

The 13th European Nutrition Conference, FENS 2019, was held at the Dublin Convention Centre, 15–18 October 2019

The role of unprocessed beef and lamb in the diets of Irish children and teenagers (5–17 years)

Jacqueline Lyons¹, Christopher Cocking¹, Laura Kehoe¹, Breige McNulty², Anne Nugent³,
Janette Walton⁴, Kevin Cashman¹ and Albert Flynn¹

¹University College Cork, Cork, Ireland,

²University College Dublin, Dublin, Ireland,

³Queen's University Belfast, Belfast, United Kingdom and

⁴Cork Institute of Technology, Cork, Ireland

Abstract

Introduction: Meat is a nutrient-dense food that plays a central role in the diets of many children globally, contributing significantly to intakes of energy, protein and a number of essential micronutrients. However, nutritive quality is variable across meat types and cuts, and dietary guidelines across Europe typically encourage the consumption of lean meats whilst limiting the consumption of processed meats. The current work aimed to estimate intakes of unprocessed beef and lamb and their contribution to nutrient intakes in Irish children and teenagers.

Methods: Analyses were based on data from the Irish National Children's Food Survey (NCFS) (2003–2004; 5–12 years; *n* 594) and National Teens' Food Survey (NTFS) (2005–2006; 13–17 years; *n* 441) (www.iuna.net). Both surveys used a 7-day weighed (NCFS) or semi-weighed (NTFS) food record to collect dietary intake data from nationally representative samples of Irish children. Dietary intake data were converted to nutrient data using WISP[®], based on UK and Irish food composition tables. Unprocessed beef and lamb was defined as beef or lamb that had not undergone any preserving process other than chilling, freezing or salting, and included beef or lamb dishes that were wrapped in a controlled atmosphere. Meat intakes from composite dishes (e.g. beef lasagne) were estimated following disaggregation of the non-meat components. Statistical analyses were carried out using SPSS[®] v23.0.

Results: Unprocessed beef was consumed by 79% of children and 83% of teenagers, while unprocessed lamb was consumed by 19% of children and 20% of teenagers. Mean daily intakes of unprocessed beef were 21 g and 34 g in children and teenagers (consumers only), while mean daily intakes of unprocessed lamb were 14 g and 23 g. Unprocessed beef and lamb contributed 5–6% to mean daily energy intakes and contributed the following proportions to daily nutrient intakes in children and teenagers, respectively: protein (11%, 15%), total fat (7%, 9%), saturated fat (7%, 10%), monounsaturated fat (9%, 11%), iron (7%, 10%), zinc (18%, 23%), vitamin A (7%, 7%), vitamin D (12%, 16%), total niacin (9%, 13%), vitamin B6 (6%, 9%), vitamin B12 (15%, 22%), sodium (6%, 7%).

Discussion: Unprocessed beef and lamb are valuable sources of nutrients for Irish children and teenagers. Relative to their energy contribution, they contribute higher proportions of a number of important nutrients, such as protein, zinc, vitamin D, vitamin B12 and total niacin, while contributing relatively small proportions of total fat, saturated fat and sodium. This research was funded by Meat Technology Ireland.

Conflict of Interest

There is no conflict of interest.