

Commentary: “Lite” Reading from the Calorie Control Council

The Calorie Control Council (the “Council”) is an international association representing the low-calorie and reduced-fat food and beverage industry. Companies that make and use low-calorie sweeteners are among the Council’s members. Now, more than ever consumers are seeking diet and health information from credible and reliable sources. The Calorie Control Council serves as a reliable health information resource with experts available to assist with questions and concerns from consumers, health professionals, and the media.

Please use the Council as a resource when looking for information on low calorie and “lite” ingredients and the products that contain them. For more information, visit the Council’s website at www.caloriecontrol.org.



Feed Your Mind

Science Says “Calories Count” for a Sensible Weigh to Weight Loss



Sweet Substitutes

PANDAmonium Over Low Calorie Sweeteners



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Feed Your Mind

Science Says “Calories Count” for a Sensible Weigh to Weight Loss

It seems the old adage; “You are what you eat” may not be quite accurate. According to research recently published in the *New England Journal of Medicine*, it isn’t what you eat, but how much. Results from the two-year study, which assigned 811 overweight participants to one of four reduced-calorie diets, found that from a weight loss perspective it didn’t matter what foods the participants ate, but how many calories they consumed. These findings are in line with a 2008 study by Kaiser Permanente’s Center for Health Research which found that keeping a food diary can double a person’s weight loss.

A nationally projectable survey by the Calorie Control Council found participants who were currently dieting made an average of 3.6 dieting attempts in 2007, and it seems that finding foods believed to produce the most rapid weight loss has long been the primary quest for the majority of dieters. However, the current study “really goes against the idea that certain foods are the key to weight loss,” notes Frank Sacks, principal investigator and professor of cardiovascular-disease prevention at Harvard School of Public Health. “This is a pretty positive message. It gives people a lot of choices to find a diet they can stick with.”

The study, funded by the National Institutes of Health (NIH), grouped participants into one of four diets: two low fat and two high fat. All four included either a high-protein or an average-protein component. Typical diets in the study had between 1,400 and 2,000 calories a day. All the diets were low in calories and saturated fat while high in fiber, and participants were instructed to exercise for 90 minutes per week. Participants who attended counseling sessions initially lost an average of 13 pounds after six months and, after two years, lost approximately nine pounds and two inches off their waist lines regardless of diet grouping. Participants

used a Web-based, self-monitoring tool that tracked how their daily food intake matched their calorie goals. Catherine Loria, a nutritional epidemiologist at the NIH and study co-author notes that, in addition to making healthful food choices, “all you have to do is count your calories.” According to a recent Nielsen Label Trends survey, more consumers have been doing just that. The survey found that the number of U.S. products making reduced calorie claims totaled \$11.6 billion in 2008, an increase of nine percent from 2007.

So what does this mean for the 29 percent of U.S. adults who are dieting (according to the Council’s 2007 survey)? According to registered dietitian

Keith Ayoob, in *USA Today*, healthful weight loss/maintenance boils

down to choosing a balanced diet that can be maintained, “for the long haul.” Leading health authorities agree, and the American Heart Association says,

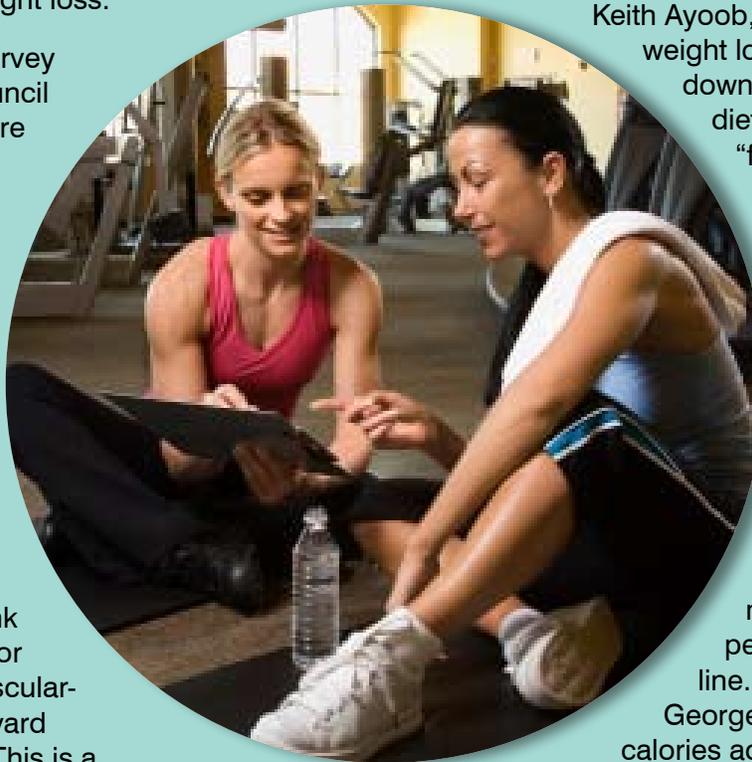
“Substitute lower-calorie foods for high-calorie foods.” Even cutting just 100 calories per day, such as substituting a low fat version of a favorite food or a low calorie sweetener in place of sugar, could mean big changes in a person’s health and waist line. According to Harvard’s Dr.

George Blackburn, “Those 100 calories add up to 10 pounds a year.

Small changes in caloric intake can result in small but meaningful healthier weights. Most people would be happy with that.”

Visit www.caloriecontrol.org for free diet assessment tools and weight management tips.

To view the study abstract visit: <http://content.nejm.org/cgi/content/full/360/9/859>



Sweet Substitutes

PANDAmonium Over Low Calorie Sweeteners

According to a recent study published in the Journal of Heredity, red pandas are the first non-primate mammal to express a preference for low calorie sweeteners. The study, analyzing how taste buds affect an animal's diet, allowed six mammals to choose between plain water and water flavored with sugar and low calorie sweeteners. Because previous research suggested only primates were able to taste aspartame, researchers predicted that none of the carnivore species tested would show a preference for "artificial sweeteners." Although this was true for five of the species, the red panda drank large amounts of water sweetened with aspartame, neotame, and sucralose. "The taste world of every species, and even every individual, is unique, defined in part by the structure of their taste receptors," said Monell Center geneticist Xia Li. "We need to know more about these differences and how they influence our diet."

"The panda is presumably following the taste of something - maybe it's the taste of some specific sweetener in the leaves," says Joseph Brand, study supervisor. According to the Calorie Control Council, research shows that people have an inborn desire for sweetness and newborn infants, like the red panda, react positively to sweetness. Humans in general, have demonstrated that the pleasant response to sweet solutions is a reflex, innate reaction, rather than a learned response.

The study abstract may be found here: <http://jhered.oxfordjournals.org/cgi/content/abstract/esp015>.



Experts Weigh In

European Food Safety Authority Reconfirms Safety of Aspartame:

EFSA Releases Opinion on Ramazzini Study

The European Food Safety Authority (EFSA) has once again confirmed the safety of aspartame. After a comprehensive review of data, EFSA's Scientific Panel on Food Additives, Flavours, Processing Aids and Materials in Contact with Food (AFC) stated, "Overall, the Panel concluded on the basis of all the evidence currently available including the last published ERF [European Ramazzini Foundation] study that there is no indication of any genotoxic or carcinogenic potential of aspartame and that there is no reason to revise the previously established ADI for aspartame of 40 mg/kg bw/day." This statement further confirms EFSA's 2006 statement regarding an earlier Ramazzini study, which alleged that aspartame consumption may cause cancer.

Although EFSA found many problems with the Ramazzini study, the panel stated that one of the reasons for the confounding conclusions by Ramazzini may be due, in part, to the fact that the rats already suffered from chronic respiratory disease.

The Panel went on to note that there is no information as to whether the Ramazzini study was performed under "Good Laboratory Practices" and the study design is not reflective of currently accepted toxicological methodologies.

The allegations made by Ramazzini are at complete odds with the wealth of scientific literature demonstrating that aspartame is safe and does not

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cause cancer. A recent epidemiology study from the National Cancer Institute confirms previous study conclusions that there is no link between aspartame consumption and leukemias, lymphomas and brain tumors. The study evaluated over 500,000 men and women between the ages of 50 and 69 over a five-year period. A comprehensive review of more than 500 studies and recently published in *Critical Reviews in Toxicology* also found that aspartame is safe and not associated with cancer. The review was conducted by a panel of eight leading experts in the areas of toxicology, epidemiology, metabolism, pathology, biostatistics, etc., and conclusively determined that aspartame is safe.

The U.S. Food & Drug Administration (FDA) also supports the fact that aspartame is a safe low-calorie sweetener. According to the FDA, “Based on the large body of evidence we have reviewed, including several studies on carcinogenicity which showed no adverse effects and data on how aspartame is metabolized by humans, we have no reason to believe that aspartame would cause cancer. Thus, it remains FDA’s position that use [of aspartame] is safe.”

Aspartame is one of the most thoroughly studied food ingredients with more than 200 studies supporting its safety. In addition to the FDA, the Joint Expert Committee on Food Additives (JECFA) of the World Health Organization and Food and Agriculture Organization, the Scientific Committee on Food of the European Union and regulatory agencies in more than 100 countries have reviewed aspartame and found it to be safe for use.

For EFSA’s full report please visit:

http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1211902454309.htm.

For additional information on the safety and benefits of aspartame and other low-calorie sweeteners, please visit: www.caloriecontrol.org and www.aspartame.org.

Fill Up With New Research on “Functional” Fibers

The Institute of Medicine recommends consuming 14 grams of fiber daily for every 1,000 calories consumed and according to the American Heart Association, most Americans consume only half that, about 15 grams. In response to this, the food industry has begun adding fiber to commonly consumed foods in an effort to offer consumers a wider variety of fiber

containing products from which to choose. These new ‘functional’ fibers can be incorporated into a myriad of foods and beverages that people enjoy every day while offering similar health benefits compared to traditional fibers. Such health benefits include reduced calories, reduced glycemic response and contribution to positive digestive health.

A 2008 study conducted at the University of Toronto found that several of these new fibers produced a low glycemic and insulin response in participants. Glycemic response is the extent to which a specific carbohydrate-containing food raises blood glucose. Slowly or incompletely digested carbohydrates such as pasta or legumes have a low glycemic response (index). In these cases, glucose is released gradually into the blood with a slow and steady increase in blood glucose after eating. Additional studies have shown that functional fibers have beneficial prebiotic effects, meaning they aid in stimulating the growth and activity of beneficial bacteria in the intestine. One such functional fiber found to have these beneficial prebiotic effects is polydextrose. Polydextrose has typically been used as a low calorie bulking agent in foods such as ice cream, hard and chewy candies, nutrition and supplement bars and beverages. Recently, polydextrose has been incorporated into many reduced carbohydrate products, as it has only one calorie per gram compared to typical carbohydrates with four calories per gram. Polydextrose is resistant to digestion in the small intestine but is partially fermented in the large intestine, contributing beneficial effects consistent with dietary fibers, mentioned above.

Other functional fibers include inulin and oligofructose. Inulin and oligofructose are natural food ingredients commonly found in foods such as vegetables, wheat, onion, bananas, garlic and chicory. Most of the inulin and oligofructose commercially available is either derived from sucrose or extracted from chicory roots. Inulin and oligofructose each contribute one and a half calories per gram, which allows these ingredients to increase the fiber content of foods while reducing calories. Research has found that Inulin and oligofructose may lower triglyceride and blood cholesterol levels in people with high cholesterol. Dietary and functional fibers have been found to positively impact digestive health as well as blood lipid levels.



What's New and What's True?

New Research Supports the Benefits of Fructose

New research indicates that fructose may be a beneficial part of the diet, contrary to recent reports. Fructose occurs naturally in fruits and vegetables as well as honey. Often confused with high fructose corn syrup (which contains nearly equal amounts of glucose and fructose and is handled by the body in the same way as sucrose), fructose has a low glycemic index, does not cause surges and dips in blood glucose levels and may even be beneficial in weight control.

Recently released research by Dr Bernadette Marriott, Senior Scientist and Principal Associate for Abt Associates, found that although dietary fructose consumption has increased in recent decades, relative

consumption of fructose compared to other sugars has remained

constant. Further, a 2008 meta-analysis by Geoffrey Livesey and Richard Taylor found that moderate fructose consumption (50 grams or less per day) had no negative effect on the body and may even be beneficial. High doses of pure fructose (100 grams/day or less) had no effect on body weight. Marriott also found that average fructose consumption across all age groups is approximately 49 grams per day, which is well below the 100 gram threshold found by Livesey and Taylor and at a level they report may provide benefits.

According to the National Center for Health Statistics, more than 34 percent of Americans are obese and more than 32 percent are overweight. Weight maintenance involves many factors, such as healthful eating habits (including balance and moderation), exercise and long-term commitment. Allegations that one component of the diet, such as fructose, is responsible for weight gain, metabolic syndrome or diabetes, cannot be supported, especially when other dietary and lifestyle factors are not controlled.

“Rising obesity rates have now been linked to the presence of sugars in the food supply and to the absence of sugars from the food supply,” notes Dr. Adam Drewnowski, a professor at the University of Washington. “Consumers find it difficult to know who to believe,” he further states.

Research previously mentioned above, published in the New England Journal of Medicine found that from a weight loss perspective it wasn't the foods participants ate but how many calories they consumed and US consumption trends from 1977 - 2004 show an 18 percent increase in energy intake (calories). Fructose is the sweetest of the nutritive sweeteners, so less is needed to sweeten foods and beverages, resulting in calorie savings.

Health professionals can find more information regarding fructose research at: http://www.fructose.org/misinfo_about_fructose.asp.

http://www.fructose.org/misinfo_about_fructose.asp

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American Dietetic Association's Evidence Analysis Library Review of Aspartame Complete

The American Dietetic Association (ADA) recently evaluated the low calorie sweetener aspartame and its affects on weight, appetite, desire for sweetness and alleged adverse reactions for its Evidence Analysis Library (EAL). After the evaluation, the ADA reaffirmed the conclusion of regulatory and scientific authorities around the world that aspartame is not associated with adverse effects for the general population, including hypersensitivity reactions, elevated blood methanol or formate levels, or brain cancers. This conclusion statement was given a "Grade 1," the highest grade on the EAL scale, signifying there is good evidence supporting the conclusion. Further, the conclusion statement notes, "In patients with diabetes, aspartame consumption is not associated with elevated plasma phenylalanine and tyrosine levels, fasting glucose control, intolerance to aspartame, ophthalmologic effects, heart rhythm or weight."

According to the ADA, "There is good evidence that aspartame does not affect appetite or food intake." The ADA review of aspartame and energy balance (weight) found that, as part of a low calorie diet, aspartame may be associated with increased weight loss. The ADA also looked specifically at whether there is evidence of adverse effects on children. While, as would be expected, fewer clinical studies have been conducted with children, they concluded that available information is not suggestive of any adverse effects.

The ADA's EAL systematically reviews selected literature using its "evidence analysis" approach, which evaluates relevant human studies that fall within specified, pre-determined parameters. Factors such as size and quality of each study are taken into account. After each study is analyzed, a conclusion statement is formulated for each question, and a "grade" is assigned to each statement indicating the strength of the evidence supporting that conclusion.

To access the full EAL aspartame report, visit: <http://www.aboutaspartame.com/professional/news.asp>

New Research Gives Gum Lovers Something to Chew On

Research suggests that chewing gum may offer more benefits than just fresh breath. Researchers from the Pennington Biomedical Research Center and Louisiana State University in Baton Rouge found that both men and women who chewed sugar-free gum three times hourly in the afternoon consumed fewer snacks, specifically, fewer sweet snacks than when they did not chew gum. These participants, 115 men and women between the ages of 18 and 54, were all regular gum chewers and reported perceived feelings of hunger, cravings for snacks and energy levels. Significantly decreased feelings of hunger and cravings for sweets were reported from participants who chewed gum. Further, gum chewers reported heightened energy levels throughout the afternoon and significantly less feelings of drowsiness. According to Dr. Paula J Geiselman, chief of women's health, eating behavior and smoking cessation at Pennington, "Overall, this research demonstrates the potential role chewing gum can play in appetite control, reduction of snack cravings and weight management. Even small changes in calories can have an impact in the long term. And, this research supports the role of chewing gum as an easy, practical tool for managing snack, especially sweet snack, intake and cravings."

Research also indicates benefits beyond appetite control. Research from Dr. Andrew Scholey, professor of behavioral and brain sciences at Swinburne University in Melbourne, Australia and colleagues, found increased alertness, reduced levels of anxiety and stress, and improvement in overall performance on multi-tasking activities associated with chewing gum. Further, chewing gum was also found to assist with daily stress management. These findings are in line with a 2006 study, "The Impact of Chewing Gum on Consumers' Stress Levels" which found gum chewers were calmer and more relaxed when dealing with life's everyday stresses while chewing gum.

For more information on the benefits of chewing gum, visit: http://www.wrigley.com/benefits_of_chewing/index.do



Get Physical

American Dietetic Association Releases Position Statement On Nutrition and Athletic Performance

The American Dietetic Association (ADA), Dietitians of Canada (DC), and the American College of Sports Medicine (ACSM) recommend an adequate variety of food and fluid, proper timing of food and beverage intake and sufficient supplement choices for optimal health in an updated position statement on nutrition and athletic performance. The updated paper couples evidence based conclusion statements from the ADA's Evidence Analysis Library (EAL) with current scientific data related to energy needs, body composition, tactics for weight change, nutrient and fluid needs, nutrient needs during training and competition, use of supplements, recommendations for vegetarian athletes and the role of sports dietitians. The position paper states, "Energy and macronutrient needs, especially carbohydrate and protein, must be met during times of high physical activity to maintain body weight, replenish glycogen stores and provide adequate protein to build and repair tissue."

According to the position statement, athletes should consume approximately six to 10 grams per kilogram of body weight per day of carbohydrates. Further, it is recommended that athletes

consume 1.2 to 1.7 grams of protein per kilogram of body weight per day. However, the position statement notes, "These recommended protein intakes can generally be met through diet alone, without the use of protein or amino acid supplements. Energy intake sufficient to maintain body weight is necessary for optimal protein use and performance."

Adequate food and fluid before, during and after exercise to assist with maintenance of blood glucose and energy stores is stressed as well. According to the ADA, "Athletes should be well hydrated before

exercise and drink enough fluid during and after exercise to balance fluid losses. Sports beverages containing carbohydrates and electrolytes may be consumed before, during, and after exercise to help maintain blood glucose concentration, provide fuel for muscles and decrease risk of dehydration and hyponatremia." The ADA suggests that vitamin and mineral supplements are not needed if adequate energy for weight maintenance is consumed from a variety of foods.

The abstract of the position statement may be found here: http://www.eatright.org/cps/rde/xchg/ada/hs.xsl/advocacy_15986_ENU_HTML.htm

Calorie Control commentary

Providing timely information on low-calorie and reduced-fat foods and beverages, weight management, physical activity and healthy eating.

Calorie Control Commentary (ISSN 1049-1791) is published by the Calorie Control Council, an international non-profit association of manufacturers of low-calorie and reduced-fat foods and beverages. Commentary is written by Council staff, which includes specialists in nutrition, food science and food safety.

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