### Introduction and Descriptions of Bariatric Surgeries

- Obesity (BMI > 30 kg/m²) is associated with an increased risk of developing chronic diseases, including:
  - Type 2 diabetes, hypertension, and hyperlipidemia
- Obesity prevalence in American adults aged 20+ in 2015-16 was 39.8%.
- Bariatric procedures can be classified as restrictive, malabsorptive, or both:
  - Restrictive procedures:
    - Cause weight loss via a reduction in the amount of food ingested
    - Typically involve exclusion of part of the stomach
  - Malabsorptive procedures:
    - Result in weight loss by decreasing the amount of nutrients absorbed from the gastrointestinal tract
- Common procedures in the USA:
  1. Laparoscopic sleeve gastrectomy
     - A restrictive procedure
     - Involves excision of the greater curvature of the stomach
     - Produces early satiety and weight loss from decreased caloric intake
  2. Roux-en-Y gastric bypass
     - A combined restrictive and malabsorptive procedure
     - Attaches the proximal jejunum to a gastric pouch and bypasses the bilipancreatic limb
     - Causes weight loss by decreased caloric intake, decreased digestion in the stomach, and decreased absorption in the small bowel
  3. Laparoscopic adjustable gastric banding
     - A restrictive procedure
     - A plastic band is placed around the fundus of the stomach, creating a small pouch
     - Inflating or deflating the band as needed causes early satiety and decreased oral intake

### Common Complications of Bariatric Procedures

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### Clinical Pathway for Emergency Department Management of Patients with Bariatric Surgery Complications

- **Early Complications (days to weeks after surgery)**:
  - Primary complaints: Dizziness, nausea, vomiting
  - Consider anastomotic/staple line leaks, obstruction with bowel ischemia, or hemorrhage
  - Consider CT or x-ray if patient can be stabilized
  - Obtain emergent surgical consultation for laparoscopy or band deflation

- **Late Complications (weeks/months/years after surgery)**:
  - Primary complaints: Abdominal pain, nausea, vomiting
  - Obtain laboratory studies, urinalysis
  - Imaging (CT, upper GI series, plain x-ray or EGD)
  - Surgical consultation

- **UNSTABLE**:
  - Complete initial assessment
  - Airway
  - Breathing
  - Circulation

- **STABLE**:
  - Obtain a detailed surgical history, including the timeline since the operation and associated symptoms
  - Perform physical examination: evaluate for abdominal tenderness or distension, skin changes at the operative site, evidence of dehydration

- **Primary complaints: Abdominal pain, shortness of breath**
  - Cardiac
  - Obtain laboratory studies
  - Obtain ECG (evaluate for cardiac pathology)
  - Obtain chest x-ray (evaluate for pulmonary pathology)
  - Consider CT pulmonary arteries (evaluate for pulmonary embolus)

- **Primary complaints: Neurologic symptoms; likely marginal ulcers or reflex**
  - Proton pump inhibitors, H2 blockers
  - Consider H2 pyrid treatment if the patient tests positive
  - Avoidance of NSAIDs, smoking cessation
  - May consider imaging (upper GI series, endoscopy)

### Citations
- https://www.mhealth.org/sites/default/files/online_images/Gastric-Band-compression.jpg
- https://apog.mayo.org/posterimage/swe/cec/2015/12/9544/mediala/65463/mashheight=300/mashwidth=300