

Does weight loss improve the outcome in the obese persons?

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Several studies have shown a direct correlation between obesity and an increased rate of death, with an even greater risk of death among persons with a body-mass index (BMI, the weight in kilograms divided by the square of the height in meters) of 35 or more, as compared with those with a lower BMI. However, the evidence is less clear as to whether weight loss reduces mortality.

The incidence of obesity in US and Europe is continuously growing and the need for methods to withhold this is equally challenging. One of the methods involves gastric surgery. Although gastric bypass surgery accounts for 80% of bariatric surgery in the US, only limited long-term data are available on mortality among patients who have undergone this procedure as compared with severely obese persons from a general population.

We present a retrospective cohort study, in which the long-term mortality (from 1984 to 2002) (mean follow-up 7.1 years) among 9949 patients who had undergone gastric bypass surgery and 9628 severely obese persons who applied for driver's licenses were compared. From these subjects, 7925 surgical patients and 7925 severely obese control subjects were matched using age, sex, and body-mass index. The rates of death from any cause and from

specific causes were determined Using the National Death Index and the International Classification of Diseases 9 and 10 (ICD-9 and ICD-10).

The primary outcome was death from any cause. Secondary outcomes were death from various specific causes. Over the follow-up, the adjusted long-term mortality from any cause in the surgery group decreased by 40%, as compared with the control group (37.6 vs. 57.1 deaths per 10,000 person-years, $P < 0.001$); cause-specific mortality in the surgery group decreased by 56% for coronary artery disease (2.6 vs. 5.9 per 10,000 person-years, $P = 0.006$), by 92% for diabetes (0.4 vs. 3.4 per 10,000 person-years, $P = 0.005$), and by 60% for cancer (5.5 vs. 13.3 per 10,000 person-years, $P < 0.001$). However, rates of death not caused by disease, such as accidents and suicide, were 58% higher in the surgery group (11.1 vs. 6.4 per 10,000 person-years, $P = 0.04$), maybe because of a higher mobility in this group. □

Conclusions

Long-term total mortality after gastric bypass surgery was significantly reduced, particularly deaths from diabetes, heart disease, and cancer. The rate of death from causes other than disease was higher in the surgery group than in the control group.

Comment on the paper:

Adams D, Gress R E, et al – Long-Term Mortality after Gastric Bypass Surgery, *N Engl Journ Med*, 2007, 357(8):753-761