Abstract

Background: The overall intake of energy and nutrients in the Granada EPIC-cohort (European Prospective Investigation into Cancer and Nutrition) is examined in order to assess compliance with the Spanish Nutritional Objectives (NO) and the Recommended Intakes (RI). Methods: During recruitment (1992-1996), 7,789 participants, aged 35-69, were asked about diet through a validated diet history questionnaire. Nutrient intake is compared to the NO and RI that were valid at that time. Risk of inadequate intake is estimated as the percentage of the sample with intakes: 1/3 RI (high risk), 2/3 RI-> 1/3 RI (moderate risk), RI- > 2/3 RI, > RI. Differences in intakes have been analyzed by sex and age, and by smoking status and BMI. Results: The daily intake of nutrients did not meet the NO as the total contribution of energy from proteins and fats exceeded these guidelines. Whilst intake of most nutrients was above the RI, the amount of iron, magnesium and vitamins D and E provided by the diet was not enough to meet the RI: in women aged 20-49 years, about 55% were at moderate risk for iron inadequacy, and a 20% of women for magnesium. Both sexes were at high risk of inadequacy for vitamin D, although sunlight exposure may supply adequate amounts. Never smokers showed a higher compliance to the NO. Conclusion: At recruitment, the nutrient profile of the diet was unbalanced. The observed nutrient inadequacy for iron, magnesium and vitamin E might be attributed to inappropriate dietary habits, and may have implications for future disease risk.

Keywords

Diet standards, Nutrition policy, Nutrition assessment, Nutritive value, Nutritional requirements.