



## Dietary carbohydrate intake and mortality: reflections and reactions

There are several problematic issues in the Article by Seidelmann and colleagues.<sup>1</sup> First, the quality of the dietary data is weak, since they are based only on two samples. The food frequency questionnaire that they used appears not to have been independently validated, and it contained only 66 questions and excluded several popular items, such as pizza.<sup>1</sup> Food was clearly underreported, as evidenced by a reported average energy intake of roughly 1500 kcal per day.

Second, their results differ from many rigorous, randomised, controlled clinical trials that, taken together, concluded that carbohydrate restriction can reverse type 2 diabetes and improve most cardiovascular risk factors and that carbohydrate restriction is equal to or superior than any other diet for weight loss.<sup>2-4</sup> The authors need to explain a mechanism by which such improvements in health could ultimately shorten lifespan.

Third, the moderate-carbohydrate diet that Seidelmann and colleagues found to be optimal (at 50–55% of calorie intake) has, in fact, already been tested in clinical trials<sup>5-7</sup> on more than 50 000 people; results of these previous trials showed that this moderate-carbohydrate diet had no benefit in combatting diabetes, obesity, heart disease, or any kind of cancer. Such a moderate-carbohydrate diet was found to cause high-density lipoprotein-cholesterol to decrease and the blood concentration of triglycerides to increase, which are both signs of worsening cardiovascular risk. The authors need to address the disparity between the findings from their observational study and those from the more rigorous clinical trial evidence.

I report that I am the author of a book on this topic, *The Big Fat Surprise*.

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- 1 Seidelmann SB, Claggett B, Cheng S, et al. Dietary carbohydrate intake and mortality: a prospective cohort study and meta-analysis. *Lancet Public Health* 2018; **3**: e419–28.
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