



Bariatric surgeries Pros & Cons

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What is obesity?

- ▶ Obesity is a chronic, life threatening disease.
- ▶ Excessive fat is associated with at least 30 health conditions.
- ▶ It leads to significant medical, social, psychological and economic impacts.

Obesity facts

- ▶ BMI > 30 is a turning point for increased risk.
- ▶ Sustainable weight loss with conservative measures occurs only in 5% at 5 yrs.
- ▶ 30% of US adults are obese.
- ▶ Obesity in children and adolescents is increasing.

Obesity

- ▶ Abnormal or excessive fat accumulation that impair health
- ▶ Defined by body mass index (BMI) in kg/m²

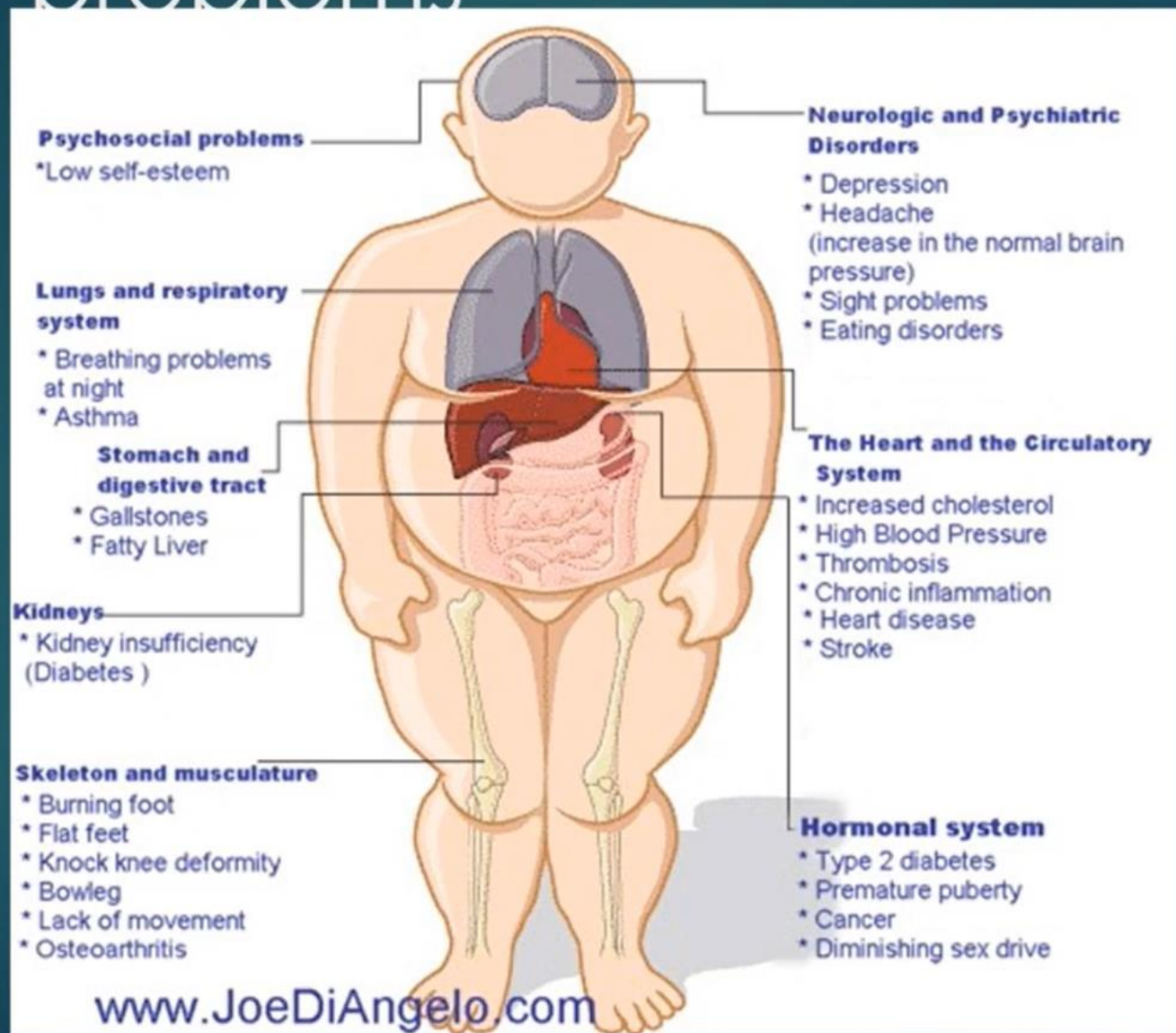
	International	Asia-Pacific
Normal	18.5-24.9	18.5-22.9
Overweight	25-29.9	23-24.9
Class I obesity	30-34.9	25-29.9
Class II obesity	35-39.9	≥30
Class III obesity	≥40	

World Health Organization
Asian-Pacific Bariatric Surgery Society 2010

Causes of obesity

- ▶ Obesity is a complex disease resulting from the interactions of a wide variety of hereditary and environmental factors.
- ▶ Inactivity.
- ▶ Unhealthy diet and eating habits.
- ▶ Certain medications.
- ▶ Underlying medical conditions.

Health problems



comorbidities

- ▶ What is a comorbidity?
- ▶ It is a disease that is the result of, or strongly related to a primary disease.
- ▶ More than 30 comorbid conditions are related to obesity.
- ▶ Most of these comorbidities will be cured by weight reduction.

Treatment options

- ▶ Conservative (life style modification, diet).
- ▶ Medical (pharmacological)
- ▶ Surgical (restrictive & malabsorptive or both).
- ▶ Aim of surgery: (weight reduction, effect on comorbidities, Quality of life).

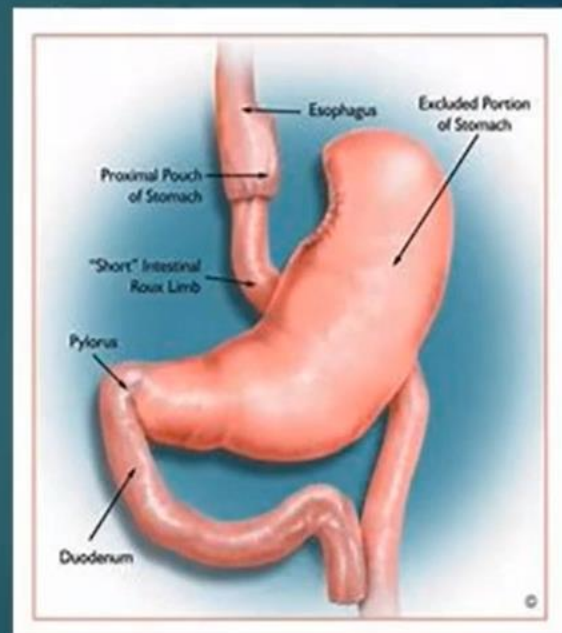
Most common bariatric surgeries

▶ Laparoscopic Gastric bypass (LGBP):

Most standardized bariatric procedure.

Both restrictive and malabsorptive (combined).

Banded gastric bypass (Fobi's procedure).





Pros	Cons
Effective, good weight loss (EWL 70-80%)	Technically difficult
Gold standard	Dumping syndrome
Ideal for patient with GERD & HH	Life long supplementation
Higher rate of DM type II remission	Internal hernia

LGBP

- ▶ **Ideal procedure for:**
- ▶ Obesity with high BMI.
- ▶ Patients with type II DM.
- ▶ Sweet eater.
- ▶ Patients with GERD & HH.
- ▶ Non smoker

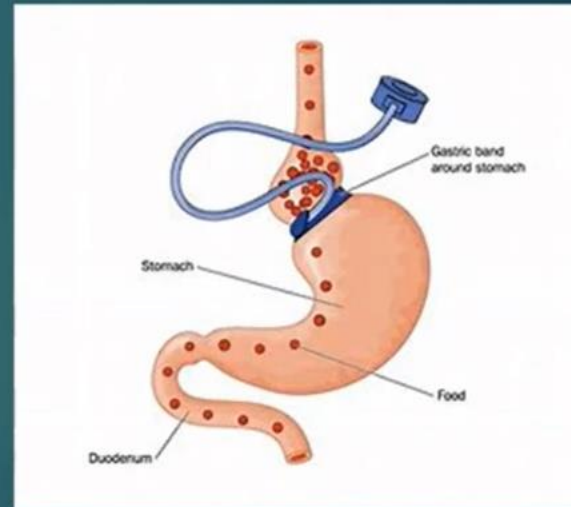
Most common bariatric surgeries


▶ Laparoscopic adjustable gastric band (LAGB):

Restrictive procedure.

Started during early 1990s.

Less popular than before (era of band removal).





Pros	Cons
No resection of the stomach	Low EWL < 50%
No vitamins or minerals deficiencies due to malabsorption	High long term complications
No anastomosis	Frequent adjustment
Technically easy	Implantation of a foreign body
Low rate of perioperative M&M	High reoperation rate >30%
reversible	Not effective for high BMI > 50 kg/m ²

LAGB

▶ **Ideal procedure for:**

Patient with lower BMI.

Non sweet eater.

Patients with no reflux disease.

Most common bariatric surgeries

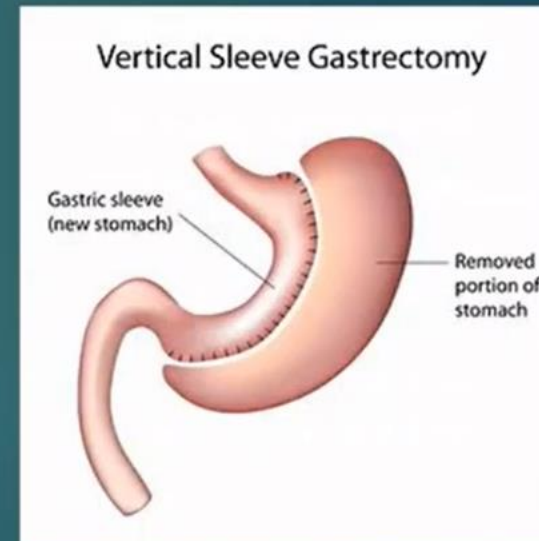
▶ Laparoscopic sleeve gastrectomy (LSG):

Restrictive & functional.

More than 10 years of follow up.

Promising results.

Most commonly performed procedure





Pros	Cons
Good EWL as LGBP	GERD
Easy to perform	Slower weight loss than LGBP
Less M&M	Affect hunger hormone
No malabsorption	Follow up less important

LSG

▶ **Ideal procedure for:**

With high BMI (as definitive or temporary procedure).

Non sweet eater.

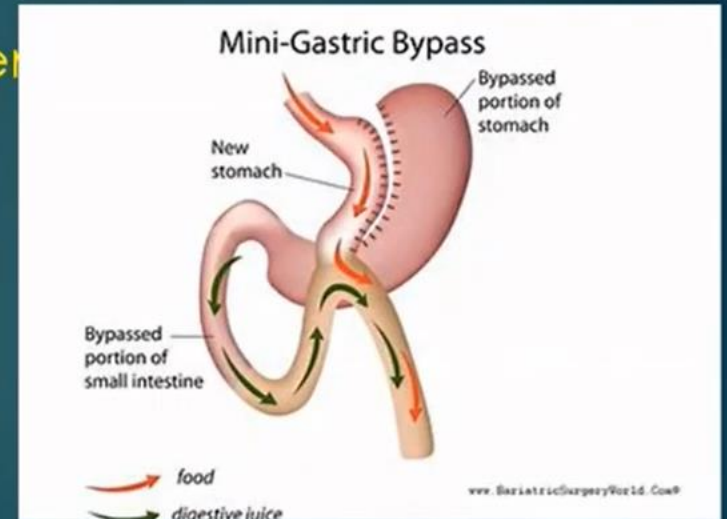
Patient with no reflux.


Patients who are not available for follow up.

Extreme of age.

Most common bariatric surgeries

- ▶ Laparoscopic Mini-gastric bypass (LMGB):
- ▶ Relatively new procedure.
- ▶ combined procedure (higher malabsorption component)

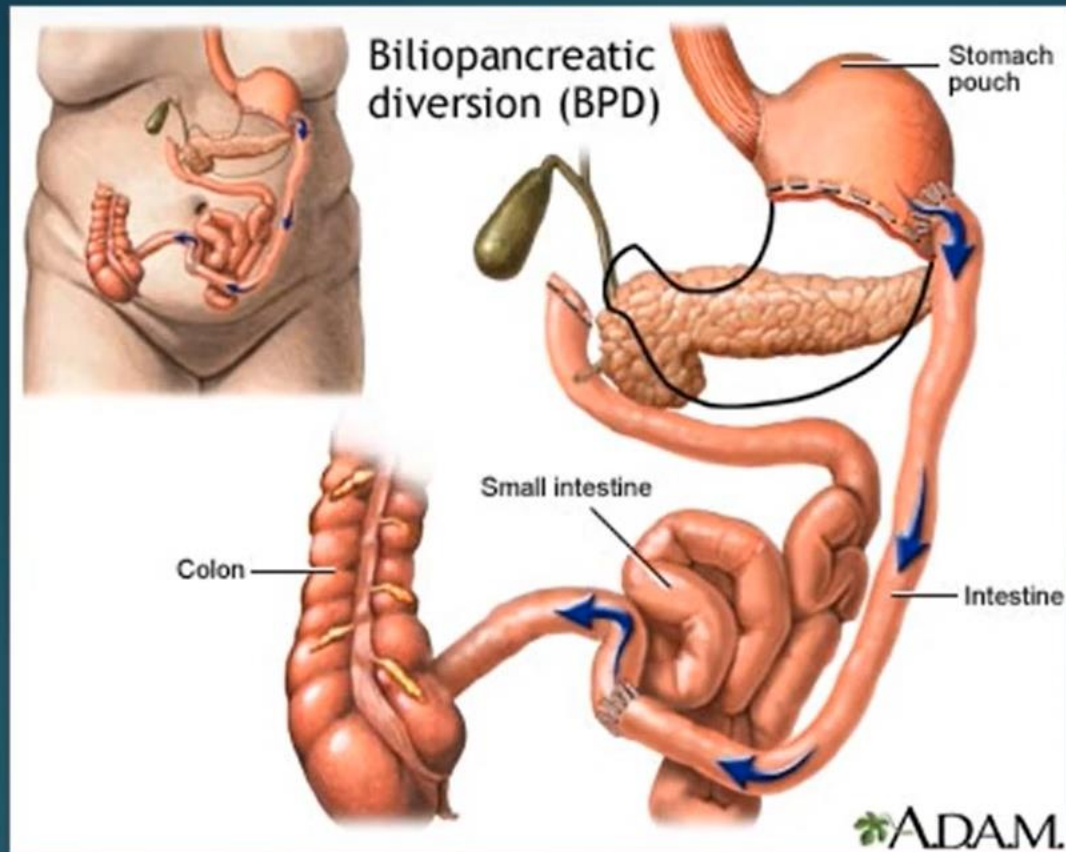




Pros	Cons
One anastomosis	Alkaline gastritis, esophagitis
reversible	Vitamins and minerals deficiency
Good EWL (same as LGBP)	No stents if leak occurs
Faster and easier than LGBP	Afferent and efferent loop syndrome
	Marginal ulcers

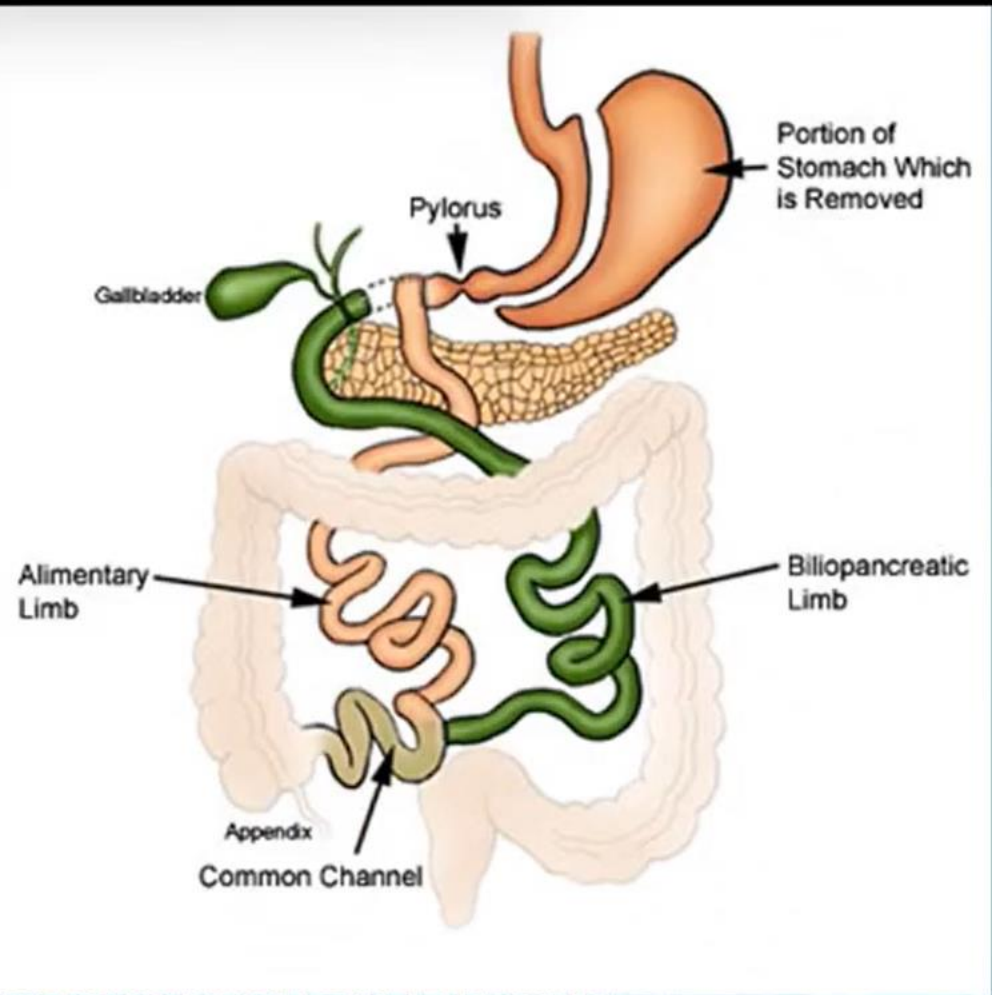
Less common procedures

- ▶ BPD
- ▶ Duodenal switch



Bilio-pancreatic diversion

- Limited horizontal subtotal gastrectomy to reduce oral intake
- The gastric pouch is larger
- Part of the small bowel is bypassed by construction of a long limb Roux-en-Y anastomosis with short common alimentary channel
- Risk of anastomotic leak and nutritional deficiency



Duodenal switch

- Sleeve gastrectomy rather than horizontal gastrectomy
- Can be used as a staged procedure after sleeve gastrectomy



Pros	Cons
Normal gastric emptying	Vitamin and mineral deficiencies
Highest resolution rate of DM type II and other comorbidities	Malodorous bowel motions and flatus
Highest EWL 80-90%	Diarrhea
Good option for BMI 50 kg/m ²	Technically difficult

summary

- ▶ Obesity surgery is the best available option for sustainable weight loss.
- ▶ There is no ideal procedure for all patients.
- ▶ The main targets of obesity surgery are (EWL, effect on comorbidities and QoL)
- ▶ Proper surgical technique with patient's commitment are important for good outcome.