

In the name of God

**Nutrition in upper
gastrointestinal
diseases**



gastroesophageal reflux disease(GERD)and esophagitis

- Gastroesophageal reflux (GER) is considered normal physiologic process that occurs several times a day in healthy infants, children, and adults.
- Gastroesophageal reflux disease (GERD) is a more serious, chronic form of GER, with symptoms or complications resulting from there flux of gastric contents into the esophagus or beyond ,and even into theoral cavity(including larynx)or lung.

Symptoms

- Gastrointestinal reflux
- Heartburn
- Pain under the sternum
- Belching
- Esophageal spasm

Other symptoms of reflux

- Laryngeal irritation
- Repeat in smoothing the sound
- Hoarseness
- Worsening asthma symptoms

Etiology of esophagitis

- Prolonged exposure to acid
- Reflux
- Swallowing corrosive substances
- Viral or bacterial infections
- Intubation in the esophagus
- Radiation
- Influence of eosinophils
- Smoking
- Aspirin or nonsteroidal anti-inflammatory drugs

Severe esophagitis and problems

- Gastric reflux composition
- Frequent gastric reflux
- Gastric reflux volume
- The length of the esophagus faces gastric reflux
- Health of esophageal mucosal barrier
- Stomach emptying rate

- Types of erosion
- Nocturnal GERD
- Inflammation of the esophagus and Barrett' esophagus

What are the factors associated with GERD?

- Obesity
- Waist circumference
- Weight Gain
- Stress
- Increasing gestational age
- Heartburn before pregnancy
- Previous deliveries
- Hiatal hernia

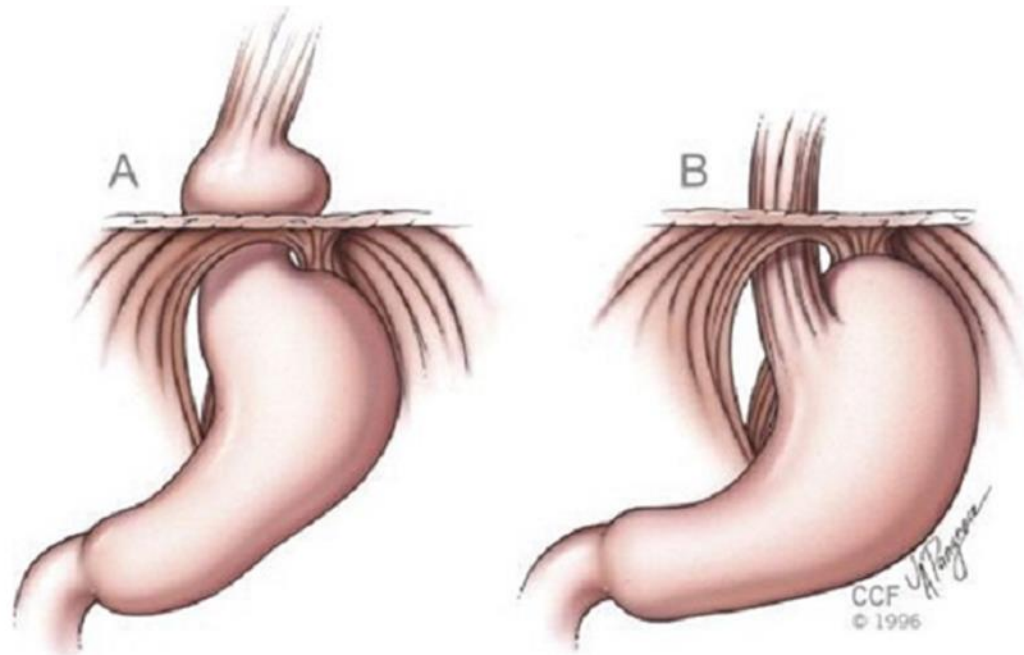


FIG. 26.2 A, Hiatal hernia. B, Postsurgical reduction of hiatal hernia. Source: (Cleveland Clinic, Cleveland, Ohio.)

- Chronic obstructive pulmonary disease (COPD)
- Decreased salivation
- Transient lower esophageal sphincter (LES) relaxation
- Reduced LES pressure
- Impaired esophageal acid clearance
- Increased esophageal sensitivity
- Acid pocket
- Increased intraabdominal pressure
- Delayed gastric emptying

Clinical Symptoms Associated with Gastroesophageal Reflux Disease (GERD)

- Dental corrosion
- Dysphagia
- Heartburn (pyrosis)
- Odynophagia
- Regurgitation
- Noncardiac chest Pain
- Extraesophageal symptoms

medical and surgical management

- Proton pump inhibitors
- H2 receptor
- Prokinetic agents
- Surgery by Nissen fundoplication

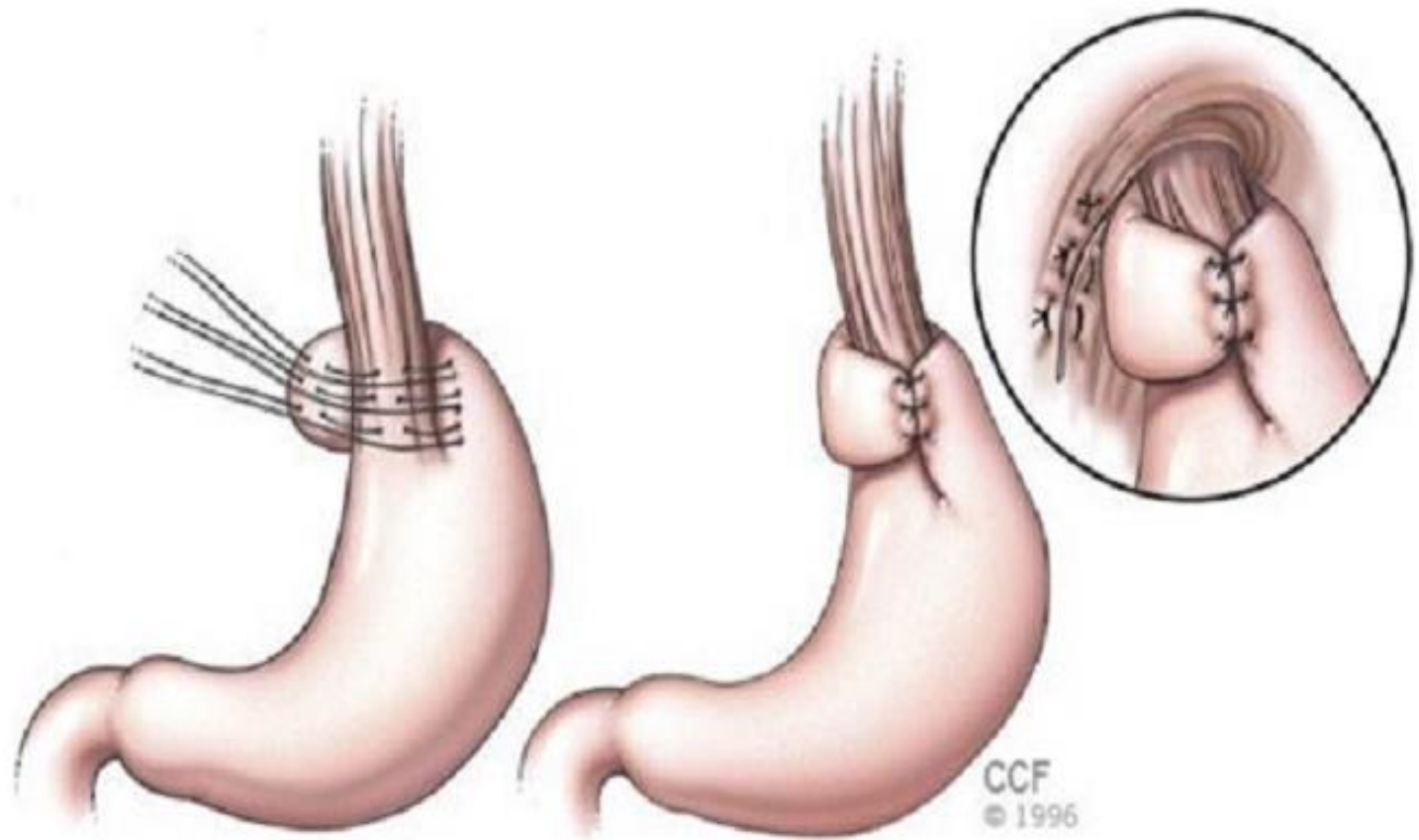


FIG. 26.3 Nissen fundoplication. *Source:* (Cleveland Clinic, Cleveland, Ohio.)

Nutrition Care Guidelines for Reducing Gastroesophageal Reflux and Esophagitis

1. Nutrition Recommendations:

- Avoid large, high-fat meals and decrease greasy foods.
- Avoid eating 2 to 3 hours before lying down.
- Avoid chocolate, mint, tomatoes, and tomato products.
- Avoid caffeine-containing foods and beverages.
- Avoid alcoholic beverages.
- Avoid acidic and highly spiced foods.
- Consume a well-balanced diet with adequate fiber.
- Consider weight loss if overweight or obese.
- Choose smaller, more frequent meals rather than three larger meals each day.

2. Lifestyle Recommendations:

- Elevate the head of bed by 6 to 8 inches for individuals who have reflux episodes at night.
- Quit smoking and avoid secondhand smoke and alcoholic beverages.
- Reduce overall stress levels when possible.
- Wear loose-fitting clothing around the stomach area, as tight or constricting clothing can worsen reflux.

gastritis and peptic ulcers

- Gastritis is a nonspecific term literally meaning inflammation of the stomach.
- Acute gastritis refers to rapid onset of inflammation and symptoms.
- Chronic gastritis may occur over a period of months to decades, with reoccurring symptoms.

symptoms

- nausea
- vomiting
- malaise
- anorexia
- hemorrhage
- Epigastric pain

causes of peptic ulcers

- Helicobacter pylori
- Gastritis
- Take aspirin
- Non-steroidal anti-inflammatory drugs
- Corticosteroid drugs
- Stress

Helicobacter pylori

- Gram-negative bacteria
- Acid resistant
- Responsible for most chronic cases of gastritis and peptic ulcer
- H. Pylori is a known underlying cause noncardia gastric cancer
- It is spread through contaminated water and food

treatment of Helicobacter pylori

- Two antibiotics :(Clarithromycin and Amoxicillin or Metronidazole)
- Proton pump inhibitors
- Probiotics
- Fatty acids n3
- Polyphenols

gastric versus duodenal ulcers

- Bleeding control
- Treatment of *H. pylori*
- Surgery

stress ulcers

- Stress ulcers may occur as a complication of metabolic stress caused by trauma, burns, surgery, shock, renal failure, or radiation therapy.

medical nutrition therapy

- Evaluate the status of vitamin B12
- Helicobacter pylori eradication
- diet

Carcinoma of the stomach

- The second leading cause of death in the world
- The cause of gastric cancer is multifactorial, but more than 80% of cases have been attributed to H. Pylori infection.

etiology

- H.pylori
- diet
- lifestyle
- genetic
- socioeconomic
- Other factors

treatment

- partial or total gastrectomy
- Diet

□ Postoperative medical nutrition therapy

❖ Nutritional complications after gastric surgeries:

- obstruction
- dumping
- Abdominal discomfort
- diarrhea
- Weight loss

Dumping syndrome

- The dumping syndrome is a complex GI and vasomotor response to the presence of large quantities of hypertonic foods and liquids in the proximal small intestine.
- Dumping syndrome usually occurs as a result of surgical procedures that allow excessive amounts of liquid or solid foods to enter the small intestine in a concentrated form.

Pathophysiology

- Early dumping:
- Abdominal pain
- bloating
- nausea
- vomiting
- diarrhea
- headache
- flushing
- fatigue
- hypotension

- Late dumping:
- perspiration
- weakness
- confusion
- shakiness
- hunger
- hypoglycemia

medical management

- dietary changes
- Medication
- Surgery

medical nutrition therapy

- consumption of proteins and fats
- limit simple carbohydrates
- avoid consuming liquids after meals
- lying down after eating
- use of soluble fiber supplements
- in case of lactose intolerance, relevant recommendations
- relevant recommendations in the presence of steatorrhea

basic guidelines for dumping syndrome

- Eat six to eight small meals throughout the day.
- Drink fluids between meals or at least 30 to 40 minutes before a meal.
- Eat slowly and chew well.
- Avoid foods that are too hot or too cold.
- Lie down or recline for at least 30 minutes after eating.

Con't

- Limit simple carbohydrate foods and liquids with more than 12 grams of sugar per serving
- Choose foods that are higher in soluble fiber
- Choose foods that are higher in soluble fiber
- Include a protein-containing food at each meal

Con't

- Add a serving of fat to meals as tolerated
- Minimize fried foods
- Milk and dairy products may not be tolerated in the lactose intolerant. Introduce these slowly in the diet if they were tolerated preoperatively
 - Avoid sugar

Thank you for your attention

be healthy

