Reviewer's report

Title: Effect of maternal calcium intake during pregnancy on children blood pressure. A systematic review of the literature.

Version: Date: 21 July 2006

Reviewer: Matthew W Gillman

Reviewer's report:

General

The authors have reviewed an important topic. They are hampered by lack of data overall, as well as by differences in study design and follow-up across studies, but they acknowledge the limitations.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Some details of search strategy and study selection are missing or unclear. What do the authors mean by "insufficient?" (page 4, Methods line 2). Under types of outcome measures (page 5), what do they mean by hypertension, adjusted by age? It would seem that continuous BP should be adjusted for age as well. Under selection of studies (page 5), the authors should summarize the "pre-specified criteria." How did the authors find unpublished studies? (page 6, top). Was the strategy to find unpublished studies standardized? Under Details of study, it seems as though the authors extracted data on covariates (chiefly for observational studies), but they do not so state.

2. In text and tables, when the authors specify a calcium dose, it is unclear whether the dose is elemental Ca or the Ca salt. The authors should specify the salt and the amount of elemental Ca for each study, eg, 1000 g calcium carbonate, which is equivalent to 400 g elemental Ca.

3. The authors should address publication bias, either quantitatively or at least qualitatively.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Under Quality assessment (page 7), what does "processed" mean?

2. The authors should remove the word "significant" from the ms. They use the term in many different ways, causing confusion.

3. In particular, the authors should not refer to statistical significance, but rather to effect sizes and confidence intervals.

4. The authors refer to examining effects of foods and supplements separately as "controversial." They should specify what the controversy is, given that this approach is fairly standard in nutritional epidemiology.

5. Text and tables. What were the definitions of high SBP or hypertension?

6. Figure. The authors should say what the size of the box and length of the line represent

7. Language. Some edits are needed, e.g.,

   logistical v. logistic
   conduct v. conduction
   misplaced "only"
   mispelling of McGarvey
   "This" without a noun
   subject-verb agreement
mixing present and past tense

Discretionary Revisions (which the author can choose to ignore)

1. It is curious that the authors define a 2 mmHg difference in either DBP or SBP as "clinically significant" (page 6) It seems as though this point could be in the Discussion, but does not have to pre-specified since it does not change the analyses.

2. The authors question whether BP measurements in observational studies were blind to levels of exposure (page 10). It would be very unusual cohort study in which blinding did not obtain.

3. "All five studies seem to be well conducted" (page 10). By what criteria?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'