



# Sleeve Gastrectomy: A Promising Surgical Solution in the Battle against Obesity

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## Introduction

Obesity has become a global epidemic, affecting millions of people worldwide and significantly impacting their health and quality of life. With the rise in obesity-related health complications, medical professionals and researchers have been actively seeking effective solutions to combat this multifaceted problem. Among the various approaches available, sleeve gastrectomy has emerged as a promising surgical intervention for individuals struggling with severe obesity. In this article, we will explore the key aspects of sleeve gastrectomy and its potential as a solution to address obesity [1,2].

## Understanding sleeve gastrectomy

Sleeve gastrectomy, also known as vertical sleeve gastrectomy (VSG), is a surgical procedure that involves the removal of a large portion of the stomach to create a smaller, sleeve-shaped stomach pouch. This procedure restricts the amount of food a person can consume, resulting in reduced calorie intake and subsequent weight loss. Unlike other bariatric surgeries, sleeve gastrectomy does not involve rerouting or bypassing the intestines [3].

## Description

During a sleeve gastrectomy, the surgeon removes approximately 75-85% of the stomach, leaving behind a reduced stomach size. The remaining stomach resembles a narrow tube or sleeve, which restricts the amount of food that can be consumed. This procedure is typically performed laparoscopically, using small incisions and a camera-guided surgical tool [4].

## Benefits of sleeve gastrectomy

**Significant and sustained weight loss:** Sleeve gastrectomy has shown remarkable results in terms of weight reduction. Many individuals have experienced substantial weight loss following the procedure, which has not only improved their physical appearance but also positively impacted their overall health [5].

**Improvement in comorbidities:** Obesity is often accompanied by various comorbid conditions such as type 2 diabetes, high blood pressure, sleep apnea, and cardiovascular diseases. Sleeve gastrectomy has been found to contribute to the resolution or improvement of these conditions, reducing the reliance on medications and enhancing the quality of life.

**Reduced hunger and appetite:** By removing a significant portion of the stomach, sleeve gastrectomy helps in regulating the production of hunger-inducing hormones. This leads to a decrease in appetite and a sense of satiety with smaller meals, promoting healthier eating habits.

**Lower risk compared to other procedures:** Sleeve gastrectomy is considered a relatively safe surgical option for individuals with severe obesity. It does not involve rerouting the intestines or implanting medical devices, reducing the risk of complications associated with those procedures [6].

## Considerations and potential risks

While sleeve gastrectomy offers promising results, it is important to note that it is not a magical cure for obesity. The success of the procedure depends on the patient's commitment to adopting a healthier lifestyle, including regular exercise and balanced nutrition. Furthermore, as with any surgical procedure, sleeve gastrectomy carries potential risks and complications such as infection, bleeding, blood clots, and digestive issues. It is crucial for individuals considering this surgery to thoroughly discuss the risks and benefits with their healthcare providers [7].

Sleeve gastrectomy has emerged as a powerful tool in the battle against obesity, providing hope and a renewed lease on life for those struggling with severe weight-related issues. By significantly reducing the stomach size and restricting food intake, this surgical procedure has shown remarkable weight loss results and improvement in associated comorbidities. However, it is important to approach sleeve gastrectomy as part of a comprehensive treatment plan that includes long-term lifestyle changes. With careful consideration, guidance from healthcare professionals and a commitment to a healthier lifestyle, sleeve gastrectomy can be a life-changing intervention in the fight against obesity.

Sleeve gastrectomy is a surgical procedure that has gained popularity as a standalone weight loss procedure or as the first step in a staged approach to weight loss for individuals with severe obesity. Here is some additional information on sleeve gastrectomy:

## Procedure and mechanism

**Laparoscopic approach:** Sleeve gastrectomy is typically performed using a minimally invasive laparoscopic technique. This approach involves making several small incisions in the abdomen, through which a camera and surgical instruments are inserted.

**Stomach reduction:** During the procedure, the surgeon removes a large portion of the stomach, leaving behind a sleeve-shaped tube. The removed portion of the stomach is permanently excised from the body. The remaining stomach, which now resembles a narrow tube, has a significantly reduced capacity, limiting the amount of food that can be consumed.

**Hormonal changes:** Sleeve gastrectomy also triggers hormonal changes in the body that contribute to weight loss. The portion of the stomach that is removed is responsible for producing a hormone called ghrelin, which stimulates appetite. By reducing the production of

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ghrelin, the surgery helps decrease hunger sensations and promotes a feeling of fullness with smaller meals.

### Benefits and outcomes

**Significant weight loss:** Sleeve gastrectomy has shown to be highly effective in promoting substantial weight loss. Patients typically experience a loss of 50% or more of their excess body weight within the first year following the procedure. The weight loss continues over time, with many individuals reaching their target weight or achieving a significant reduction in obesity-related health risks.

**Resolution of comorbidities:** Sleeve gastrectomy has been associated with improvement or resolution of several obesity-related comorbidities. These may include Type 2 diabetes, high blood pressure, sleep apnea, metabolic syndrome and joint pain. The weight loss and metabolic changes resulting from the surgery can lead to a reduction or elimination of medication dependence for these conditions.

**Improved quality of life:** Beyond the physical changes, sleeve gastrectomy can have a profound impact on an individual's quality of life. Patients often report increased energy levels, improved mobility, enhanced self-esteem, and a greater ability to engage in physical activities that were previously challenging or impossible due to excessive weight.

**Lower risk compared to other procedures:** Sleeve gastrectomy is generally considered a safer surgical option than some other weight loss surgeries, such as gastric bypass. The procedure does not involve rerouting or reconnecting the intestines, reducing the risk of complications associated with intestinal bypasses [8].

### Considerations and follow-up care

**Lifestyle changes:** Sleeve gastrectomy is not a standalone solution for obesity but rather a tool to assist individuals in achieving long-term weight loss goals. Patients are required to make significant lifestyle changes, including adopting a balanced and nutritious diet, engaging in regular physical activity and maintaining regular follow-up with healthcare professionals.

**Dietary guidelines:** Following surgery, patients are advised to consume smaller, nutrient-dense meals. It is important to chew food thoroughly and eat slowly to prevent discomfort and ensure proper digestion. Patients may also be instructed to take vitamin and mineral supplements to address potential nutritional deficiencies.

**Psychological support:** Bariatric surgery, including sleeve gastrectomy, can have emotional and psychological implications. It is essential for patients to have access to psychological support before and after the procedure to address body image concerns, adjust to the changes, and develop healthy coping strategies.

**Long-term monitoring:** Regular follow-up appointments with healthcare providers are crucial after sleeve gastrectomy. These appointments allow for monitoring of weight loss progress, assessment of nutritional status, management of any complications, and ongoing

support to help individuals maintain their weight loss and address any challenges that may arise [9,10].

### Conclusion

Sleeve gastrectomy is a surgical procedure that offers a viable solution for individuals struggling with severe obesity. By reducing the stomach size and triggering hormonal changes, this procedure promotes significant and sustained weight loss while improving obesity-related comorbidities. However, it is important to approach sleeve gastrectomy as part of a comprehensive treatment plan that includes lifestyle modifications and ongoing support. With careful patient selection, thorough evaluation, and appropriate post-operative care, sleeve gastrectomy can be a powerful tool in the fight against obesity and its associated health risks.

### Acknowledgement

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### Conflict of Interest

None

### References

1. Angrisani L, Santonicola A, Iovino P, Vitiello A, Zundel N, et al. (2017) Bariatric Surgery and Endoluminal Procedures: IFSO Worldwide Survey 2014. *Obes Surg* 27: 2279-2289.
2. Buchwald H, Oien DM (2013) Metabolic/bariatric surgery worldwide 2011. *Obes Surg* 23: 427-436.
3. Gagner M, Hutchinson C, Rosenthal R (2016) Fifth International Consensus Conference: current status of sleeve gastrectomy. *Surg Obes Relat Dis* 12: 750-756.
4. Peterli R, Wölnerhanssen B, Peters T, Vetter D, Kröll D, et al. (2018) Effect of Laparoscopic Sleeve Gastrectomy vs Laparoscopic Roux-en-Y Gastric Bypass on Weight Loss in Patients With Morbid Obesity: The SM-BOSS Randomized Clinical Trial. *JAMA* 319: 255-265.
5. Sjöström L, Narbro K, Sjöström CD, Karason K, Larsson B, et al. (2007) Effects of bariatric surgery on mortality in Swedish obese subjects. *N Engl J Med* 357: 741-752.
6. Salminen P, Helmio M, Ovaska J, Juuti A, Leivonen M, et al. (2018) Effect of laparoscopic sleeve gastrectomy vs laparoscopic Roux-en-Y gastric bypass on weight loss at 5 years among patients with morbid obesity: The SLEEVEPASS randomized clinical trial. *JAMA* 319: 241-254.
7. O'Brien PE, MacDonald L, Anderson M, Brennan L, Brown WA (2013) Long-term outcomes after bariatric surgery: fifteen-year follow-up of adjustable gastric banding and a systematic review of the bariatric surgical literature. *Ann Surg* 257: 87-94.
8. Brethauer SA, Kim J, el Chaar M, Papanavou P, Eisenberg D, et al. (2015) Standardized outcomes reporting in metabolic and bariatric surgery. *Surg Obes Relat Dis* 11: 489-506.
9. ASMBS Clinical Issues Committee (2012) Updated position statement on sleeve gastrectomy as a bariatric procedure. *Surg Obes Relat Dis*. 8: e21-e26.
10. Peterli R, Borbély Y, Kern B, Gass M, Peters T, et al. (2013) Early results of the Swiss Multicentre Bypass or Sleeve Study (SM-BOSS): a prospective randomized trial comparing laparoscopic sleeve gastrectomy and Roux-en-Y gastric bypass. *Ann Surg* 258: 690-695.