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Weight Loss Plays Key Role in Diabetes Improvement Following Bariatric Surgery

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Stomach-reduction surgery is excellent treatment for severe diabetes, but doctors at Duke University Medical Center caution that it is not a magic bullet.

Their research, presented today at the American Society for Metabolic and Bariatric Surgery, shows weight loss is a major reason why severely obese type 2 diabetics experience disease improvement or remission following surgery.

Earlier this year, weight loss surgery was heralded as a cure for diabetes after studies reported dramatic cases of post-surgical remission. Results were seen following both lap band surgery and gastric bypass, but the most immediate improvement was documented following gastric bypass. The theory attributes diabetes improvement after gastric bypass to changes in the way hormones are secreted from the gut and the pancreas following gastric bypass which re-routes how food is sent from the stomach to the small intestine.

Even before the latest findings were announced, a movement was underfoot to alter the public's mindset about weight loss surgery. Last year, the Bariatric Surgical Society changed its name to the American Society for Metabolic and Bariatric Surgery to reflect how "metabolic surgery" affects metabolic conditions like diabetes and high cholesterol.

Yet, the Duke doctors say an important concept is being lost in the hoopla surrounding the surgery's metabolic effects. "Yes, there are

physiologic changes related to the restructuring of the gastrointestinal or GI tract that appear to influence the rapid improvement in diabetes following gastric bypass," says Eric DeMaria, MD, director of bariatric surgery at Duke University Medical Center. "But our study shows the patients who were able to get off medications completely and go into remission were the ones who lost the most weight." And, the more weight lost, the higher the chances of disease improvement.

"We're a culture of quick-fix people," he adds. "Everybody loves the idea that diabetes is gone the day after surgery. But we know that an important mechanism in place when the operation fails over the long term is poor behavior. High-fat junk food and sweets, grazing or constant eating between meals, lack of exercise, those are major contributors to failure, and failure causes recurrent diabetes. If it were purely a metabolic effect, one could argue that the metabolic effect should still be present."

Type 2 diabetes is a metabolic disease that occurs when the body can't properly use insulin or regulate blood sugars. Nearly 20 million Americans have type 2 diabetes, and 90 percent of them are overweight or obese.

The Duke study followed 314 diabetic patients who underwent gastric bypass surgery from January 2000 to October 2006. Of the 314 patients, 71 were in the most severe group of diabetics -- those who require insulin therapy because oral medications were not sufficient to control the disease.

Gastric bypass overall had a highly successful effect on diabetes. After 12 months, all the diabetic patients were able to reduce the dose or number of their diabetes-related medications. Nearly half (48%) of the 71 patients in the most severe group had achieved remission of their diabetes, meaning they ceased to need medications and a blood test

found their levels of a type of hemoglobin (HbAIc) to be within normal range.

However, DeMaria stresses that losing weight during the first three weeks to six months following surgery is critical for patients who ultimately put their diabetes into remission. "We may eventually consider adding weight-loss therapies during this key time frame to enhance the already-effective treatment of diabetes by surgery."

For now, to achieve long lasting results, he says, "we need to tell patients to pay attention to their weight and to do things that enhance weight loss. That can only be accomplished by changing patient behavior and lifestyle. And that change can only occur by emphasizing the proven concept that weight loss and weight loss management are important components in the treatment of diabetes."

Source: Duke University Medical Center