Bariatric Surgery

Indications
- BMI ≥40 kg/m² — regardless of comorbidities
- BMI ≥35 kg/m² + comorbidity (diabetes, HTN, OSA, NAFLD, osteoarthritis etc.)
- Failure of conservative therapy
- Motivated & psychologically stable patient

Types
1. Sleeve gastrectomy
2. Roux en Y Gastric Bypass
3. Adjustable Gastric Band
4. Biliopancreatic Diversion with duodenal switch
5. Single Anastomosis duodeno ileal bypass with sleeve gastrectomy (SADI-S)

Restrictive Types
- Gastric banding
- Sleeve gastrectomy
- Roux en Y gastric bypass

Malabsorptive Types
- Biliopancreatic diversion
- Biliopancreatic diversion with duodenal switch

Gastric Banding

Sleeve Gastrectomy
- Stomach is reduced to about 15% of its original size, by surgical removal of large portion of stomach, following the major curve
- Open edges are then attached together (often with surgical staples) to form a sleeve or tube with a banana shape
- The procedure permanently reduces size of stomach
- Simple and shorter surgery time
- Can be performed in certain patients with high risk medical conditions
- May be performed as the first step for patients with severe obesity
- Non-reversibe procedure
- May worsen or cause new onset reflux and heartburn

Roux en Y Gastric bypass
- Long term sustained weight loss
- No protein-calorie malabsorption
- Little vitamin or mineral deficiencies
- A small, 15 - 30 ml pouch is created at the top of the stomach

- Gastrojejunostomy and jejunojejunostomy
- More vitamin and mineral deficiencies than sleeve gastrectomy or gastric banding
- There is risk of small bowel complications and obstruction
- There is a risk of developing ulcers, esp with NSAIDs or tobacco use
- May cause dumping syndrome - a feeling of sickness after eating or drinking, esp sweets

Adjustable Gastric Band

- A device made of silicone that is placed around top part of stomach to limit the amount of food a person can eat
- The impact on obesity related diseases and long-term weight loss is less than with other procedures

Biliopancreatic diversion with duodenal switch

- Begins with creation of tube-shaped stomach pouch similar to sleeve gastrectomy
- It resembles gastric bypass, where more of small intestine is not used
- Following creation of sleeve-like stomach, the first portion of small intestine is separated from stomach
- A part of small intestine is then brought up and connected to outlet of newly created stomach, so that when patient eats, the food goes through the sleeve pouch and into the later part of small intestine
- Among the best results for improving obesity
- It is most effective procedure for treatment of Tyle 2 diabetes
- Has slightly higher complication rates than other procedures
- Reflux and heartburn can develop or get worse

MCQ trick:

- What causes the greatest weight loss?”→ Duodenal switch
- Dumping Syndrome
  Early dumping (10–30 min after meal) - Due to rapid gastric emptying → fluid shift
  Late dumping (1–3 hrs after meal) - Due to hypoglycemia
- Nutritional Deficiencies
  After Gastric Bypass (RYGB) - Vit B12, iron, calcium, vit D, Thiamine
  After Sleeve - Less malabsorption but still risk of B12 and iron
- Best surgery for diabetes remission→ RYGB
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