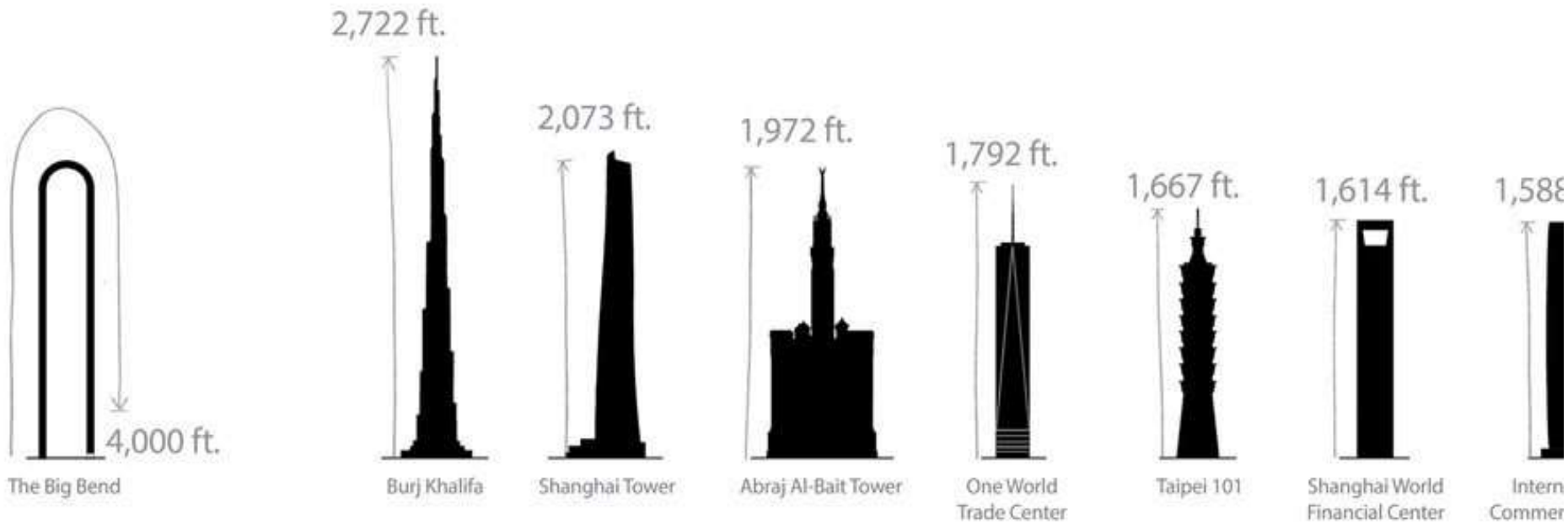
Obesity Problems & Solutions

Presented by

Ahmad Ghazal, Md, Phd, bariatric surgery

ALEPPO UNIVERSITY HOSPITAL

THE LONGEST TOWER



Obesity

Problems & Solutions

World Health Organization

السمنة والوزن الزائد

صحيفة وقائع
تم التحديث في حزيران/ يونيو 2016

حقائق هامة

- زادت السمنة في العالم بأكثر من الضعف منذ عام 1980.
- في عام 2014 كان أكثر من 1.9 مليار بالغ، من سن 18 عاماً فأكثر، زائدي الوزن. وكان أكثر من 600 مليون شخص منهم مصابين بالسمنة.
- في عام 2014 كان 39% من البالغين في سن 18 عاماً فأكثر زائدي الوزن، وكان 13% منهم مصابين بالسمنة.
- تعيش غالبية سكان العالم في بلدان تفتك فيها زيادة الوزن والسمنة بعدد من الأرواح أكبر مما يفتك به نقص الوزن.
- كان 41 مليون طفل دون سن 5 سنوات زائدي الوزن أو مصابين بالسمنة في عام 2014

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Obesity and overweight

Fact sheet
Updated June 2016

Key facts

- Worldwide obesity has more than doubled since 1980.
- In 2014, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 600 million were obese.
- 39% of adults aged 18 years and over were overweight in 2014, and 13% were obese.
- Most of the world's population live in countries where overweight and obesity kills more people than underweight.
- 41 million children under the age of 5 were overweight or obese in 2014.
- Obesity is preventable.

What are **overweight** and **obesity**?

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- **Overweight** and **obesity** are defined as *abnormal or excessive fat accumulation that may impair health.*
- Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults.
- For adults, WHO defines overweight and obesity as follows:
- **overweight is a BMI greater than or equal to 25; and**
- **obesity is a BMI greater than or equal to 30.**

Facts about overweight and obesity

World Health Organization

- In 2014, more than 1.9 billion adults aged 18 years and older were overweight. Of these over 600 million adults were obese.
- Overall, about 13% of the world's adult population (11% of men and 15% of women) were obese in 2014.
- In 2014, 39% of adults aged 18 years and over (38% of men and 40% of women) were overweight.
- The worldwide prevalence of obesity more than doubled between 1980 and 2014.

What **causes** obesity and overweight

World Health Organization

Energy imbalance between calories consumed and calories expended :

- an increased intake of energy-dense foods that are high in fat;
- And an increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization.

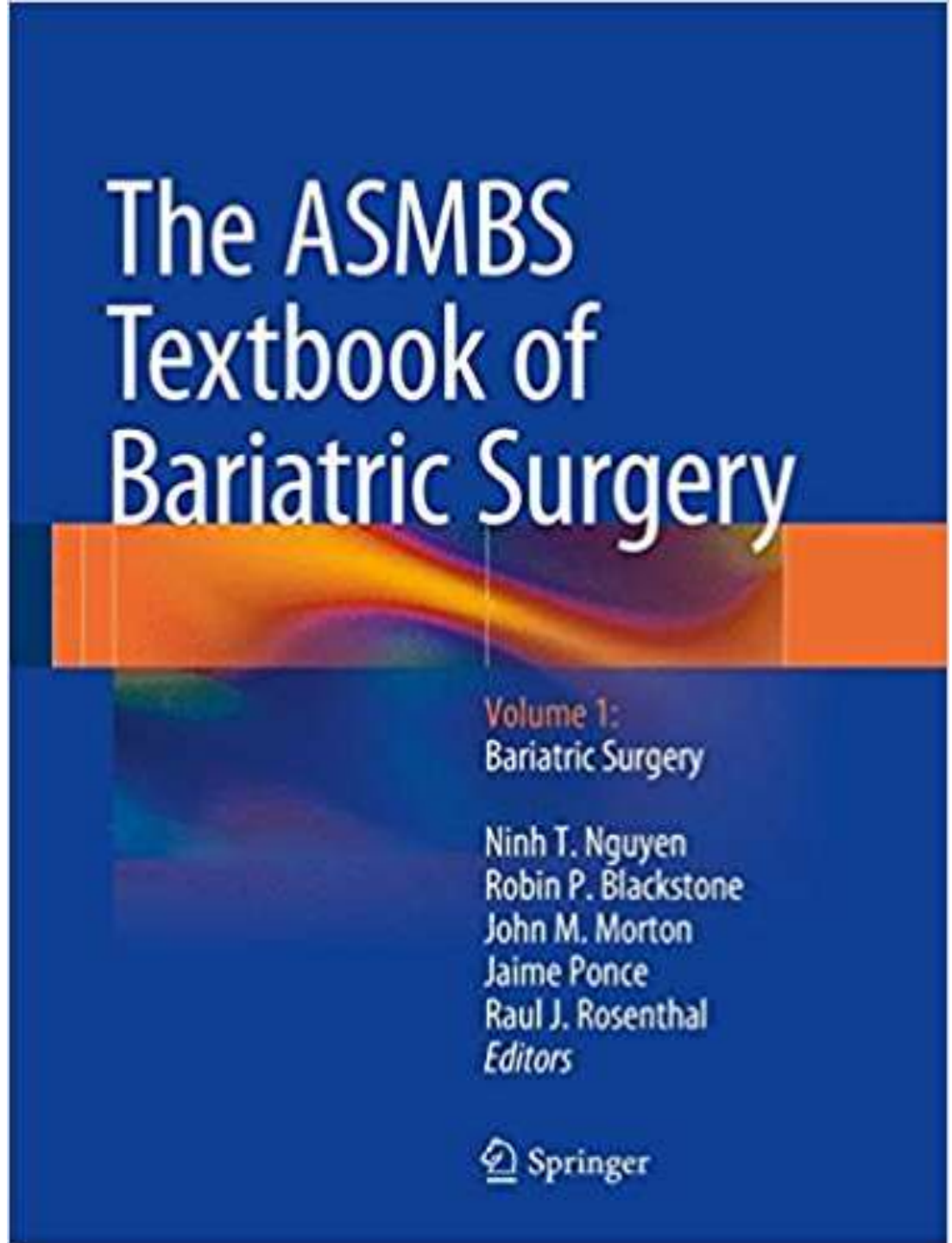

full
empty

Obesity
***Problems** & Solutions*

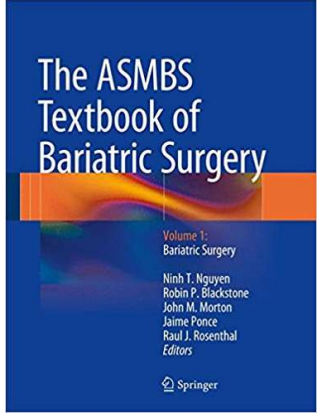
consequences of overweight and obesity?

World Health Organization

- **cardiovascular** diseases (mainly heart disease and stroke).
- Diabetes.
- **musculoskeletal** disorders (especially osteoarthritis – a highly disabling degenerative disease of the joints);
- some **cancers** (including endometrial, breast, ovarian, prostate, liver, gallbladder, kidney, and colon).
- The risk for these **noncommunicable diseases increases**, with increases in BMI.


The ASMBS Textbook of Bariatric Surgery
Volume 1:
Bariatric Surgery
Ninh T. Nguyen
Robin P. Blackstone
John M. Morton
Jaime Ponce
Raul J. Rosenthal
Editors
Springer

consequences of overweight and obesity?



- **Respiratory** Disorders
- Gastroesophageal Reflux Disease (**GERD**)
- other conditions resulting in diminished **quality of life**:

✓stress urinary incontinence (leakage)

✓ polycystic ovarian syndrome

✓infertility

✓skin fold rashes

Obesity
*Problems & **Solutions***

Conservative management

- Dietary
- lifestyle
- behavioral
- pharmacological
- non surgical procedures.

Surgical management (indications)

ASMBS American Society for Metabolic and Bariatric Surgery

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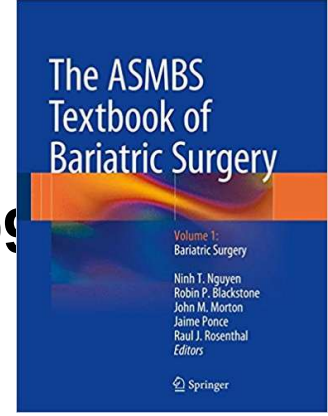
Who is a Candidate for Bariatric Surgery?

Qualifications for bariatric surgery in most areas include:

1. BMI ≥ 40, or more than 100 pounds overweight.
2. BMI ≥35 and at least one or more obesity-related co-morbidities such as type II diabetes (T2DM), hypertension, sleep apnea and other respiratory disorders, non-alcoholic fatty liver disease, osteoarthritis, lipid abnormalities, gastrointestinal disorders, or heart disease.
3. Inability to achieve a healthy weight loss sustained for a period of time with prior weight loss efforts.

Qualifications for bariatric surgery NIH 199



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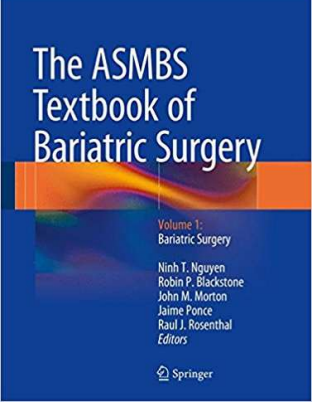
Qualifications for bariatric surgery 2005

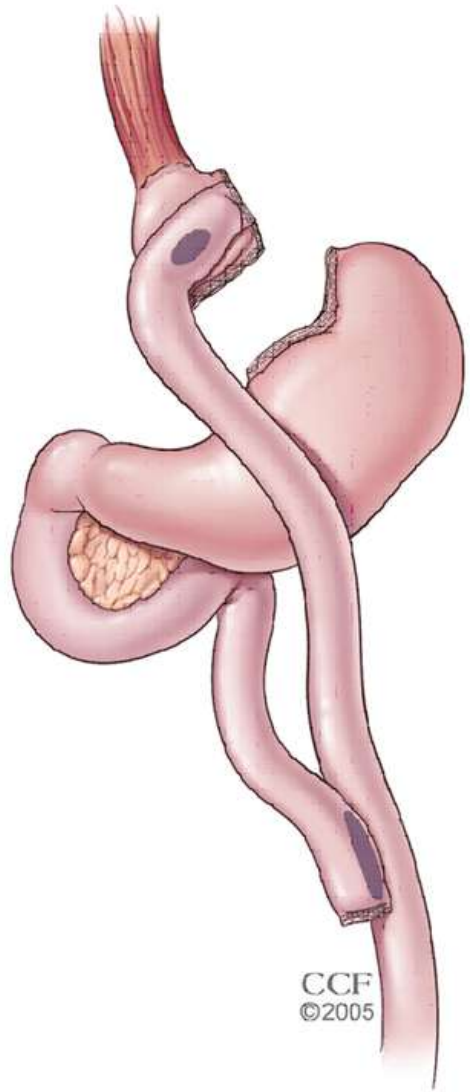
1. Obese patients with a BMI greater than 37 kg/m2
2. Obese patients with a BMI greater than 32 kg/m2 and the presence of diabetes or two significant obesity-related comorbidities.
3. Have been unable to lose or maintain weight loss using dietary or medical measures.
4. Age of patient more than 18 years and less than 65 years.
   Under special circumstance and in consultation with a pediatrician, bariatric surgery may be used on children under 18 years of age.

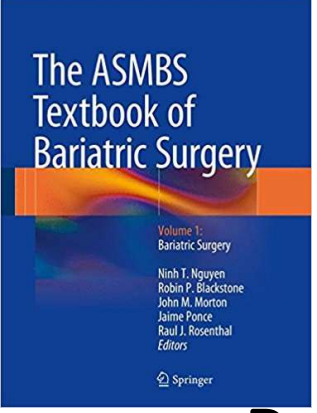
Surgical management

1. *Gastric Bypass*
2. *Sleeve Gastrectomy*
3. *Adjustable Gastric Band*
4. *Biliopancreatic Diversion with Duodenal Switch (BPD/DS)*
5. *Others …*



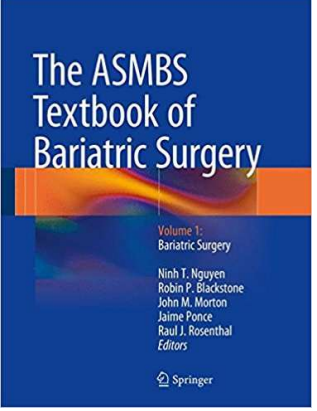
Gastric Bypass (video)





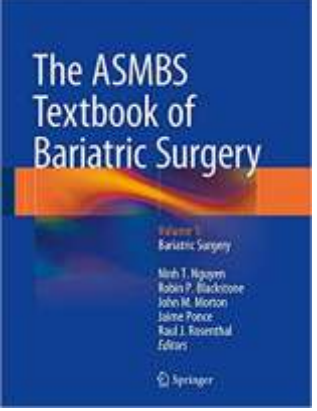
Gastric Bypass Advantages

- Produces significant long-term weight loss (60 to 80 percent excess weight loss)
- Restricts the amount of food that can be consumed
- May lead to conditions that increase energy expenditure
- Produces favorable changes in gut hormones that reduce appetite and enhance satiety
- Typical maintenance of >50% excess weight loss

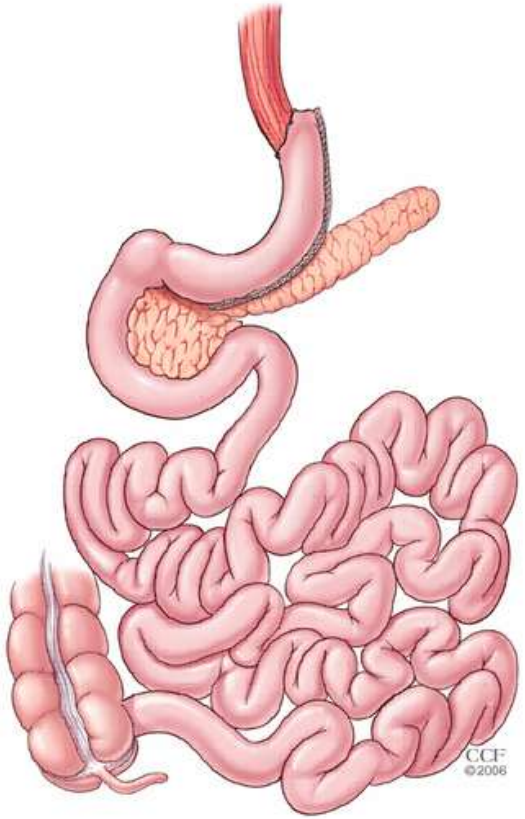


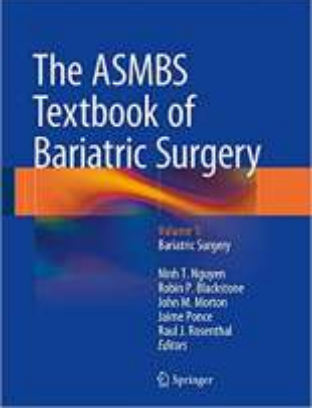
Gastric Bypass Disadvantages

- Is technically a more complex operation than the AGB or LSG and potentially could result in greater complication rates
- Can lead to long-term vitamin/mineral deficiencies particularly deficits in vitamin B12, iron, calcium, and folate
- Generally has a longer hospital stay than the AGB
- Requires adherence to dietary recommendations, life-long vitamin/mineral supplementation, and follow-up compliance



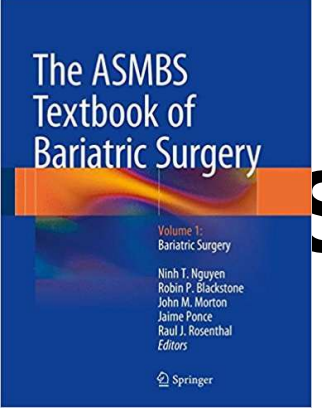
Sleeve Gastrectomy (video)





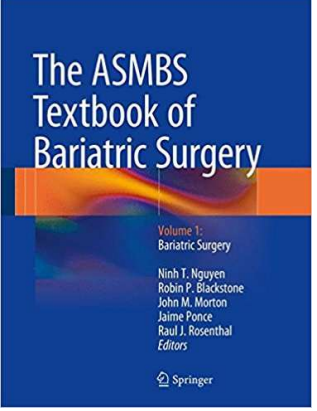
Sleeve Gastrectomy Advantages

- Induces rapid and significant weight loss that comparative studies find similar to that of the Roux-en-Y gastric bypass. Requires no foreign objects (AGB), and no bypass or re-routing of the food stream (RYGB)
- Involves a relatively short hospital stay of approximately 2 days
- Causes favorable changes in gut hormones that suppress hunger, reduce appetite and improve satiety

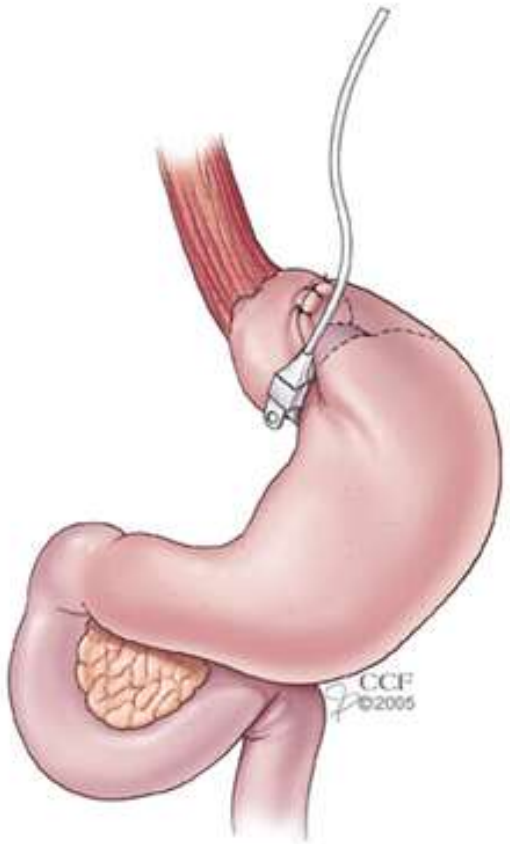


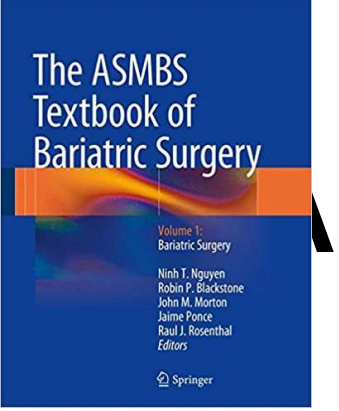
Sleeve Gastrectomy Disadvantages

- Is a non-reversible procedure
- Has the potential for long-term vitamin deficiencies
- Has a higher early complication rate than the AGB



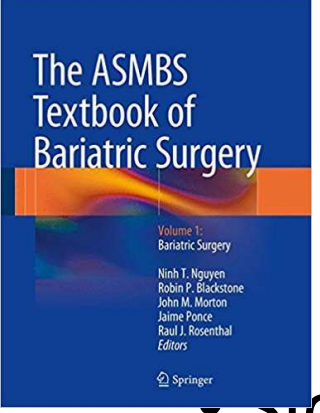
Adjustable Gastric Band (video)





Adjustable Gastric Band Advantages

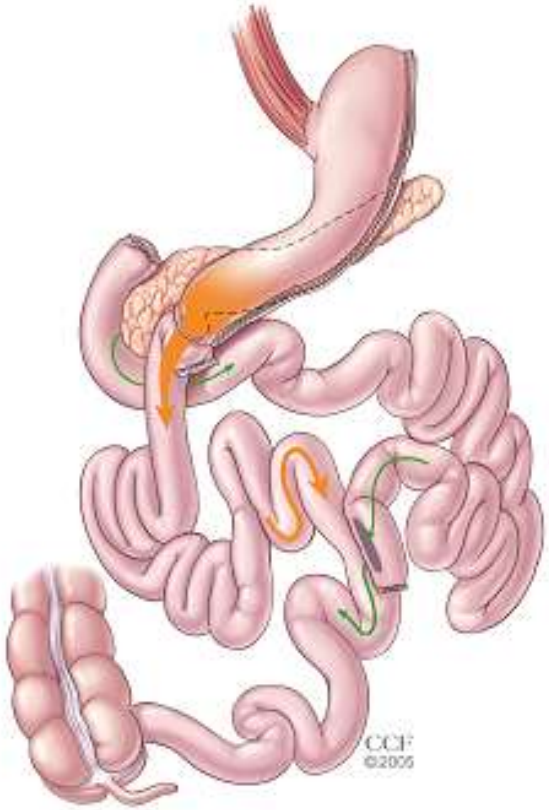
- Induces excess weight loss of approximately 40 – 50 percent
- Involves no cutting of the stomach or rerouting of the intestines
- Is reversible and adjustable
- Has the lowest rate of early postoperative complications and mortality among the approved bariatric procedures
- Has the lowest risk for vitamin/mineral deficiencies



Adjustable Gastric Band Disadvantages

- Slower and less early weight loss than other surgical procedures
- Greater percentage of patients failing to lose at least 50 percent of EBW compared to the other surgeries .
- Can result in possible band slippage or band erosion into the stomach, mechanical problems with the band, tube or port .
- Requires strict adherence to the postoperative diet and to postoperative follow-up visits
- Highest rate of re-operation

Biliopancreatic Diversion with Duodenal Switch (BPD/DS) Gastric Bypass



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Estimate of Bariatric Surgery Numbers, 2011-2015

Published July 2016

	2011	2012	2013	2014	2015
Total	**158,000**	**173,000**	**179,000**	**193,000**	**196,000**
RNY	36.7%	37.5%	34.2%	26.8%	23.1%
Band	35.4%	20.2%	14%	9.5%	5.7%
Sleeve	17.8%	33%	42.1%	51.7%	53.8%
BPD/DS	0.9%	1%	1%	0.4%	0.6%
Revisions	6%	6%	6%	11.5%	13.6%
Other	3.2%	2.3%	2.7%	0.1%	3.2%
Balloons					~700 cases
V-Bloc					18 cases

ASMBS total bariatric procedures numbers from 2011, 2012, 2013, 2014 and 2015 are based on the best estimation from available data (BOLD, ASC/MBSAQIP, National Inpatient Sample data and outpatient estimations).