



October 13, 2009

**Comments regarding EFSA's draft opinion on Dietary Reference Values from the Norwegian Scientific Committee for Food Safety, Panel on Nutrition, Dietetic Products, Novel Food and Allergy and Norwegian Directorate of Health represented at the expert meeting by Professor Helle Margrete Meltzer and Dr philos Lars Johansson, respectively.**

We appreciate the extensive work undertaken by the EFSA Scientific Panel on Dietetic Products, Nutrition and Allergies to develop Dietary Reference Values (DRV) for Europe on request from the EU Commission.

We have the following comments to the drafts that were discussed in Barcelona September 7 – 8, 2009:

General comments to Principles for deriving and applying DRV:

The terms of reference for EFSA's task on the principles for deriving and applying DRVs are given in line 171-191. We would like to draw special attention to the importance of the text in the lines 184-187: "Following on from the first part of the task, the EFSA is asked to advise on population reference intakes of micronutrients in the diet and, if considered appropriate, other essential substances with a nutritional or physiological effect **in the context of a balanced diet which, when part of an overall healthy lifestyle, contribute to good health through optimal nutrition**" with emphasise on the outlined text. The word "micronutrients" in this text should be replaced by the wording "nutrients" in order to include the macronutrients as well.

Looking into the draft opinions on DRVs for carbohydrate and fats it is our opinion that the method suggested in the draft principles for deriving and applying DRV does not in a satisfactory manner consider the impact and importance of a balanced diet or optimal nutrition.

For the macronutrients (protein, fat and carbohydrates), and for subgroups of macronutrients like saturated fats or added sugars, there is little or no scientific basis for deriving *absolute* recommended or upper intake levels. However, it is necessary to see the DRV in the context of a balanced diet, carbohydrates can be used as an example: Carbohydrates are *per se* not essential to humans; still it is well documented that 5 – 6 fruits and vegetables per day are part of a healthy diet and that a diet rich in fibres provides better gut health.

Accordingly, for the macronutrients and their subgroups a DRV-range including both scientifically based evidence for LTI and UL and softer, but sound, indications about the ranges of intake that secures a balanced diet and optimal nutrition could be used. This

approach would allow for including maximum energy percent of e.g. saturated fats and added sugars in the DRVs, which the draft proposal does not include.

This approach will also bridge the gap between DRV and Food Based Dietary Guidelines (FBDG). How DRV and FBDG may be seen and used together should be explained in all the relevant opinions.

Too little is explained in the draft opinions regarding how the Panel has performed the literature review and the evaluation and grading of the scientific evidence. This applies both to the opinions regarding DRV and FBDG.

Comments to Draft scientific opinion on Dietary reference values for carbohydrates and fibre:  
Referring to our general comments above, we believe it is important to seek to harmonize the conclusions from the EFSA Panel and other international expert groups. It will give a very strange signal to the world if the Panel after an evaluation of the scientific documentation reaches quite different conclusions than WHO 2003, World Cancer Research Fund (WCRF) 2007 and American Heart Association (AHA) 2009. If the EFSA Panel concludes different from other international expert groups, an explanation should be given.

AHA recently (August 24.) published a scientific statement regarding dietary sugar intake and cardiovascular health (1). AHA concludes that excessive consumption of sugars has been linked with several metabolic abnormalities and adverse health conditions, as well as shortfalls of essential nutrients. Although trial data are limited, evidence from observational studies indicates that a higher intake of soft drinks is associated with greater energy intake, higher body weight, and lower intake of essential nutrients. National survey data also indicate that excessive consumption of added sugars is contributing to overconsumption of discretionary calories by Americans. AHA recommends reductions in the intake of added sugars, and that most American women should eat or drink no more than 100 calories per day from added sugars, and most American men should eat or drink no more than 150 calories per day from added sugars (comment: this intake corresponds to less than 10 percent of total energy intake from added sugars).

Furthermore, in the report Food, nutrition and Physical activity, and the Prevention of Cancer by World Cancer Research Fund 2007 (2) it is recommended to limit consumption of energy dense foods and to avoid sugary drinks. WCRF concludes (page 322): “the Panel judges that high energy-dense foods, in particular sugary drinks and “fast foods”, are probably a cause of weight gain, overweight, and obesity. Such foods are typically high in fats and/or sugars, contain little water or dietary fibre, and are often low in micronutrients.”.

We do not agree with the Panel regarding the conclusions and recommendations concerning sugars and suggest that the following sentences in the summary (lines 68-76) and in the main text of the opinion are rephrased.

First sentence of summary, lines 68-71 and lines 879-882 and 1478-1481: We do not agree with the Panel that nutrient density is not an appropriate end-point in relation to setting DRV for added sugars. Several Nordic dietary surveys have shown an association between intake of added sugars and nutrient density (3-8). This is especially critical among children, adolescents and pregnant women. We agree with the Panel that this association is not seen in all surveys and populations. This association may be influenced by different practices concerning fortification of food. However, that some surveys have not found such an association does not

diminish the importance to improve the nutrient density of the diet among high consumers of added sugars in populations where such an association exists.

Second sentence in summary, lines 71-76, and in main text: The grading of the evidence concerning added sugars and health should be stated clearer and reported separately for the different end-points.

End of second sentence in summary and lines 1516-1517. The Panel does not want to quantify the DRV for added sugars. We do not agree with this conclusion. It is very important that the Panel underlines the importance of limiting the consumption of added sugar in the context of a balanced diet in order to achieve optimal nutrition. It should also be mentioned that several countries and international bodies have given recommendations regarding added sugar intake and also has included these recommendations in their efforts to promote healthy diets.

In our opinion it is important to distinguish between added sugars and total sugars, and recommend that we in relation to public health and nutrition education focus on added sugars. Added sugar is not an essential nutrient. Except for dietary energy, it does not contribute with significant amounts of nutrients. Intake of added sugar may both decrease the nutrient density and increase the energy density of the diet. Sugars may also, as commented by the Panel, have negative effects in relation to serum lipids, body weight and dental caries. If the intake of added sugar is limited we may achieve health benefits without losing any nutritional advantages.

The intake of added sugars is often skewed within population groups, and it is typically higher in younger than older age groups. In Norway the intake of added sugars increased from 12-13 E% to 18-19 E% among 13 year old adolescents from 1993 to 2000, and almost 40 % had an intake of added sugar at 20 E% or higher in 2000. The main sources for added sugars were sugar containing soft drinks and sweets. Norwegian health authorities found this development alarming and have taken measures to reverse this development.

Norwegian health authorities has for several years recommended that the intake of added sugar is limited to 10 % of total energy intake. The 10 E% sugar intake limit is based on a reasonable, comprehensive view of dietary composition, nutrient density, dietary requirements for vitamins and minerals, and health problems related to sugar intake.

In the draft opinion for DRV for fats, the Panel does not suggest numerical DRV for saturated fatty acids (SFA) and trans fatty acids (TFA), but recommends that SFA and TFA intake, respectively, should be as low as possible within the context of a nutritionally adequate diet. Since added sugars are not essential, and since there are evidence showing a correlation between intake of added sugars and negative health effects, in our opinion the DRV for added sugar may be handled in a same manner as for SFA and TFA. We strongly recommend that the Panel concludes that added sugar intake should be as low as possible within the context of a balanced diet and optimal nutrition.

In conclusion regarding sugars:

We recommend that DRV for added sugar is limited to maximum 10 % of total energy intake. However, if the Panel does not want to give a numerical DRV for added sugars, we strongly recommend that the Panel concludes that added sugar intake should be as low as possible within the context of a balanced diet and optimal nutrition

## References:

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2. World Cancer Research Fund / American Institute for Cancer Research. Food, nutrition, physical activity and the prevention of cancer: a global perspective. Washington DC: AICR, 2007.
3. Vanhapelto T., Seppänen R. Nutrition among individuals with low, respectively high, sugar consumption. *Näringsforskning (Nutritional Research)* 1983;27:82-5.
4. Haraldsdóttir J., Holm L., Højmark Jensen J., Møller A. Danskernes kostvaner (Danish dietary habits) 1985. Who eats what? Publication no. 154. Søborg: The National Food Agency (Denmark), 1987.
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8. Øverby N.C., Lillegaard I.T., Johansson L., Anderssen L.F. High intake of added sugar among Norwegian children and adolescents. *Pub Health Nutr* 2004;7:285-93.