



CONTACT: Keith Taylor
(212) 527-7537

Jennifer Dorr
(212) 527-7541

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**SURGERY BEATS CONVENTIONAL MEDICAL TREATMENT
IN CONTROLLING TYPE 2 DIABETES IN MORBIDLY OBESE**

WASHINGTON, DC – JUNE 18, 2008 – People with type 2 diabetes and morbid obesity who had laparoscopic gastric bypass surgery were significantly better able to get their blood glucose to normal levels than those who were treated with conventional medical treatment including insulin, according to a new study presented here today at the 25th Annual Meeting of the American Society for Metabolic & Bariatric Surgery (ASMBS).

Researchers from the Gundersen Lutheran Medical Center in La Crosse, Wisconsin reviewed the levels of hemoglobin A1c, a measure of glucose in the blood, in 102 patients with type 2 diabetes. Half of the patients in the study received conventional medical treatment and the other half had laparoscopic gastric bypass surgery. On average, patients were 48-years-old and had a body mass index (BMI) of 47.

In the surgical group, A1c levels dropped by 21 percent within a year and was maintained for at least three years (the length of the study), while the conventional medical treatment group saw an 11 percent increase over the same time period. The surgical group saw their A1c levels drop from an average of 7.5 to 5.8 after a year, and to 6.1 after three years while the conventional medical treatment group had an increase in their levels from 7 to 7.8 over the same three years.

The American Diabetes Association (ADA) recommends A1c levels be below 7 percent and reports that every percentage point drop in A1c levels reduces the risk of microvascular complications of type 2 diabetes (eye, kidney and nerve diseases) by 40 percent.

The vast majority of surgical patients were also able to get off diabetes medications completely. Before surgery, 84.3 percent were on oral medications and/or insulin. One year after surgery, only 22.4 percent still required medication. In contrast, the conventional treatment group had an increase in amount of oral medications and/or insulin taken. The study showed the number of patients on diabetes medication grew from 66.7 percent to 82 percent in one year.

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“The data continues to support the effectiveness of bariatric surgery in treating type 2 diabetes in morbidly obese patients,” said Shanu N. Kothari, MD, FACS, the study’s co-author and the director of Minimally Invasive Bariatric Surgery at the Gundersen Lutheran Medical Center in Wisconsin. “Clearly, conventional medical treatment has an important role to play, but surgery should also be presented as an option to appropriate patients.”

According to the ADA, 20.8 million Americans, or 7 percent of the population are affected by diabetes.¹ The total estimated cost of diabetes in 2007 was \$174 billion, including \$116 billion in excess medical expenditures and \$58 billion in reduced national productivity.²

In 2007, the ASMBS reported that an estimated 205,000 people in the U.S. had bariatric surgery. According to guidelines issued by the National Institutes of Health (NIH), bariatric surgery is indicated for people with a body mass index (BMI) of 35 or more with an obesity-related condition such as type 2 diabetes or a BMI of 40 or more. People who are morbidly obese are generally 100 or more pounds overweight.

The most common methods of bariatric surgery are laparoscopic gastric bypass and laparoscopic adjustable gastric banding (LAGB). In gastric bypass, the stomach is reduced from the size of a football to the size of a golf ball and food is made to bypass part of the small intestine. In LAGB, a silicone band is wrapped around the upper part of the stomach to restrict the amount of food the stomach can hold. The amount of restriction is adjusted by adding or removing saline from the band.

Two landmark studies, published in the *New England Journal of Medicine* in August 2007, showed patients with morbid obesity who have bariatric surgery (including gastric banding, gastric bypass, and vertical banded gastroplasty) lost significant weight over the long-term and are significantly less likely to die from heart disease, diabetes and cancer seven to 10 years following the procedure than those who did not have surgery.^{3,4}

A 2004 study in the *Journal of the American Medical Association* showed that bariatric surgery resolved or improved type 2 diabetes in 86 percent of patients and resolved sleep apnea in more than 85 percent⁵

The Agency for Healthcare Research and Quality (AHRQ) recently reported bariatric surgery is safer than ever. The risk of death from bariatric surgery has declined from 0.89 percent in 1998, to 0.19 percent in 2004.⁶

About 64 million or 32 percent of adults in the U.S. are considered obese, which is associated with many other diseases and conditions including type 2 diabetes, heart disease, sleep apnea, hypertension, asthma, cancer, joint problems and infertility. The direct and indirect costs to the healthcare system associated with obesity are about \$117 billion annually.

The ASMBS is the largest organization for bariatric surgeons in the world. It is a non-profit organization that works to advance the art and science of bariatric surgery and is committed to educating medical professionals and the lay public about bariatric surgery as an option for the treatment of morbid obesity, as well as the associated risks and benefits. It encourages its members to investigate and discover new advances in bariatric surgery, while maintaining a steady exchange of experiences and ideas that may lead to improved surgical outcomes for morbidly obese patients. For more information about the ASMBS visit www.asmb.org.

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¹ Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates of diabetes in the United States, 2005. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005.

² American Diabetes Association. "Economic Costs of Diabetes in the U.S. in 2007." *Diabetes Care*. Volume 31. Number 3. March 2008.

³ Sjöström L, Narbro K, Sjöström CD, et al. Effects of bariatric surgery on mortality in Swedish obese subjects. *N Engl J Med* 2007; 357:741-52.

⁴ Adams TD, Gress RE, Smith SC, et al. Long-term mortality after gastric bypass surgery. *N Engl J Med* 2007;357:753-61.

⁵ Buchwald H. Bariatric Surgery: A Systematic Review and Meta-analysis. *JAMA*. 2004; 292:1724-1737.

⁶ Zhao, Y. (Social and Scientific Systems, Inc.), and Encinosa, W. (AHRQ). Bariatric Surgery Utilization and Outcomes in 1998 and 2004. Statistical Brief #23. January 2007. Agency for Healthcare and Research Quality, Rockville, Md. <http://www.hcup-us.ahrq.gov/reports/statbriefs.sb23.pdf>.