Can surgery help?

Most chronic diseases, if they have a treatment, can be better addressed at early stages before the disease process has established itself. The longer and more severe the disease, the less effective treatments there are. Obesity does not follow this model. For the most severe cases there is actually a very good and effective intervention — bariatric surgery. Many studies support surgery as effective in resolving comorbid chronic diseases.

In a recent study, bariatric surgery had a significant decrease in the prevalence of 26 of 106 specific diseases and conditions — about one-fourth. The prevalence of type 2 diabetes, high cholesterol, osteoarthritis and intervertebral disc disorders dropped by about half, hypertension by about one-third and asthma by almost three-quarters within two to four months after surgery. Patients were able to maintain or further decrease the prevalence of these diseases and conditions for up to two years. Recent studies show support for surgery’s role in treating type 2 diabetes.

Increasing technological improvements both in the surgical process and in the devices, such as the adjustable band, can improve outcomes and reduce adverse events (see Meta-analysis: surgical treatment of obesity. [Ann Intern Med. 2005] - PubMed Result).

A recent study demonstrated bariatric surgery’s effectiveness in reducing the risk of cancer (see http://www.asbs.org/html/pdf/soard_featured_article.pdf). More importantly, the rapid resolution of diabetes following bariatric surgery and before significant weight loss is providing researchers with new avenues to investigate the basic science of obesity and diabetes.
The ability of bariatric surgery to affect a remission of type 2 diabetes was first reported in the 1970s. Subsequent research has increased the evidence for this effect.

One commentator has concluded, “The most effective way to induce a remission of type 2 diabetes at present is not pharmacologic, but surgical. Bariatric surgery, particularly when gastric banding is effectively applied, results in rapid and massive weight loss that reduces insulin resistance. Roux-en-Y procedures, however, may act via the entero-pancreatic (incretin) hormone axis, causing diabetes to remit even before weight loss. However bariatric surgery has adverse effects and complications, as it enforces a major alteration of lifestyle. Surgically reduced stomach volume restricts how much food the individual can ingest without significant discomfort. Long-established eating habits are necessarily changed.” (Saudek, CD, Can Diabetes Be Cured? Potential Biological and Mechanical Approaches, JAMA, April 15, 2009, 301;15:1588-1589)

Another paper estimated that as many as 14,310 diabetes-related deaths might be prevented by bariatric surgery over five years. (Purnell JA, Flum DR, Bariatric Surgery and Diabetes, Who Should be Offered the Option of Remission, JAMA, April 15, 2009, 301;15:1593-1595.)


Bariatric Surgery Centers of Excellence have been established to identify and track long-term outcomes. See surgicalreview.org.