



Dairy Research Institute Reviews Top 2010 Dairy Research Insights

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As concern mounts regarding obesity and increasing rates of obesity-related diseases such as Type 2 diabetes and heart disease, the Dairy Research Institute continues to fund valuable research identifying how dairy foods and dairy ingredients can help consumers achieve healthier diets.

“It has been a very exciting year for dairy research,” said Gregory D. Miller, PhD, president of the Dairy Research Institute. “We have added to the science showing the value of dairy in a healthy eating plan and also have begun to see potential new benefits in the areas of Type 2 diabetes, heart health, and body composition. We continue to see evidence that meeting the recommended daily intake of three servings of dairy per day can provide extraordinary benefits.”

According to the Dairy Research Institute, the top insights learned from 2010 dairy nutrition and product research include:

- **Adequate dairy intake may help reduce incidence of Type 2 diabetes.** The Centers for Disease Control and Prevention predict that by the year 2050, up to one-third of the U.S. population could have diabetes.[1] Emerging research indicates that dairy may play a positive role in reducing this risk.

A newly published study indicates that a specific type of fat found primarily in dairy products was associated with greater whole-fat dairy consumption, a more favorable metabolic profile, and a significantly lower incidence of Type 2 diabetes.[2]

A study administered by the Dairy Research Institute showed that adequate dairy intake (3.5 daily servings compared with less than 0.5) can improve key metabolic risk factors associated with obesity.[3] According to lead author Dr. Michael Zemel, dairy also lowered blood insulin levels and increased insulin sensitivity in this study, demonstrating a potential decreased risk for developing metabolic syndrome and Type 2 diabetes.

- **Dairy consumption may help reduce the risk of heart disease.** Emerging research indicates that dairy consumption is associated with a reduced risk for heart disease. In an observational study administered by the Dairy Research Institute, higher blood levels of fatty acids found specifically in dairy products were associated with a decrease in the likelihood of a first heart attack in women.[4]
- **Establishing good milk-drinking habits early in life can lead to improved nutrient intake into teen and later years.** New research shows that girls who drink more soda and less milk than other kids at age 5 are likely to have similar habits at age 15, a critical time for building bones. In this study, girls with lower dairy intake also had lower intakes of important nutrients like calcium, magnesium, potassium and phosphorous, which are vital for their growing bodies.[5]

- **Milk performs better than other beverages in Swedish Nutrient Density-Climate Impact study.** A research team developed a new Nutrient Density to Climate Impact Index to examine nutrient profiles related to greenhouse gas emissions in the production life cycle of various beverages. Milk had the highest nutrient density scores in relation to greenhouse gas emissions, performing better than the other beverages tested (soy drink, orange juice, carbonated water, soft drinks, beer, red wine, and oat drink).[6]This work builds upon previous research, which was administered by the Dairy Research Institute, to demonstrate the nutrient richness of dairy foods.
- **Dairy protein continues to excel for nutrition and product value for food and beverage manufacturers.** In 2010, the Dairy Research Institute administered sensory, application and nutrition research to further develop dairy protein options for food and beverage manufacturers to make tasty, nutritious protein-enhanced products. For example, more-heat-stable whey proteins are now available, increasing the amount of protein that can be used in meal replacement beverages from 5 percent to 10 percent. This is important as the role of dairy protein in good health and body composition becomes better understood. In recent research with older women, study participants on a reduced-calorie diet supplemented with whey protein showed significantly greater fat loss than those consuming the same amount of calories from carbohydrates.[7]

The 2010 Dietary Guidelines Advisory Committee also recognized these new emerging areas of dairy research. In their June 2010 report[8]the committee wrote, “Under-consumption of milk and milk products is associated with an increase in cardiovascular disease and Type 2 diabetes, as well as an increased risk for poor bone health and related diseases.”

“We believe Type 2 diabetes is the disease that will break the health care bank,” Miller said. “The good news for the dairy industry is that we are not part of the problem, and we may be part of the solution.”

In 2011, Miller expects to see more research on the role of three servings of dairy each day to improve metabolic health and dairy’s effect on decreasing risks for Type 2 diabetes and heart disease; more news on chocolate milk’s role in muscle recovery and a shift in nutrition community advice away from a focus on individual nutrients towards providing more practical, total diet advice.”

“The Dairy Research Institute remains committed to conducting and communicating cutting-edge dairy research in key priority areas,” said Kevin Ponticelli, board of directors chair, Dairy Research Institute, and executive vice president of Dairy Management Inc.™ “The dairy industry’s strong investment in research will continue in 2011 to help us better understand the critical role of dairy in defining healthier consumer diets.”

References:

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[6]Smedman A, Lindmark-Månsson H, Drewnowski A, Edman AK. [Nutrient density of beverages in relation to climate impact.](#) Food Nutr Res. 2010;54.

[7]Mojtahedi MC, Thorpe MP, Richey AL, Johnson CL, Karampinos DC, Georgiadis JG, Layman DK, and Evans EM. [Protein supplementation during 6 mo weight loss enhances body composition changes in older women.](#) FASEB J. 2010; 24(April): Meeting Abstract 93.7.

[8][Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010](#)