



Diabetes Surgery

Laparoscopic Conventional
Roux-en-Y Gastric Bypass

RYGB

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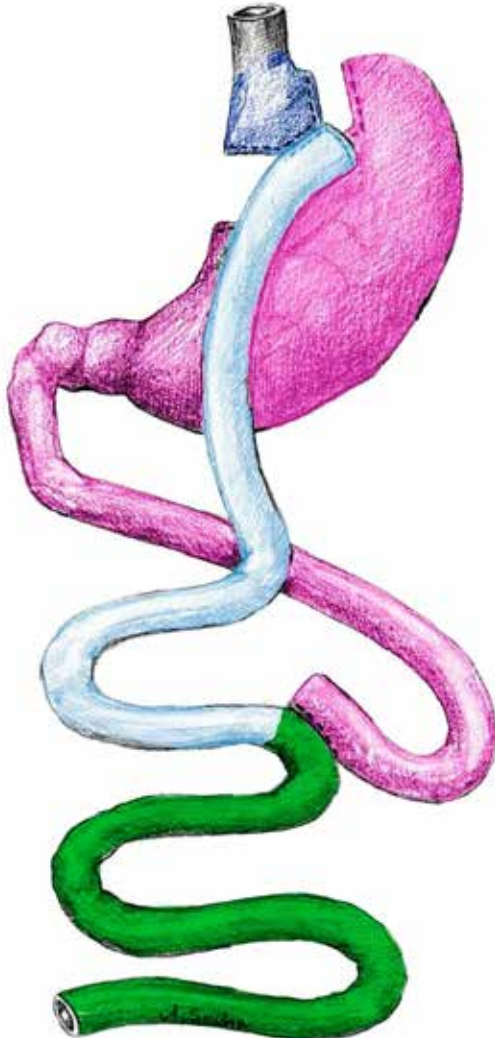
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Diabetes Surgery

1. General information



General information

Conventional Roux-en-Y Gastric Bypass (RYGB) is a well known bariatric surgical procedure. The operation reduces food intake and the absorption of nutrients because part of the intestines is bypassed and not used. The volume of the stomach pouch after LCRYGB is between 15 and 25 ml. The alimentary limb (AL, green in the image) in RYGB is 120–150 cm long, the biliopancreatic limb (BPL, pink in the image) consists of 50 cm of the small intestine.

Facts

Duration of surgery

- between 60 and 90 min.

Anaesthesia

- general anaesthesia

Hospitalisation

- 4-7 days

Typical patient

- Patients with BMI from 40 (or 35 with related diseases) to 50
- Patients who accept the intake of obligatory supplementation of vitamins and minerals
- sweet eaters
- patients with heartburn



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2. Before Surgery

Indications for RYGB

- BMI 40 (or 35 with related diseases) to 50
- treatment of:
 - diabetes mellitus type 2
 - arterial hypertension
 - other related diseases
- redo surgery after other metabolic operation in patients with high compliance
- accepts obligatory supplementation of vitamins and minerals
- sweet eaters
- patients with heartburn

Advantages

- successful (50-70% of excess weight loss)
- operation for patients, where restrictive procedures like Balloon Banding and Sleeve Gastrectomies have failed
- operation for stress eaters
- operation for patients with heartburn

Disadvantages

- sometimes dumping syndrome
- irreversible change in the anatomy
- lifetime vitamin and mineral supplementation after surgery
- conventional upper gastroscopy of duodenum and remnant stomach is
- not possible





Diabetes Surgery

3. The Surgery

Technical description

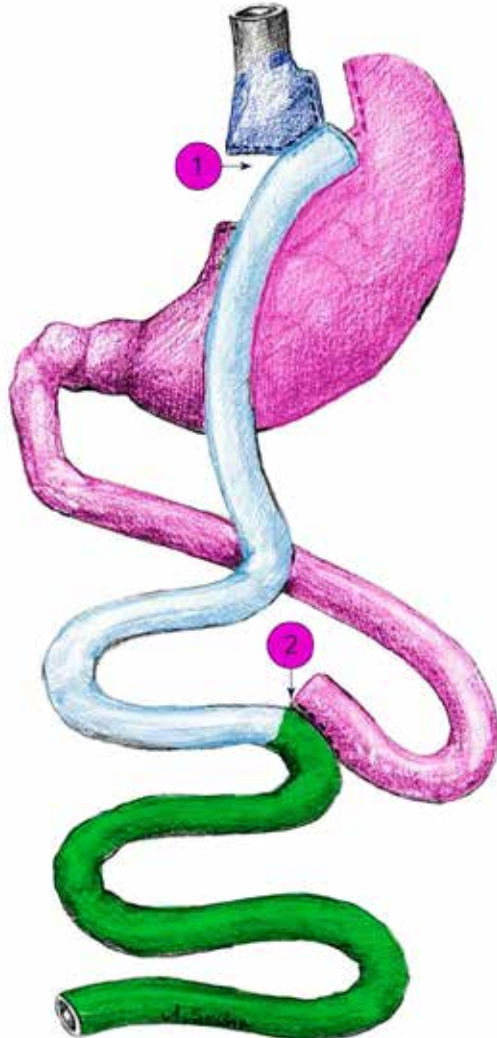
Laparoscopic Roux-en-Y Gastric Bypass reduces the size of the stomach through surgical stapling. This type of weight loss surgery cuts the stomach and leaves a reservoir, approximately the size of a walnut. Afterwards the biliopancreatic limb is measured (50 cm). The distal from separated intestines are connected to the stomach pouch (Gastro-enteroanastomosis GEA) mostly with the round stapling method. This causes the food to be directed immediately from the stomach to the jejunum. The small intestines junction called jejunojejuno anastomosis (JJA) is created 120–150 cm from the GEA.





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3. The Surgery



Stomach-Pouch Vol.: a. 20 ml

Alimentary Limb (AL) length: a. 150 cm

Remnant Somach und Biliopancreatic Limb (BPL)
length: a. 50 cm

Common Channel (CC) length:
the rest of small bowel

- 1 Gastro-jejunal Anastomosis
- 2 Jejun-jejunal Anastomosis



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4. After Hospitalization

Lab tests

- Morphology
- Electrolytes
- Ferrum
- Creatinin
- Liver ferments
- Vitamins B1, B12-level
- HDL, LDL, VLDL, Chol
- Ferritin
- Transferrin
- Zinc
- Magnesium
- 1,25-Dihydroxy-Vitamin D3
- Haemoglobin A1c

* after three and six months, then annually

Supplementation

- Calcium with Vitamin D3 2000 mg (with 130ug) per day
- Multivitamin + Minerals 1 tab. per day
- Fe+2 Iron 1 tab per day 30 mg – one week long in a month, (3 weeks without the Ferrum)
- Protein 50 g per day
- Vitamin B12 every 3 months i.m. (1000ug) or 25000 I.U. sublingual 2 times a week
- Vitamin B1 1 tab. 2.5 mg per day
- Zinc 1 tab. 15 mg per day
- Biotin, Selenium, Vitamin B9 (B11) daily for 3 months

Standard Medication after Operation

PPI 20 mg, 0-0-1 (3 months)

Sport and physical activity

- 3 weeks after operation – rest
- more than 3 hours of physical activity per week – sport medical supervision and medical advice required

Weight loss differences

The EWL after conventional RYGB reached 58.2% after five years in the best series. Bessler performed the first prospective study that directly compared the two operation methods. After the second or third postoperative year, the patient seems to adapt to the surgery and suffers side-effects in lower intensity, which brings a tendency to regain some of the lost weight.





Diabetes Surgery

4. After Hospitalization

Important tips

A team of experts must approve the surgery before RYGB operation.

Because we promote safe practice and your safety is of paramount high importance to us and to you, the disadvantages and advantages of the different procedures will be carefully explained to you in detail on consultation. In the preoperative period, you are provided with care from physicians, psychologists and nutritionists. This team of experts will give you accurate advice on all aspects of the postoperative period: What you can eat and drink, when and how often; what kind of exercises to perform; which individual therapy is necessary for specific issues related to your obesity.

You will have every opportunity to reduce your weight and improve your health. Just imagine the moment when you can wear size L clothes again. Discover your potential and improve your lifestyle. After surgery, you will normally lose approximately 40 kg in first 6 months, provided that you follow the nutrition plan, take exercise therapy and participate in scheduled group discussions.

Only if you are willing to change yourself you will achieve your goal, i.e. healthy weight loss. You must be aware that this will not always be easy. However, with every pound lost, you will win more quality of life, health and a longer life expectancy.

