

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.

EDA policy conference on saturated fat and dairy for health, 8 February 2012, Brussels

On 8 February 2012, EDA held a policy conference in Brussels on saturated fat and dairy for health. The goals of this conference were to gather EU and national policy makers, scientists, dairy producers and other stakeholders and allow them to learn about new scientific developments on saturated fat, dairy and health to have them engaged in a constructive exchange of views.

The aims of the conference were to:

- Present the new science on saturated fat, dairy and health.
- Explore the nutritional value of dairy in terms of helping consumers meet their nutrient recommendations.
- Understand how policy makers incorporate science into public health recommendations.
- Learn about the translation of science into policy recommendations.
- Present EDA policy recommendations in relation to saturated fat.
- Initiate a constructive exchange between EU policy makers, scientists and the dairy industry on current public health policies and their potential effects on the health of the European consumer.

Conference programme, presentations and summary report of the conference.

Professor Arne Astrup, University of Copenhagen: New science on saturated fat, should we change the paradigm?

Professor Astrup presented the latest scientific findings on saturated fatty acids which indicate that there is a need to reassess the way saturated fat is viewed by policy makers. Although current dietary recommendations advise reducing the intake of saturated fatty acids to decrease the risk of coronary heart disease, recent findings do question the role of saturated fat in this matter.

Professor Astrup highlighted the results of a consensus workshop which took place in 2010 in which global scientific experts discussed the totality of science on saturated fat, the biomarkers for risk of cardiovascular disease and the role of saturated fatty acids in isolation versus the role of saturated fat in food.

The consensus group concluded that:

- Not all saturated fatty acids have the same health effects.
- Older scientific studies probably showed harmful effects of saturated fat due to confounding factors previously not known. The adverse effects of, for example, industrially produced trans fat, that was found to be twenty times more harmful than saturated fat for risk of coronary heart disease, were not known at a time when dietary guidelines recommended consumption of plant-based spreads (not knowing that they contained industrially produced trans fat back then) instead of butter.

- Public health advice on the effect of a nutrient or food must be made on multiple biomarkers of a disease. Assessing the effect of the diet on a single biomarker for disease like cholesterol is not sufficient to assess its effect on coronary heart disease risk.
- The focus of dietary recommendations should not be on low vs. high intake of saturated fat but rather the effects of replacing saturated fat with other nutrients. There is now consensus that replacing saturated fatty acids with polyunsaturated fatty acids provides a small but solid reduction in risk of coronary heart disease. On the other hand, when saturated fatty acids are substituted with simple carbohydrates (e.g. white bread, pasta and rice but not the wholegrain equivalents), the risk for coronary heart disease is increased by 7%.

Professor Astrup also presented data from studies that showed positive effects of milk and dairy consumption on heart health and stressed the importance of looking at the health effects of whole foods rather than isolated nutrients. The effect of particular foods, such as cheese, on heart disease cannot be predicted only by their content of saturated fatty acids because individual saturated fatty acids have different effects on coronary heart disease risk and food sources of saturated fat, such as dairy foods, contain other nutrients, such as protein and calcium, that influence the risk of coronary heart disease.

The overall conclusion of Professor Astrup was that health effects of foods cannot be predicted by looking at food labels (and the single nutrients the food contains) and that this should be taken into account when developing public health policies.

Conference presentation of Prof. Astrup

Astrup A, Dyerberg J, Elwood P, Hermansen K, Hu FB, Jakobsen MU, Kok FJ, Krauss RM, Lecerf JM, LeGrand P, Nestel P, Risérus U, Sanders T, Sinclair A, Stender S, Tholstrup T, Willett WC. The role of reducing intakes of saturated fat in the prevention of cardiovascular disease: where does the evidence stand in 2010? Am J Clin Nutr. 2011 Apr;93(4):684-8. Review

Siri-Tarino PW, Sun Q, Hu FB, Krauss RM. Meta-analysis of prospective cohort studies evaluating the association of saturated fat with cardiovascular disease. Am J Clin Nutr. 2010 Mar;91(3):535-46.

Hjerpsted J, Leedo E, Tholstrup T. Cheese intake in large amounts lowers LDL-cholesterol concentrations compared with butter intake of equal fat content. Am J Clin Nutr. 2011 Dec;94(6):1479-84.

Professor Ian Givens, University of Reading: What is the value of dairy in health?

Professor Givens focused on the value of milk and dairy products in health and disease.

Professor Givens highlighted that milk and dairy products are important dietary sources of key nutrients such as calcium, phosphorus and vitamin B12. Milk and dairy products have a high nutrient density, i.e. greater supply of nutrients per unit of energy, compared to other food groups.

Recently published research by Professor Givens' group shows that people with the highest intake of dairy foods have a reduced risk of having ischaemic heart disease and ischaemic and haemorrhagic strokes as well as a lower BMI (body mass index). Over long periods, increased milk consumption may even offer some vascular protection due to positive effects of milk on blood pressure. It had previously been assumed that people eating a lot of dairy products have an increased risk of cardiovascular disease because of their intake of saturated fat, but it seems that saturated fat in milk fat probably presents less risk than traditionally thought or their negative effect is moderated by other components in milk.

Professor Givens concluded that a holistic approach, i.e. considering the whole food, is necessary when developing dietary recommendations. He stressed the importance of the food matrix when assessing the effect of food and nutrients on health, and said that the use of single risk markers may be misleading.

Conference presentation of Prof. Givens.

Elwood PC, Pickering JE, Givens DI, Gallacher JE. The consumption of milk and dairy foods and the incidence of vascular disease and diabetes: an overview of the evidence. Lipids. 2010 Oct;45(10):925-39. Review.

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EDA key messages on saturated fat and dairy for health

- **Dairy foods are recommended in dietary guidelines in all EU Member States**
- **Focus more on foods and diets, less on single nutrients**
- **A positive approach to food is more helpful for consumers**
- **A dairy product for every consumer need**
- **Health policy must be flexible enough to move with new science**

Dairy foods are recommended in dietary guidelines in all EU Member States

- Dairy foods play an important role in a healthy, balanced diet.
- Dairy foods are natural products which provide us with many essential nutrients, such as high quality protein, the minerals calcium, phosphorus, potassium, magnesium and zinc, vitamin A and the B-vitamins, which are essential across all life stages.
- Scientific studies show that dairy foods as part of a healthy diet are associated with health effects beyond the nutritional value. Dairy foods contribute beneficially to bone health, management of body weight and composition, as well as aspects of the metabolic syndrome such as glucose or blood pressure control.

Focus more on foods and diets, less on single nutrients

- Consumers do not eat nutrients, they eat foods.
- The total nutrient composition of foods and their contribution to a healthy diet should therefore lead health policy. This requires a more holistic approach rather than a reductionist single nutrient approach!
- Looking at saturated fat alone is too simplistic. Foods with saturated fat are not by definition unhealthy and foods without saturated fat are not by definition healthy.
- Milk fat comprises a wide variety of more than 400 fatty acids; on average it contains 30-35% of unsaturated fatty acids and 65-70% of saturated fatty acids.

A positive approach to food is more helpful for consumers

- Consumers are more interested in positive messages (what is good for us), than in negative messages (what should we avoid) which can distort their attitude towards food.
- We eat in order to provide ourselves with essential nutrients, not in order to avoid the negative nutrients.
- A negative approach by public health policy may make people avoid basic foods such as dairy foods.

A dairy product for every consumer need

- A wide range of dairy products with different fat levels have been available on the market for a long time.
- Dairy companies listen to consumers and provide a large variety of products allowing any European consumer to compose a healthy and balanced diet according to his / her needs and taste.
- Dairy companies are constantly working to broaden the nutritional range of their products to ensure increased consumer choice also in the future.

Health policy must be flexible enough to move with new science

- A recent global expert consensus meeting on saturated fats concludes that the effect of particular foods on coronary heart disease cannot be predicted solely by their content of total saturated fats because individual saturated fats may have different cardiovascular effects and major saturated fats food sources contain other constituents that could influence coronary heart disease risk.
- Unintended consequences of recommendations must be taken into account before policy is made. Avoiding basic foods with saturated fat such as dairy may lead to inadequate intake of essential nutrients like calcium, other minerals and certain vitamins.
- European consumers want to know about the whole package of nutrients in a food when making healthy choices – not just perceived negatives.
- Education and promotion of a healthy diet and lifestyle – including physical activity - is needed to change consumer behaviour.

EDA key messages on saturated fat and dairy for health.

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