

Schauer PR, Bhatt DL, Kirwan JP, et al. Bariatric surgery versus intensive medical therapy for diabetes – 5-year outcome. *N Engl J Med* 2017;376:641-51.

The study shows that at 5-years, in those with type 2 diabetes and BMI 27-43, bariatric surgery with intensive medical therapy is more effective than intensive medical therapy alone in decreasing or resolving hyperglycemia.

The authors report the 5-year results from randomized controlled trial [Surgical Treatment and Medications Potentially Eradicate Diabetes Efficiently (STAMPEDE)] comparing medical therapy with surgical therapy [Roux-en-Y gastric bypass (RYGB) and sleeve gastrectomy (SG)] in patients with type 2 diabetes. The primary outcome is glycated hemoglobin (A1C) of 6% or less with or without meds.

At baseline, the mean A1C was $9.2 \pm 1.5\%$, and mean BMI was 37 ± 3.5 . At five years, 139 (90%) patients completed the study. The primary end point was achieved by 2/38 (5%) with medical therapy, 14/49 (29%) with RYGB, and 11/47 (23%) with SG ($p \leq 0.3$ for medicine vs. surgery). The Mean reduction in A1C was significantly higher with surgery than with medicine (2.1% vs. 0.3%, $p=0.003$). All patients in RYGB group and 98% in SG group required at least one diabetes medication before surgery. At follow-up 45% of RYGB group and 25% of SG did not require any medication for diabetes. Insulin use was decreased from 47% to 12% after RYGB, and from 45% to 11% after SG. Total body weight loss was significantly ($p=0.003$) higher for RYGB (-23%) and SG (-19%) than medical therapy (-5%), and greater for RYGB than SG ($p=0.01$). The surgical group also showed significant improvement in triglyceride and high-density lipoprotein cholesterol levels, and quality-of-life measures in comparison to medical treatment ($p < 0.05$ for all comparisons).