

Dairy and Healthy Weight: The State of the Science

June, 2007

Nutrient-rich dairy foods are a core part of a healthy diet and lifestyle. Together, milk, cheese and yogurt provide a unique package of nine essential nutrients that help Americans improve overall diet quality.

The 2005 Dietary Guidelines for Americans recommends three servings of low-fat and fat-free milk or equivalent milk products daily as part of a healthy diet. In addition, the Dietary Guidelines states that low-fat or fat-free milk or milk products, whole grains and fruits and vegetables are “food groups to encourage,” meaning Americans should include more of them in their diets to help meet nutrient recommendations.

The Dairy and Weight Connection

A growing body of research suggests that enjoying three servings of milk, cheese or yogurt each day as part of a nutrient-rich, balanced diet may help promote a healthy weight. At least 45 observational studies exploring dietary intake patterns and body weight in various population groups indicate that those who consume greater amounts of dairy foods weigh less than those who consume less dairy. In addition, clinical trials of overweight and obese adults found that those who followed reduced-calorie diets and increased their dairy intake to three servings a day achieved better weight loss and body fat loss results than those who cut calories and consumed inadequate amounts of dairy foods and calcium.

The current body of research linking dairy and weight management includes randomized clinical trials and observational, animal and cellular studies conducted by leading research institutions throughout the country. This connection is being studied worldwide – with beneficial results reported in the United States, Denmark, Greece, Italy and other countries. A full compilation of peer-reviewed, published research is posted at www.nationaldairycouncil.org/NationalDairyCouncil/Healthyweight/Science.htm.

How It Works

Cell culture, animal and human studies provide a framework to explain the beneficial effect of dairy foods on body weight. One plausible biological mechanism is based on the role that dietary calcium, and potentially dairy protein, may play in fat break down, production and storage. Diets that are inadequate in calcium have been shown to increase a key calcium-regulating hormone, which in turn increases intracellular calcium concentrations in human fat cells and results in increased fat storage. Conversely, adequate calcium intake decreases levels of this hormone, leading to decreases in intracellular calcium and less fat being stored in fat cells which may result in weight loss.

Another proposed mechanism is that dairy intake promotes weight loss because the calcium in dairy binds fat and decreases its absorption from the intestinal tract. Other researchers have suggested that the positive effect of protein on satiety, or the psychological feeling of fullness, contributes to dairy’s beneficial effect on weight.

While more research is needed to fully understand the relationship between dairy consumption and weight, experts suggest this emerging role for dairy foods is another good reason for people to meet current Dietary Guidelines recommendations of three servings a day of low-fat or fat-free milk, yogurt or cheese.

The Dairy Industry’s Commitment to Sound Science

The health benefits of dairy foods have been documented by decades of nutrition research. As part of the government’s Dietary Guidelines review process, a national committee of leading nutrition scientists reviewed the entire body of literature on dairy foods and health and determined that Americans should consume three servings each day to ensure good nutrition. In addition, the Dietary Guidelines states that adults and children should not avoid milk or milk products because of concerns that these foods lead to weight gain.

Some of the ongoing research in dairy nutrition is funded in part by National Dairy Council. For nearly a century, NDC has supported research conducted by leading nutrition science and health researchers. This research is made available to the public through publication in reputable peer-reviewed scientific journals, abstracts at scientific meetings and presentations to professionals.

Bringing Science to the Public Through Nutrition Education and Marketing

The dairy industry is committed to conducting science-based nutrition education and marketing campaigns under the guidance of the U.S. Department of Agriculture. In line with the Dietary Guidelines, the industry’s current marketing and educational campaigns are focused on educating Americans about the importance of milk and milk products to improve overall diet quality and bone health and to help maintain a healthy weight.

NDC’s nutrition and health communications are guided by rigorous guiding principles designed to ensure scientific integrity, transparency, leadership and excellence. The guidelines are available at:

www.nationaldairycouncil.org/NationalDairyCouncil/Nutrition/Research/index.htm

The dairy industry will continue to report new developments in the body of science related to dairy nutrition, including the connection between dairy and healthy weight.

###