

Bariatric surgery cuts risk for major cardiac events and death in patients with obesity and sleep apnea, study finds

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Bariatric surgery, also called weight-loss or metabolic surgery, was associated with a 42% lower risk of major adverse cardiovascular events

(MACE), including heart failure, heart attack, stroke, and atrial fibrillation in patients with moderate to severe obstructive sleep apnea (OSA), according to a [new study](#) from Cleveland Clinic and presented here today at the [American Society for Metabolic and Bariatric Surgery \(ASMBS\) 2023 Annual Scientific Meeting](#). Researchers also report metabolic surgery patients cut their risk of death by nearly 40%.

OSA is a dangerous sleep disorder that affects nearly [1 billion adults worldwide](#), and about 70% also have obesity. Obesity can cause excess fat to deposit around the upper airway, which can compress the upper airways and interfere with breathing during sleep. Standard treatment is with [continuous positive airway pressure](#) (CPAP), but the therapy only addresses symptoms, is not curative and does not reduce the risk of MACE or death, which has a high incidence among patients with OSA.

"No other therapy has been shown to reduce the risk of dying or developing [heart attack](#) or [heart failure](#) in patients with obesity and obstructive sleep apnea," said the study lead author Ali Aminian, MD, Director of Bariatric and Metabolic Institute at the Cleveland Clinic and a Professor of Surgery at the Cleveland Clinic Lerner College of Medicine. "Bariatric surgery is a very powerful tool that can help patients with sleep apnea live longer and healthier lives."

In the cohort study of 13,657 Cleveland Clinic patients with a diagnosis of obesity and moderate to severe OSA, 970 patients had gastric bypass or sleeve gastrectomy while 12,687 matched patients received CPAP or usual non-surgical care between 2004 and 2018. Patients were followed until September 2022 for MACE, a composite of all-cause death or [cardiovascular disease](#).

After 10 years, MACE occurred in 27% of patients in the [bariatric surgery](#) group compared to 35.6% in the nonsurgical group. All-cause mortality was also 37% less for bariatric surgery patients (9.1% vs.

12.5%) who maintained about a 25% weight loss compared to the under 5% weight loss in the nonsurgical group.

"Bariatric surgery not only improves the symptoms of [obstructive sleep apnea](#) in patients with obesity, but largely reduces or eliminates the cardiovascular complications that can often occur alongside it compared to routine care," said Teresa LaMasters, MD, President, ASMBS and a bariatric surgeon and board-certified obesity medicine physician, who was not involved in the study. "Patients and their doctors should strongly consider this option and determine if it's right for them. Further studies may explore the threshold of weight loss required for optimal clinical impact on outcomes."

The ASMBS reports only about 1% of those who meet eligibility requirements get weight-loss surgery in any given year. In 2020, the number of [bariatric procedures dropped to less than 200,000](#), the lowest in four years, due to cancelations or deferrals during the height of the COVID-19 pandemic. Procedures appeared to have rebounded in 2021, but official estimates are not yet available.

According to the U.S. Centers for Disease Control and Prevention (CDC), obesity affects [42.4% of Americans](#). Studies show the disease can weaken or impair the body's immune system and cause chronic inflammation and increase the risk of many other diseases and conditions including cardiovascular disease, stroke, type 2 diabetes, certain cancers, and COVID-19.

Provided by American Society for Metabolic and Bariatric Surgery

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