

Author's response to reviews

Title: Effects of a fibre enriched milk-drink on insulin and glucose levels in healthy subjects

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Version: 2 Date: 17 August 2009

Author's response to reviews: see over

MS: 1871019697267332

Effects of a fibre-enriched milk drink on insulin and glucose levels in healthy subjects. Netta Lummela, Riina A Kekkonen, Tiina Jauhiainen, Taru K Pilvi, Tuula Tuure, Salme Järvenpää, Johan G Eriksson and Riitta Korpela

Response to Reviewer no. 1

We highly appreciate your constructive opinions and invaluable suggestions for improving our manuscript. We have done our best to incorporate the changes you recommended.

2. In table 1, the calcium content is 180 mg per serving. This provides a clinical advantage as many diets contain inadequate amounts of calcium and vitamin D. However, this information is not included in the findings or discussion.

Authors: We agree that the amount of calcium should be included in the text. This is a very important issue to point out and should be mentioned as an advantage of the milk drink. We have now added the information to the method section (page 7).

3. It is unclear how much vitamin D is present. This should be included given the role of vitamin D in insulin and glucose metabolism.

Authors: We thank the Reviewer for pointing out this unclear part in the text. We have now included the information about the amount of vitamin D in the drinks according to the Reviewer's wishes (page 7; page 11).

Response to Reviewer no. 2

We highly appreciate your constructive comments and invaluable suggestions for improving our manuscript. We have done our best to incorporate all the changes you recommended.

1. *The authors state in the conclusion of the abstract that the present study results suggest an effect on insulin “metabolism.” This seems to be an overstatement and perhaps could be modified to suggest effects on insulin “response.”*

Authors: We agree that the use of the word “metabolism” is too extensive in this context and we thank the Reviewer for pointing out this important issue. We have changed the word to “response” as suggested by the Reviewer (page 3).

2. *On page 3 (line 20), the concluding statement that dairy products can be considered as an ideal component of diets is not supported by the paragraph in which it appears. It is stated on line 17 that the area is “controversial.” As a result, the wording should be changed.*

Authors: This is an excellent point and we agree that the wording we used could be misleading. We have now revised the wording to: “dairy products **could be considered as a** component of diets aiming at optimal weight management” (page 3).

3. *On page 4 (lines 4-5), it is not clear what the sentence beginning “Therefore...” is stating as it is currently written. Could this sentence be clarified?*

Authors: We thank the Reviewer for pointing out this unclear part in the text. We have completely revised the sentence as follows “**Lactose-free products are highly necessary for assuring adequate calcium and vitamin D intake in lactose-intolerant people**”. to express more clearly the meaning (page 4).

4. *It is stated on page 6 (line 21) that fibre enrichment did not affect the taste of the milk drink. Since this is the first mention and is in the Methods section, could this statement be qualified as to how this conclusion was determined?*

Authors: We thank the Reviewer for raising this important issue. We agree that the method should have been explained. We have now added the information as follows: “The fibre enrichment did not affect the taste of the milk drink, **which was confirmed by a blinded taste test performed by expert panellists.**” (page 7).

5. On page 7 (line 1), the centrifuge speed is given as “U/min.” Is this standard nomenclature?

Authors: We have changed the nomenclature to the more standard unit “rpm” (page 7).

6. On page 9 (line 6), it is stated that the amount of carbohydrates consumed was higher than.... This effect was significantly higher ($p=0.03$). Since the authors comment elsewhere of differential effects, i.e., more satiating, could the term or p value be included with the aforementioned statement indicating that the carbohydrate effect was, in fact, significant?

Authors: We thank the Reviewer for this important and useful suggestion. We have included the p -value to the text as well (page 9).

7. It would be helpful to add a table of subject characteristics to the manuscript. It is stated that the BMI mean was 24.6 with a range of 20-30 and the mean age was 48. Were the data sets uniformly distributed? Alternately, a standard deviation or error could be added.

Authors: This is an excellent point and we agree that the information about the characteristics of the subjects was inadequately stated. Now we have added the standard deviation of the age and BMI to the text (page 5).

8. In table 3, the means of the fibre-enriched group (231) and fat-free group (197) are significantly different. What is the p value for the comparison of the fibre enriched group (231) and the lactose free group (195). An initial impression is that this would also be $p<.05$. An additional minor point here is that the format, i.e., bolding, is different for this table than the others.

Authors: We thank the Reviewer for raising this interesting question. However, the p value for the comparison of the fibre enriched group (231) and the lactose free group (195) is 0.119 due to the larger standard deviation in both groups. We also appreciate the very good comment on the table 3 format. We have changed it to match the other tables.

9. For figure 1, lines connecting the symbols would highlight the reported results making it easier to view. This is cosmetic and at the authors/editor’s discretion.

Authors: This is an excellent suggestion and we agree that the lining would make the figures more readable. We have now added a new figure to the manuscript with lines connecting the symbols.