



Commentary: “Lite” Reading from the Calorie Control Council

The Calorie Control Council (the “Council”) is an international association representing the low-calorie and added fiber food and beverage industry. Companies that make and use low-calorie sweeteners and added fiber ingredients 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 is just that as we have 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.



In This Issue

Weight Management Strategies

- 5 Ways to Eat and Still Lose Weight
- How Your Smartphone Can Help You Lose Weight & Improve Your Health
- Causes of Childhood Obesity



Nutrition and Disease

- Cutting Edge Research on Nutrition & Obesity



Feed Your Mind

- How to Eat Healthy
- Free CPEs for Nutrition Professionals



Get Physical

- Best Exercise for Weight Loss
- Do Exercise Technology Tools Work?
- Can Exercise Improve Metabolic Risks in Children?



Sweet Substitutes

- Regulatory Status of Low-Calorie Sweeteners
- Low-Calorie Sweetener Research
- Expanding Benefits of Fiber
- Helpful Websites

Weight Management Strategies



5 Ways to Eat and Still Lose Weight

- Increasing the number of chews you take during a meal could help with weight loss. In a study of 45 normal weight, overweight and obese adults published in the [Journal of the Academy of Nutrition and Dietetics](#), researchers found that when participants were asked to chew more than usual, they ate less food than when chewing at their normal rate.
- Portion control may be the key to weight loss in more ways than one. In a recent study, published in [Appetite](#), when obese women were given a large and small meal on two separate occasions, they took smaller bites and ate slower during the small meal.
- Maybe it is possible to have too much of a good thing. In two experiments among healthy adults, researchers from Carnegie Mellon University found that larger portions of a food led to a decreased liking of it. The research, published in [Appetite](#), also found that when people were distracted when eating, such as watching TV, they tended to eat more.
- Slowing your food intake might help you eat less. A study published in the [Journal of the Academy of Nutrition and Dietetics](#) of 35 normal weight and 35 overweight/obese adults found that when prompted to eat at a slower pace, normal weight adults consumed less than when eating at their normal speed. No significant difference was observed for obese adults.

- Texture could affect beverage intake in women. In a study of 48 adults, 24 of which were women, researchers found that when given thick drinks, women drank less. The results, published in [Appetite](#), concluded that when women believe a drink is more satiating due to its texture, they might consume less, aiding in lower caloric intake and potential weight loss.

How Your Smartphone Can Help You Lose Weight & Improve Your Health

A new app may help those who have diabetes manage their blood sugar. The app, developed by a lecturer at the [Massachusetts Institute of Technology](#) (MIT), provides customized diet and exercise plans for patients with diabetes. Then, based on these plans, it predicts how the patient's insulin levels will be impacted throughout the day. The app is intended to encourage patients to stick to their diabetes management programs by creating their own personalized plans. It is also based on personal preferences, such as the foods the patient prefers and the amount of time he or she would like to spend preparing meals.

The messages you receive on your phone may also help with weight and health management. In a recent [study](#) from Duke University, 50 obese women were randomized to either receive daily text messages with health messages, such as increasing daily steps or cutting back on sugar intake, or participate in traditional methods for weight loss. The study found that the women receiving daily texts experienced significant weight loss while the women in the other group actually gained weight.

In another recent pilot [study](#) of a text message program, txt4health, researchers found that people who received messages about diabetes management strategies reported satisfaction with the program and overall healthier behavior, such as choosing baked over fried foods or walking more often. The authors of this study concluded that text message interventions can help people struggling with diabetes to make positive behavior changes.



For updates about The Skinny on Low Cal and for helpful tips and tools to stay healthy, follow us on our [Facebook](#) page.

Continued on page 3



Causes of Childhood Obesity

Recent studies have found several factors that could be associated with child obesity. A study published in the [American Journal of Clinical Nutrition](#) in January compared fast food intake among children with the remainder of dietary habits. Results of the cross-sectional study of almost 4,500 children found that children who consumed fast food more often were also more likely to consume Western diets. The authors concluded that Western diets may have more of an effect on child obesity than fast food intake by itself.

How food looks could also affect a child's risk for overeating and obesity. A [study](#) conducted at the University of Calgary found that children were more likely to say they preferred foods wrapped

in decorated, branded wrappers as compared to plain wrappers even though they were the same product. This research echoed the results of a Stanford University study from a few years ago.

Managing Stress May Help in Managing Weight

In a small pilot [study](#), participants were randomized to be in a weight-loss intervention or a stress management intervention. Those in the stress management intervention lost significantly more weight and lowered their blood pressure. These results held true at a 14-week follow-up.

on a child's body mass index (BMI), and found that in families who ate dinner in the kitchen or dining room had significantly lower BMIs compared to families who ate elsewhere. This held true for both adults and children.

Likewise, a study in [Child Obesity](#) examined 22 potential risk factors for obesity among 329 parent-child pairs. Researchers found that three factors were significantly associated with child overweight/obesity: parental BMI, sleep duration and parental restrictive feeding for weight control.

School/Child Care Influences

Where children spend time outside the home can also influence their weight status. A study featured



in the January issue of [Obesity](#) examined whether the method of payment in school cafeterias had any effect on child overweight or obesity. The national survey of more than 2,300 public school students found that schools in which children were able to purchase food by cash or debit cards purchased more fruits and vegetables than children in schools in debit-only systems.

Children in schools with cash options also consumed fewer total calories.

Another study published in the [Journal of the Academy of Nutrition and Dietetics](#) examined how child-care providers could affect children's nutrition habits. Researchers collected data from three child-care programs: Head Start, Child and Adult Food Program (CACFP) and non-CACFP. They found that children in Head Start programs received more nutrition education and a more balanced and varied diet as compared to other child-care settings.

State Policies Associated with Lower Rates of Obesity

A recent [examination](#) of obesity-related state laws and regulations enacted between 2009 and 2011 found that states with fewer policies had higher rates of obesity. The researchers concluded that these results show greater need for advocacy and state policy agendas related to obesity issues.

Social Influences

With whom children spend their time can affect their habits. In a study in the February issue of [JAMA Pediatrics](#), researchers examined the effectiveness of a peer-led health program among elementary school students. They concluded that education delivered by older peers was associated with reductions in waist circumference and dietary intake as well as increases in health knowledge as compared to a regular curriculum. These findings are in line with those of a recent review, published in [Preventative Medicine](#), which found that community-based interventions may have a modest effect on helping children reduce their weight.

A child's friends can also influence his/her activity levels. A review published in the December issue of the [International Journal of Behavioral Nutrition and Physical Activity](#) evaluated the association between a child's friend network and physical activity level. Researchers concluded that children who associated with high activity friends were more likely to be more physically active themselves. Further, they found that boys' activity levels were more influenced by their friends as compared to girls.

The Influence of Screen Time

The evidence linking screen time and the risk of obesity continues to mount. Researchers at the [Harvard School of Public Health](#) examined the effect of screen time on children's weight status. They found that for every additional hour of daily screen time, children's BMIs increased by 0.1 points.

Other studies have also shown the effect television might have on child obesity. A study in [Appetite](#) randomized children to eat *ad libitum* while watching TV, playing video games or playing computer games. Researchers found that energy intake was highest among children who watched television.

A study published in [JAMA Pediatrics](#) examined obesity rates among children and adolescents who had televisions located in their bedrooms. Results of the study found that televisions in the bedroom increased a child's risk of becoming obese. The researchers concluded that having a television in the bedroom was associated with a 0.57 and 0.75 point increase in BMI for 2 and 4 year olds, respectively. ■■■■■

Nutrition and Disease



Cutting Edge Research on Nutrition & Obesity

Do Obese People Eat More?

Researchers may have one more clue as to why obese people may eat more. In a study featured in October issue of [Nature Communications](#), researchers measured plasma gherlin, or the "obesity hormone," levels and the reaction of receptor antibodies to the presence of gherlin in obese women. Results showed that the receptor antibodies in the obese women recognized gherlin, which aided appetite regulation since the antibodies bound to the gherlin and prevented it from being broken down. Without being broken down, gherlin was able to act on the brain for a longer period of time and stimulate appetite for longer.

Continued on page 5





Unfortunately, we may not be able to control all the factors that affect our risk of obesity. Results from a study published in the [International Journal of Obesity](#) found that African American women participating in an intervention focused on calorie restriction and increased physical activity lost significantly less weight than Caucasian women in the same program. The authors concluded that African American women may have to adhere to lower energy requirements in order to lose weight.

Factors that Influence Nutrition Decisions

How foods are described may affect our desire for them. In a study published in [PLOS One](#), more than 400 participants randomly received one of

five different descriptions of an apple: (1) apple; (2) healthy apple; (3) succulent apple; (4) healthy and succulent apple; and (5) succulent and healthy apple. After viewing the label, participants were allowed to choose between an apple and a chocolate bar. Those who

Overstatement of Nutrition Research Results

A [review](#) study found overstatements in the conclusions of many nutrition journal articles that were not supported by the results. After reviewing more than 900 nutrition papers on obesity published between 2001 and 2011, researchers found that almost 9% reported overarching conclusions, with this being more common among those published in 2011.

viewed the labels of the apple which combined a taste descriptor with a health descriptor were more likely to choose the apple over the chocolate bar. The researchers concluded that healthy eating programs

that emphasize the taste attributes of healthy foods might be more successful.

Where a food is located might also affect our choice. In another study from [PLOS One](#), researchers set out to determine if the position of a food within a buffet line would affect the intake of healthier items, such as fruit. In the study, participants were randomized to get food from one of two breakfast buffet lines: one in which healthier food was first and vice versa. Results found that those who went through the line with healthier items first had healthier foods on their plate overall. The researchers' conclusion: the first foods are chosen the most.

Similarly, in a study published in the

[American Journal of Health Promotion](#), researchers randomized college students to order food from three different menus: one with no labels, one giving the energy content of food (calories) and one displaying the minutes of brisk walking it would take to burn the calories from the food. The study found that labels, whether calories or amount of physical activity, led to less food ordered and consumed as compared to the menu with no labels.

Population Health

Many public health interventions to combat obesity begin at the community level. Urban areas across the United States often have "food deserts" in lower income communities in which there is limited access to grocery stores. A pilot study evaluating the impact of a new grocery store in a Philadelphia community considered a "food desert" found that the opening of the grocery store did not have an effect in lowering weight within the community, nor did it lead to increased purchasing of healthier foods, including fruits and vegetables. The authors of the published study in [Health Affairs](#) concluded that simply changing the infrastructure of a community may not be enough to encourage behavior change. ■■■■■

Media Pick-Up of Medical Studies

[Researchers](#) recently compared 75 medical studies that received coverage in the top 5 newspapers to 75 studies that appeared in the top 5 medical journals. Those featured in newspapers were more likely to be observational and be of lower quality.





How to Eat Healthy

Some people complain that eating healthy is substantially more expensive than eating junk food. However, recent [research](#) from the Harvard School of Public Health may put a wrench in that line of thinking. The researchers conducted a meta-analysis of 27 studies from 10 high-income countries to compare prices of healthy and unhealthy diets. Although they found that healthier foods, such as fruits, vegetables and fish, were more expensive than unhealthy foods, the difference between healthy and unhealthy diets was only \$1.50 per day.

Healthy eating could also be influenced by social norms. In a [review](#) of 15 studies, researchers looked at whether providing people with information about how others ate influenced how they ate themselves. Results found consistent evidence that social norms do influence eating patterns, including food choice and quantity consumed.

Follow the Calorie Control Council on our blog, [Sugar Free Style!](#)

Self-Studies and Recorded Webinars Available for Nutrition Professionals

The Calorie Control Council is a Commission on Dietetic Registration (CDR) accredited continuing professional education (CPE) provider. This means dietitians and dietetic technicians can receive CPEs by viewing the recorded webinars and self-studies available at www.caloriecontrol.org.

Self-Studies and Recorded Webinar Modules include:

Polyols: A Primer for Dietetic Professionals:

Polyols, also known as sugar alcohols, are a unique group of sweeteners with the taste and texture of sugar for only half the calories. The polyol self-study module provides information on the types of polyols found in foods, the various uses of polyols, their health effects, and ways to counsel clients to incorporate polyols into a healthful diet.

Dietary Fiber Ingredients: Expanding Options for Meeting Dietary Fiber Requirements: Dietary fibers are an important part of a balanced diet and may have a protective effect against several diseases. This self-study provides information on the recommended daily intake of fiber, the different types of fiber, the major mechanisms through which dietary fibers provide health benefits, and identifies several fiber-containing ingredients used in foods and beverages.

Demystifying FDA's Food Ingredient Approval Process:

Dietitians and other health professionals hear questions every day about whether the foods in grocery stores or restaurants are healthy and safe. Processed foods, complex ingredient names, low-calorie sweeteners, and preservatives are just a few examples of ingredient-related questions asked by consumers. This module provides an in-depth exploration of the regulations for food additives. ■■■■■

The Calorie Control Council has new fact sheets available for low-calorie sweeteners as well as fructose and fiber! Reproduction of the fact sheets is permitted for educational purposes. Access these and other fact sheets by clicking [here](#).





Best Exercise for Weight Loss

What kind of exercise is best for trying to manage your weight? A recent systematic review examined the impact of aerobic training, resistance training and a combination of both on weight, blood lipids and cardiac fitness. Results of the study, published in [PLOS One](#), found that a combination of aerobic and resistance training appears to be most effective in treating overweight and obesity. Results showed that there was no difference in blood lipids, but there was an improvement in cardiac fitness. Regarding the timing of exercise, it might not matter. In a study published in [Sleep Medicine](#), researchers surveyed 1,000 adults and found that evening exercise was not associated with negative impacts on sleep.

Even activities that may not be considered as physical activity may help improve health. A study in the February issue of the [British Journal of Sports Medicine](#), examined non-exercise physical activity and risk of cardiovascular disease among older adults. Results of the study found that a generally active lifestyle, regardless of participation in regular exercise, was associated with better cardiovascular health.

Likewise adding more steps per day might also lower risk of poor health. A study recently published in [The](#)

[Lancet](#) assessed physical activity levels among adults with cardiovascular risk. The study included over 9,000 adults with impaired glucose tolerance in 40 countries and found that the addition of 2,000 steps per day significantly lowered cardiovascular risk.

Trying to take part in less sedentary activity may also reduce risk of poor health in children. A November [study](#) examined leisure and activity time during one week for more than 500 children in Quebec who had at least one obese parent. After considering other possible factors that could affect health risk, results of the study found that among both genders, breaks in sedentary behavior, even those lasting less than five minutes, were associated with reduced health risk and lower BMIs.

Do Exercise Technology Tools Work?

Wearable technology to assist with tracking physical activity has become popular in recent years. A new [survey](#) from the Consumer Electronics Association evaluated the reasons people chose to wear this technology. The top reasons given included motivation, monitoring of fitness goals and monitoring physical activity levels.

Continued on page 8

Children can use technology to increase their activity levels too. Two studies have looked at the impact of active video games on children's weight status. One of them, a review in the [Journal of Obesity](#), assessed

Exercise Could Help with Depression in Teens

Recent [research](#) from the University of Newcastle in England found that exercise might lead to better moods and decreased depression in teens suffering from depression. In the study, improvements were made among teens who participated in trainer-led workouts three times per week for 12 weeks.

nine studies and concluded that "exergaming" increased physical activity levels, energy expenditure, maximal oxygen uptake and heart rate in children. The researchers concluded that these games can be useful tools in combating childhood obesity. In the other study, published in [JAMA Pediatrics](#) in March, children participating in a family-based pediatric weight management program

were randomized to receive active video games for 16 weeks. Although both groups lost weight over a period of 16 weeks, the active video game group also had a significant increase in moderate-to-vigorous activity levels.



Can Exercise Improve Metabolic Risks in Children?

Regular activity might decrease the risk of metabolic disorders such as insulin resistance in children. In a review published in [Pediatrics](#), researchers investigated the effect

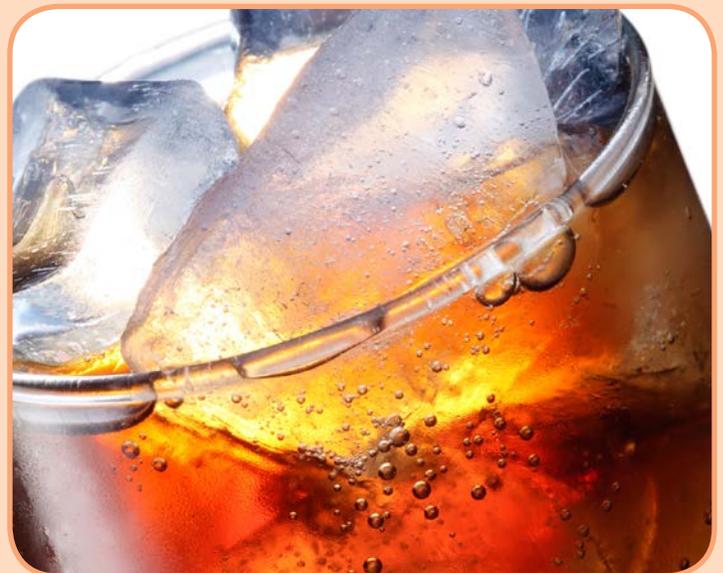
of exercise training on fasting insulin and insulin resistance in children and teens, and found a modest beneficial effect. They concluded that training could be used in the treatment and prevention of type 2 diabetes in youth.

In a calorie restriction and exercise intervention among obese Chinese children, researchers measured the effects of the intervention on different factors associated with metabolic syndrome, including BMI, body weight, fasting insulin and blood pressure. The results of the study, published in the [Journal of Sport and Health Science](#), found that the six-week intervention was associated with reduced levels for all markers besides fasting glucose in boys. ■■■■■

Sweet Substitutes

Regulatory Status of Low-Calorie Sweeteners

On April 24, Health Canada announced that they have completed a safety assessment of saccharin and its salts for use in various unstandardized foods and confirmed that they had no safety concerns. Therefore, Health Canada has revised their List of Permitted Sweeteners to enable the use of saccharin, calcium saccharin, potassium saccharin and sodium saccharin for several food categories. These categories include unstandardized canned fruit, chewing gum and unstandardized frozen desserts. The notice by Health Canada can be found [here](#).



Continued on page 9

Low-Calorie Sweetener Research

Low-calorie sweeteners may be helpful to those trying to manage their blood sugar levels. A study recently published in [Diabetes Care](#) looked at the effect of sucralose and acesulfame potassium (ace-K) on blood glucose and fasting insulin levels in adults.

Participants in the study consumed drinks sweetened with one or both of the sweeteners before consuming glucose. Results of the study found that there was no difference in blood glucose or insulin levels after consumption of any of the drinks as compared to plain water.

Another study featured in the [European Journal of Clinical Nutrition](#) looked at the effect of different low-calorie

sweeteners on glycemic and appetite responses when they were combined with glucose. Participants in the study consumed four different drinks on four separate occasions, one with glucose only and the others with various sweeteners plus glucose. Researchers concluded that there were no differences between any of the drinks in terms of blood glucose levels or perceptions of hunger. They also concluded that low-calorie sweeteners have no effect on appetite control, meaning they do not cause hunger or cravings.

Crystalline fructose, often used to lower calorie counts since it is sweeter than sucrose or glucose, can also have other health benefits. In a review published in [Current Opinion in Lipidology](#), researchers reviewed 20 feeding trials in which fructose replaced glucose. Results of the study found that fructose did not have an effect on insulin and blood lipid levels, nor was fructose associated with markers for non-alcoholic fatty liver disease (NAFLD). The researchers concluded that fructose may have advantages over glucose in terms of helping to control body weight, blood pressure and glycemic response. Another review published in the [European Journal of Clinical](#)

[Nutrition](#) found that replacement of glucose with fructose did not cause NAFLD in healthy adults. Further, the authors concluded that it is likely excess calories rather than fructose that increases risk for NAFLD.

Other recent research has shown that fructose does not have an effect on markers of cardiovascular risk. In a review featured in [Atherosclerosis](#), researchers reviewed 16 studies in which fructose replaced glucose or high amounts of fructose were given to participants. Results of this review found that fructose did not impact postprandial triglycerides, which are markers for cardiovascular disease.

Fructose is often blamed for obesity and other chronic diseases. An opinion piece by Trevor Butterworth in [Forbes](#) explained how fructose came to be villainized in popular culture and discussed a recent study which examined media coverage of fructose and high fructose corn syrup (HFCS) over the past ten years, which found that 90% of the coverage was critical of fructose/HFCS. Butterworth argued that the attention goes to “...those who shout fire in a crowded theater or advance an “important potential hypothesis” while ignoring those who say, ‘we don’t see a fire; we can’t validate your hypothesis,’ it’s that science has been replaced by opinion.” He added, “But there are some quite robust facts: Nine years after the fructose hypothesis was advanced, there is a paucity of evidence to show that it has played a special role in causing obesity over any other caloric sweetener; there is little evidence that moderate consumption of HFCS has a different impact on the body to moderate consumption of regular sugar, when all dietary calories are equal. There is a lot of evidence that many scientists in the nutrition and public health fields are weary of the focus on fructose; and there is now, with this study, evidence that all this has been and is being largely ignored....”

Long-Term Weight Loss Intervention among Diabetics

In an 8-year [study](#) of more than 5,000 overweight/obese adults with type 2 diabetes, researchers found that those receiving lifestyle counseling lost more weight than those receiving usual care. These participants also practiced more healthful lifestyle changes that helped to improve obesity.

Childhood Habits May Affect Adult Obesity Risk

In a study published in [PLOS One](#), researchers followed a sample of more than 5,000 children into adulthood. They concluded that factors from childhood that influenced adult obesity risk included physical activity, education, neurological function and being conscientious.

Continued on page 10



Helpful Websites

The Calorie Control Council sponsors a multitude of websites that can help healthcare professionals communicate information on the importance of diet, physical activity and weight control in achieving and maintaining a healthy lifestyle. Many of the sites also separate fact from fiction regarding low calorie sweeteners, and several of the sites are available in multiple languages.



Expanding Benefits of Fiber

Many people know that increasing your fiber intake can help with digestion and gut health, but dietary fiber also has a number of other benefits. A January review published in the [British Medical Journal](#) considered the effect of fiber on heart health. The researchers concluded that higher intake of fiber was associated with lower risk of coronary heart disease. Results also found that higher consumption of dietary fiber was associated with decreased risk of a cardiac event. The researchers concluded that an additional 7 grams of dietary fiber added to the diet daily was associated with a 9% lower risk of a cardiac event and coronary heart disease.

Fiber has been linked to even more benefits. A study published in [Nature Medicine](#) considered the effect of dietary fiber on allergies. In the study, mice were fed a standard diet, consisting of 4% fiber, or a low-fiber diet with less than 0.3% fiber. The mice were then exposed to house dust mite extract to produce an allergic reaction. The mice consuming the low-fiber diet experienced more inflammation of their airways, suggesting that fiber may play a role in allergic response. ■■■■■

Check out these resources

[The Skinny on Low Cal](#)

[The Calorie Control Council](#)

[Calories Count](#)

[Acesulfame potassium](#)

[Aspartame](#)

[Cyclamate](#)

[Fiber](#)

[Fructose](#)

[Polyols](#)

[Saccharin](#)

[Sucralose](#)

[Stevia](#)

