

Letter to the Editor

Another approach to estimating the reliability of the glycaemic index: a different interpretation – response by Williams *et al.*

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We agree with Professor Wolever⁽¹⁾ that if glycaemic index (GI), which is intended to be a characteristic of food, is to be clinically useful it needs to be the same for nearly everyone. The results of our study⁽²⁾ show that this is not the case. The GI of white bread, for instance, in our study of twenty individuals was between 46 and 138 (Fig. 1(B) of our study⁽²⁾). The GI for chickpeas, generally thought of as a low-GI food, was between 36 and 88 (Fig. 3 of our study⁽²⁾). We showed that the reliability of the GI of white bread, potato and chickpeas was poor. We also showed that the measurement procedures on which GI was based, the incremental area under the curve (iAUC) for the glucose beverage and white bread, did not provide the same values when repeated in the same people under the same conditions (Fig. 1(A) of our study⁽²⁾). Poor reliability, a consequence of measurement error, may not affect the estimate of the mean of a set of measurements, but does affect its precision. The 95 % CI for white bread in our study indicated that plausible values of the 'true' GI of white bread were between 74 and 90. Smaller studies have shown possible values of the GI of rice between 55 and 85, and spaghetti between 39 and 70⁽³⁾. Estimates such as these make ranking foods according to their GI difficult. As GI is one of the mainstays of dietary advice for the management of diabetes, reliable estimates, in the sense that similar glucose responses to a food are obtained in similar circumstances, are important. It is difficult to see how these can be achieved, when the within-person responses for glucose and white bread are so variable. The concepts underlying GI may be useful in guiding people's choice of food. However, some caution is required because it seems that some people's responses are remarkably variable.

Conflict of interest

T. P. manages the Glycaemic Index Consultancy known as Glycaemic Index Otago.

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