

Nutrient Content in Yoghurt: A Comprehensive Survey of the UK Yoghurt Market in Advance of Government Mandated Sugar Reduction and Reformulation

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Yoghurt is defined by Codex as a product of the fermentation of *Lactobacillus delbrueckii* subsp. *bulgaricus* and *Streptococcus thermophilus* (LBST)⁽¹⁾. Considered a nutritious food product, yoghurt is a good source of protein, calcium and vitamin D, along with probiotics; and its consumption has been associated with lower risk of obesity and type 2 diabetes in children and adults^(2,3). However, data are mixed and the high sugar content of yogurts has been highlighted in recent UK government guidelines for 20 % reduction of total sugar (including a target of 3.8 g/100 g lactose in yogurt or fromage frais) by 2020⁽⁴⁾. In this context, the aims of this work were to do a comprehensive survey of the current yoghurt market in the UK, and to analyse the nutrient content across all yoghurts categories.

Data was collected from the UK's top five online supermarkets (Kantar Worldpanel, 2016): Asda, Morrisons, Sainsbury's, Tesco and Waitrose, from 07/10/16- 16/11/16. Eight categories were used to divide and classify each product systematically using a process flow strategy. Data were screened for duplicates and a non-redundant database of product information was created that included: nutrient information, serving size, size of pack, claims on pack and ingredients. All data was double-checked and 5 % of all entries were randomly selected and verified.

After removing duplicates, 921 unique products were catalogued in our 8 *a priori* defined categories: Dairy Alternatives, Dessert, Drinks, Flavoured, Fruit, Kids, Natural and Greek, Organic. Venn analysis demonstrated that of these, only 65 were found in all supermarkets. While 43.6 % of products (n = 402) contained cultures, less than 40 % of these named the cultures and only 10.5 % contained the LBST cultures defined by Codex. As illustrated in Fig 1, the median of energy, fat and sugar contents per 100 g of product were highly variable across categories and the range extremely broad. Although lower than the dessert category, medians of sugar in flavoured, fruit and kid yoghurt categories were well above 10 g/100 g. Remarkably, 86 % of Kids's yoghurts contained sugar that contributed to >40 % of total calories and only 1.7 % of Kids yoghurts were low in sugar (<= 5 g/100 g). On average own brand products had poorer nutrient content in comparison to national brand.

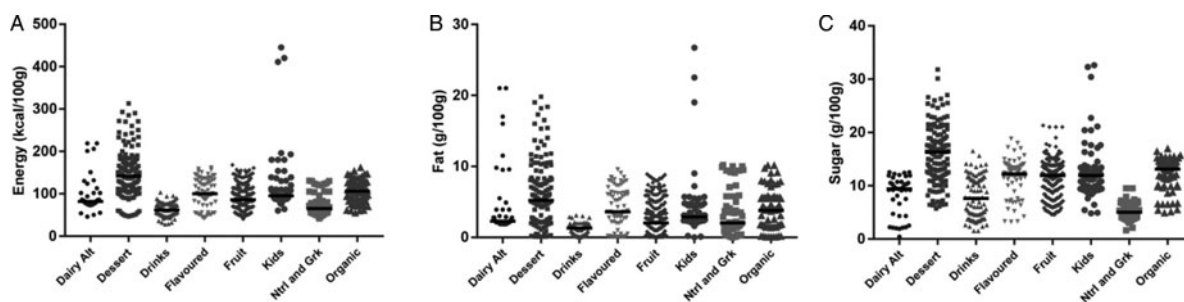


Fig. 1. Energy (A) Fat (B) and Sugar (C) Content of Yoghurt Products Compared Across All Categories

We conclude, not all yoghurts, especially within the 'Kids' category, are as healthy as perhaps consumers perceive them. The majority outside of the Natural and Greek category are high in sugar and low in probiotics; sugar reduction and reformulation is warranted.

1. Codex Committee on Milk and Milk Products (2010) CODEX STAN 243–2003.
2. Keast D, Gallant K, Albertson A, *et al.* (2015) *Nutrients* 7(3): 1577–1593.
3. Cormier H, Thifault E, Garneau V, *et al.* (2015) *European Journal of Nutrition* 55: 577–587.
4. Public Health England (2017) PHE publication number: 2016677.