

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

Dietary deficiencies in middle-aged obese Polish men and women

Anna M. Witkowska¹, Anna Waśkiewicz², Małgorzata E. Zujko¹, Danuta Szcześniewska², Urszula Stepaniak³ and Wojciech Drygas^{2,4}

¹Department of Food Biotechnology, Medical University of Białystok, Białystok, Poland,

²Department of Epidemiology, Cardiovascular Disease Prevention and Health Promotion, National Institute of Cardiology, Warsaw, Poland,

³Department of Epidemiology and Population Studies, Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland and

⁴Department of Social and Preventive Medicine, Medical University of Lodz, Lodz, Poland

Abstract

Obesity predisposes to such health conditions, as cardiovascular diseases, hypertension, diabetes, hyperlipidemia, osteoarthritis. Poor diet is among the common causes of obesity. The purpose of this study was to evaluate the intake of macro- and micronutrients in obese Polish men and women in accordance with the recommended intakes. Two hundreds ninety seven obese men (BMI > 30) and 412 obese women, aged 45–65 years, participants of the population-based cross-sectional Polish National Multicenter Health Examination Surveys - WOBASZ (2003–2005) and WOBASZ II (2013–2014) were selected for the study. Nutritional data were collected using a single 24-hour dietary recall method. Nutrient content in the diet was calculated according to national tables of food composition and compared to the current dietary recommendations. Anthropometric measurements were recorded using standard anthropometric procedures. Descriptive statistics were used for the determination of means, standard deviations (SD), median, and for the percentage analyses of the macro- and micronutrient intakes. In men the average energy from fat was 37.8%, while in the women 35.5%, compared to 20–35% recommended, while for saturated fat it was 13.95% in men and 13.37% in women, compared to the recommended level of less than 10%. A low percentage of men (M) and women (W) implementing dietary recommendations for vitamin D (M = 3.03%, W = 0.97%), calcium (M = 9.09%, W = 7.52%), magnesium (M = 22.22%, W = 35.92%), saturated fats (M = 17.85%, W = 19.90%), folates (M = 22.90%, W = 14.08%) and dietary fiber (M = 31.31%, W = 18.45%) was found. The highest percentage of participants who consumed the recommended amounts was found in the case of iron (M = 95.62%, W = 84.22%). About 1 % of obese participants were on a weight-reducing diet, while 10% of men and 11% of women were on other diets (low-cholesterol, low-fat, diabetic). In this study energy intake from total and saturated fat was higher than the recommended level. This indicates the incorrect structure of energy in the meals of obese middle-aged people. The mean intake of dietary fiber was below the recommended 25 g/day both in men and women. An adequate fiber intake ensures better glycemic control, satiety and prevents constipation. A limitation of this study is the use of a 24-hour dietary recall method, that may not reflect long-term food consumption. Also obese people tend to underreport how much food they consume. However, in this study about one tenth of the participants reported that they are on a diet. This study showed that dietary deficiencies are common in middle-aged obese Polish men and women.

Conflict of Interest

There is no conflict of interest.