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Evaluation of current food-based dietary guidelines for healthy eating in Ireland

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Food-based dietary guidelines should deliver an optimal intake of energy and nutrients required for good health and prevention of obesity and chronic disease. Due to the increasing problem of obesity, Ireland's food guide was evaluated to provide recommendations for the revision of dietary guidelines in Ireland.

Advice from Ireland's food guide was translated into 4-d food intake patterns using the suggested numbers of servings from each food group for the following theoretical subjects: 3 children aged 5–12 years; 1 male and 1 female aged 13–18 years; 2 males and 2 females aged 19–50 years and 1 male and 1 female aged 51 + years. The food intakes patterns were analysed using NetWisp[1]. Energy and nutrient outputs were compared with well-established goals for energy requirements[2], macronutrients[2], fibre[3,4], Fe[5], Ca[6] and vitamin D[6].

	Energy*	Total fat (% energy)	Saturated fat (% energy)	Fibre (g)	Iron (mg)	Calcium (mg)	Vitamin D (μg)
Proportion % (*n*) of theoretical subjects exceeding or achieving goals	90% (*n* 10) exceeded sedentary energy needs 27% (*n* 3) exceeded moderate activity energy needs	36% (*n* 4) exceeded goal of 25–35% fat	90% (*n* 10) exceeded goal of ≤10% saturated fat	17% (*n* 1) adults and 80% (*n* 4) children achieved fibre goals	100% (*n* 11) achieved estimated average requirements	82% (*n* 9) achieved adequate intakes	10% (*n* 1) achieved adequate intakes

*Estimated energy requirements for sedentary and moderate levels of physical activity, based on the Institute of Medicine (IOM) Dietary Reference Intakes macronutrients report 2002 for referenced sized individuals. 'Reference size', as determined by IOM is based on median height and weight for ages up to 18 years of age and median height and weight for that height to give a BMI of 21.5 for adult females and 22.5 for adult males.

The evaluated food intake patterns provided excessive energy, total fat and saturated fat and did not provide adequate fibre and vitamin D for most groups or Ca for 9–10-year-olds.

While portion size descriptions in some parts of the food guide were specific, e.g. 1 oz cheese, other parts were ambiguous, e.g. bowl of cereal. In addition, the range of energy (0.3–1.0 MJ) provided by servings from the bread and cereal group was wide. Cheese was an option in both the dairy and meat groups, while pulses were given as options only in the fruit and vegetable group, leading to difficulties in interpretation of advice. Advice on poly- and monounsaturated fats was ambiguous, partly due to fat spreads and oils being included in the same group as 'other' foods such as cakes, biscuits, chocolate and confectionary.

Recommendations for the revision of Ireland's food guide include the need: to provide guidance on energy requirements for different age and gender groups; to reduce the range of energy provided by the portions of food in the bread and cereal group making them more equivalent and to form a separate food group for fats and oils.

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