



# Promoting Health through Bariatric Surgery and a Multidisciplinary Team Approach is Essential to Achieve Weight Loss Success

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## Background

Morbid Obesity is a growing epidemic in the United States affecting an estimated 97 million adults. It is a multi-factorial and complex problem that demands a multidisciplinary team approach to obtain positive outcomes. Bariatric surgery holds considerable promise for jumpstarting weight loss in the morbid obese population. Many weight related diseases such as diabetes, hypertension, hyperlipidemia, obstructive sleep apnea and cardiovascular diseases resolve with weight loss after bariatric surgery. The amount of weight loss can frequently reach one-third of the patient's pre-surgical body weight. Bariatric surgery has shown to improve the patient's overall health status and co-morbidities as well as has become the most reliable long-term treatment option for the morbidly obese population. We wanted to look at weight loss outcomes based on the type of Bariatric procedures performed at our institution

## Introduction

The Bariatric Program at Naval Medical Center San Diego involves a multidisciplinary team and emphasizes the importance of pre- and post-operative patient education as a key component to successful weight loss. Effective management of weight loss is delivered by healthcare professionals with diverse skills.

Our program personnel and support consist of:

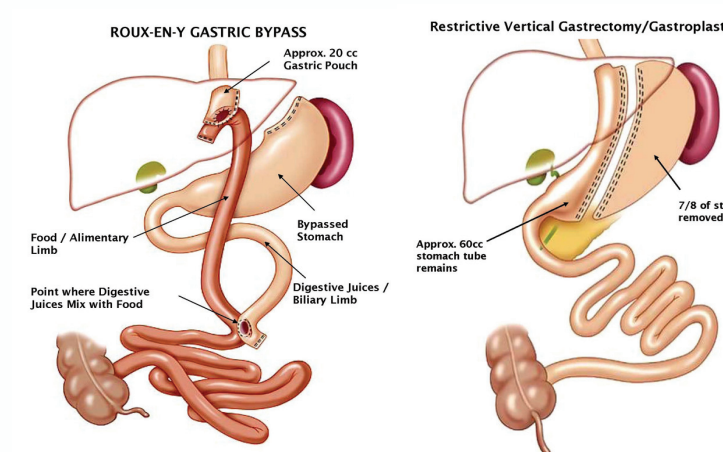
- Nurse Practitioners
- Registered Dietician
- Wellness Center
- Monthly Educational Classes
- Patient Support Group

Post-operative follow-up is every three months for the first year; then annually over the patient's lifetime.



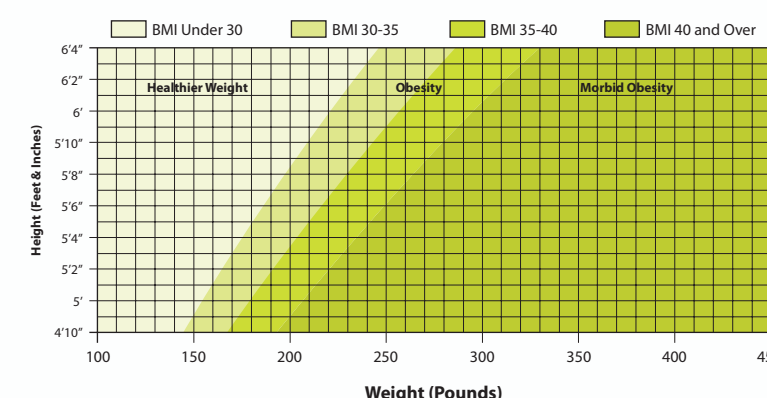
## Methods

We did a retrospective record review of a prospectively collected Bariatric Database at the Naval Medical Center San Diego covering a period from 2005 to 2010. We reviewed the weight loss of over 500 patients at one, three and five year intervals who were status-post Laparoscopic Roux-en-Y Gastric Bypass (LGB) or Laparoscopic Vertical Sleeve Gastrectomy (LVG).



## Body Mass Index (BMI)

### Body Mass Index (BMI) Chart for Adults



There are two ways in which body fat is measured: waist circumference and body mass index (BMI). Waist circumference is a common measurement used to assess abdominal (stomach) fat. People with excess fat that is situated mostly around the abdomen are at risk for many of the serious conditions associated with obesity. A high-risk waistline is one that is 35 inches or greater in women and 40 inches or greater in men.

BMI is a measure of weight in relation to a person's height. For most people, BMI has a strong relationship to weight. BMI is calculated using the following equation.

$$\text{BMI} = \frac{\text{weight in pounds}}{\text{height in inches} \times \text{height in inches}} \times 703$$

## Results

In the immediate post-operative period our multidisciplinary team closely guides the post-operative care. Weight loss after surgery is most rapid in the first year. It may be due to our program post-operative management when calorie restriction is greatest and our frequent follow-up requirements. We recommend post-operative follow-up at 2 weeks, 6 weeks and every 3 months for the first year. Thereafter, follow-up is recommended at 18 months and then yearly on the patient's anniversary year.

- We found a statistical significance in the percentage of excess body weight loss (EBWL) at the one year post-operative mark, 72.34 percent for the LGB and 63.67 percent for the LVG ( $p=0.002$ ) groups respectively.
- At three years' post-operatively, the EBLW was 53.27 percent for the LGB and 52.73 percent for the LVG.
- At five years' the EBWL was 57.11 percent for the LGB and 54.45 percent for the LVG.
- There was no statistical difference between the LGB and LVG at the three and five year post-operative marks ( $p=0.609$  and  $p=0.252$  respectively).

## Summary

Due to favorable outcomes, Bariatric Surgery continues to be the leading treatment for weight loss and preventative medicine in the morbidly obese population. It has been demonstrated to be an effective means of resolving obesity related diseases. As the number of obese patients increases, a multidisciplinary team approach is essential to understand the complex needs of this growing population and to achieve long-term weight loss success. Our study showed a significant difference in weight loss for LGB and LVG at the one year mark. However, by the third year, there was no significant difference in weight loss between the two procedures and this was carried out to the five year mark.

## References

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## Team Members

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Figure 1

### Weight Loss Comparison over 5 Years Roux-en-Y Gastric Bypass (LGB) vs. Vertical Sleeve Gastrectomy (LVG)

