

## Is bariatric surgery a cost-effective treatment for teens with severe obesity?

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In a study published online by *JAMA Surgery*, Chin Hur, M.D., M.P.H., of Massachusetts General Hospital, Boston, and colleagues assessed the cost-effectiveness of bariatric surgery for adolescents with obesity using recently published results from the Teen-Longitudinal Assessment of Bariatric Surgery study.

Severe obesity affects 4 percent to 6 percent of U.S. youth and is growing more prevalent. Behavioral intervention is the first-line treatment for adolescents with <u>severe obesity</u>, but this type of intervention rarely leads to meaningful long-term <u>weight loss</u> in this population. Bariatric surgery is increasingly being considered as an option for adolescents who have not achieved adequate weight loss through nonsurgical therapy, but data on cost-effectiveness are limited.

For this study, a model was created to compare 2 strategies: no surgery and bariatric surgery. In the no surgery strategy, patients remained at their initial body mass index (BMI) over time. In the bariatric surgery strategy, patients were subjected to risks of perioperative mortality and complications as well as initial morbidity but also experienced longer-term quality-of-life improvements associated with weight loss. Demographic information of 228 patients included in the analysis: average age, 17 years; average BMI, 53; and 171 (75 percent) were female-surgery-related outcomes. A willingness-to-pay threshold of \$100,000 per quality-adjusted life-years was used to assess cost-effectiveness.



The researchers found that while bariatric surgery was not cost-effective over a 3-year time horizon, it could become cost-effective if assessed over a time horizon of 5 years.

"At present, bariatric surgery is performed in approximately 1,000 adolescents per year. Increasing access to bariatric surgery in adolescents, even by a factor of 4, would hardly affect obesity prevalence on a population level. For this reason, experts in childhood and adolescent obesity focus primarily on public health interventions, such as taxes on sugar-sweetened beverages, calorie labeling on restaurant menus, and nutrition standards for food in schools," the authors write.

"From an individual-patient perspective, though, bariatric surgery can result in life-altering weight loss, which not only leads to the resolution and prevention of disease but also allows patients to avoid the stigma, bullying, and isolation that often accompany severe obesity. As evidence supporting the safety and efficacy of bariatric surgery continues to accrue for the adolescent population, it will likely become a more accepted and commonly used therapeutic option. Our analysis indicates that it can also be cost-effective when assessed over a relatively short time horizon. Longer-term studies that track quality of life, weight loss, comorbidity resolution, and health care costs are needed to confirm our findings."

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