

Public release date: 9-Feb-2010

Contact: Paul E. O'Brien, M.D., F.R.A.C.S.

[paul.obrien@med.monash.edu.au](mailto:paul.obrien@med.monash.edu.au)

[JAMA and Archives Journals](#)

## Obese teens who receive gastric banding achieve significant weight loss

A higher percentage of severely obese adolescents who received laparoscopic adjustable gastric banding lost more than 50 percent of excess weight and experienced greater benefits to health and quality of life compared to those in an intensive lifestyle management program, according to a study in the February 10 issue of *JAMA*.

Adolescent obesity is a serious health challenge globally. In the U.S., more than 17.4 percent, or more than 5 million adolescents were obese in 2004, an increase from 14.8 percent in 2000. Obesity is associated with both immediate and late health effects and reduced life expectancy, according to background information in the article. Lifestyle programs that have included changes in diet, exercise, and behavior to promote weight loss often have poor results. "Bariatric surgery is now extensively used for adults and is being evaluated for adolescents," the authors write. "Laparoscopic adjustable gastric banding (gastric banding) has the potential to provide a safe and effective treatment."

Paul E. O'Brien, M.D., F.R.A.C.S., and colleagues of Monash University and the Centre for Adolescent Health, Royal Children's Hospital, Melbourne, Australia, conducted a study to examine whether gastric banding would induce more weight loss and would provide greater health benefits and better improvement in the quality of life of severely obese adolescents than the application of currently available lifestyle approaches. The randomized controlled trial included 50 adolescents between 14 and 18 years of age with a body mass index (BMI) higher than 35 who were assigned either to participate in a supervised lifestyle intervention or to undergo gastric banding, and followed up for 2 years. The lifestyle intervention program included reduced calorie intake, increased activity and behavioral modification. The study was performed between May 2005 and September 2008. Twenty-four of 25 patients in the gastric banding group and 18 of 25 in the lifestyle group completed the study.

The researchers found that the primary outcome of greater than 50 percent of excess weight loss was achieved by 21 of 25 participants (84 percent) in the gastric banding group and 3 of 25

(12 percent) in the lifestyle group. At 2 years the gastric banding group had lost an average of about 76 lbs., representing an overall average loss of 28.3 percent of total body weight and 78.8 percent excess weight loss. The lifestyle group lost an average of 6.6 lbs., representing an average 3.1 percent total weight loss and 13.2 percent excess weight loss. The differences between groups was significant for all weight measures at 24 months.

"At entry, 9 participants (36 percent) in the gastric banding group and 10 (40 percent) in the lifestyle group had the metabolic syndrome. At 24 months, none of the gastric banding group had the metabolic syndrome compared with 4 of the 18 completers (22 percent) in the lifestyle group," the authors write. The gastric banding group experienced improved quality of life with no adverse events in the period shortly after surgery. However, 8 operations (33 percent) involving revisional procedures were required in 7 patients in the surgery group.

"In this study, gastric banding proved to be an effective intervention leading to a substantial and durable reduction in obesity and to better health. The adolescent and parents must understand the importance of careful adherence to recommended eating behaviors and of seeking early consultation if symptoms of reflux, heartburn, or vomiting occur. As importantly, they should be in a setting in which they can maintain contact with health professionals who understand the process of care. This study indicates that, in such a setting, the laparoscopic adjustable gastric banding process can achieve important improvements in weight, health, and quality of life in severely obese adolescents," the researchers conclude.

(*JAMA*. 2010;303[6]:519-526. Available pre-embargo to the media at [www.jamamedia.org](http://www.jamamedia.org))

Editor's Note: Please see the article for additional information, including other authors, author contributions and affiliations, financial disclosures, funding and support, etc.

Editorial: Surgical Treatment of Obesity in Adolescence

In an accompanying editorial, Edward H. Livingston, M.D., of the University of Texas Southwestern Medical Center, Dallas, and Contributing Editor, *JAMA*, writes that the results of this study provide important, needed information and data.

"The most important contribution of the report by O'Brien et al is providing another randomized controlled trial comparing bariatric surgery with nonsurgical treatments culminating in more level 1 evidence regarding bariatric surgery. The quality of evidence in support of bariatric surgery is poor, resulting in substantial controversy regarding its use for obesity treatment. Many insurance companies in the United States will not pay for bariatric surgeries, and their

decision to not cover this treatment is based on the lack of compelling, universally accepted evidence in its favor. Studies such as the one by O'Brien et al go a long way toward providing the evidence necessary to evaluate the benefits and risks of bariatric surgery."

(*JAMA*. 2010;303[6]:559-560. Available pre-embargo to the media at [www.jamamedia.org](http://www.jamamedia.org))

Editor's Note: Please see the article for additional information, including financial disclosures, funding and support, etc.

###

---