

Considering Healthful Carbs

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Thanks to the low-carb diet craze, carbohydrates had gotten such a bad reputation that many consumers considered “healthy carbs” an oxymoron.

For a time, it seemed that if a company admitted that its product(s) had carbohydrates, it was the kiss of death — no matter what the carbohydrate source. Sales of foods naturally high in carbohydrates took a noticeable dive. For the 52 weeks ending Dec. 27, 2003, sales of instant rice fell 8.2%, white bread dropped 4.7% and dry pasta was down 4.6%.

But many experts feel that the pendulum is finally swinging toward a more carbohydrate-balanced diet. According to *USA Today*, low-carb dieting peaked in Jan. 2004, when 9.1% of people said they were on a low-carb program. By Nov. 17, 2004, only 3.6% reported following a low-carb plan. In a Nov. 2004 *Parade* magazine survey, 56% of participants said that they don’t think about carbohydrates when buying or eating foods and 38% considered low-carb diets unhealthy.



Close-up on carbs

Carbohydrates come from a variety of foods including grains, beans, legumes, nuts, potatoes, vegetables and fruits, so consumers are apt to eat them in those forms or in breakfast cereal, bread, rice, pasta, crackers, dairy products, candy, pastries, desserts and sweetened beverages. Chemically, all carbohydrates are made up of three elements: carbon, hydrogen and oxygen. They’re categorized as simple or complex, depending on their chemical structure: simple carbohydrates have one sugar (monosaccharides) or two (disaccharides) while complex carbohydrates have three or more.

Simple carbohydrates include sugars, such as fructose, dextrose, glucose, sucrose, honey, most polyols, lactose, maltose and dextrose. Complex carbohydrates consist of

three or more linked sugars (oligosaccharides other than disaccharides and polymers) and might include some polyols (maltitol syrup and HSH), insoluble fiber, soluble fiber, gums and starches.

All carbohydrates break down into single sugars during digestion so that they can be absorbed in the bloodstream. Fiber is an exception to the rule as it passes through the body mostly undigested. The American Association of Cereal Chemists, St. Paul, MN, officially defines dietary fiber as “the edible parts of plants or analogous carbohydrates that are resistant to digestion and absorption in the human small intestine with complete or partial fermentation in the large intestine. Dietary fiber includes polysaccharides, oligosaccharides, lignin and associated plant substances.”

NUTRITION NOTES

The GI factor

The glycemic index (GI) measures how fast and how far the blood sugar rises after a food is eaten and is gaining attention as a method to classify carbohydrates. A diet rich in high-GI foods tends to cause quick and strong increases in blood-sugar levels, which has been linked to an increased risk for diabetes and heart disease. A low-GI diet might help control type 2 diabetes.

Many factors influence how quick-

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ly carbohydrates raise blood sugar. For example, fiber slows the release of sugar molecules into the bloodstream. Some types of starch are more easily broken down into sugar molecules and are absorbed more quickly. And the more finely a grain is ground, the more quickly it is absorbed. In general, highly processed carbohydrate sources, like grains, cereals and sugars, tend to be high-GI foods.

Good old carbs

Carbohydrates from fruits, vegetables, whole grains and legumes provide not only a wealth of minerals and vitamins to the body, but also fiber and health-protective phytochemicals. More-refined carbohy-

drates often provide increased calories with less nutrients.

Carbohydrates have made headlines recently in many health-related studies. The American Institute for Cancer Research (AICR), Washington, D.C., has long promoted a diet rich in a variety of plant-based foods, such as fruits and vegetables, to reduce cancer risk. But according to findings presented at the AICR Conference on Food, Nutrition and Cancer in Nov. 2004, researchers

have discovered that whole grains show a level of anticancer activity that is equal to, and sometimes greater than, the level known to occur in vegetables and fruits.

In a study published in the *Journal of the*

American Medical Association in Nov. 2004, a low-GI 1,500-calorie diet regimen with 43% of the calories from low-GI carbs and 30% of calories from fat was compared with a low-fat 1,500-calorie diet regimen with 65% of the calories from relatively high-GI carbohydrates and 18% of the calories from fat.

Participants in both groups lost an average of 20 lbs., but the low-GI dieters had a slight decrease in triglycerides, a factor reducing heart-disease risk, and a much greater reduction in levels of the inflammation-related C-reactive protein. Also, metabolism slowdown was smaller and hunger pangs were less common in the low-GI group.

Previous studies have supported

whole grains' role in cutting the risk of heart disease and diabetes, but the Nov. 2004 issue of the *American Journal of Clinical Nutrition (AJCN)* cited a study where for every 40-gram-per-day increment in whole-grain intake from all foods, weight gain was reduced by 0.49 kg.

Fabulous fiber

Fiber is an important contribution of carbohydrate sources, such as whole grains, fruits, vegetables, legumes, nuts and seeds. A high-fiber diet is associated with reduced risk of diabetes, some gastrointestinal disorders, high cholesterol, coronary artery disease and obesity. The Dallas-based American Heart Association recommends 25 to 30 grams of fiber per day and that carbohydrate intake should come mainly from complex carbohydrates.

In June 2003, *AJCN* published a study conducted by Tufts University, Boston, which compared dietary patterns to the ratio of waist-to-hip size and waist-size alone (indicators of abdominal fat), which is associated with cardiovascular disease, premature death, stroke, type 2 diabetes, some cancers and hypertension. The study found that a fiber-rich food pattern high in reduced-fat dairy was associated with the smallest increase in waist circumference.

According to a review in the *Journal of the American Dietetic Association* in Jan. 2003, a high-carbohydrate, low-fat dietary pattern with 20 to 35 grams of dietary fiber per day might be beneficial for treating those with Syndrome X (insulin resistance syndrome) and significantly increases the risk of coronary heart disease and stroke.

Counting carbs

The Dietary Reference Intake recommends that 45% to 65% of daily calories should come from carbohydrates. Leading researchers are following the traditional Mediterranean diet pattern, as it has been associated with lower levels of chronic disease and the promotion of longevity. The traditional Mediterranean diet pattern is packed with carbohydrate-rich foods, many of which have a low GI, including fruits, vegetables, legumes and cereals. The Mediterranean Diet Pyramid, promoted by Boston-based Oldways Preservation and Exchange Trust, shows bread, pasta, rice, couscous, polenta, other whole grains and potatoes as its base.

Taking into consideration recent scientific evidence, the Harvard School of Public Health designed a Healthy Eating Pyramid as a way to help the public incorporate healthy eating. This pyramid recommends whole-grain foods at most meals — one of the pyramid's primary foundations. It also suggests vegetables in abundance, fruits two to three times per day, nuts and legumes one to three times per day, and dairy or calcium one to two times per day. However, it puts white rice, white bread, potatoes, pasta and sweets right at the top of the list with the cautionary words "use sparingly."

Food labels with whole grains rising to the top of the ingredient list

and 2.5 grams or more of dietary fiber per serving could be the hot ticket in the next generation of health seekers. Some health experts already are lobbying to have the number of grams of whole grains in products appear on food labels. Perhaps the next swing of the diet pendulum will prove to be "high in healthy carbs." ■

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