

Reference amounts affect consumers' healthfulness evaluation of foods

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How different [reference amounts](#) on nutrition labels influence consumers' product healthfulness evaluation was investigated by researchers from the University of Surrey and the team at the European Food Information Council. The study, published in the European Journal of Clinical Nutrition, shows that products with a 'per 100g' label were rated as less healthful compared to products with reference amounts given in 'typical' or 'half typical' [portions](#).

A total of 13,117 participants from six European countries (Germany, UK, Spain, France, Poland and Sweden) were recruited to participate in an online experiment. Participants were randomly assigned to one of three reference amount conditions ('per 100g', 'typical' portion, 'half typical' portion) and were asked to rate the healthfulness of three different foods (biscuits, sandwiches, yogurt). For each food, participants rated two pairs of products: a more healthful versus a less healthful version of the product with a Guideline Daily Amounts (GDA) label, and a more healthful versus a less healthful version of the product without a GDA label. The degree of objective healthfulness for each product was based on an objective scoring system: SSAg/1 (Rayner, Scarborough and Stockley 2004).

The study showed that participants were generally able to rank products according to their healthfulness and distinguish between more healthful and less healthful variants of foods. Participants perceived the products labelled with reference amounts per 'half portion' to be more healthful compared to when the 'typical' portion or 'per 100g' reference amounts were used. This was mainly the case for products where the reference amount of 'per 100g' is very different from the 'typical' portion size (e.g. biscuits). GDA labelling shown in addition to the portion information had a significant but small effect on product healthfulness evaluations, with products carrying a GDA label being rated as slightly more healthful than those without GDA information.

The study also looked at differences between the six countries surveyed. Participants in Sweden showed a general tendency to rate products as less healthful whereas those in Poland rated all products as more healthful, compared to the other countries. UK, France and Spain displayed intermediate ratings. Moreover, across all foods, French participants displayed the tendency to assign products the most extreme healthfulness ratings compared to those in Poland, who did not differentiate as much between the more healthful versus less healthful variants.

The debate as to whether nutrition information is best presented as 'per 100g/100ml' or 'per portion' is still on-going and the authors suggest that understanding the impact of reference amounts on healthfulness inferences is important. This study showed that reference amounts play a role in judging food's healthfulness, with 'per portion' presentation of nutrition information leading to a more healthful evaluation of products compared to a presentation 'per 100g'. The authors conclude that appropriate reference amounts are of importance for the effective presentation of nutrition information.

For further information please see:

[Raats MM, et al. \(2014\). Reference amounts utilised in front of package nutrition labelling: impact on product healthfulness evaluations. European Journal of Clinical Nutrition. Published online ahead of print 5 Nov 2014. DOI:10.1038/ejcn.2014.190](#)