

Food and nutrient intake of children and adolescents living in Germany

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Background

A balanced diet is particularly important for the development and health of children and adolescents. A regular monitoring of dietary habits of this group is aspired to assist health policies. The second "Eating Study as a KiGGS Module" EsKiMo II (2015-2017) offers an updated overview of the food and nutrient intake of children and adolescents living in Germany.

Methods

About ten years after EsKiMo I (2006; N = 2,506), EsKiMo II assessed the dietary behaviour of 2,644 participants of the second wave of the "German Health Interview and Examination Survey for Children and Adolescents" (KiGGS Wave 2), aged 6-17 years. Food intake of the 6-11 year-olds was assessed by weighted food records on three consecutive days and one independent day.



The 12-17 year-olds were asked about their food intake in the past four weeks using the Dietary Interview Software for Health Examination Studies (DISHES). Individual food intake was compared with the food based dietary guidelines for children and adolescents in Germany¹. Nutrient intake was calculated using the German Nutrient Database Version 3.02. Intake from supplements was also considered. Individual intake was compared with the Estimated Average Requirements (EAR)2,3.

Food intake

The beverage intake was sufficient for most children and adolescents, however, almost half of the girls aged 6-11 years drank less than recommended (Fig. 1). Most children and adolescents did not consume enough fruits, vegetables, starchy foods, and milk/dairy products. The majority, however, consumed larger amounts of meat and so-called "unfavourable foods", such as sweets and soft-drinks, than recommended.

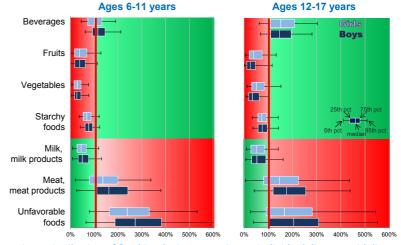


Fig. 1 Distribution of food intake in proportion to individual dietary guidelines

Nutrient intake

The majority of children and adolescents had intakes above the EAR for most micronutrients, except for iodine and vitamin D among all age groups and gender, and iron among the 12-17-year-old girls (Fig. 2).



Fig. 2 Proportion of persons who reached the estimated average requirements

Conclusion

For many children and adolescents living in Germany, the food intake pattern is far from optimal. The nutrient supply, however, is on average sufficient, except of vitamin D and iodine, and, for 12-17-year old girls, of iron. The observed deficits in dietary behaviour of young people should be considered in the planning of consumer and health policies. Overall, there is still much potential to improve food consumption patterns.







Kersting, M. et al. Von Nährstoffen zu Lebensmitteln und Mahlzeiten: das Konzept der Optimierter Mischkost für Kinder und Jugendliche in Deutschland. Aktuelle Ernährungsmedizin 42, 304-315, 2017 Department of Health. Dietary Reference Values for Food Energy and Nutrients for the United Kingdom, Report on Health and Social Subjects, no. 41, HMSO, London, 1991, Alexander, J. et al. Integrating Nutrition and Physical Activity. Nordic Nutrition Recommendations 2004, 4th Edition, Nordic Council of Ministers, Copenhagen, 2004





