

## Abstract

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### **Title**

The international Breakfast Research Initiative: Breakfast nutritional patterns and association with overall diet quality in Canada, Denmark, France, Spain, UK and US.

### **1. Abstract**

The International Breakfast Research Initiative (IBRI) set out to develop breakfast nutrient guidelines to take account both of breakfast and daily nutrient intakes and of the association between the two. The project involved harmonised analysis of national nutrition databases in Canada, Denmark, France, Spain, the UK and the US. The results of these analyses will be the focus of this talk.

In all countries, the regularity of breakfast consumption tended to be U-shaped, highest among children and older adults and lower among adolescents and younger adults. Breakfast contributed 18 to 22% of daily energy intakes in children and 16-21% in adults. Across countries, breakfast was a carbohydrate-rich eating occasion compared to average daily intakes. The percentage contribution of breakfast to daily micronutrient intakes was more variable between countries; it was higher than energy contribution for thiamine, riboflavin, folate, calcium, potassium and magnesium in all countries.

For all countries, individuals were classified across tertiles of the Nutrient Rich Food (NRF) diet quality index. Nutritional intakes at breakfast were analysed across tertiles of NRF. For most micronutrients (except sodium), proteins and fibres, intakes at breakfast were higher in the upper tertile. Breakfast

intakes of total and saturated fats, sodium and added sugars were often lower in the upper tertile. No association was observed between energy intake at breakfast and NRF tertiles in most countries. These results highlighted a great consistency in breakfast consumption and its nutritional pattern across the six countries. They confirmed the positive contribution of breakfast to overall daily nutritional quality, and indicated that intakes at breakfast individuals in the upper tertile of NRF could be used for setting attainable quantitative guidelines.

**2. Key references**

- 1) Gibney et al. Breakfast in Human Nutrition: The International Breakfast Research Initiative. *Nutrients*. 2018;10(5).
- 2) Institute of Medicine. 2010. *School Meals: Building Blocks for Healthy Children*. Washington DC: National Academies Press.
- 3) O'Neil et al. The role of breakfast in health: definition and criteria for a quality breakfast. *J Acad Nutr Diet*. 2014;114(12 Suppl):S8-S26.

**Key messages**

- 1) Breakfast remains one of the most important meals of the day and ensures a good supply of nutrients each day as well as a potential role in the regulation of weight and both cardiac and cognitive health.
- 2) Breakfast consumption and nutritional profile showed high consistency across six countries with predominantly Western diet patterns.
- 3) Breakfast positively contributes to overall daily nutritional quality. Optimising breakfast intakes would therefore help individuals reaching their daily nutritional requirements.