

Scientific Consultation on the Draft SACN Carbohydrates and Health report

Nestlé Response

29th August 2014

We thank the Scientific Advisory Committee on Nutrition for the opportunity to provide scientific comment on its draft report on carbohydrates and health. Although we have provided input to the Food and Drink Federation's comments, we would like to take this opportunity to share with you Nestlé's scientific response.

Scientific approach

- We welcome the opportunity to provide scientific comment on the SACN Carbohydrates and Health Draft Report.
- We appreciate the robust and rigorous scientific approach taken by the SACN. In particular, and in light of the large number of diverse studies published in this field, we support the focus on prospective cohort studies and randomized control trials. In addition, we consider that the grading system adopted by SACN to be both science-based and transparent.
- We believe similar rigour should be applied to the translation of the evidence to public policy instruments and recommendations.
- We welcome the fact that the SACN has translated its scientific findings into dietary reference values for total carbohydrates, sugars and fibre.

Dietary reference values

Sugars

- We welcome the fact that the SACN has adopted the definition of free sugars (instead of 'non-milk extrinsic sugars'), which is consistent with the World Health Organization (WHO). This will greatly help the dialogue between different stakeholders.'
- We support the fact that *"there is evidence showing that average intakes of free sugars should be below 10% of dietary energy"*. We understand that the aim of SACN's recommendation for a target of 5% of total energy from free sugars in both adults and children is to help individuals reduce sugar intake to no more than 10%.
- The use of the word "around" in the sentence, *"dietary reference value for free sugars should be set at a population average of around 5% of dietary energy"*, is important to be maintained because this recommendation is based on limited data. We recommend that this is highlighted in the final report to ensure that this point is maintained in any translation into Dietary Reference Values.
- We would welcome additional clarification regarding the differentiation between the recommendation on the need to limit free sugars to no more than 10% of total energy intake at an individual level alongside a population average recommendation of 5% of dietary energy and consideration how this might be translated into Dietary Reference Values. The dose-response relationships between sugars intake and energy intake (Figure 1, page 201) was extracted from only 6 randomized controlled trials, and none of them reported sugar intakes below 4% of energy intake. Therefore, we agree with the SACN that given the limited amount of data, there is uncertainty about the shape of the curve at lower percentages of energy intakes.
- We believe that further science and research is needed to address the challenge of decreasing free sugar consumption without increasing the consumption of other public health sensitive nutrients, such as fat or salt, which like sugar provide a pleasurable dimension to the experience of eating.

Dietary fibre

- We welcome the recommendation to increase fibre intake. However, we would like to have more clarity about how the value of 30g was derived.
- The relationship between fibre intake and risk of cardiovascular disease, coronary heart disease, stroke, type 2 diabetes and colorectal cancer are clearly shown in figures 2-6 respectively. In section 11.19 (page 204) it

is concluded that, “From these data, it is apparent that intakes of 30g/day and above ... are associated with the greatest health benefits in reducing the incidence of cardiovascular diseases [fig2], type 2 diabetes mellitus [fig5] and colo-rectal cancer[fig 6].”

- We have looked carefully at figures 2, 5 and 6, and we are not clear how a threshold of precisely 30g was selected. Therefore, we would like the SACN to explain how this figure was derived. Alternatively, given the lack of clarity, we suggest that a recommendation of “around” 30g or more, might better reflect the science.

Further research

- We consider that additional intervention studies are needed to evaluate the impact of reducing the population average free sugars intake to around 5% of dietary energy intake on body weight management and metabolic health.
- We would like to see the evidence base to demonstrate that a Dietary Reference Value (DRV) for free sugars of around 5% of energy as a population average will lead to individual intakes of less than 10% of energy strengthened.
- Public health will only be improved if consumers act on the recommended values by reducing their intake of free sugars and increasing their intake of dietary fibre. Therefore, we consider that the section on “further research” (page 218) should include studies that are not only related specifically to carbohydrates identify hurdles and solutions for changing consumer behaviour (e.g. psychology-, sociology-, and economics-related studies) and that these should be considered as part of the implementation of any final recommendations of the SACN review.
- In the context of consumer behaviour we also think the SACN review could be strengthened by greater consideration of the effectiveness of low-calorie sweeteners, and other carbohydrate-replacers, for weight management. There are limited data suggesting that “*low calorie sweeteners used as one aspect of a multi-faceted program may be beneficial in preventing and reversing overweight and obesity,*” Foreyt et al (2012).
- Some studies have shown that replacing sugar-sweetened beverages by non-caloric sweeteners may prevent weight gain. Whether such effects will be seen by reducing sugar-containing solid products i.e. foods remains unknown and could benefit from further research.
- It should be evaluated what would be the most effective way to cut sugars in children/adolescents, as they are the group with the highest sugar consumption, but for whom cutting down sugar-sweetened beverages seems to be ineffective. Foreyt et al (2012).
- We would also like to recommend some additional papers that could be useful for the Carbohydrate Report.
 - Foreyt,J, Kleinman,R, Brown,RJ, Lindstrom,R: The use of low-calorie sweeteners by children: implications for weight management. J Nutr 142:1155S-1162S, 2012
 - Sørensen LB, Vasilaras TH, Astrup A, Raben A. Sucrose compared with artificial sweeteners: a clinical intervention study of effects on energy intake, appetite, and energy expenditure after 10 wk of supplementation in overweight subjects. Am J Clin Nutr. 2014 Apr 30;100(1):36-45. [Epub ahead of print]
 - Willis HJ, Thomas W, Eldridge AL, Harkness L, Green H, Slavin JL. Glucose and insulin do not decrease in a dose-dependent manner after increasing doses of mixed fibers that are consumed in muffins for breakfast. Nutr Res. 2011 Jan;31(1):42-7. doi: 10.1016/j.nutres.2010.12.006.
 - Willis HJ, Thomas W, Eldridge AL, Harkness L, Green H, Slavin JL. Increasing doses of fiber do not influence short-term satiety or food intake and are inconsistently linked to gut hormone levels. Food Nutr Res. 2010 Jun 29;54. doi: 10.3402/fnr.v54i0.5135.

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