



IN THIS ISSUE



Feed Your Mind

Heavy Allegations: A Link Between Low Calorie Sweeteners and Weight Gain? A Recent Article in the *New York Times* Says NO



Experts Weigh In

Recent Review of the Food and Drug Association's (FDA) Food Additive Approval Process Highlights Thoroughness



Sweet Substitutes

Stevia/Rebaudioside A: Planted in "GRAS" Science



What's New and What's True?

Recent Research Review Supports Safety and Benefits of Low Calorie Sweeteners

***Consumer Reports* Indicates Most Successful Dieters Lose Weight on Their Own**



Get Physical

Workout In a Winter Wonderland

Feed Your Mind

Heavy Allegations: A Link Between Low Calorie Sweeteners and Weight Gain? A Recent Article in the *New York Times* Says NO

The February 17, 2009 edition of the *New York Times* featured an article entitled, “Sweeteners – Real Aid or Excuse to Indulge?” which address allegations of a relationship between the use of low calorie sweeteners and weight gain. The article poses the question that has been a topic of much debate over the years: “Does a weight problem prompt people to try to cut calories, or does the consumption of artificial sweeteners lead to their weight problem?”

In regards to recent research alleging low calorie sweeteners may contribute to a heightened desire for sweet tasting foods, the *New York Times* article states that although a few *animal* studies have alleged a link between low calorie sweeteners and weight gain, as Dr. George Blackburn stated, “Man is not a rat.” According to the *New York Times* article, Dr. Blackburn, director of the Center for the Study of Nutrition Medicine at Beth Israel Deaconess Medical Center in Boston, noted that when people are motivated to lose weight, non-nutritive sweeteners can help. The *New York Times* article references a two year clinical trial (the gold standard of research), in which Dr. Blackburn and his colleagues randomly assigned dieters to consume liquid calories or “artificially” sweetened drinks for 175 weeks.

The study found that those who drank the diet drinks took in 100 fewer calories a day and lost significantly more weight while keeping more weight off. According to Dr. 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.” (Blackburn, G. L., Kandars, B. S., Lavin, P. T., Keller, S. D., and Whatley, J. 1997) The article further cites research by Dr. Barbara Rolls and colleagues at Pennsylvania State University that have conducted short-term studies using low calorie sweeteners as substitutes for sugar to reduce energy intake. According to the *New York Times* article, they found them effective “when used as a real substitute and not an excuse to eat a lot of other things,” Dr. Rolls said. “Why waste the calories?”



The *New York Times* article also cites research demonstrating that the benefits of low calorie sweeteners apply to children as well. In a 19-month observational study among 548 middle-school children, Dr. David Ludwig and colleagues at Harvard University found that children who drank diet drinks did not gain weight. In a six-month follow-up study, overweight children given zero calorie drinks experienced significant weight loss compared with those who consumed regular soft drinks.

Low-calorie sweeteners and the products that contain them are not “magic bullets” for weight loss. Instead, light products and low-calorie sweeteners are tools to help people reduce and control their caloric intake. Leading health authorities agree that “light” products can be used as “tools” as part of an overall weight control program, which includes a reduction in calories and an increase in activity.

To access the *New York Times* article, visit: <http://www.nytimes.com/2009/02/17/health/17brod.html>

Experts Weigh In

Recent Review of the Food and Drug Association’s (FDA) Food Additive Approval Process Highlights Thoroughness

It is common with today’s media and popular culture to hear many conflicting views and opinions regarding the safety of food additives, both before and after a final opinion from the Food and Drug Association

(FDA) is received about a particular ingredient. This can be confusing and may leave people wondering about the safety of food ingredients. In the United States, a range of government agencies serve to ensure the safety and security of goods available for purchase in the marketplace. In the case of food, the FDA serves to oversee the safety



of food ingredients, including the premarket safety evaluation of new food additives. In an effort to clarify the food ingredient approval process, “FDA’s food ingredient approval process: Safety assurance based on scientific assessment,” was recently published in *Regulatory Toxicology and Pharmacology*. The paper provides an in depth review of the FDA’s food additive approval and General Recognized As Safe (GRAS) processes. The paper also outlines major features of the system currently used by the FDA in performing food additive safety evaluations and describes the thoroughness of FDA’s process.

One example, highlighted in the paper, of a comprehensive safety review for a new food additive is FDA’s evaluation of low calorie sweeteners. Each approved low calorie sweetener has undergone the extensive premarket safety evaluation required for any new food additive entering the U.S. food supply. In many cases, FDA’s review of new ingredients goes beyond the conventional information requirements

and includes other issues, such as the review of toxicological information by outside parties, supplemental studies by the petitioner to clarify submitted data and rigorous analysis by experts in the FDA’s Center for Drug Evaluation and Research. Due to the extensive review process by the FDA, the safety of low calorie sweeteners is supported and consumers are provided with additional low calorie options.

The entire paper may be accessed here: http://www.caloriecontrol.com/pdf/Rulis_08.pdf.



Sweet Substitutes

Stevia/Rebaudioside A: Planted in “GRAS” Science

Mintel Global New Products Database (GNPD) indicates the percentage of food and beverage products making ‘natural’ claims are growing in the US. On December 17, 2008, the Food and Drug Administration (FDA) said it had no questions regarding the natural sweetener Rebaudioside A, an extract from the stevia plant, for use in foods and beverages. Previously, the FDA only allowed stevia based sweeteners to be used in dietary supplements.

Stevia is a shrub in the chrysanthemum family native to Paraguay and has been used in South America to sweeten foods and beverages for more than 200 years. Due to the fact that there are more than 200 varieties of the stevia plant, stevia derived products may vary in production, composition, purity level and taste. The word, “stevia” refers to many components of the stevia plant and Rebaudioside A is one compound within the stevia plant that provides sweetness. Rebaudioside A is 250 – 450 times sweeter than table sugar and components of Rebaudioside A do not contribute calories or carbohydrates.

Recent studies, including human studies on safety, metabolism and intake, have demonstrated the safety of Rebaudioside A. The FDA’s no objection letter

regarding Rebaudioside A’s Generally Recognized As Safe (GRAS) claim states that Rebaudioside A is GRAS, through scientific procedures. According to the FDA, the sweetener is GRAS for use as a general purpose sweetener in foods, excluding meat and poultry products.

An *NPD Group* study on national eating trends found 29 percent of survey participants reported eating unsweetened/no sugar foods at least once in two weeks. Also, according to the Calorie Control Council’s 2007 consumer survey, 36 percent of respondents reported they prefer the term “sugar-free,” 26 percent prefer the term “low-calorie,” 26 percent prefer the term “reduced-sugar” and seven percent prefer the term “diet” in regards to a preferred food label descriptor. For consumers looking to satisfy their “sugar-free” tooth naturally, Rebaudioside A containing foods and beverages may now provide a sweet alternative.

For more information regarding Stevia/Rebaudioside A visit: <http://www.caloriecontrol.com/stevia-r-a.html>.



What's New and What's True?

Recent Research Review Supports Safety and Benefits of Low Calorie Sweeteners

A recent review of the literature, “Non nutritive sweetener consumption in humans: effects on appetite and food intake and their putative mechanisms” published in the January issue of the *American Journal of Clinical Nutrition* (Mattes D. Popkin B.) Non nutritive sweetener consumption in humans: effects on appetite and food intake and their putative mechanisms. *Am J Clin Nutr* 2008;89:1-14), provides an in depth review of the literature related to the safety and benefits of low calorie sweeteners. The review analyzes studies regarding consumption levels of nonnutritive sweeteners (NNS), associations between consumption of NNS and appetite, energy intake and BMI, gut peptide response and mechanisms by which NNS may enhance energy intake or balance, etc.

“Used prudently, non-nutritive sweeteners can work,” stated Dr. Barry Popkin in a recent *New York Times* article. “We feel that after water and noncaloric teas and coffees, diet beverages are completely safe and should be consumed by people trying to lose weight or keep from gaining. It’s more a behavioral issue than a biological one,” Dr. Popkin also said. “Some people use non-nutritive sweeteners as a crutch; others use them to help create a healthy diet.”

After reviewing 224 studies related to the effects of low calorie sweeteners on appetite, satiety, food intake and weight status, the *AJCN* paper concluded, “Taken together, the evidence summarized by us and others suggests that if non-nutritive sweeteners are used as substitutes for higher-energy-yielding sweeteners, they have the potential to aid in weight management.” This review helps clarify misinformation regarding low calorie sweeteners which has been presented in recent years. The abstract to this study may be found via: <http://www.ajcn.org/cgi/content/abstract/89/1/1?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&author1=Popkin&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcectype=HWCIT>.

Contrary to the paper above, “Diet Soda Intake and Risk of Incident Metabolic Syndrome and Type 2 Diabetes in the Multi-Ethnic Study of Atherosclerosis,” published in the January issue of *Diabetes Care*, alleges a link between diet soda consumption and risk of metabolic syndrome. The author’s allege a link between diet soda and components of metabolic syndrome however, after excluding participants with

any existing component of metabolic syndrome, no significant association between diet soda and metabolic syndrome was found. One may be fooled by the title but the study is speculative in nature and does not show cause and effect, even the authors note, “We are cautious not to conclude causality between diet soda and the diabetic or pre-diabetic condition. The possibility of confounding by other dietary and lifestyle/behavioral factors cannot be excluded from these observational studies.” Further, the study findings are illogical. It is physiologically impossible for foods and beverages without calories to cause weight gain. Even the study authors note, “Artificially-sweetened beverages, like diet soda, are commonly considered ‘benign’ as they contribute no energy and few nutrients to the diet.” The researchers did not control for weight gain, which is related to the development of metabolic syndrome, nor did they exclude overweight individuals from the study. Low-calorie sweeteners and the products that contain them are not “magic bullets” for weight loss. Instead, light products and low-calorie sweeteners are tools to help people reduce and control their caloric intake. The abstract to the *Diabetes Care* study may be found here: <http://care.diabetesjournals.org/cgi/content/abstract/dc08-1799v1>.

Foxnews.com has published an article negating the study, written by junk science expert Steve Milloy. An excerpt from Mr. Milloy’s *Foxnews.com* article, entitled “Zero-Calorie Sin?” states, “Although the researchers perfunctorily acknowledged that their study doesn’t prove a causal connection between diet soda and health problems, they nevertheless spent a great deal of space suggesting why their results might be plausible.” The Calorie Control Council’s comments regarding the study may be found here: http://www.caloriecontrol.com/pr_20090123.html.

Consumer Reports Indicates Most Successful Dieters Lose Weight on Their Own

According to a survey by *Consumer Reports*, most successful dieters lose weight on their own, primarily by healthful eating habits and regular exercise. The *Consumer Reports* survey found more than half of “successful losers” reported shedding the weight themselves, without the help of a commercial diet program, a medical treatment, a book or diet pills. This finding confirms a prior diet survey by *Consumer Reports*, in which 83 percent of “super losers,” people

Continued on page 5



Continued from page 4

who had lost at least 10 percent of their starting weight and kept it off for five years or longer, had done it entirely on their own.

Over 21,000 *Consumer Reports* subscribers were recently questioned about their lifetime weight history as well as eating, dieting and exercise habits. The “always thin” group, those who had never been overweight, comprised 16 percent of the sample, while “successful losers,” people who at the time of the survey weighed at least 10 percent less than they did at their heaviest and had been at that lower weight for at least three years, comprised an additional 15 percent. Those who said they would like to slim down yet still weighed at or near their lifetime high, “failed dieters,” made up the largest group at 42 percent. The remaining 27 percent of respondents did not fit into any of the categories.

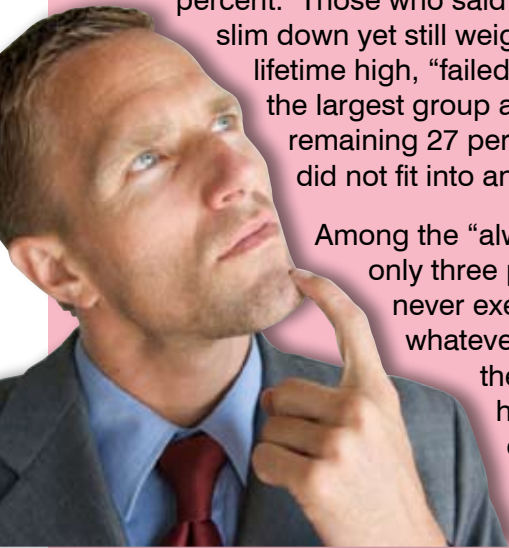
Among the “always thin” group, only three percent reported they never exercised and they ate whatever they wanted. In fact, the eating and exercise habits of the majority of the “always thin” group mirrored the

eating and exercise habits of the “successful losers,” a finding that contraindicates the idea that people who are able to stay fit and trim have a genetic edge.

Both the “always thin” and the “successful losers” reported regularly consuming healthy foods such as fruits, vegetables and whole grains and avoiding excessive dietary fat. They also said they practice portion control and engage in regular vigorous exercise.

The only advantage the “always thin” group had over the “successful dieters” is that those habits seem to come a bit more naturally to them, according to *Consumer Reports*.

“When we’ve compared people maintaining a weight loss with (those) who’ve always had a normal weight, we’ve found that both groups are working hard at it; the maintainers are just working a little harder,” noted Dr. Suzanne Phelan of California Polytechnic State University and co-investigator of the National Weight Control Registry. The specific weight loss tactics are available at: www.ConsumerReportsHealth.org.



Get Physical

Workout In a Winter Wonderland

Physical activity during the winter months may sometimes seem challenging. Whether it's the snow, cold weather or shortened days, there is something about winter that seems to put a damper on exercise. However, there are fun and unique ways to maintain physical activity and motivation during winter months.

According to the American College of Sports Medicine (ACSM), people who are physically active typically live longer, healthier lives. Research has shown that even moderate physical activity, such as 30 minutes of brisk walking a day, is a significant factor in longevity. The Calorie Control Council's 2007 nationally projectable consumer trends survey found that 58 percent of respondents reported lack of adequate exercise as a primary reason why they were not successful at dieting, which may make dieting seem even more

daunting since exercise can assist with diet adherence and weight loss. Further, regular exercise can help lower blood pressure, control blood glucose, improve cholesterol levels and build stronger, denser bones.

Finding the motivation to brave cold temperatures may seem impossible at times. Indoor activities, such as the Wii fit or an exercise DVD are great aerobic exercises and will even work up a sweat. Stair climbing in a stair well or stadium will work out the heart and lower body, while rock climbing at a local rock gym provides balance by working the upper body muscles. If lack of motivation is a problem, find a reliable workout partner or friend to go to the gym with, or join a winter sport through a community center. If choosing to exercise outdoors during the winter months, ACSM

Continued on page 6





Continued from page 5

recommends layering clothing to allow for appropriate heat retention and ventilation. According to ACSM, a synthetic base layer material (polypropylene and polyester), a wool fleece for a mid-layer and a breathable windbreaker as an outer layer work well to allow an outlet for excess moisture as well as keep the body warm. If the weather prevents outdoor exercise, simple things such as getting off the bus one stop earlier or parking in the farthest spot from the door at work can

help burn extra calories throughout the day. To keep track of the calories that are burned, enter exercise in the Get Moving! Calculator at: www.caloriecontrol.org. It's important to remember that dehydration is still a concern in cold weather so be sure to drink plenty of fluids before, during and after cold weather exercise.

Winter doesn't have to put a freeze on physical activity. Finding creative ways to exercise can help make winter workouts fun and enjoyable. Exercising with a friend and mixing up outdoor and indoor activities are great ways to maintain motivation through the cold winter months. So put on your sneakers and winter workout gear and Get Up and Get Moving!

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.

Calorie Control c o m m e n t a r y

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.

© 2009 by the **Calorie Control Council**
1100 Johnson Ferry Road Suite 300
Atlanta, Georgia 30342
Phone: (404) 252-3663.
E-mail: JLee@kellencompany.com
Internet: www.caloriecontrol.org

Permission to reprint from Calorie Control Commentary in whole or in part is granted provided customary credit is given.

