

ا‌پروچ به مراقبت‌های پس از  
جراحی چاقی در خانم ۳۸ ساله  
در درمانگاه پزشکی خانواده

Group A1

خام ۳۸ ساله با سابقه دیابت نوع ۲ و BMI=38 , ۶ ماه گذشته تحت جراحی اسلیو قرار گرفتند و هم اکنون برای پیگیری به درمانگاه پزشکی خانواده مراجعه کردند.

# Background

- Obesity is a worldwide chronic condition that affects children, adolescents, and adults with huge health and economic impacts. As medical and behavioral approaches to weight loss may be ineffective for many individuals with obesity, bariatric surgical procedures are increasingly common worldwide.

## Indications

- Adults with a body mass index (BMI)  $\geq 35$  kg/m regardless of the presence, absence, or severity of comorbidities.
- Adults with a BMI between 30.0 and 34.9 kg/m and type 2 diabetes.
- Adults with a BMI between 30.0 and 34.9 kg/m who cannot achieve substantial or sustainable weight loss or comorbidity improvement with nonsurgical weight loss methods.

## Contraindications

- Glycemic or lipid control or cardiovascular risk reduction independent of the BMI parameters.
- Untreated or uncontrolled psychosocial disorders (eg, major depression, psychosis, bulimia, substance abuse).
- Inability to tolerate surgery (eg, severe cardiopulmonary disease, coagulopathy).
- Inability to comply with postoperative nutritional requirements (eg, vitamin supplementation).

## Laboratory studies


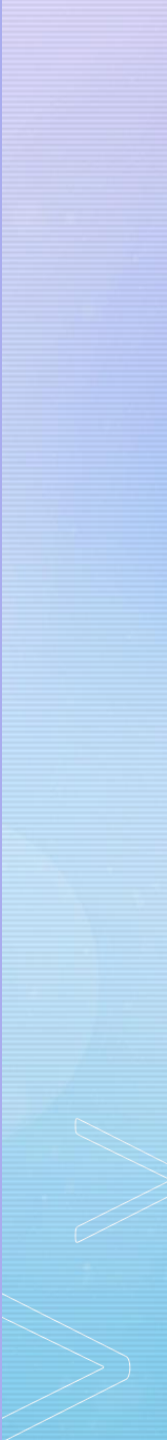
- Baseline glycated hemoglobin (A1C) and fasting glucose levels should be obtained in all patients seeking bariatric surgery. Patients with known or newly diagnosed type 2 diabetes or prediabetes should be treated before surgery, and early postoperative hyperglycemia should be avoided. In bariatric surgery, adverse outcomes have closer association with early postoperative glycemic control than with preoperative A1C value. Thus, bariatric surgery should not be delayed or withheld for a high preoperative high A1C value.
- A fasting lipid panel should be obtained in all patients seeking bariatric surgery. Those diagnosed with dyslipidemia should be treated.

- Do not obtain thyroid stimulating hormone (TSH) in asymptomatic patients, as TSH level can be elevated in euthyroid patients with obesity.
- Gastrointestinal assessment – Depending on the bariatric procedure planned and symptoms (eg, reflux, dysphagia), some patients may benefit from additional assessment of the upper digestive system, including possible upper gastrointestinal series, upper endoscopy, esophageal pH study, or manometry.
- Cancer screening – Obesity increases the prevalence of a number of malignancies. As such, patients seeking bariatric surgery should be encouraged to undergo age appropriate cancer screening such as colonoscopy and mammography.

# PREOPERATIVE INTERVENTIONS

- **Smoking cessation** (Stop smoking tobacco or marijuana at least six weeks before surgery.)
- **Alcohol cessation** (Avoid alcohol use for at least one year if there is a history of alcohol abuse. Stop alcohol use for at least one month prior to surgery, and counsel patients on the risk of developing alcohol abuse postoperatively.)
- **Estrogen cessation** (stop estrogen-containing oral contraceptives one month or hormone replacement therapy three weeks before surgery to reduce the risk of venous thromboembolism.)
- **Preoperative weight loss** (improve the technical ease of bariatric surgery by reducing the volume of the liver (by 15 to 30 percent) and overall adiposity./ Participate in a preoperative weight loss program with a low-caloric diet for 2 to 12 weeks before surgery.)



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- **Prehabilitation** (Prehabilitation programs are 4 to 12 weeks of supervised physical exercise, aggressive diabetes control, alcohol and tobacco cessation, and pulmonary interventions typically given as a part of Enhanced Recovery After Surgery (ERAS) programs. While there is general success with the use of ERAS protocols, the extent to which prehabilitation helps is unknown. With major abdominal surgery, prehabilitation has been shown to improve patient outcomes such as reduced overall and pulmonary complications and shorter length of stay; data are more limited in bariatric surgery. It is not known whether prehabilitation is required or can benefit laparoscopic bariatric surgery or a subset of individuals such as those with class 3 obesity. )
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## Types of bariatric procedures

### **Restrictive**

Vertical banded gastroplasty

Laparoscopic adjustable gastric band

Sleeve gastrectomy

### **Malabsorptive**

Jejunioileal bypass

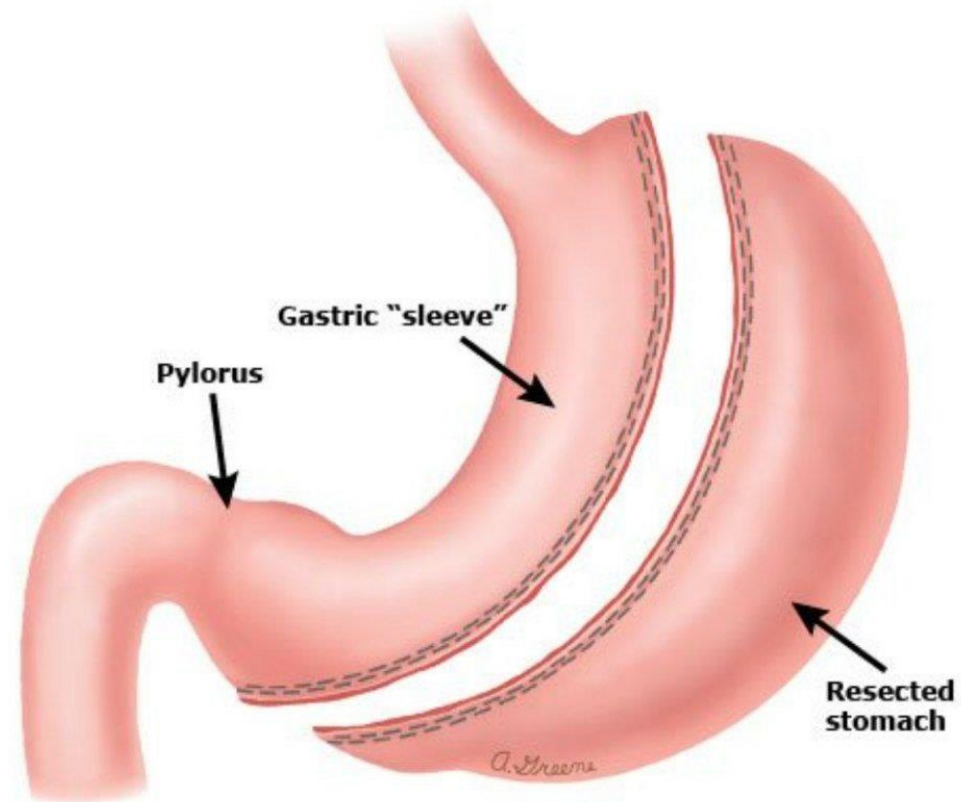
Biliopancreatic diversion

Biliopancreatic diversion with duodenal switch

### **Combination of restrictive and malabsorptive**

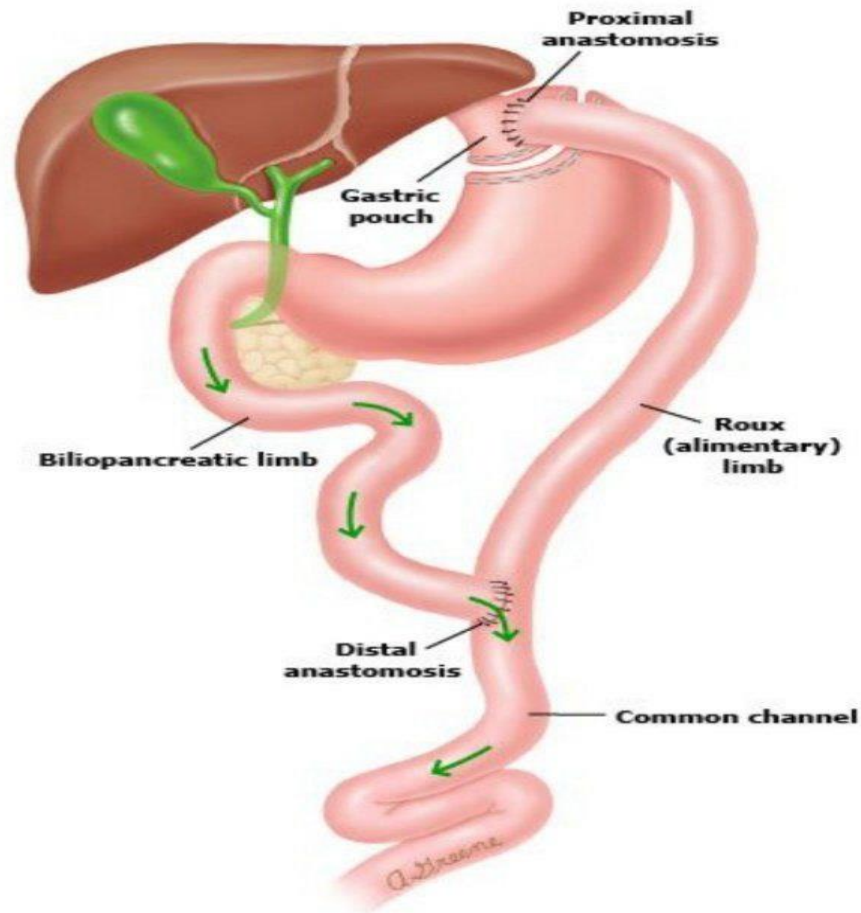
Roux-en-Y gastric bypass

## Sleeve gastrectomy



In a sleeve gastrectomy, the majority of the greater curvature of the stomach is removed and a tubular stomach is created. The tubular stomach has a small capacity, is resistant to stretching due to the absence of the fundus, and has few ghrelin (a gut hormone involved in regulating food intake)-producing cells.


## Components of Roux-en-Y gastric bypass procedure



This figure depicts the components of a Roux-en-Y gastric bypass (RYGB) procedure. RYGB involves the creation of a small gastric pouch and an anastomosis to a Roux limb of jejunum that bypasses 75 to 150 cm of small bowel, thereby restricting food and limiting absorption.


## ■ In-hospital postoperative care

- For the first 24 hours after the bariatric operation, the postoperative priorities include control of pain, nausea and/or vomiting, intravenous fluid management, pulmonary hygiene, and ambulation.

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- Patients undergoing laparoscopic Roux-en-Y gastric bypass (RYGB) or sleeve gastrectomy (SG) are discharged on postoperative day 1 or 2, providing they are tolerating a clear liquid diet. The rare patients who have an open procedure remain hospitalized for a day or two longer or until they are able to tolerate a liquid diet and ambulate.

## Complication and follow-up

- Call surgeon if: Temperature greater than 100.5°F (38.1°C), severe abdominal pain, redness around the incisions, drainage from the incisions, vomiting, chest pain, shortness of breath, or severe pain, warmth, or redness in the calf
- In the absence of postoperative complications, patients who had an RYGB or SG are typically scheduled for routine office visits at **two and four weeks following discharge; then at 3, 6, and 12 months; then annually.**

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- Postoperative tests: (Hypertension, Diabetes (HbA1C) every visit, Ca, Fe, B12, D, Folate, Thiamine every 6M for first 2 years and then annually, HDL, LDL, Chol accordingly, Sleep apnea 6-12M later)



## Postoperative care after discharge:

- Nutrition and supplementation:
- Nutrition and supplementation Within the first 14 days after bariatric surgery, vitamin and mineral supplementation consists of a daily multivitamin for all patients. Additional routine supplementation for RYGB patients with oral vitamin B12 500 micrograms daily, vitamin C 500 mg daily (taken with iron), calcium carbonate or citrate 500 mg twice a day, and ferrous sulfate 325 mg daily. Calcium and iron supplementation should not be administered simultaneously. SG patients should receive a multivitamin, vitamin B12, and iron supplementation. Both RYGB and SG patients are at risk of vitamin D deficiency and require routine supplementation with vitamin D3 2000 international units daily.

## Postoperative care after discharge:

- Diet : Diet avoid concentrated sweets and to avoid carbonation and straws when drinking liquids to minimize gastric bloating. For patients undergoing an RYGB or SG procedure, they are instructed to limit oral intake to clear or full liquids for the first two weeks after discharge. They should consume 64 ounces (1.89 liters) of liquids daily since dehydration is a common reason for readmission. Patients are then advised to consume a pureed diet or full liquids for the next two weeks, then a soft diet for two months. At the third postoperative month, the patients are advanced to a regular diet.

## Postoperative care after discharge:

- Activity restrictions
- Discharge with Oxycodone and Acetaminophen. Never NSAID!


## Prevention Levels for Obesity:

- Primordial Prevention:
- Community Education Programs: Initiatives that promote healthy eating and physical activity from early childhood, such as the Coordinated Approach To Child Health (CATCH) program in schools, which teaches children about nutrition and exercise.



- Primary Prevention:
- Diet and Exercise Counseling: Healthcare providers advising healthy-weight individuals on maintaining a healthy lifestyle through balanced diets and regular exercise. For instance, programs targeting families to change eating habits and increase physical activity can prevent obesity onset.



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- Secondary Prevention:
  - 1. Weight Management Programs: Interventions for overweight individuals, such as counseling sessions focused on weight loss strategies and lifestyle modifications, often integrated into healthcare settings. Programs may include monitoring BMI and providing personalized nutrition plans to reduce health risks associated with obesity.
  - 2. Drugs
  - 3. surgery



- Tertiary Prevention:
- Rehabilitation and reduce the effects of the disease
- Bariatric surgery



- Quaternary Prevention:
- Not prescribing medicine or surgery without indication, Not prescribing drugs that cause weight gain.







- Thank you for your attention.

