

# Gastric Bypass May Curb Mortality From Disease

BY FRAN LOWRY  
Orlando Bureau

Severely obese individuals who opt to have gastric bypass surgery not only reduce their waistlines, they reduce their long-term total mortality as well, Utah researchers reported.

Rates of death from diabetes, coronary artery disease, and cancer were all significantly lower in 7,925 patients who underwent gastric bypass between 1984 and 2002, Ted D. Adams, Ph.D., and his associates wrote.

Compared with a group of similarly obese control subjects who did not have the surgery, the gastric bypass group had a statistically significant, 40% decrease in adjusted long-term mortality from any cause during the mean follow-up of 7.1 years (37.6 vs. 57.1 deaths/10,000 person-years).

Deaths from coronary artery disease decreased by 56% (2.6 vs. 5.9/10,000 person-years), deaths from diabetes were reduced by 92% (0.4 vs. 3.4/10,000 person-years), and deaths from cancer dropped by 60% (5.5 vs. 13.3/10,000 person-years).

However, the rate of death from all nondisease causes, such as accidents and suicides, was 58% higher in the surgery group than in the control group, wrote Dr. Adams, professor in the division of cardiovascular genetics at the University of Utah, Salt Lake City, and his associates (N. Engl. J. Med. 2007;357:753-61).

The findings should help clinicians and their patients weigh the risks and benefits of gastric



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DR. ADAMS

bypass, Dr. Adams commented in an interview.

The retrospective cohort study compared long-term mortality among severely obese men and women who had chosen gastric bypass surgery with that of an equal number (7,925) of severely obese persons who had applied for driver's licenses in Utah. The two groups were matched for age, gender, and body mass index. The

rates of death from any cause and from specific causes were determined with the use of the National Death Index.

The reduced mortality from disease likely is related to the improvements in health that follow significant weight loss, such as reduced blood pressure, lower diabetes and coronary artery disease risk, and reduced sleep apnea, said Dr. Adams, who is also a program director at the Health and Fitness Institute at Latter Day Saints Hospital, Salt Lake City.

When asked the reason for the higher rate of nondisease deaths in the bariatric surgery group, he said it was difficult to know. "There have been suggestions that some individuals who have undergone gastric bypass surgery may go on to increase their intake of alcohol. There is the thought that perhaps the addictive behaviors related to some obesity may be continued with substance abuse."

He also suggested that the significant weight loss may lead patients to become more physical-

ly active, and thus at greater exposure to accidents.

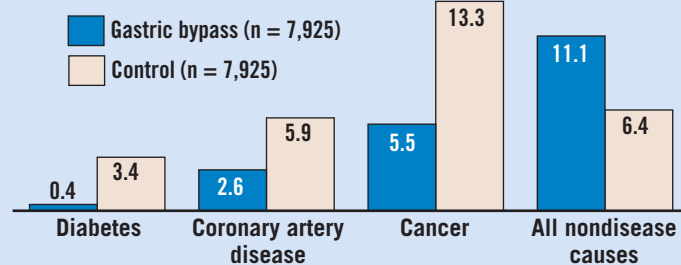
The finding that cancer deaths were lower after bypass surgery was a surprise, especially because this occurred within the relatively short time frame of 7.1 years, Dr. Adams said. "This reduction persisted even after we excluded prevalent cancers and deaths from cancer occurring within 5 years after baseline. It really interested us that in such a short period of time we would see such a dramatic reduction in cancer."

The finding has prompted the investigators to do additional research on cancer types and staging after gastric bypass. The in-

vestigators also are studying morbidity after gastric bypass; results of that trial, which has been ongoing for the last 5 years, are expected soon, Dr. Adams said.

He emphasized that individuals should take the time to consider the pros and cons of gastric bypass surgery, especially in light of his study's results. "This surgery, which has been shown to be effective for long-term weight loss, also provides a reduction in long-term mortality. But even in light of this research, we would never want individuals to lose track of the very important step they should take to weigh the benefits of the surgery with the risks." ■

## Mortality in Obese Patients During Mean 7.1-Year Follow-Up (per 10,000 person-years)



Note: All differences between groups are statistically significant.  
Source: New England Journal of Medicine

## Modest Weight Loss Before Bariatric Surgery Predicts Postoperative Success

BY MARY ANN MOON  
Contributing Writer

High-risk morbidly obese patients who lose 10% or more of their excess body weight before undergoing bariatric surgery shed postoperative weight more rapidly than do those who do not lose the excess weight preoperatively, reported Dr. Christopher D. Still and his associates.

The investigators, of the center for nutrition and weight management at the Geisinger Medical Center in Danville, Pa., said patients who lose that "modest" amount in the preoperative period also are less likely to have a long hospital stay, probably because they have fewer complications.

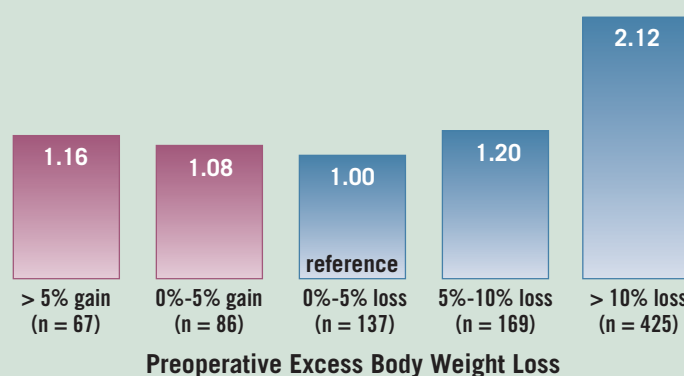
"Optimal preparation for high-risk individuals with significant comorbid medical problems remains controversial," they noted.

Geisinger Medical Center's preoperative program encourages modest short-term weight loss to help control existing medical problems such as diabetes, sleep apnea, steatohepatitis, and cardiometabolic syndrome.

Dr. Still and his associates assessed the postoperative course in 884 patients who underwent open or laparoscopic Roux-en-Y gastric bypass between 2002 and 2006 at their center. Preoperative weight loss was initially attempted by means of a prudent low-fat diet and modest exercise. If that approach was ineffective, patients were instructed to follow a 1,000-1,500-kcal liquid diet.

The mean patient age was 45 years, and mean body mass index was 51.3 kg/m<sup>2</sup>. Patients were followed for

### Adjusted Hazard Ratios for More Than 70% Excess Body Weight Loss After Gastric Bypass Surgery



Note: Based on a mean 12-month follow-up.  
Source: Archives of Surgery

an average of 1 year after the operation. Nearly half (425 patients) achieved a short-term weight loss of 10% or more of their excess body weight before surgery. Those who did so were more than twice as likely to achieve 70% excess body weight loss during follow-up.

They also were less likely to need a long hospital stay, possibly because of a reduced rate of postoperative complications, Dr. Still and his associates said (Arch. Surg. 2007;142:994-8).

It is possible that those who lost weight preoperatively were the most motivated and compliant patients, and thus the most likely to have successful surgical results. Longer follow-up should answer this question, they said. ■

## Suicides, CHD Deaths Up After Gastric Bypass

Researchers have found "a substantial excess" in deaths attributable to suicide and to coronary heart disease among patients who have undergone bariatric surgery, according to a report.

This descriptive study was not designed to ascertain the basis for this excess mortality, but the investigators postulated that the reasons may be connected in part to obesity itself and its attendant comorbidities, which preceded the surgery. Continued obesity, even after substantial weight loss, as well as weight regain, also probably play a role, according to Dr. Bennet I. Omalu of the University of Pittsburgh and his associates.

The researchers reviewed the records of 16,683 bariatric surgeries performed in Pennsylvania from 1995 through 2004. There were 440 deaths, for an overall mortality of 2.6%. Age- and sex-specific death rates were substantially higher than those for the general population, even after procedure-related deaths were excluded from the analysis.

Coronary heart disease was the leading cause of death, accounting for about 20% of deaths that occurred 30 days or more after the procedure. "In the group aged 45-54 years, the CHD mortality rate for women after bariatric surgery was 15.2/10,000 person-years, compared with the rate of similarly aged women in Pennsylvania of 5.46/10,000," Dr. Omalu and his associates wrote (Arch. Surg. 2007;142:923-8).

There were 16 suicides (4%) and 14 drug overdoses (3%), some of which may have been misclassified as accidents rather than suicides. Most occurred more than a year after the surgery, "suggesting that careful follow-up, especially the need to recognize and treat depression, should be provided," the authors noted.

—Mary Ann Moon