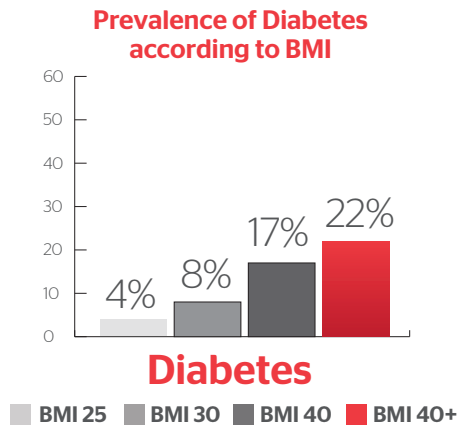


Obesity and Type II Diabetes

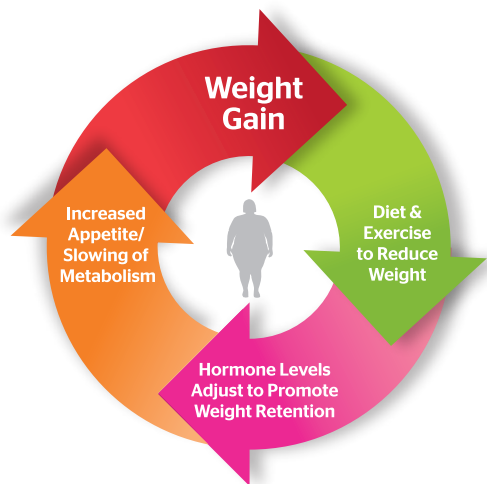


90%
of individuals
with T2DM
are over weight
or obese.¹

As a patient's BMI rises, so does the prevalence of T2DM.²



Obesity is a complex metabolic disease. It is defined by an abnormal or excessive body fat accumulation and identified by a body mass index (BMI) of 30 or higher.^{4,5} Research has demonstrated that hormonal changes with obesity make it very challenging for patients to lose significant weight and keep it off.⁶

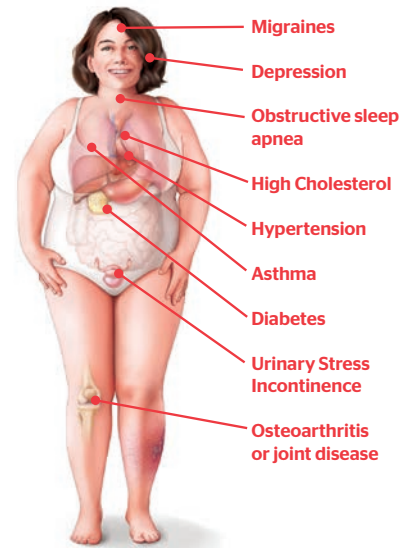


High levels of blood glucose caused by diabetes can affect nerves, leading to neuropathy over time. This nerve damage may make it difficult for blood, which is needed for skin repair, to reach areas of the body affected by sores or wounds.

The longer a patient has T2DM, the more challenging it is to manage the disease and the more likely that there are other health issues. Improving or resolving a patients T2DM condition, even if only for a period of time, provides a better health situation.⁸

Treating T2DM doesn't help obesity. Treating obesity DOES help treat T2DM!⁹

Obesity-related diseases



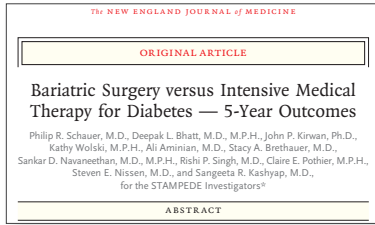
The presence of T2DM increases an individual's risk of:³

- Heart and blood vessel disease
- Neuropathy—nerve damage
- Nephropathy—kidney damage
- Eye damage
- Foot damage
- Skin conditions

Only about 20% of overweight individuals who attempt to lose weight are successful.⁷

Can bariatric surgery help treat T2DM for the severely obese patient?

According to the Ethicon funded STAMPEDE study, bariatric surgery with medical therapy resulted in:¹⁰



- More effective management of poorly controlled diabetes than with intensive medical treatment alone.
- 31% of RYGB patients and 23% of SG patients achieving glycemic control without medications at 5 years post-surgery.

Is it the post bariatric surgery weight loss or hormonal changes that help to improve health?

Bariatric surgery does drive the strongest, most durable weight loss results versus other obesity treatment options.¹¹

Treatment	Average Weight Loss	Average Weight Loss
Diet and exercise	-0.1% ¹² at 2 years	-1.6% ¹² at 10 years
Drug therapy	3% ¹³ at 1 year	2.5% ¹³ at 4 years

Surgery	Excess Weight Loss at 3 Years	Excess Weight Loss at 5 Years
Gastric bypass	71% ¹⁴	61% ¹⁵
Sleeve gastrectomy	66% ¹⁶	50% ¹⁵

In many cases, early remission of Type II Diabetes occurs days after surgery, even before major weight loss.¹⁷



Bariatric Surgical procedures, especially Gastric Bypass and Sleeve Gastrectomy, provide physiological changes as a result of the anatomical changes. Bariatric Surgery is usually performed laparoscopically with serious complications occurring less than 2% of the time.¹⁸ For a detailed description of the procedures and risks, go to www.ethicon.com/bariatrics. Results may vary in magnitude and duration. Risks are similar to any general surgery procedure and include cholecystitis, cholelithiasis, dilated pouch, dysphagia, GERD, incisional hernia, malnutrition, and vitamin and mineral deficiency.

Many diabetes medical associations are endorsing bariatric surgery.

“The most clinically relevant impact of surgically-induced weight loss is the ability of the former to completely reverse Diabetes Mellitus in a large percentage of the subjects.” - American Heart Association⁹



The American Diabetes Association (ADA) and the International Diabetes Federation (IDF) recognize bariatric surgery as an official treatment for Type II Diabetes itself.¹⁹

For more information, visit ethicon.com/bariatrics or contact a bariatric surgeon.

This procedure is for the treatment of patients suffering from severe obesity only. Patients should consult their physicians to determine if this procedure is appropriate for their condition. All surgery presents risk. Risk of bariatric surgery are generally low and similar to other commonly performed procedures like gallbladder surgery. Risks include adverse reactions to medications, problems with anesthesia, problems with breathing, bleeding, blood clots, inadvertent injury to nearby organs and blood vessels, nutritional deficiency, even death.

Reference: 1. Obesity and overweight. World Health Organization Web site. <http://www.who.int/dietphysicalactivity/media/en/gsf Obesity.pdf>. 2003. Accessed August 25, 2016. 2. Stommel M, et al. *Obesity*. 2010;18(9):1821-1826. 3. Long AN, Dagogo-Jack S. Comorbidities of Diabetes and Hypertension: Mechanisms and Approach to Target Organ Protection. *The Journal of Clinical Hypertension*. 2011;13(4):244-251. 4. American Obesity Association. Fact Sheet. Obesity in the U.S. May 2, 2005. <http://www.obesity.org>. 5. World Health Organization (WHO). Obesity and Overweight: Fact Sheet. 2014. 6. Kaplan L, et al. *Bariatric Times*. 2012;9(4):12-13. 7. Wing RR, et al. *Am J Clin Nutr*. 2005;82(suppl 1):222S-225S. 8. Garci'a-Pe' rez LE, et al. *Diabetes Ther*. 2013;4:175-194. 9. Poirier P, et al. *Circulation*. 2011;123:1683-1701. 10. Schauer PR, et al. *N Engl J Med* 2017;376:641-51. 11. Hoelscher D, et al. *J Acad Nutr Diet*. 2013;13(10):1387. 12. Sjöström L, et al. *N Engl J Med*. 2004;351(26):2683-2693. 13. Xenical [prescribing information], South San Francisco, CA: Genetech, Inc.; 2010. 14. Garb J, et al. *Obes Surg*. 2009;19(10):1447-1455. 15. Brethauer S, et al. *Ann Surg*. 2013;258(4):628-636. 16. Fischer L, et al. *Obes Surg*. 2012; 22(5); 721-731. 17. Piché ME, et al. *Can J Cardiol*. 2015;31(2):153-166. 18. SRC BOLD report: summary of key statistics prepared for SRC's strategic alliance partners. March 2010. Data is reported on 80,157 research-consented patients who had a surgery entered in BOLD from June 2007 through Sept. 22, 2009. All patients with data in BOLD had their bariatric surgery performed by a surgeon participating in SRC's Bariatric Surgery Center of Excellence (BSCOE) program. 19. Rubino R, et al. *Diabetes Care*. 2016;39 (6):861-877.