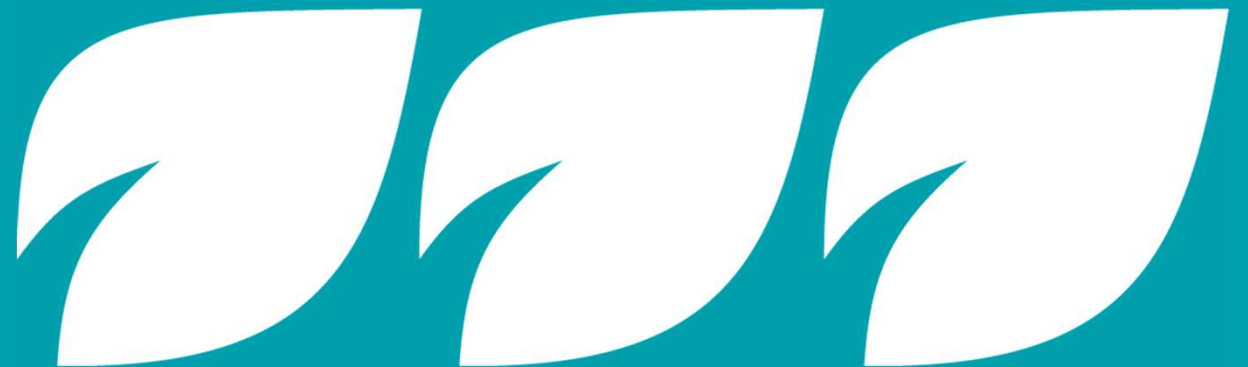


Bariatric surgery and tourism

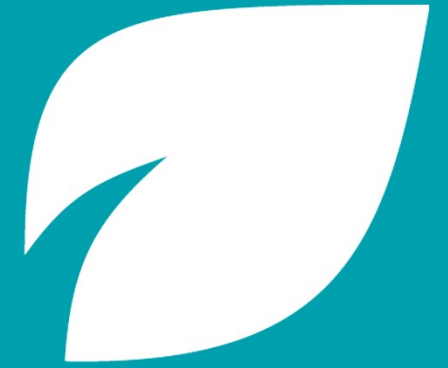
Ness Osborne



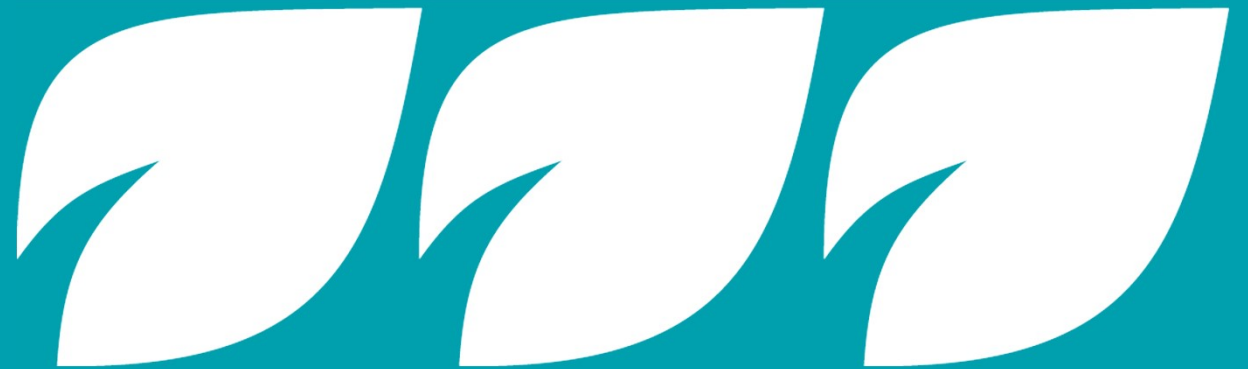
Overview

- Introduce the different types of bariatric operations
- Explore why patients might choose to travel abroad to have their surgery
- Discuss the factors that patients may not consider when travelling abroad for surgery

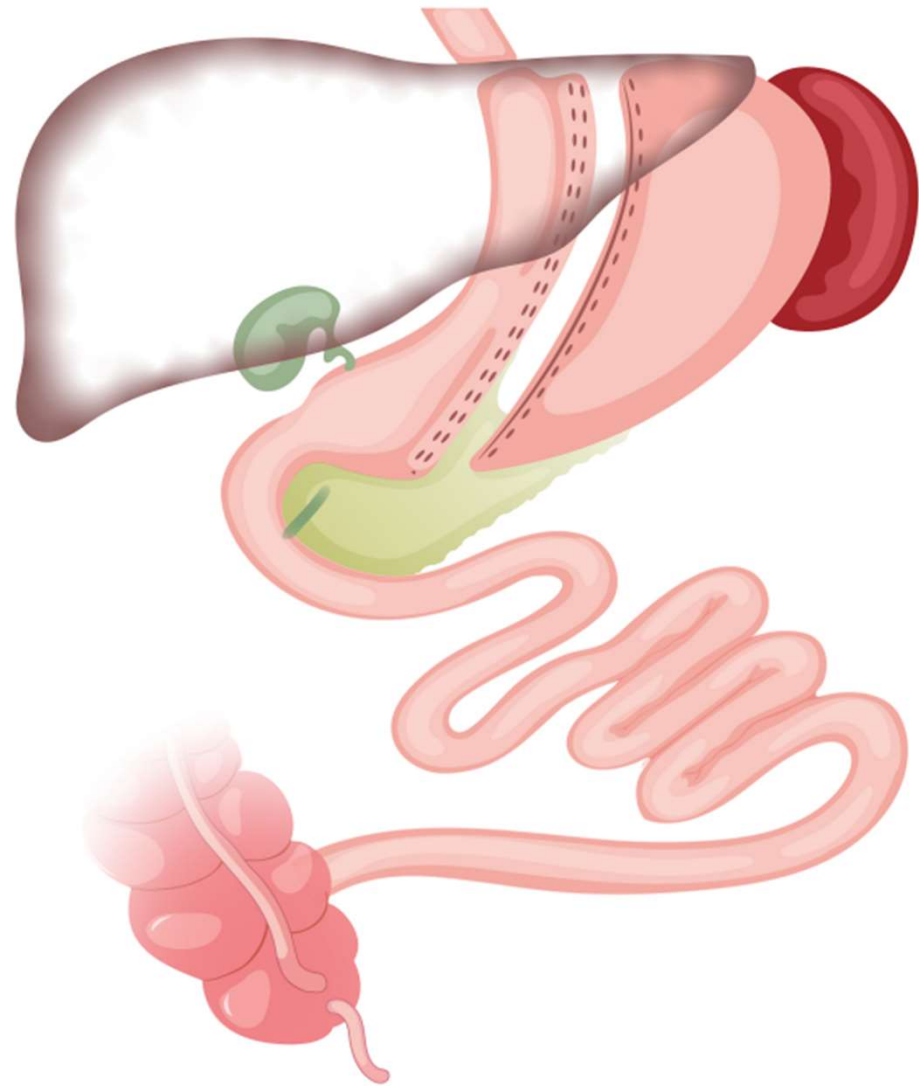




Types of surgery

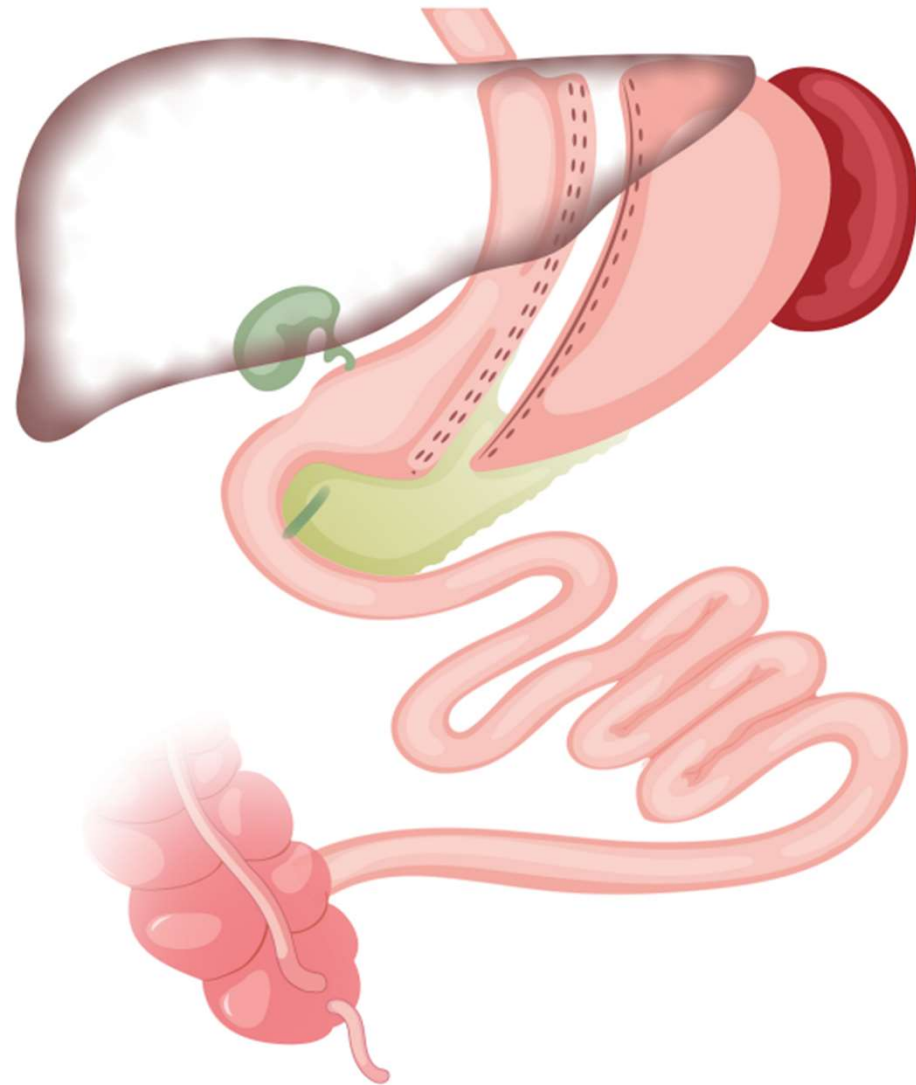


Sleeve Gastrectomy (SG)



- Removes approximately 75% of the stomach
- Restricts food intake
- Gastric emptying and intestinal transit increase

Sleeve Gastrectomy (SG)



Advantages over bypass

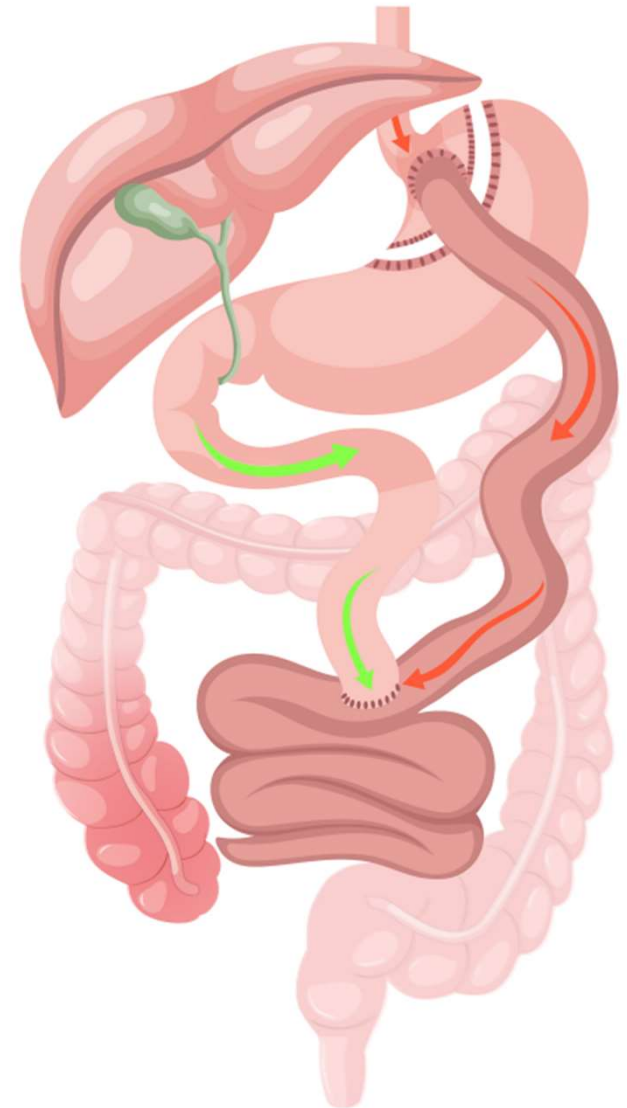
- Simpler and safer
- Less micro-nutrient deficiencies
- Lack of dumping syndrome
- Lower risk of gastric cancer that arises from the excluded remnant stomach

Disadvantages

- 1-2% risk of leakage due to the long staple line
- Sleeve leaks more difficult to manage
- Can have narrowing along the stomach pouch
- Acid reflux
- Not reversible

Roux-en-Y Gastric Bypass (RYGB)

- Stomach divided into two chambers using stapler
- Upper chamber holds ~ 30 ml
- Small intestine divided and connected (“anastomosed”) to the pouch.
- A second connection (“anastomosis”) is made to connect the disconnected stomach and duodenum to the small bowel.
- Digestive fluids can meet the ingested food enabling nutrient breakdown and absorption.
- Distance between the two connections can vary by surgeon preference but is generally 50 to 150 cm



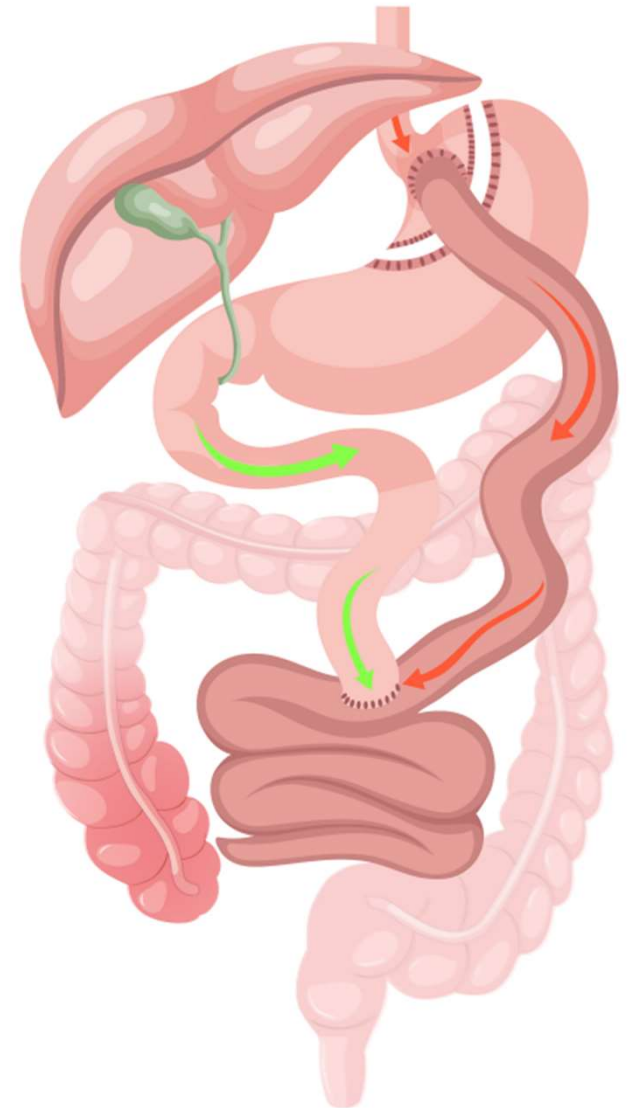
Roux-en-Y Gastric Bypass (RYGB)

Advantages

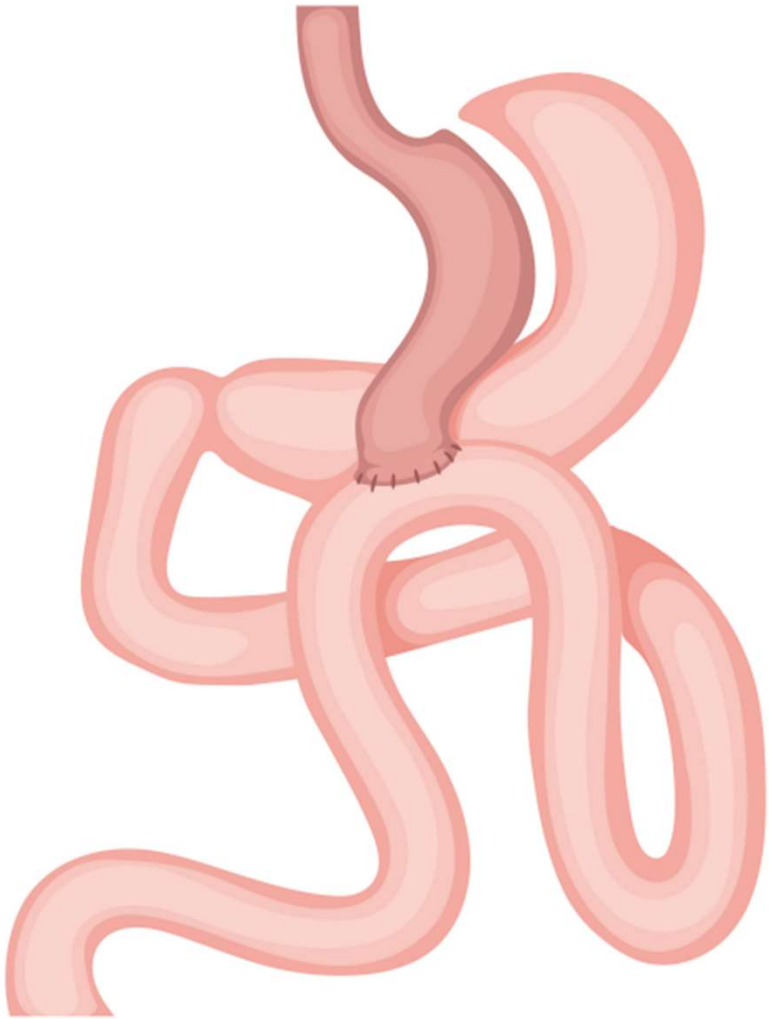
- Superior for weight loss and resolution of obesity related comorbidities
- Most cost-effective procedure for NHS
- Reversible

Disadvantages

- Risk of micronutrient deficiency- will need more supplementation
- Higher risk of ulcers

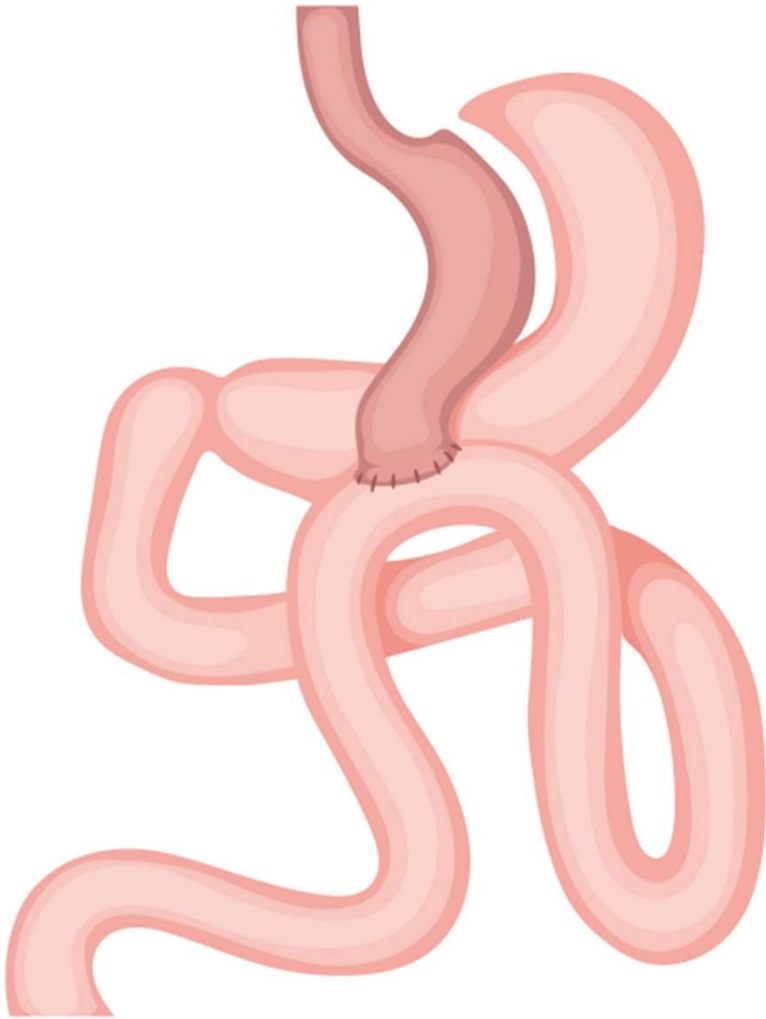


One Anastomosis Gastric Bypass (OAGB)



- Long and narrow – restrictive lesser-curvature gastric pouch
- A 150-200 cm jejunal bypass with a single antecolic gastro-jejunostomy (GJ) anastomosis, which leads to significant (fat-)malabsorption.

One Anastomosis Gastric Bypass (OAGB)



Advantages

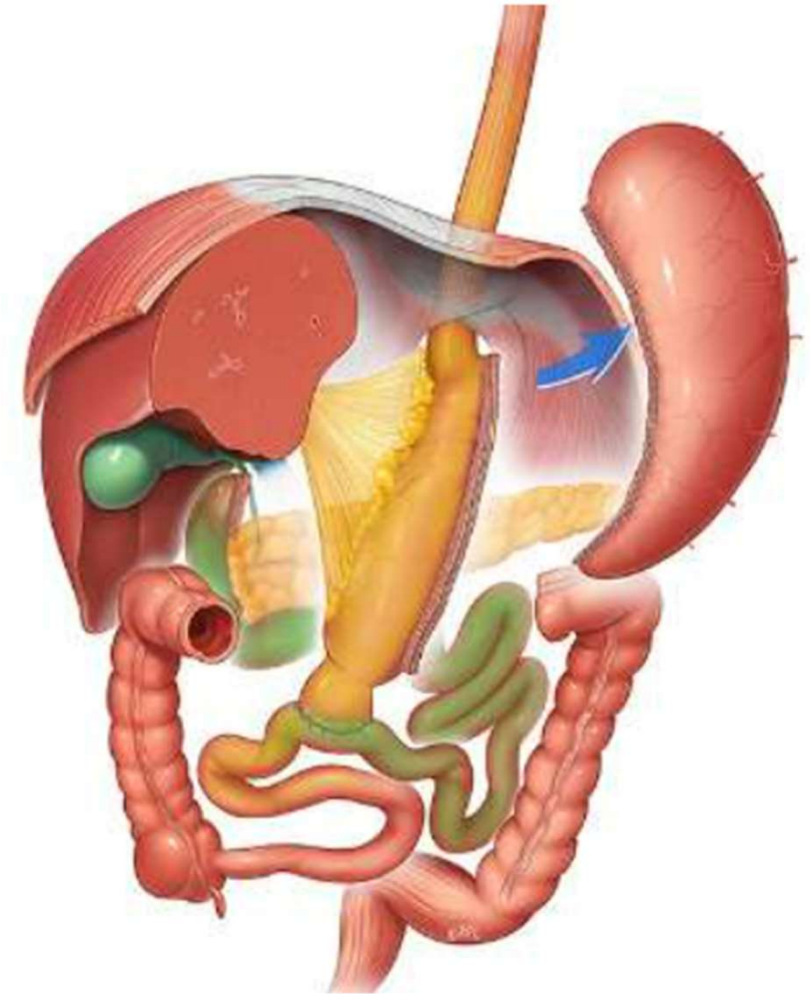
- Superior for weight loss and resolution of obesity related comorbidities
- Easily revisable
- Reversible

Disadvantages

- Risk of micronutrient deficiency- will need more supplementation

Single Anastomosis Duodenal-Ileal bypass with Sleeve (SADI-S)

- Sleeve gastrectomy performed
- Duodenum connected to the ileum, food bypassing a long segment of the small bowel, which remains in the abdominal cavity, but is excluded from the food circulation
- Anatomical changes decrease oral intake and reduce the absorption of the nutrients and calories eaten



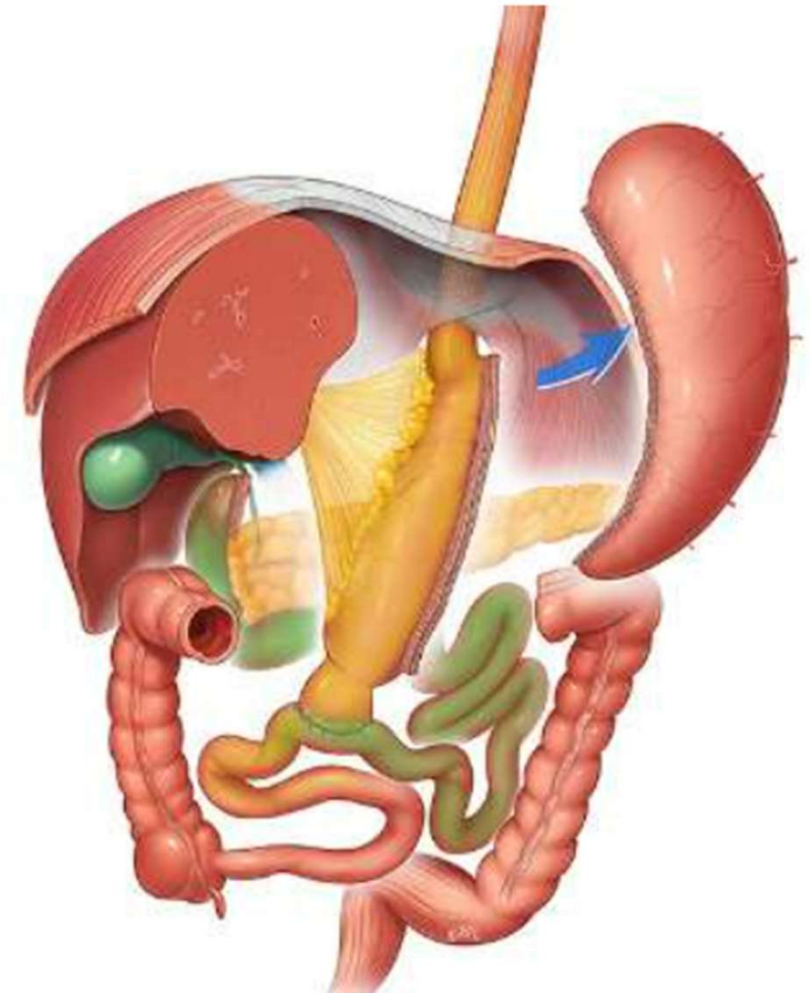
Single Anastomosis Duodenal-Ileal bypass with Sleeve (SADI-S)

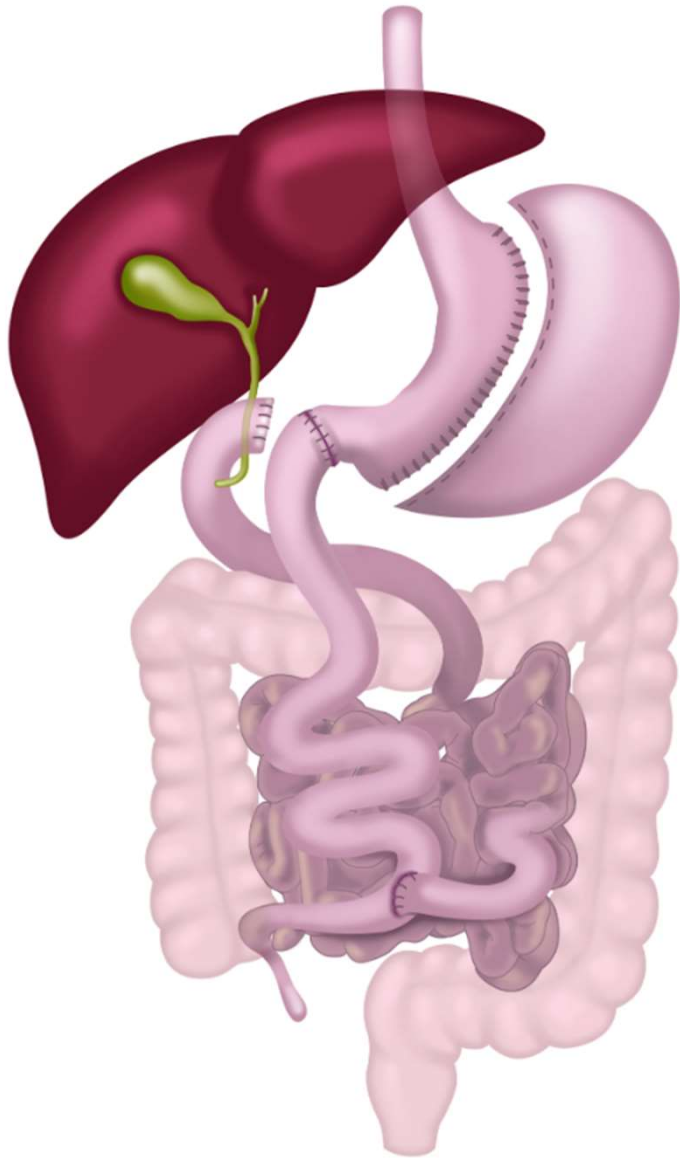
Advantages

- Up to 70% of excess of weight in one year
- Good resolution of comorbidities

Disadvantages

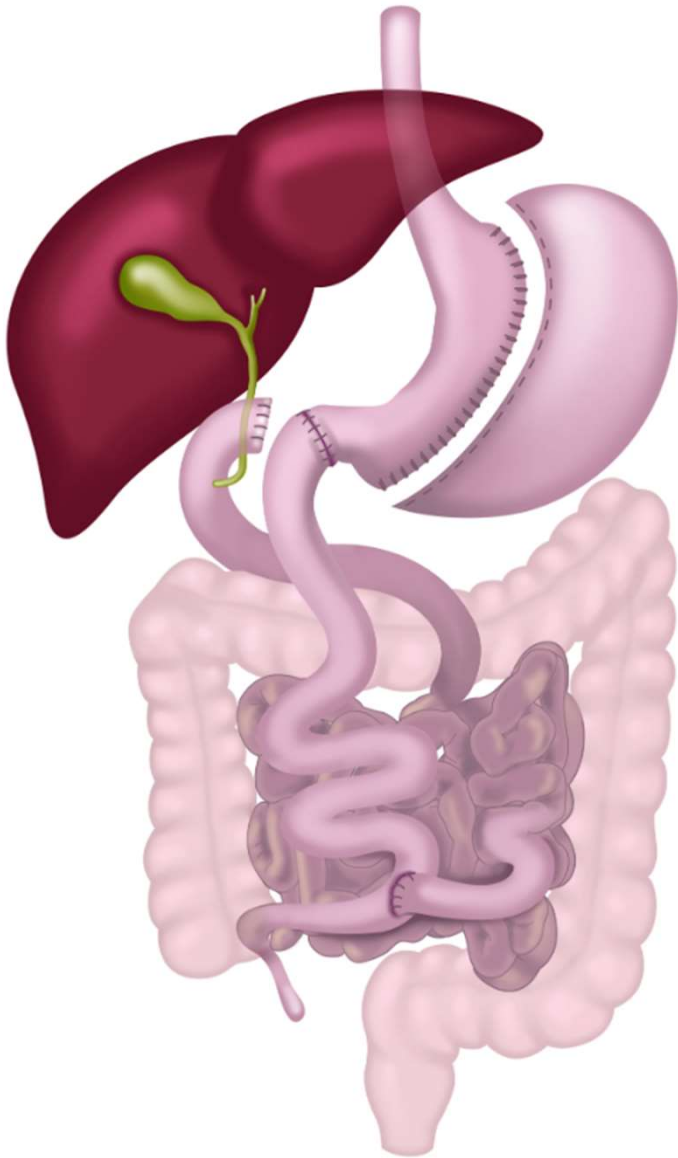
- Surgery much more complex and higher complication rate
- Extremely high risk of nutrient deficiency- will need more supplementation and close monitoring by GP
- High rate of biliary reflux





Biliopancreatic Diversion with Duodenal Switch

- Sleeve gastrectomy
- Duodenum cut and connected to the last 250 to 300 cm of small bowel, bypassing about 2/3 of the total length of small bowel.
- Bile juice is also diverted and mixes with food at the last 100 cm of the small bowel. Fat absorption occurs only in this short segment of intestine.
- Amount of food you can eat is reduced as well as the absorption of fat, proteins and calories.



Biliopancreatic Diversion with Duodenal Switch

Advantages

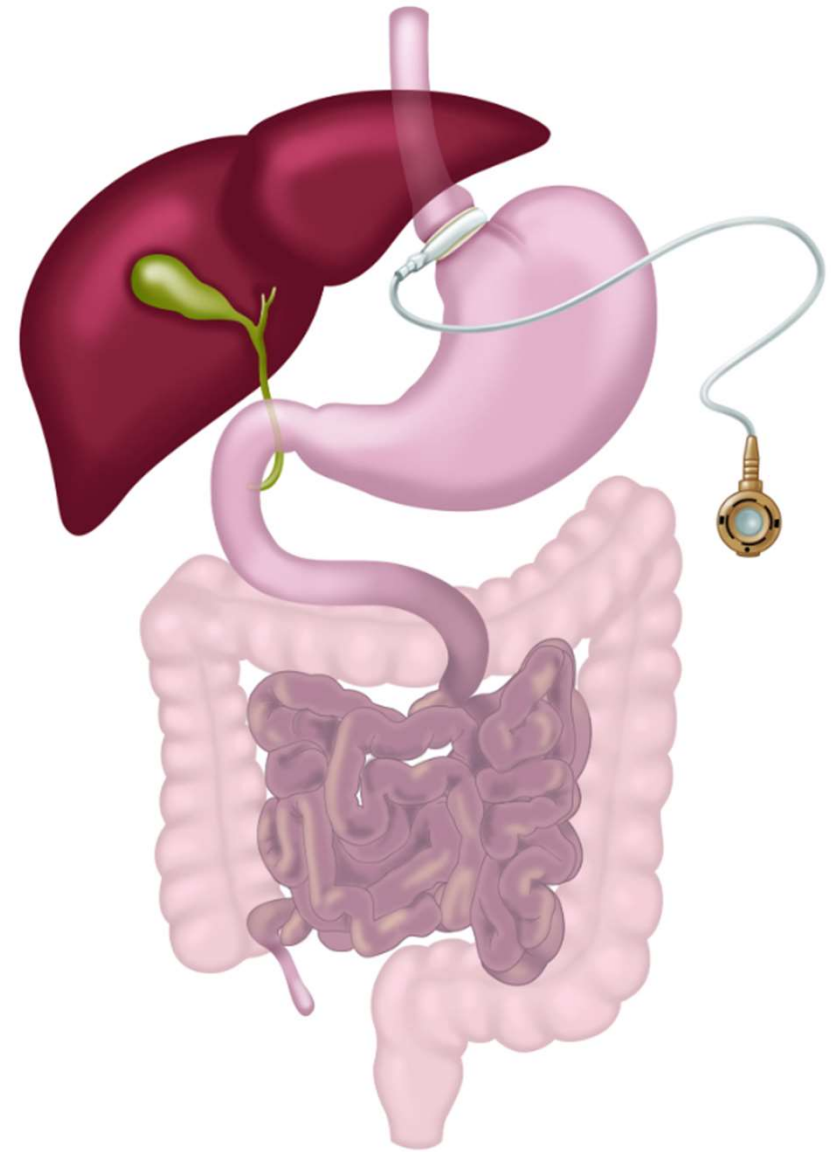
- Most effective in terms of weight loss and long-term resolution of comorbidities (40% weight loss)

Disadvantages

- Higher risk of post-op complications
- High risk of micronutrient deficiency- will need more supplementation
- GI side effects: increased frequency of bowel movements, bloating and malodorous gas

Adjustable Gastric Band

- Inflatable band positioned in the upper part of the stomach creating a small pouch above
- Band inflated through a port placed under the skin and connected to the band by a tube
- Sterile saline injected in the port causes distention of the band and consequently the stomach above the band
- Induces satiety and fullness, which helps to reduce calorie intake



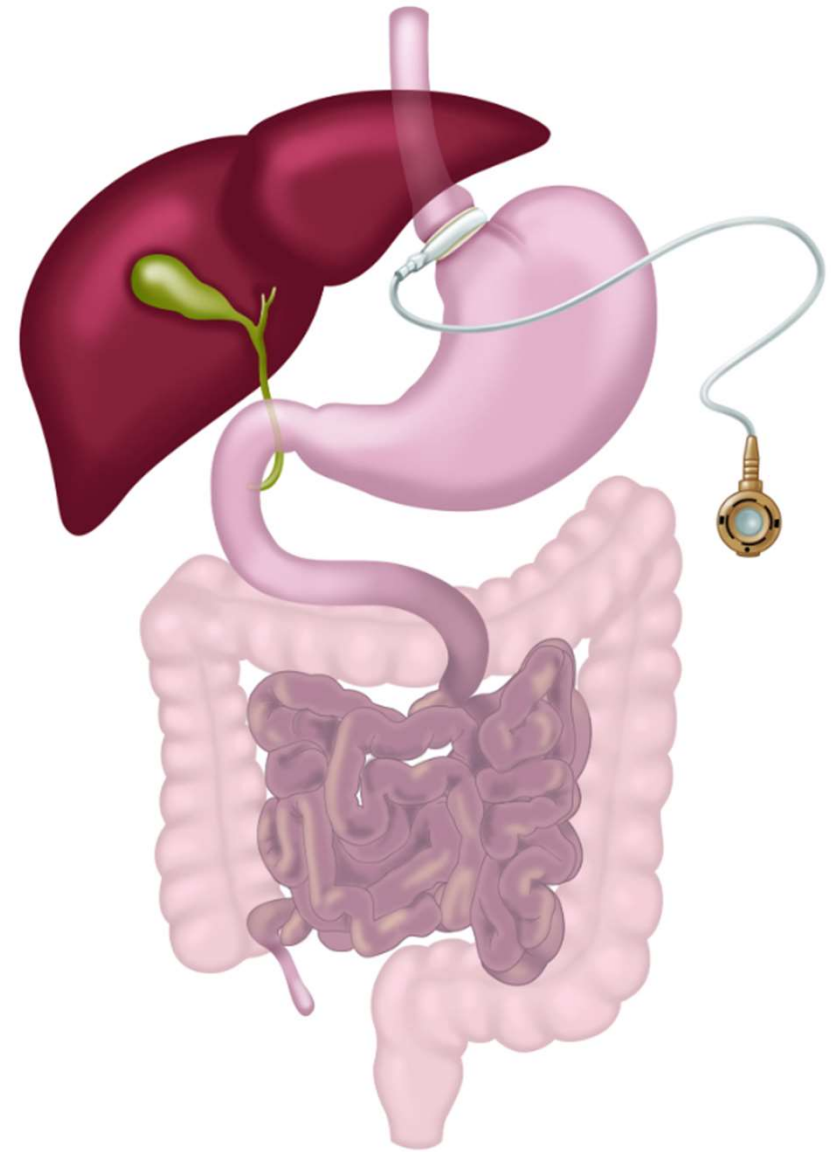
Adjustable Gastric Band

Advantages

- Absorption is not altered by this procedure
- No cutting/staple lines

Disadvantages

- Liquid calories can easily be ingested and limit the success of the technique
- High rate of reoperation or conversion to other surgeries for complications, side effects and insufficient weight loss or weight recurrence



How does BMS work?

Affects **gut hormones**
(ghrelin, GLP-1, PYY, OX)


reduced hunger, increased satiety, improved insulin secretion and improved glucose homeostasis.

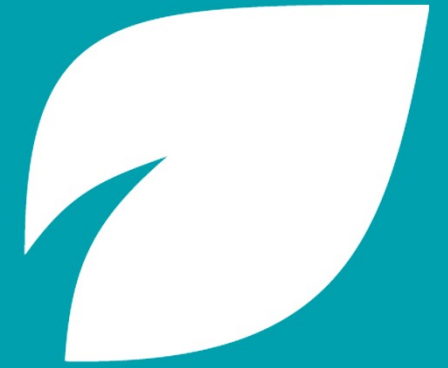
RYGB- bile acids act as endocrine factors by activating receptors in the terminal ileum and colon ->

increased levels of GLP-1 -> improved glycaemic control.

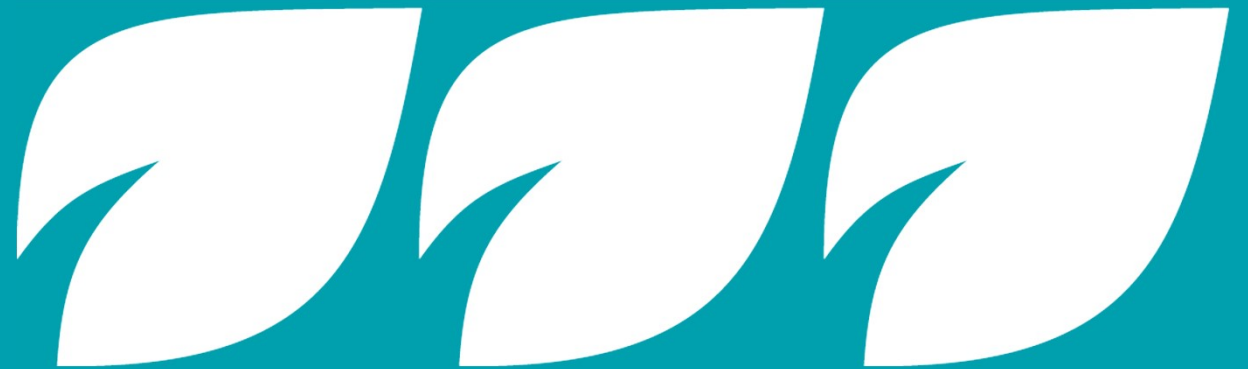
From changes in pH of the gastric remnant and proximal SI, in bile acid flow and nutrient metabolism

change in gut microbiota after RYGB





Why travel abroad?



Why travel abroad?



Cost vs. private in the UK



NHS waiting times for work up and surgery



Perception of surgeon skill set



Not aware of eligibility for surgery in UK

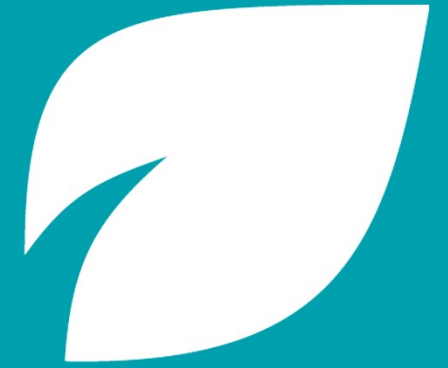


Travelling to country of origin

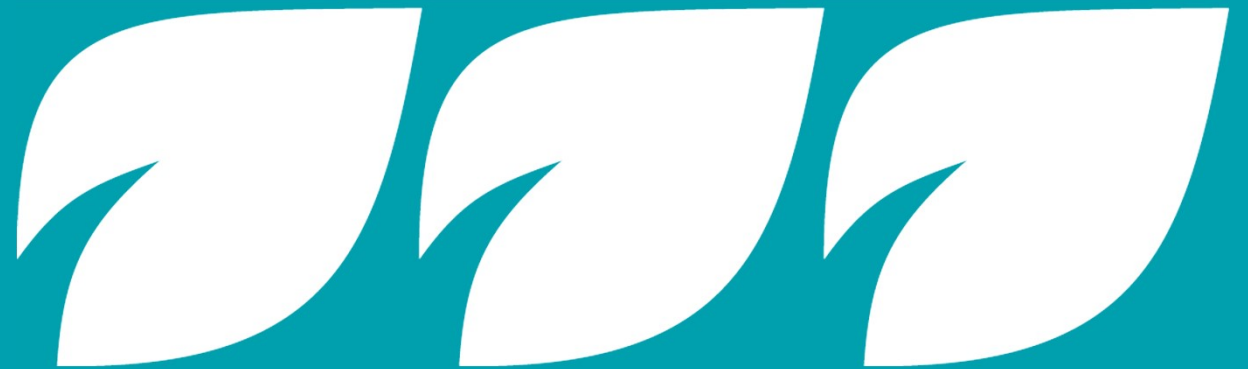


Unrealistic expectations



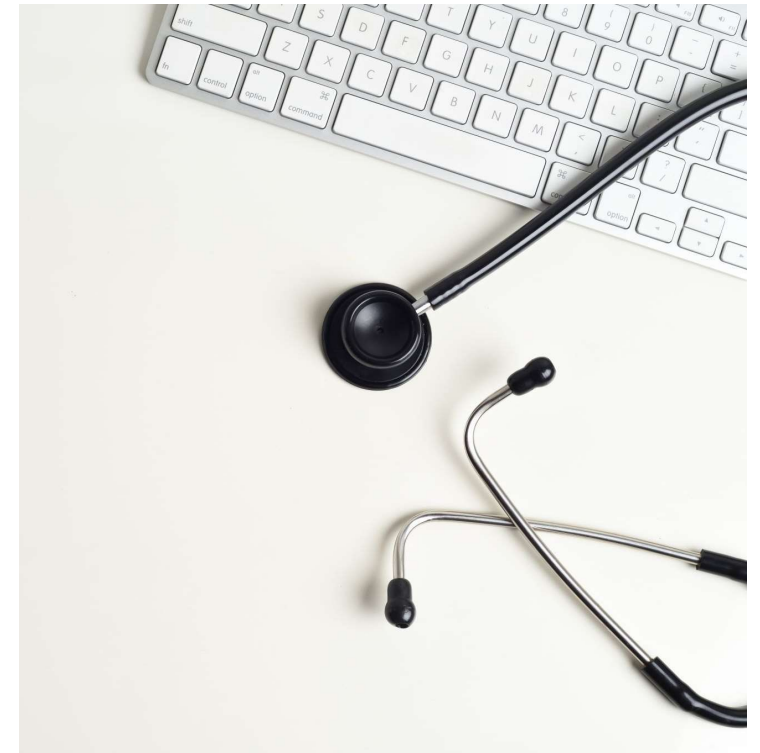


Why be concerned?



Considerations

- Not enough specialist pre-op assessment and counselling
- Procedure offered not always most appropriate
- Details of the operation done unknown, or a different procedure being done to the one the patient expected
- Unknown quality and safety of surgery
- Risks of long-distance travel immediately following operation, e.g. blood clot in the leg or lung (which can be potentially life-threatening)
- Poor or non-existent access to routine post-operative follow up care, increasing risk of outcomes such as weight recurrence and nutritional deficiencies
- No direct access to specialist care if a late complication develops (and most GPs are not proficient in bariatric surgery care)





References and Resources

- International Federation for the Surgery of Obesity (IFSO) – credit for images used
- Miss Aya Musbahi, consultant surgeon at South Tyneside and Sunderland Hospital- Credit for images used
- Statement on going abroad for weight loss surgery – British Obesity and Metabolic Surgery Society (BOMSS)

