Family members of patients who have undergone surgery for weight loss may also shed several pounds themselves, as well as eat healthier and exercise more, according to a new study by researchers at Stanford University School of Medicine.

A year after the 35 patients in the study had Roux-en-Y gastric bypass surgery, their obese adult family members weighed on average 8 pounds less, the researchers say.

In addition, many of the children in these families also appeared to benefit through their close association with the patient, exhibiting a lower body mass index than would have been expected given their growth curve.

The study notes that overweight women on a traditional medically supervised diet, such as Atkins or Ornish, lose between 2 and 5 percent of their body weight over 12 months. Over that same period of time, both obese men and women in the families of the surgery patients lost 3 percent of their body weight overall - slimming down, on average, from 234 to 226 pounds.

"Family members were able to lose weight comparable to being part of a medically controlled diet simply by accompanying the bariatric surgery patient to their pre- and post-operative visits," said senior author John Morton, MD, MPH, associate professor of surgery at Stanford and director of bariatric surgery at Stanford Hospital & Clinics.
The findings will be published Oct. 17 in the *Archives of Surgery*. The lead author of the study is Gavitt Woodard, MD, a 2011 graduate of the Stanford School of Medicine.

The 50 adults and children who participated in the study did more than just share a house with the bariatric patients; they also, as Morton noted, accompanied the patients to all of their pre- and post-operative clinical visits, where they received dietary and lifestyle counseling. These sessions would emphasize a high-protein, high-fiber, low-fat and low-sugar diet and small, frequent meals. The sessions also set daily goals for exercise and stressed a good night's sleep, alcohol moderation and less time in front of the television.

After a year, not only did obese adult family members lose several pounds, but their waistlines also decreased on average from 47 inches to 44 inches. Weight loss among non-obese family members, however, was not significant (180 to 176 pounds), and their waist circumference held steady at an average of 39 inches. But the number of alcoholic drinks consumed by the adult family members, regardless of weight, decreased sharply, from 11.4 to 0.8 each month.

In addition, the mean body mass index among obese children in the study was lower than what would have been expected based on projected growth-curve metrics from the Centers for Disease Control and Prevention.

Adult family members made significant changes in their eating habits, with less emotional and uncontrollable eating. Both adults and children made substantial increases in their activity levels. For adult family members, metabolic equivalent task hours, a measure of physical-energy expenditure, more than doubled from 7.8 to 16.8; for children, the increase was from 12.9 to 22.4.
When behavior changes as a result of social-reinforcing conditions, it is sometimes known as a halo effect. For example, studies have found that people are more likely to quit smoking if their spouses quit, or become obese if a friend becomes obese.

Today, 26 percent of American adults and 15 percent of children are considered obese, which increases the risk of mortality related to diabetes, heart disease and cancer, the study says.

Morton noted that Stanford surgeons perform about 300 bariatric surgeries every year, and more than 200,000 are done annually in the United States.

"Can you imagine if every one of these bariatric patients were an ambassador for good health? You would have a huge, grassroots movement with bariatric surgery providing a vehicle for healthy change for patient and family alike," Morton said. "Obesity is a family disease and bariatric surgery sets the table for future, healthy family meals."

The authors conclude by saying, "Bariatric surgery programs should encourage family involvement in support groups and education sessions to capitalize on these halo effects."


Provided by Stanford University Medical Center
