ASMBS American Society for Metabolic & Bariatric Surgery

FACT SHEET

CONTACT: Keith Taylor
(212) 527-7537

METABOLIC & BARIATRIC SURGERY

OVERVIEW

- Treatment for morbid obesity and obesity-related diseases and conditions; limits amount of food stomach can hold, and/or limits amount of calories absorbed, by surgically reducing the stomach's capacity to a few ounces
- Candidates have body mass index (BMI) of 40 or more, or a BMI of 35 or more with an obesity-related disease, such as Type 2 diabetes, heart disease or sleep apnea
- About 220,000 people with morbid obesity in the U.S. had bariatric surgery in 2008
- About 15 million people in the U.S. have morbid obesity; 1% of the clinically eligible population is being treated for morbid obesity through bariatric surgery
- Bariatric surgery costs an average of $17,000 - $26,000; insurance coverage varies by provider

IMPACT ON OBESITY-RELATED DISEASES

- Can improve or resolve more than 30 obesity-related conditions, including Type 2 diabetes, heart disease, sleep apnea, hypertension and high cholesterol
    - Gastric bypass resolves Type 2 diabetes in nearly 87% of patients[1]
    - Band surgery resolves Type 2 diabetes in 73% of patients[2]
    - Cuts risk of developing coronary heart disease in half[1]
    - Resolves obstructive sleep apnea in more than 85% of patients[3]

BARIATRIC SURGERY: RISKS VS. BENEFITS

- In 2007, federal government (Agency for Healthcare Research and Quality) and clinical studies report significant improvements in safety[4]
    - Risk of death from bariatric surgery is about 0.1%
- Bariatric surgery increases lifespan, as compared to those who do not have surgery
    - Patients may improve life expectancy by 89%[5]
    - Patients may reduce their risk of premature death by 30 to 40%[6]
- Dramatic reduction in risk of death from obesity-related diseases, as compared to those who do not have surgery
    - Risk of death from diabetes down 92%, from cancer down 60% and from coronary artery disease down 56%[7]

LONG-TERM EFFECTIVENESS OF BARIATRIC SURGERY

- Typically patients have maximum weight loss within 1-2 years after surgery and maintain a substantial weight loss, with improvements in obesity-related conditions, for years afterwards
- Patients may lose 30 to 50% of their excess weight 6 months after surgery and 77% of their excess weight as early as 12 months after surgery[8]
- Long-term studies show up to 10-14 years after surgery, morbidly obese patients who had surgery maintained a much greater weight loss and more favorable levels of diabetes, cholesterol and hypertension, as compared to those who did not have surgery[9,10]

-more-

ADOLESCENTS AND BARIATRIC SURGERY

- As obesity rates rise in the U.S., increasing number of adolescents (12-17 years old) are having bariatric surgery; an estimated 349 in 2004[11]
- Research shows that bariatric surgery may be an effective treatment for Type 2 diabetes, high blood pressure and high cholesterol in extremely obese adolescents[7]
- Long-term efficacy and impact is subject of ongoing research

MOST COMMON TYPES OF BARIATRIC SURGERY

Gastric Bypass

- Stomach reduced from size of football to size of golf ball
- Smaller stomach is attached to middle of small intestine, bypassing the section of the small intestine (duodenum) that absorbs the most calories
- Patients eat less because stomach is smaller and absorb fewer calories because food does not travel through duodenum

Laparoscopic Adjustable Gastric Banding (LAGB)

- Silicone band filled with saline is wrapped around upper part of stomach to create small pouch and cause restriction
- Patients eat less because they feel full quickly
- Size of restriction can be adjusted after surgery by adding or removing saline from band

Bilio-Pancreatic Diversion with Duodenal Switch

- Similar to gastric bypass, but surgeon creates sleeve-shaped stomach
- Smaller stomach is attached to final section of small intestine, bypassing the duodenum
- Patients eat less because the stomach is smaller and absorb fewer calories because food does not travel through the duodenum

NEWER PROCEDURES & SURGICAL DEVICES

- Vertical Sleeve Gastrectomy
    - Stomach restricted by stapling and dividing it vertically, removing more than 85%
    - Procedure generates weight loss by restricting the amount of food that can be eaten
    - Currently indicated as an alternative to gastric banding

- Natural Orifice Translumenal Endoscopic Surgery (NOTES)
    - Emerging minimally invasive procedure still in clinical trials
    - Surgery performed through natural orifice such as mouth or vagina, eliminating need for external incisions
    - Patients may experience a quicker, less painful recovery

---

[1] Buchwald, H. et al. Weight and Type 2 Diabetes after Bariatric Surgery: Systematic Review and Meta-analysis. *American Journal of Medicine.* 2009; 122(3): 205-206.

[2] Dixon, JB et al. Adjustable Gastric Banding and Conventional Therapy for Type 2 Diabetes. *Journal of the American Medical Association.* 2008; 299(3): 316-323.

[3] Torquati, Alfonso, MD, MSCI, FACS, Wright, Kelly, MD, FACS, Melvin, Willie, MD, FACS, and Williams, Richard, MD, FACS. "Effect of Gastric Bypass Operation on Framingham and Actual Risk of Cardiovascular Events in Class II to III Obesity." *Journal of the American College of Surgeons.* Vol 204, No. 5, May 2007.

[4] Agency for Healthcare Research and Quality (AHRQ). Statistical Brief #23. Bariatric Surgery Utilization and Outcomes in 1998 and 2004. January 2007.

[5] Christou, NV et al. Surgery Decreases Long-term Mortality, Morbidity, and Health Care Use in Morbidly Obese Patients. *Annals of Surgery.* 2004;240: 416–424.

[6] Sjöström, Lars. Effects of Bariatric Surgery on Mortality in Swedish Obese Subjects. *New England Journal of Medicine.* 2007; 357:741-52.

[7] Inge, TH. Reversal of Type 2 Diabetes Mellitus and Improvements in Cardiovascular Risk Factors After Surgical Weight Loss in Adolescents. *Pediatrics* 2009; 123(1):214-222.

[8] Wittgrove, AC, et al. Laparoscopic Gastric Bypass, Roux-en-Y: Technique and Results in 75 Patients With 3-30 Months Follow-up. *Obesity Surgery* 1996: 6, 500-504.

[9] Pories, WJ et al. Who Would Have Thought It: An Operation Proves to Be the Most Effective Therapy for Adult-Onset Diabetes Mellitus. *Annals of Surgery.* 1995:222(3):339-352.

[10] Sjöström, L et al. Lifestyle, Diabetes, and Cardiovascular Risk Factors 10 Years after Bariatric Surgery. *New England Journal of Medicine.* 2004; 351: 2683-2693.

###