


NUTRITION AND HEALTH NEWS ALERT

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Better Together: Calcium & Vitamin D May Work Together to Reduce Cancer Risk

New findings suggest that vitamin D, sometimes called the 'sunshine vitamin,' together with calcium, may play a role in reducing cancer risk.

Researchers at Creighton University found that supplemental calcium with vitamin D is associated with reduced risk of non-skin cancers in postmenopausal women living in rural Nebraska. In this four year double-blind, randomized placebo-controlled study, 1,179 women, ages 55 or older without cancer at the start of the trial, were randomly assigned to one of three groups: *calcium-only* (1400-1500 mg of supplemental calcium per day), *calcium plus vitamin D* (1400-1500 mg calcium + 1100 IU vitamin D₃ per day), or *placebo*. Though the study's primary outcome was fracture incidence, a secondary outcome, the incidence of non-skin cancer, was determined using health status assessments at six-month intervals. After removing cancer cases diagnosed within the first 12 months, which may have already been present at the start of the trial, results showed a significant 77% reduction in the relative risk of cancers in the calcium plus vitamin D group compared to the placebo group. The authors note that these new findings, along with a growing body of research connecting vitamin D status to cancer outcomes, highlight the importance of improving vitamin D nutritional status.

Lappe J, et al. Vitamin D and calcium supplementation reduces cancer risk: results of a randomized trial. *American Journal of Clinical Nutrition*. 2007; 85: 1586-1591.

{Editor's Note: Dairy foods such as milk are among the few foods that provide a significant source of dietary vitamin D, with one 8-ounce glass of vitamin D-fortified milk supplying 25% of the Daily Value. Some yogurts and cheeses are also fortified with Vitamin D.}

{Scientific synopsis provided by Barbara Baron, MS, RD, CDN, American Dairy Association & Dairy Council, Inc.}

Dairy Calcium May Help Defend Against Breast Cancer

Breast cancer is the most common non-skin cancer among women in the United States and Europe and determining dietary factors related to breast cancer remains a top priority in nutrition research.

According to French researchers, higher total dairy consumption may have a protective effect when it comes to breast cancer risk, especially among premenopausal women.

Diet records of more than 3,600 women in the French SU.VI.MAX Study were analyzed to determine total dairy and calcium intake. Results showed that higher total dairy intake was associated with a reduced risk of breast cancer in all participants, and even more so in premenopausal women. A similar association was found for calcium intake, and the authors note that calcium or a correlated component is likely responsible for dairy's protective effect in this study. The authors stated that their findings are in agreement with a recently published study that also found a reduced risk of breast cancer with increased dairy consumption among premenopausal women.

Kesse-Guyot E, et al. Dairy products, calcium and the risk of breast cancer: Results of the French SU.VI.MAX prospective study. *Annals of Nutrition & Metabolism*. 2007; 51: 139-145.

{Scientific synopsis provided by Carolyn Hudson, RD, LD, Midwest Dairy Council}

Men Can Drink to Their Health: Milk May Reduce Metabolic Syndrome in Men

According to a new study, men can raise a glass, a glass of milk, that is, to good health.

A new study out of the United Kingdom shows that men who drink milk and eat dairy foods have a reduced prevalence of metabolic syndrome, as defined by the authors' criteria. Metabolic syndrome, characterized by the presence of multiple metabolic risk factors, including high blood pressure and impaired blood sugar regulation, is a risk factor for cardiovascular disease and diabetes. Food frequency questionnaires from 2,375 men, ages 45-59 years, in the Caerphilly Cohort Study, along with 7-day diet records from a representative subset of the cohort, were used to determine total daily milk and dairy food intake. Follow up to assess disease outcomes continued every five years for approximately 20 years. Results showed that consumption of milk and dairy foods was linked to a significantly reduced prevalence of metabolic

syndrome, with regular milk drinking (16 ounces or more daily) being associated with a 62% reduced prevalence. The relationship was apparent when either the food frequency data or the 7-day weighed diet record data was used. The authors noted that milk consumption has declined in the UK over the past 25 years and suggest that their findings add to the body of evidence that milk and dairy foods fit into a healthy eating pattern and should be promoted.

Elwood P, et al. Milk and dairy consumption, diabetes and the metabolic syndrome: the Caerphilly prospective study. *Journal of Epidemiological and Community Health*. 2007; 61: 695-698.

{Scientific synopsis provided by Barbara Baron, MS, RD, CDN, American Dairy Association & Dairy Council, Inc.}

Milk Wins When it Comes to Post-Exercise Rehydration

Think you need a sports drink for optimal rehydration after working out? New research shows that low-fat milk may do a better job.

Research published in the *British Journal of Nutrition* suggests that drinking low-fat milk after exercise may promote rehydration better than water or a sports drink. Eleven young, healthy subjects completed four separate trials, consisting of exercise to lose about 2% of their body weight (sweat losses) followed by consumption of one of four beverages (low-fat milk, low-fat milk with added sodium chloride, water, or a commercially available sports drink) equivalent to 150% of the fluid volume lost during exercise. Participants were monitored to determine fluid status over the following four hours. The results clearly showed that milk was more effective than water or the sports drink at replacing exercise-induced fluid losses

and maintaining hydration in the post-exercise period. The authors note that milk's natural electrolytes are likely responsible for its ability to restore fluid balance, while slower digestion due to the presence of protein and fat in milk may also play a role. Since dehydration increases cardiovascular strain and reduces exercise capacity, the authors underscore the importance of complete rehydration prior to subsequent exercise bouts.

Shirreffs S, et al. Milk as an effective post-exercise rehydration drink. *British Journal of Nutrition*. 2007; 98: 173-180.

{Scientific synopsis provided by Althea Zanecosky, MS, RD, LDN, Mid-Atlantic Dairy Association}

African-American Girls are Missing Out on Key Nutrients

Looking ahead to February's Black History Month, African-American girls can take a step toward a healthy future by increasing their intake of several key nutrients.

A new study reveals that adolescent girls are coming up short when it comes to several key nutrients needed for optimal health and disease prevention and the trend is even more troubling for African-American girls, compared to white girls. Vitamin and mineral intake among African-American and white girls ages 9 to 18 years was assessed using 3-day food records collected as part of the National Heart, Lung, and Blood Institute Growth and Health Study. Results showed that African-American girls consumed less vitamin A and D, calcium, and magnesium compared to white girls and that both groups consumed less than the current recommended intakes of vitamin E, magnesium, folate, and calcium. The authors also noted that as the girls aged, their intake of several nutrients, including calcium and vitamin D, and the overall nutrient density of their diet decreased, a

tendency which was more pronounced among African-American girls. They concluded that nutrition education efforts should focus on improving the diets of young girls, especially those who are African-American.

Affenito S, et al. Longitudinal assessment of micronutrient intake among African-American and White Girls: The National Heart, Lung, and Blood Institute Growth and Health Study. *Journal of the American Dietetic Association*. 2007; 107: 1113-1123.

{Editor's Note: Dairy foods, including milk, cheese, and yogurt, together supply nine essential nutrients and are one of the Food Groups to Encourage, along with fruits, vegetables, and whole grains, highlighted by the 2005 Dietary Guidelines for Americans.}

{Scientific synopsis provided by Althea Zanicosky, MS, RD, LDN, Mid-Atlantic Dairy Association}

FAST FACT

All Foods Can Fit Within a Healthful Eating Pattern

According to a new Position Statement from the American Dietetic Association (ADA), when it comes to striving for a healthy lifestyle, Americans should be focusing less on 'good foods' vs. 'bad foods' and more on their overall eating and activity patterns. According to this 'total diet approach,' all foods can fit when consumed in moderation and balanced with regular physical activity. The Dietary Guidelines for Americans, MyPyramid, and the DASH Diet (Dietary Approaches to Stop Hypertension) encourage nutrient-rich foods such as fruits, vegetables, low-fat

dairy foods, and whole grains and support the total diet approach, promoting variety, balance and moderation. Visit www.mypyramid.gov or www.eatright.org for more information.

Position of the American Dietetic Association: Total diet approach to communicating food and nutrition information. *Journal of the American Dietetic Association*. 2007; 107: 1224-1232.

{Scientific synopsis provided by Carolyn Hudson, RD, LD Midwest Dairy Council}

This issue was edited by Sarah Hess, MS, RD, LDN, New England Dairy & Food Council

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The National Dairy Council® was founded in 1915 and conducts nutrition education and nutrition research programs through national, state and regional Dairy Council organizations, on behalf of America's dairy farmers.

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