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DAIRY Nutrition Digest

SCIENTIFIC NEWSLETTER ON NUTRITION AND HEALTH

The "Dairy Nutrition Digest" is EDA's quarterly scientific newsletter providing the latest science-based information on dairy-related nutrition and health topics. Scientific articles are summarised in user friendly language for a broad audience.

Health benefits of dairy explored at the IUNS 20th congress of nutrition

The symposium on nutrient-rich dairy at the IUNS 20th Congress of Nutrition shed light on the beneficial effects of dairy on cardiovascular disease, obesity, sarcopenia and more.

Over 200 delegates attended the symposium on nutrient-rich dairy at the IUNS 20th Congress of Nutrition in September. The 2-hour session saw four lead experts take to the stage and illustrate the health benefits of consuming milk and milk products.

Prof Connie Weaver from Purdue University, USA, started by describing milk as a nutrient-rich food containing high-quality protein and a number of important micronutrients, including calcium.

Next, Dr Vanina Bongard from University of Toulouse, France, presented results from her project – the MONICA study – which suggests that consumption of dairy may be linked to reduced blood pressure and metabolic syndrome prevalence in middle-aged men.

Dr Mario Kratz from the Fred Hutchinson Cancer Research Centre, USA, explained the findings of his recent review, which shows that high-fat dairy consumption within typical dietary patterns may be associated with decreased risk of obesity. He also found that evidence does not support the hypothesis that decreasing dairy fat intake reduces the risk of cardiovascular disease or type 2 diabetes.

Lastly, Prof Luc van Loon from Maastricht University, The Netherlands, concluded that well-timed milk protein intake together with physical activity and/or strength training exercise represents an effective strategy to increase muscle mass and functional performance in the elderly.

The symposium was sponsored by Dairy Australia, The Dairy Council (GB), Dairy Research Institute (DRI), Dutch Dairy Association (NZO), European Milk Forum (EMF), French Dairy Inter-branch Organization (CNIEL), Global Dairy Platform (GDP) and the International Dairy Federation (IDF).

IUNS 20th International Congress of Nutrition, Granada (Spain), 15-20 213.

Dairy products may protect against risk of type 2 diabetes

This review suggests possible beneficial effects of dairy products on the risk of type 2 diabetes and explains the potential mechanisms involved.

A high intake of dairy products may lower the risk of developing type 2 diabetes: that is according to this review, which pooled data from 17 studies. Beneficial effects were found for consumption of dairy products as a whole group and for specific sub-groups, namely low-fat dairy products, low-fat or skimmed milk, cheese, and yogurt.

The authors suggest that a number of mechanisms may explain these potential protective effects.

- First of all, milk and milk products are an important source of calcium, which has been found to improve insulin regulation (poor insulin regulation is characteristic of type 2 diabetes).
- Milk and dairy products are also a source of protein: milk whey proteins have been shown to reduce weight gain and improve insulin regulation.

- In addition, dairy contains magnesium, which research has found to be associated with reduced risk of diabetes.
- Lastly, some countries fortify dairy products with vitamin D, which may be involved in providing protection against the development of the disease.

These findings are consistent with previous research, according to which dairy products appear to reduce the risk of metabolic syndrome and insulin resistance, both of which are risk factors for diabetes. As the prevalence of type 2 diabetes increases worldwide, it is important to continue to analyse dietary factors which may offer protection, including milk and other dairy products.

Aune D, Norat T, Romundstad P, Vatten LJ. Dairy products and the risk of type 2 diabetes: a systematic review and dose-response meta-analysis of cohort studies. Am J Clin Nutr. 2013 Aug 14.

Investigating the effects of saturated fatty acids on cardiovascular disease

This review analyses the evidence linking saturated fat consumption and cardiovascular disease, including the effect on cholesterol, blood vessels and insulin regulation.

This review studies the evidence regarding saturated fats and their impact on cardiovascular disease and its risk factors (including high levels of LDL cholesterol, stiff blood vessels and signs of inflammation).

- Firstly, individual saturated fatty acids have been shown to have different effects on LDL cholesterol in the blood, pointing to the idea that not all saturated fatty acids are equal.
- Secondly, studies showed that decreasing saturated fatty acid intake does not affect blood vessel stiffness or signs of inflammation in the long run.
- A recent review found that increasing saturated fatty acid consumption did not change cardiovascular mortality.
- In addition, replacing saturated fat intake with other sources of energy (for example, with refined carbohydrates such as white bread) may have no impact on or even increase the risk of coronary heart disease.

The author points out that eating a diet aimed at decreasing risk factors for cardiovascular disease does not mean that the likelihood of actually developing cardiovascular disease will decrease. Dietary components can affect the disease in different ways. For example, milk, yogurt and cheese are associated with lower risk of coronary heart disease, even though they contain saturated fat.

Sanders TA. Reappraisal of SFA and cardiovascular risk. Proc Nutr Soc. 2013 Sep 4:1-9.
