Meat consumption and prospective weight change in participants of the EPIC-PANACEA study.


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Comment in:

Abstract

BACKGROUND: Meat intake may be related to weight gain because of its high energy and fat content. Some observational studies have shown that meat consumption is positively associated with weight gain, but intervention studies have shown mixed results.

OBJECTIVE: Our objective was to assess the association between consumption of total meat, red meat, poultry, and processed meat and weight gain after 5 y of follow-up, on average, in the large European population who participated in the European Prospective Investigation into Cancer and Nutrition-Physical Activity, Nutrition, Alcohol, Cessation of Smoking, Eating Out of Home and Obesity (EPIC-PANACEA) project.

DESIGN: A total of 103,455 men and 270,348 women aged 25-70 y were recruited between 1992 and 2000 in 10 European countries. Diet was assessed at baseline with the use of country-specific validated questionnaires. A dietary calibration study was conducted in a representative subsample of the cohort. Weight and height were measured at baseline and self-reported at follow-up in most centers. Associations between energy from meat (kcal/d) and annual weight change (g/y) were assessed with the use of linear mixed models, controlled for age, sex, total energy intake, physical activity, dietary patterns, and other potential confounders.

RESULTS: Total meat consumption was positively associated with weight gain in men and women, in normal-weight and overweight subjects, and in smokers and nonsmokers. With adjustment for estimated energy intake, an increase in meat intake of 250 g/d (eg, one steak at approximately 450 kcal) would lead to a 2-kg higher weight gain after 5 y (95% CI: 1.5, 2.7 kg). Positive associations were observed for red meat, poultry, and processed meat.

CONCLUSION: Our results suggest that a decrease in meat consumption may improve weight management.

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