

# Obesity and early mortality in the United States.

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## Author information

### Abstract

#### OBJECTIVE:

Although obesity is a serious public health problem, there are few reliable measures of its health hazards in the United States. The objective of this study was to estimate how much earlier mortality is likely to occur for Americans who are obese (body mass index [BMI],  $\geq 30$ ).

#### DESIGN AND METHODS:

Data from the National Health and Nutrition Examination Survey (NHANES) I (1971-1975), NHANES II (1976-1980), and NHANES III (1988-1994) for 37,632 participants who experienced 8,791 deaths during 15 years of follow-up were prospectively analyzed. The relative risk of death from all causes and its advancement period, adjusted for covariates, were calculated. Stratification was used to investigate the effects of pre-existing illness, smoking, and older age on the advancement period.

#### RESULTS:

Compared to the participants of reference weight (BMI, 23 to  $<25$  kg/m<sup>2</sup>), mortality was likely to occur 9.44 years (95% confidence interval [CI]: 0.72, 18.16) earlier for those who were obese (BMI,  $\geq 30$ ). For overweight (25 to  $<30$  kg/m<sup>2</sup>), grade 1 obesity (BMI, 30 to  $<35$ ) and grades 2-3 obesity (BMI,  $\geq 35.0$ ), the mortality was likely to occur earlier by 4.40 (-3.90, 12.70), 6.69 (-2.06, 15.43), and 14.16 (3.35, 24.97) years, respectively. These estimates apply to healthy nonsmoker young- and middle-aged (21-55 years) adults, who constituted an estimated 32.8% of Americans with age of  $>21$  years between 1988 and 1994. Without stratifying simultaneously for preexisting illness, smoking, and age, values of the advancement period for obesity were markedly smaller than those observed for healthy nonsmoker young and middle-aged adults.

#### CONCLUSIONS:

For healthy nonsmokers young- and middle-aged adults who constitute about one-third of American adults, being obese is likely to hasten mortality by 9.44 years.

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