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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 summarized in user friendly language for a broad audience.

EDA/DBB International Conference on Saturated Fat

The European Dairy Association (EDA) and the Danish Dairy Board (DDB) co-organised on 25 September 2009 in Copenhagen an International Saturated Fat Conference where internationally renowned scientists gathered to present the latest scientific findings on the health impact of the intake of milk fat.

This conference took place in the light of the recent debate on the intake of saturated fatty acids, the proposed fat tax in Denmark and the consultation on the EFSA "Draft scientific opinion on dietary references values for fat" where EFSA put forward the recommendation to keep the intake of SFA in the EU population as low as possible.

The main outcome was that there is no conclusive evidence with regards to the negative health effects of saturated fatty acids from milk fat but that recent science rather indicates neutral or even positive effects of some saturated fatty acids. The scientists stated that there is no reason for considering saturated fatty acids as a single group anymore, and that more research is needed in order to make well-founded policy recommendations with regards to the intake of saturated fatty acids. In this framework, the scientists agreed that one needs to be very careful when proposing a tax on saturated fat as it is the case in Denmark right now.

Prof. Arne Astrup, University of Copenhagen, Denmark

Danish proposal for saturated fat tax could do more harm than good

Prof. Astrup asked himself the question whether this Danish proposition for a saturated fat tax is substantiated by evidence-based science. With the increasing scientific evidence about the interactions between saturated fatty acids and health available today, there is no conclusive evidence to make broad dietary recommendations on restricting saturated fat intake to as low as possible or even 'zero'. On the contrary, it is not clear whether removing saturated fatty acids might actually have any negative health effects. Also, it is more relevant to consider the health effects of whole foods and not just single nutrients which are eaten as a part of the whole diet. Based on the scientific evidence reviewed today, Prof. Astrup concluded that the proposed saturated fat tax in Denmark could do more harm than good on the consumer's health should therefore be reconsidered.

Eva Kjer Hansen, Danish Minister for Food, Agriculture and Fisheries

The possible tax on saturated fat is only one element to improve the health of the Danish consumer

The Danish health minister explained the various items the government is considering towards the ultimate aim of improving the health of the Danish consumer. The health of the consumer is a shared responsibility of the consumer him/herself, the government, the food industry and the retailers. The government's role is to support the consumer in adopting a healthy diet. For that, several elements need to be in line: raising awareness about dietary recommendations

and healthy choices, providing precise, reliable and not misleading information about foods, making healthy food choices available and affordable. The administrative burdens for the food industry and cross-border trade aspects of the proposed tax also have to be taken into account. Also research on saturated fatty acids in various areas should provide the knowledge necessary for the government to formulate sound recommendations.

Michael Stevns, Managing Director, Danish Dairy Board

Dairy products make an important nutritional contribution to the daily Danish diet

Mr Stevns pointed out that dairy products are a source of many life-essential nutrients. Nutrient richness of dairy is one of the major advantages of having dairy products in our daily nutrition. It is of big concern when dairy products are compared to smoking and considered as evil part of the diet as this might lead to reduced dairy consumption and to people missing out on many positive nutrients which has a negative impact on public health.

The dairy industry in Denmark has already done a lot to provide a variety of dairy products with different energy content and fat level to the Danish consumer. Mr Stevns showed that milk consumption in Denmark has changed towards skimmed milk in the last years. Without regulatory intervention and due to different reasons, saturated fat intake in Denmark decreased by 25% in the last decade showing that there is no need for a regulation on saturated fat.

Prof. J. Bruce German, Department of Food Science and Technology, University of California, Davis, USA

New evidence has changed the view and understanding of the health effects of saturated fat

Prof. German presented why dietary cholesterol does not raise blood cholesterol and that specific saturated fatty acids raise blood cholesterol as part of a complex signalling system in the body that, among others, increases the flow of nutrients around the body. New science around LDL and HDL cholesterol shows that while cardiovascular disease risk increases when LDL cholesterol in the blood goes up, low HDL cholesterol is a greater predictor of risk of heart disease than high LDL cholesterol. And there are components in milk that seem to increase the production of HDL in the blood.

Prof. German is of the opinion that all components of the diet are potentially important and that saturated fat has a very active metabolic role. Scientific evidence does not support the recommendation that saturated fat intake should be "as low as possible" if this is interpreted as "zero". The appropriate amount of saturated fat is likely to be different for each individual and depends on genes, life stage and lifestyle. Without knowing the exact mechanisms of action of saturated fatty acids, it cannot be assumed that there is a general benefit of a general reduction of saturated fat intake to all individuals.

Prof. Philippe Legrand, Agrocampus-INRA, University of Rennes, France

No reason to consider saturated fatty acids as a single group anymore

Saturated fatty acids have different origins and there are different groups of saturated fatty acids with different abundance in exogenous and endogenous sources: short-chain, medium-chain, and long chain saturated fatty acids. Individual saturated fatty acids vary in terms of structure, metabolism, biological functions and health effects. Only three of the many different saturated fatty acids found in milk fat should now be considered as atherogenic, when consumed in excess. Short-chain and medium-chain saturated fatty acids do not have cholesterol raising effects. Some saturated fatty acids in milk fat might even have beneficial effects on the cholesterol metabolism. Prof. Legrand concluded that it is time for up-to-date dietary recommendations without demonization of saturated fatty acids.

Prof. Peter Elwood, Department of Primary Care and Public Health, Cardiff University, Wales

The evidence of benefit from milk justifies its promotion

Prof. Elwood presented the results of a recent meta-analysis into the association between dairy products as a whole as well as different dairy products and health outcome on different chronic diseases. The available science on dairy foods is scarce and that for several dairy foods the evidence is not always consistent. However, all results point in a positive direction and for milk there are two significant results: (1) milk consumption is associated with a 19% reduction in heart disease and (2) dairy foods are associated with a 21% reduction in diabetes. And there are no consistent findings that dairy consumption is associated with higher risk of cardiovascular disease.

Prof. Elwood concluded that dairy consumption should not only be considered based on effect of dairy intake on cholesterol levels which is currently done by many public health authorities. Further evidence from cohort studies milk/dairy consumption and effects on health is needed before any new advice is given on dairy foods, and before policy relating to dairy foods is changed.

the next issue will be out in 2010.

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The European Dairy Association represents
the interests of dairy processors in the European Union