the future.

Another recent study concluded that eating berries of any kind daily can help prevent cardiovascular disease by lowering blood pressure, increasing HDL (“good”) cholesterol, and making the blood platelets less apt to stick together preventing dangerous blood clots. These researchers attributed the benefits to the polyphenols in the berries. This Finish study used bilberries, lingonberries, black currants and strawberries.



In addition to the cardiovascular and cancer prevention benefits, blueberries may prevent urinary tract infections. A study using aging lab animals revealed better performance on memory tests and balance and coordination when the equivalent of one-half to one cup of blueberries were included each day.

For ideas on ways to include berries in menu planning, consult “The Berry Bible” by Janie Hibler. The book is described as the A to Z encyclopedia of berries with over 200 recipes.

Source: *American Journal of Clinical Nutrition*, 2008, 87(2):323-331. (February); <http://enews.tufts.edu/stories/101399BlueberriesMayImproveMemory.htm>

Spotlight

Susan M. Gould, Ph.D., R.D.

Sue Gould, PhD, RD, earned her bachelor's degree in Physical Education and Health from Montana State University. She obtained her master's and doctorate degrees from Colorado State University's Department of Food Science and Human Nutrition (FSHN) with a focus on using computer technology to reach low-income and Hispanic audiences. She assisted in adapting the nutrition education program, *La Cocina Saludable*, to a bilingual interactive multimedia format. During the early 2000s, more than 30 kiosk computer systems were available in Colorado agencies serving low-income persons to deliver this innovative nutrition education.

Colorado Food Stamp Nutrition Education (FSNE) offers Food Stamp Program participants and other low-income individuals opportunities to learn about how to eat healthfully, prepare safe food, and use food dollars economically. As one of the state coordinators, Sue works to facilitate this effort for nutrition educators around Colorado.

Sue's current primary focus with FSNE is to coordinate the evaluation, curriculum, and training components. With a new mandatory federal reporting system, she is working to facilitate process and outcome data collection and compilation while minimizing participant, educator, and administrator burden. She reviews curricula and nutrition education resources to determine appropriateness and implementation strategies along with evaluation. Based on formative research, one of the resources she is working on is a bilingual menus and recipes web page for FSNE audiences in collaboration with students, CSU Extension Family and Consumer agents, and FSNE educators. She also works with the FSNE team to coordinate additional training opportunities.



Since the fall of 2004 Sue also has taught academic courses in the departments of Food Science and Human Nutrition, Health and Exercise Science, and Business Management. In her current role in FSNE, she focuses on FSHN courses, particularly Nutritional Epidemiology and Food Applications and Systems. Based on these academic experiences, she is exploring the possible use of classroom technology with FSNE participants in a variety of settings from traditional class series to parent nights at neighborhood schools. For further information regarding FSNE, call Sue at 970-491-7040. In the future, look for updates to the FSNE web page, which will be linkable from the FSHN website, <http://www.fshn.cahs.colostate.edu>.

A native Coloradan, Sue likes to bike, rock-climb, ski, and snowboard with her husband, Mike, and daughter, Martine, who is currently a student at the University of Denver. Sue also treasures quiet time reading, cooking, sewing, and working in the yard.

Dining a la Health

Health Claim for Brown Rice Approved

The Food and Drug Administration (FDA) has extended the whole grain logo to brown rice. Previously brown rice was excluded due to its lower dietary fiber content but the FDA decided that a high-fiber single ingredient food did not have to meet a minimum level of fiber. The FDA-approved health claim states, “Diets rich in whole-grain foods and other plant foods and low in total fat, saturated fat and cholesterol may reduce the risk of heart disease and some cancers.”

Unlike white rice, brown rice contains all the essential parts and natural nutrients of the entire grain seed—bran, germ and endosperm. Removing only the hull makes it chewier and gives it a nutty flavor. One cup of cooked brown rice contains 3.5 grams of dietary fiber as compared to 0.6 grams in white rice. In addition to retaining its B vitamins and minerals – magnesium, selenium, and zinc – brown rice also has more vitamin E and beneficial phytochemicals, including an antioxidant that may help prevent cardiovascular disease. Additionally, rice is gluten-free. As an added bonus one study suggests that including rice in the diet on a regular basis may help control weight and keep blood pressure down.



If there is a down-side to including brown rice in your menus, it's the additional cooking time. Typically brown rice requires 45 minutes of cooking time. Parboiling the rice ahead of time will allow the brown rice to cook in 15 to 20 minutes. To view a 5-minute video on how to quick-cook brown rice from the Whole Grains web site, click here:

http://video.on.nytimes.com/?fr_story=3dd2fdd115df59fdcc7bd7983d623d653b8cdb3a&scp=1&sq=brown%20rice&st=cse.

Brown rice cakes, though a whole-grain food, do not qualify for the whole grain health claim. Confusing? To qualify for the health claim, at least 51% of the total weight of a food must be whole grain ingredients. Compliance is measured against a benchmark level of 11% fiber in the whole grain component. In the past, 100% whole grain foods with a naturally lower fiber level, such as brown rice, could not use the claim even though they clearly exceeded the 51% level of whole grain content. The FDA has ruled that single-ingredient whole grains do not need to prove compliance because they qualify as whole grains. Brown rice cakes are not a single ingredient food and therefore do not qualify for the health claim. However, brown rice cakes are still a healthful whole grain. “Whole grains also have phytoestrogens, antioxidants, lignans, vitamins, and minerals, so a lot comes along with the fiber package,” says Joanne Slavin, a University of Minnesota researcher who served on the National Academy of Sciences Panel on the Definition of Dietary Fiber.

For more information from the Whole Grains Council, go to www.wholegrainscouncil.org; <http://deltafarmpress.com/rice/071010-healthy-eaters/>.