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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.

Most people with lactose intolerance can still eat dairy products

More and more people remove dairy products from their diet because of concerns about lactose intolerance (real or perceived). These people risk insufficient intake of calcium and other important nutrients provided by dairy products. This review shows the health benefits of eating dairy and argues that people with lactose intolerance do not need to give up dairy.

This US review shows that dairy products, particularly milk, yoghurt and cheese, are an important contributor of calcium and several other nutrients to the diet. Without a high dairy diet, it is difficult to achieve nutrient intake recommendations. Calcium is essential to build and maintain bone and studies show that high dairy consumption is associated with a reduced risk of developing the metabolic syndrome, a condition which can lead to cardiovascular disease and diabetes. Furthermore research shows that people eating high amounts of calcium have overall better diets. However, many Americans do not reach the recommended 3 servings of dairy a day.

One of the factors that contribute to low dairy intake is the issue of lactose intolerance. The majority of the population does not experience any problems when eating dairy products. Even individuals possessing lower levels of lactase (the lactose-digesting enzyme) and hence showing mild levels of lactose maldigestion are perfectly able to consume dairy products because they show no symptoms.

For people showing signs of lactose intolerance (only 12-13% of the American population is lactose intolerant) consuming dairy is still a possibility. Intolerance can be managed by consuming dairy products with meals spread out throughout the day, by eating hard cheeses (which are low in lactose) and probiotic yoghurts (whose active cultures help with lactose digestion), by consuming lactose-free dairy foods or by taking tablets containing lactase.

The author concludes that it is difficult to achieve an adequate diet if dairy foods are not consumed in sufficient quantities and that lactose intolerance, whether real or perceived, should not be a significant barrier to improving dietary adequacy.

Heaney RP. Dairy intake, dietary adequacy, and lactose intolerance. Adv Nutr. 2013 Mar 1;4(2):151-6.

Eating high-fat dairy foods leads to less fat around the stomach

A Swedish study found that men with a high intake of dairy fat had a lower risk of developing obesity around the stomach and that those with a low dairy fat intake had a higher risk.

During two surveys set 12 years apart, men living in rural areas in Sweden were asked about their dairy intake and a measure of their body composition was carried out. High consumption of dairy fat was defined as butter as spread, full fat milk (3.5-3.8% fat), and intake of whipping cream daily or several times a week. Low consumption of dairy fat was defined as no butter, low fat milk (1.5% fat or less), and seldom or no intake of cream.

The results showed that men eating high-fat dairy products had less fat around the stomach, even after adjusting for several factors that could have had an impact on the result (intake of fruit and vegetables, smoking, alcohol consumption, physical activity, age, education, profession). Excessive abdominal fat around the stomach and abdomen,

also known as central or abdominal obesity, is part of the metabolic syndrome and known to increase risk of diabetes and heart disease.

This research adds to the number of studies showing health benefits of dairy foods consumption independent of their fat content and questions health recommendations that disapprove of high-fat dairy products due to their content of saturated fats believed to generate heart disease.

Holmberg S, Thelin A. High dairy fat intake related to less central obesity: A male cohort study with 12 years' follow-up. Scand J Prim Health Care. 2013 Jan 15.

Dairy products do not increase the risk of developing osteoporosis

An analysis of old and new research reveals that the acid content of dairy products does not cause bone damage and that evidence does not justify limiting their consumption to decrease risk of developing osteoporosis.

This recent review finds that, contrary to current belief, meat and dairy products do not increase the risk of developing osteoporosis.

Nutritional research is influenced by the hypothesis that foods which increase acidity in the body (e.g. animal protein contained in meat and dairy products) damage our bones. It is suggested that, in response to increased acidity, bone mineral is broken down and bones become thinner. This would increase the risk of developing osteoporosis, a condition in which bones are frail and more prone to fracturing. Women during and after menopause are particularly vulnerable.

This hypothesis, however, originates from studies in which technical limitations and poor-quality designs have led to incorrect data calculations and, therefore, flawed assumptions.

A number of good-quality studies are now able to suggest that consumption of acid-producing foods over a long period of time does not affect either bone health or the development of osteoporosis in healthy adults (including women during and after menopause). In fact, an increase of acidity in the body is dealt with by appropriate mechanisms which act specifically to keep acid levels constant and leave bones unscathed.

The author concludes that available evidence is not strong enough to recommend limiting consumption of animal protein to decrease the risk of developing osteoporosis. As dairy products contain calcium, which is essential for the maintenance of bones, it is important to protect bone health by incorporating dairy in a healthy balanced diet.

Bonjour JP. Nutritional disturbance in acid-base balance and osteoporosis: a hypothesis that disregards the essential homeostatic role of the kidney. Br J Nutr. 2013 Apr 4:1-10.

Higher dairy intake improves nutrient intakes and health in Americans

Consuming more than three servings of dairy per day leads to better nutrient status and improved bone health and is associated with lower blood pressure and reduced risk of cardiovascular disease and type 2 diabetes.

This review looked at scientific research regarding the consumption of dairy foods and the effects of dairy consumption on nutrient intakes and chronic disease risk which has been published since the 2010 Dietary Guidelines for Americans (DGA). The 2010 DGA recommend 3 cups of dairy foods a day, which include milk, cheese and yoghurt, for people 9 years of age and older to meet nutrient recommendations and recognize that "moderate evidence shows dairy consumption is associated with improved bone health, especially in children and adolescents, and a reduced risk of cardiovascular disease and type 2 diabetes and with lower blood pressure in adults". However, most Americans fall short of eating the recommended dairy amounts and several nutrients, including calcium, magnesium and potassium, are under-consumed.

According to the review, the latest evidence suggests that meeting current recommendations for dairy food intake helps to close the gap between current nutrient intakes and recommendations. Exceeding recommendations for consumption of dairy products each day, in combination with a healthy dietary pattern, leads to better nutrient status and can lead to improved bone health, as well as lower blood pressure and reduce risk of cardiovascular disease and type 2 diabetes.

Rice BH, Quann EE, Miller GD. Meeting and exceeding dairy recommendations: effects of dairy consumption on nutrient intakes and risk of chronic disease. Nutr Rev. 2013 Apr;71(4):209-23