



EUROPEAN DAIRY ASSOCIATION  
 ASSOCIATION LAITIÈRE EUROPÉENNE  
 EUROPÄISCHER MILCHINDUSTRIEVERBAND

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## Response on EU Commission Green Paper

### **“Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases” (COM (2005) 637 final)**

The European Dairy Association (EDA), representing the overall European dairy industry, welcomes the opportunity to comment on the Green Paper on “Promoting healthy diets and physical activity: a European dimension for the prevention of overweight, obesity and chronic diseases” (COM (2005) 637 final).

EDA recognizes that tackling obesity and promoting healthy diets and physical activity is a complex issue whose multi-factorial aspects require the joint efforts of many players. In this regard, EDA would like to refer to the response of the European Food and Drink Industry Association (CIAA).

In its response to the Green Paper, EDA wants to point out that consumption of dairy foods is associated with overall dietary quality and is recommended as an essential part of a healthy and balanced diet. Dairy foods provide by nature a unique mix of various nutrients and have been attributed to beneficial effects in relation to chronic diseases. In this respect, EDA would like to share its thoughts and examples for best practices about how dairy products and the dairy industry can contribute to the Commission's objectives.

#### **IV.3. Health across EU policies**

*What are the concrete contributions which Community policies, if any, should make towards the promotion of healthy diets and physical activity, and towards creating environments which make healthy choices easy choices?*

EDA wishes to emphasize the importance of the EU School Milk Programme as a means of providing milk to school children. The provision of milk and milk products in schools helps to reduce the incidence of calcium inadequacy as milk is the best natural source of calcium in the Western diet, providing up to 70% of the recommended calcium intake. Besides calcium, dairy foods provide other important nutrients, among them essential minerals, vitamins, high-quality protein and fat which are all necessary for optimal growth and development of children. To provide school children with all the benefits of milk and, at the same time, give the possibility of taking into account individual dietary requirements, it might be advisable to allow equal treatment in the School Milk Scheme for various milks, such as milks with reduced fat content.

*On which areas related to nutrition, physical activity, the development of tools for the analysis of related disorders, and consumer behaviour is more research needed?*

A pan-European food consumption survey could assess quantity and frequency of food consumption at European level and identify the gap between the proposed dietary recommendations and the actual intake in the different EU countries. For food categories where the current intake does not meet the recommended target, consumption of foods from the respective categories should, in the frame of a balanced diet, be promoted through nutrition education and promotion activities.

EDA welcomes the EU Commission's support of research projects under the European Framework Programmes. The "BioActiveMilk" proposal, submitted under the FP6-2005-Food-4-A "Milk and dairy products with optimised bioactivity", aims to extend the scientific knowledge, in relation to the potential health benefits that dairy products have in chronic diseases, by studying the effects of milk protein fractions and bioactive components thereof for improved metabolic control.

#### **IV.4. The Public Health Action Programme**

*How can the programme contribute to raising the awareness of the potential which healthy dietary habits and physical activity have for reducing the risk for chronic diseases amongst decision makers, health professionals, the media and the public at large?*

Research on the impact of changing dietary habits estimated that increased dairy food intake leads to substantial healthcare savings by reducing the burden of chronic diseases. Effects were calculated on the basis of an increase in dietary calcium intake to 3-4 servings of dairy providing 1100-1400 mg of calcium per day. It was shown that higher calcium intake from dairy foods in conjunction with normalization of vitamin D status has a beneficial effect on bone health during growth and ultimately reduces healthcare costs for osteoporosis. Adequate nutrient intake from dairy products could also reduce the financial burden of several other medical conditions including obesity, hypertension, type 2 diabetes and some cancers (1).

#### **V.1. Consumer information, advertising and marketing**

*When providing nutrition information to the consumer, what are the major nutrients, and categories of products, to be considered and why?*

##### ***Nutritional value of dairy***

Dairy foods are a good natural source of a substantial number of minerals, vitamins and high-quality protein. Furthermore, dairy is considered to have a high nutrient-density score with a high amount of nutrients per unit of energy. In other words, dairy products display a beneficial nutrient–energy–ratio whereby they provide many important nutrients for a relatively low contribution to total energy (2). For diets where the fat intake should be limited, the lower fat versions of milks, yoghurts, cheeses or the fat-free alternatives of milks and yoghurts offer a high amount of nutrients versus few or no calories from fat.

In a Western diet, dairy provides up to 70% of the recommended daily calcium intake. Dairy foods such as milk, yoghurt and cheese are the best natural source of calcium, which is essential for bone growth and maintenance of bone health. Whole fat dairy also contains other nutrients favourable for bone health such as vitamins D and K. Consumption of dairy products is important throughout life for long-term bone structure and the prevention of osteoporosis.

Calcium intake is also essential for growth and normal development of teeth. Dairy products rich in calcium, phosphorus, protein and other protective factors are considered tooth friendly and play a vital role in dental health and the remineralisation of teeth. Strong evidence exists that hard cheeses lower the risk of dental caries. The milk sugar lactose has low cariogenicity and milk consumption has also been associated with lower risk of caries. Furthermore, milk is a beverage that, due to its neutral pH, does not cause dental erosion (3).

Dairy products are also good sources of potassium, magnesium and zinc, vitamins B<sub>2</sub> and B<sub>12</sub> as well as vitamins A and D in whole milk products and cheese. Dairy proteins have a high digestibility and are rich in essential amino acids in a ratio fairly corresponding to that in body proteins, so dairy proteins have a high quality score and an excellent nutritional value. Dairy proteins and the amino acids contained in them are required for many biological functions and specific activities in whole body growth, development and maintenance (4).

### ***Dietary recommendations and dairy***

Many European countries use food models to promote healthy food habits and recommend dairy as an essential part of a balanced diet because of its unique mix of nutrients, high nutrient density and nutritional profile. Most dietary guidelines recommend 2-3 servings of dairy per day, mostly in the form of milk, yoghurt and cheese, but serving sizes and forms vary between countries. In the Netherlands, for example, 300-550ml of milk and 10-20g of cheese, depending on the age category, are recommended, while the UK recommends 1/3 pint of milk, one carton of yoghurt and 40g of hard cheese and in Finland and Sweden, 500ml of liquid milk products and 2-3 slices of cheese are recommended. Most nutrition recommendations favour lower fat products to correspond to a dietary pattern of less energy and more nutrients.

The World Health Organisation emphasizes the need to create an environment where a healthier lifestyle can be adopted. Structures must be put in place that make it easier for people to participate in physical activity and to select nutrient-dense foods, such as vegetables, legumes, whole grains, lean meats and low-fat dairy products (3).

### ***Dairy and prevention of chronic diseases***

Intake of dairy is not only important for the delivery of many key nutrients to support overall body function; consumption of dairy products has also been associated with many beneficial health effects beyond pure nutritional value. Several benefits of consuming dairy products, especially in relation to the prevention of chronic diseases, have been suggested (5).

#### *Cardiovascular diseases*

The DASH (Dietary Approaches to Stop Hypertension) intervention study demonstrated that a diet rich in low-fat dairy foods combined with sufficient fruits and vegetables and low in saturated and total fat can substantially lower blood pressure and therefore offers an additional nutritional approach for the prevention and treatment of hypertension (6). The DASH Eating Plan recommends increasing the intake of low-fat dairy foods to three servings a day (7). A recent Spanish cohort study confirmed that low-fat dairy is associated with lower blood pressure (8).

An increase of LDL cholesterol from high consumption of saturated fatty acids is considered as a risk factor for cardiovascular diseases. Dietary recommendations therefore advise to reduce the intake of saturated fat, especially from animal sources. In this respect, foods contributing to the intake of saturated fatty acids, including dairy products, are often considered and communicated as "harmful". A recent meta-analysis of 60 trials on the effects of dietary fats/oils and carbohydrates on blood lipid profiles confirmed that unsaturated fats have a more favourable profile than saturated fats, but that fat replacement by carbohydrates produced the least preferred changes. However, it

was also shown that not all saturated fatty acids are associated with unfavourable lipid profiles (9). New studies reveal that the complex mixture of fatty acids and other lipid components in milk fat, which is composed of ~65% short-, medium- and long-chain saturates as well as ~35% mono- and polyunsaturates, may have different metabolic effects as well as physiological benefits that have not yet been recognized (10, 11).

A recent meta-analysis of cohort studies shows that total milk intake is not associated with an increased risk of cardiovascular disease, but with even a slightly lower risk of heart disease and stroke (12).

With respect to the reduction of risk for coronary heart diseases, it is also recommended to achieve favourable blood lipid profiles by reducing the intake of trans fatty acids which were shown to increase LDL cholesterol and to reduce HDL cholesterol (9). However, not all trans fatty acids are alike. Trans fatty acids are a mixture of positional and geometrical isomers leading to distinct compositional differences and physiological effects. Based on their dietary source, foods display specific trans fatty acid patterns and exert certain effects on human health (13). At present, there is no conclusive scientific evidence showing negative effects from trans fatty acids naturally occurring in dairy on cardiovascular health. There are currently clinical studies carried out to better determine human health effects of trans fatty acids according to their sources (14).

The beneficial effects of the full nutritional profile of dairy foods were demonstrated in the prospective CARDIA (Coronary Artery Risk Development in Young Adults) study where consumption of the whole of dairy foods was associated with the reduction of a number of coronary risk factors. Moreover, especially in overweight subjects, dairy intake was significantly inversely related to the later development of two or more components of the insulin resistance syndrome. This suggests that dairy intake may be relevant in preventing the development of diabetes (15).

### Obesity

Evidence from mechanistic studies, animal and human epidemiological studies and clinical trials suggest a key role for milk and other calcium-rich dairy foods such as yoghurt and cheese in weight management. A large number of cohort studies show a negative association between milk and body weight or BMI. Few randomized trials have studied the effect of milk on weight management and although results are inconsistent, they suggest a negative effect of milk on weight gain and a positive effect on weight loss (5). Epidemiological data as well as clinical trials demonstrate that diets with three serving of dairy per day result in significant reductions in body fat mass in obese humans in the absence of caloric restriction and accelerate weight and body fat loss secondary to caloric restriction compared to low dairy diets (16).

The mechanism by which dairy exerts this effect is not yet clear. Calcium appears to be involved in the regulation of energy metabolism and obesity risk, with the regulation of intracellular calcium concentrations being proposed as a possible mechanism (17). However, satiety effects of dairy proteins (18) and bioactive milk proteins and milk protein peptides may also play a role. The beneficial effect of dairy on weight management seems to be the consequence of the combination of different factors.

### Cancer

A recent meta-analysis of 10 prospective cohort studies found that a high consumption of dairy products is associated with a lowered risk of colorectal cancer, namely a 15% lower risk in the group with the highest dairy intake compared to the one with the lowest intake. Risk reduction was found when calcium intake increased to about 1200 mg per day (19). Evidence from several studies does not support an association between dairy consumption and the risk of breast cancer (20). Current research does not provide evidence for a negative relation between dairy and other types of cancer.

### V.3. A focus on children and young people

Changing lifestyle, a key factor when it comes to encounter the rise in obesity, starts with changing behaviour and the knowledge on what needs to be changed. As behaviour and habits are determined in early life, more focus should be laid on the education of children. Conveying the principles of a healthy lifestyle during school age brings children and young people closer to adapt and maintain a healthy lifestyle later in life.

*What are good examples for improving the nutritional value of school meals, and how can parents be informed on how to improve the nutritional value of home meals?*

The European dairy industry recognizes the provision of healthy diets at schools as an important means to contribute to healthy eating habits and is convinced that inclusion of dairy in school nutrition is an important way to improve the nutritional quality of school meals.

In the UK, a School Meals Review Panel was established to improve the nutritional value of school meals following a recent campaign by celebrity chef Jamie Oliver which highlighted the poor standard of meals. The panel is composed of health and nutrition experts and also requires parental participation to ensure that the improvements introduced in schools are also carried out at home. The UK Dairy Council responded to the School Meals Review consultation whereby it promoted the nutrition and health benefits of incorporating dairy products into the diet of school children and also the importance of existing school milk projects.

The Swedish Dairy Association contributes to best practices in schools and pre-schools through various activities involving the school management, teachers, canteen and cafeteria personnel, parents and pupils. Annually, the school personnel is invited to apply for a scholarship to promote good food habits and practices in their school. From all applications, one to three proposals are selected and given a grant to be put into practice. The Swedish Dairy Association also promotes breakfast in schools for a low or no price for pupils and healthy alternatives in school cafeterias such as milk and yoghurt. The information is provided in seminars and information groups and through websites, newsletters, magazines, books and other written materials such as recipes.

*What is good practice for fostering healthy dietary choices at schools, especially as regards the excessive intake of energy-dense snacks and sugar-sweetened soft drinks?*

In order to provide a healthy alternative to carbonated drinks, the dairy industry in the UK worked with the Health Education Trust and the Food Standards Agency to establish a pilot project to introduce healthy drinks vending machines into 12 secondary schools in four areas of the UK. The vending machines sold milks, water and fruit juices. At the conclusion of the study, 70.000 healthier drinks were bought from the vending machines. It was evident from this study that students frequently chose healthier options when given the opportunity. The Milk Development Council is now responsible for the vending campaign.

*How can the media, health services, civil society and relevant sectors of industry support health education efforts made by schools? What role can public-private partnerships play in this regard?*

The "School Milk Week" is an initiative funded by Dairy UK members, the Milk Development Council and the EU, and aims to promote the School Milk Scheme and encourage schools to participate. The main element of the "School Milk Week" is 'Fitness Friday' which is a nationwide initiative designed to promote the nutritional benefits of milk in the diet of young children. It is an opportunity for pupils to play fun games for a morning or afternoon while raising money for physical education equipment for the school.

## V.7. Socio-economic inequalities

*Which measures, and at what level, would promote healthy diets and physical activity towards population groups and households belonging to certain socio-economic categories, and enable these groups to adopt healthier lifestyles?*

Latest research suggests a link between higher rates of obesity and lower socio-economic position, referring to an inverse relation between energy density of foods and their energy costs to the effect that more energy-dense foods represent a lower-cost option to the consumer (21, 22). As low-cost energy-dense diets tend to be nutrient poor, increased consumption of nutrient-dense foods that display a more beneficial nutrient–energy–ratio, such as dairy, should be encouraged (2). Dairy foods improve diet quality without raising diet cost (low-cost in terms of nutrients per calorie) while offering high palatability.

## V.9. Recommendations for nutrient intakes and for the development of food-based dietary guidelines

*In which way could social and cultural variations and different regional and national dietary habits be taken into account in food-based dietary guidelines at a European level?*

Dietary recommendations at European level should be made in relation to the relevance of different food groups in the diet, and to indicate the place and importance of these food groups in a balanced and varied diet. Recommendations could be made on the quantity and frequency of consumption. Since eating a balanced and varied diet does not exclude the consumption of any food, it might be advisable to formulate advice on all food groups so as to ensure the appropriate intake of foods from the various categories. Recommendations on the consumption of specific foods or products from within the various food groups should be left to national bodies, so that national and regional dietary habits can be taken into account.

*How can the gaps between proposed nutrient targets and actual consumption patterns be overcome?*

To reverse the current decline in milk consumption and to ensure adequate nutrient intake, it is important to better communicate health benefits and the recommended daily intake of dairy foods to the total population and to specific target groups, for example children, adolescents and pregnant women. Furthermore, increasing scientific evidence is indicating that including sufficient milk and dairy products in the diet has a protective influence in the prevention of chronic diseases.

*In which way could nutrient profile scoring systems such as developed recently in UK contribute to such developments?*

The nutrient profiling initiative proposed by the Food Standards Agency in the UK has not been welcomed by the UK dairy industry and indeed by all other food sectors in the UK. Although the initiative to promote healthy foods and educate consumers on healthy choices is necessary, the proposed system and labelling will foster a good food, bad food culture, which goes against good nutrition practice and the principles of a balanced diet. The current nutrient profiling model highlights the presence of negative nutrients in foods and fails to acknowledge the presence of positive nutrients in foods for example, calcium and vitamins B<sub>2</sub> and B<sub>12</sub> in dairy products.

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