- **ESOPHAGEAL DIESASE**

ESOPHAGEAL DIESASE…

ACHALASIA

- A Greek word to mean **failure to relax**
- Is absent or ineffective peristalsis of the distal esophagus, accompanied by failure of the esophageal sphincter to relax in response to swallowing
- Narrowing of the esophagus above the stomach results in a
  - gradually increasing dilation of the esophagus in the upper chest

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. **Incidence**

- ❖ Most common motility disorder of the esophagus(motor disorder of the esophagus).
- ❖Estimated incidence is **1:100,000**
- ❖ Affects both **genders** equally
- ❖ May progress slowly and occurs most often in 40 years of age or older.
- ❖Commonest Middle age

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Cause

- Primary (idiopathic)
- Degeneration and loss of ganglion cells cause a defect in the innervations of the esophagus
- Resulting absence of complete LES relaxation and absence of peristalsis

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C/ Manifestations

- Primarily (Dysphagia)
- The patient has a sensation of food sticking in the lower portion of the esophagus
- Chest pain and heartburn (**pyrosis**)
- Pain may or may not be associated with eating
- Retrosternal discomfort in early stages

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- The gradual dilatation of the esophagus and food retention in the esophageal lumen can lead to regurgitation and possible aspiration pneumonia.
- Esophageal dilatation, food fermentation, and acid production within the lumen can lead to chest pain and heartburn.
- Weight loss can be a late manifestation.
- Patients with achalasia carry approximately a 5% risk for developing squamous cell carcinoma of the esophagus.

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Diagnosis

- Radiographic contrast studies(barium swallow) classically reveal
  - ✓Dilation of the esophagus
  - ✓Loss of barium (hold up in distal esophagus)
  - ✓Tapering stricture in distal esophagus
  - ✓Absent gastric shadow

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- The lower end of the esophagus tapers down acutely giving the appearance of a bird’s beak.
- The classic “rat tail” narrowing is observable with barium studies
- A timed barium swallow confirms the presence of delayed esophageal emptying.

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- Manometry (to confirmed the diagnosis)
- Manometry shows
  - Normal or elevated LES pressure, decreased LES relaxation, absent peristalsis
  - Reveals incomplete LES relaxation (<75%)
  - Increased LES pressure (>26mmHg)

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- Endoscopy is done to rule out cancer, particularly in persons >50 years
- Endoscopy showed that tight cardiac and food remains in the esophagus ,
- Should be performed with care especially if there is diverticulitis it can be perforated

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Treatment

- There is no curative treatment
- The aim is to **decrease the LES pressure** either
  - chemically(medications) or
  - mechanically (by forceful stretching) .
- Smooth muscle relaxants such as calcium channel blockers, nitrates, have been used with limited success.

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- Calcium channel blockers and nitrates have been used to decrease esophageal pressure and improve swallowing.

Ex. Nifedipine, 10–20 mg, or isosorbide dinitrate, 5–10 mg S/L

- Forceful dilation of the LES using balloons, pneumatic (forceful) dilation
- Pneumatic dilation has a high success rate

  Is effective in 85%cases , with 3–5% risk of perforation or bleeding.

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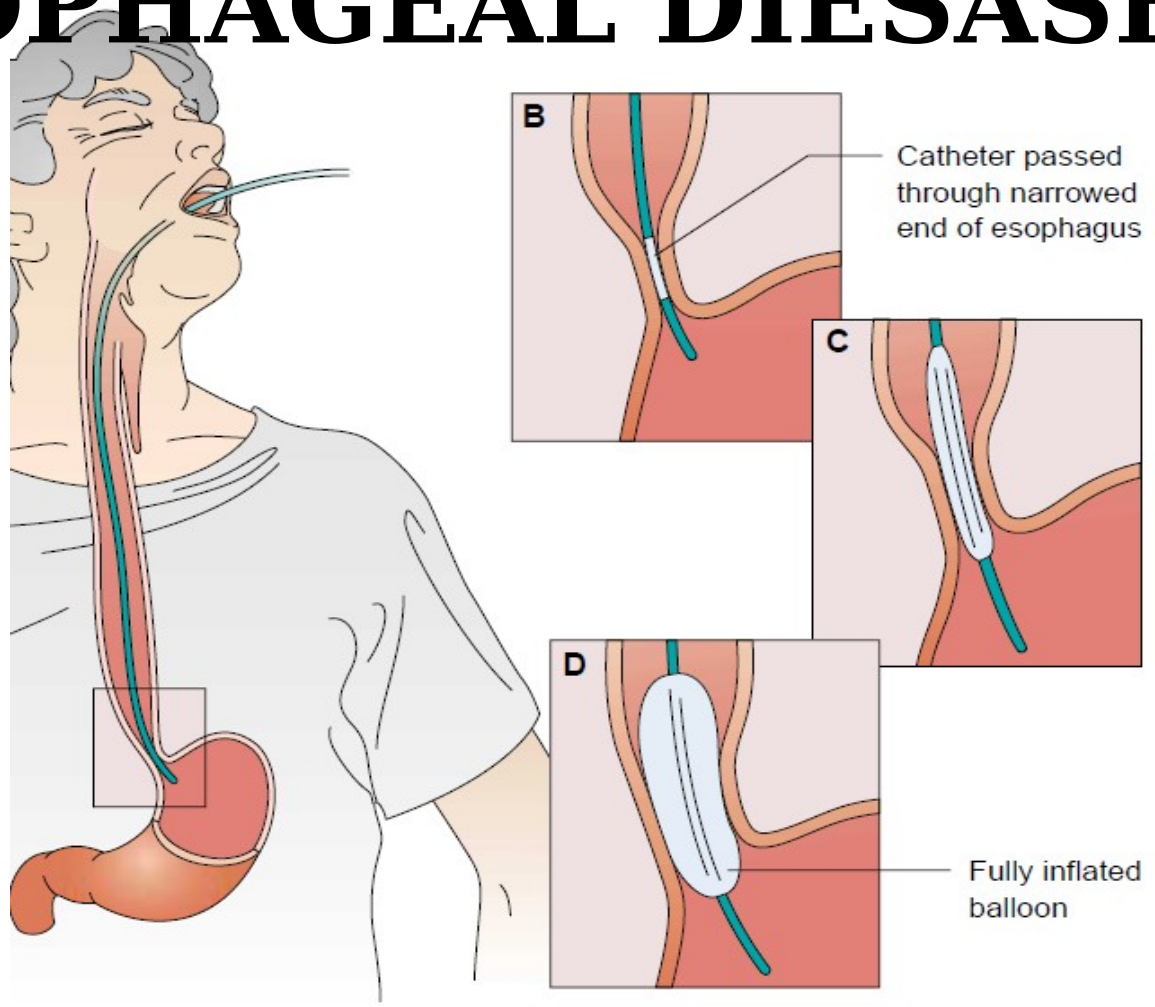


FIGURE 35-6 Treatment of achalasia by the conservative approach. (**A–C**) The dilator is passed, guided by a previously inserted guidewire. (**D**) When the balloon is in proper position, it is distended by pressure sufficient to dilate the narrowed area of the esophagus.

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- The patient is monitored for perforation.
- Abdominal tenderness and fever may be indications of perforation
- The procedure can be painful; therefore, moderate sedation can be given
- Injection of botulinum toxin at endoscopy to relax LES
- This toxin inhibits the release of acetylcholine from the nerve endings leading to relaxation of the LES for 3 to 12 months
- Is safe and effective, but effects last only ~12 months.

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Surgically by Esophagomyotomy

- ✓ Myotomy of LES (Heller procedure) is effective, (in >90%)
- ✓ But 10–30% of pts develop gastroesophageal reflux
- ✓ The esophageal muscle fibers are separated to relieve the lower esophageal stricture
- ✓ Usually is performed laparoscopically, either with
  - a complete lower esophageal sphincter

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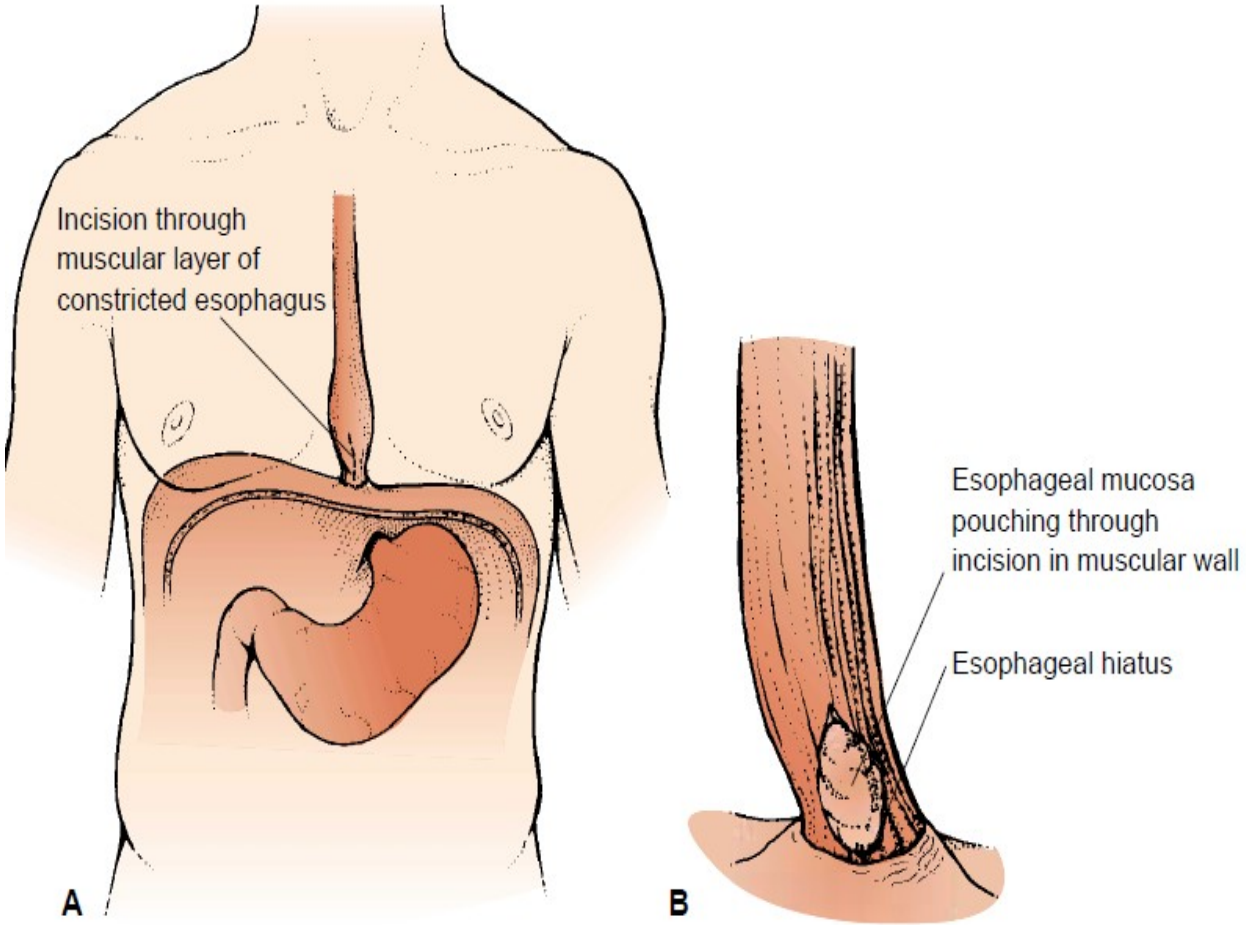


FIGURE 35-7 Treatment of achalasia: esophagomyotomy. (**A**) The esophagus is approached via thoracotomy from the front, on the left side. An incision is made through the muscularis of the esophagus extending about 1 cm into the gastric area. (**B**) The incision is large enough to allow a pouching of the esophageal mucosa. Separation of the muscular fibers relieves the narrowing at the lower end of the esophagus and permits the patient to swallow normally again.

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Nursing care of patient’s with achalasia

- The patient should be instructed to eat slowly and to drink fluids with meals
- Semisoft ,warm foods are better tolerated than cold, hard foods ,the client should avoid hot, iced foods as well as alcohol and tobacco
- All foods should be chewed thoroughly to add saliva to mixture, providing lubrication and allowing the bolus to pass more easily
- To prevent nocturnal reflux of food the client should sleep with head of the bed elevated.
- Nursing diagnosis nutrition ,altered less than body requirements R/T dysphagia

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HIATAL HERNIA(diaphragmatic Hernia and esophageal Hernia)

- Is the herniation of the stomach or lower esophagus through the diaphragm in to the thorax
- The esophagus enters the abdomen through an opening in the diaphragm and empties at its lower end into the upper part of the stomach.
- Normally, the opening in the diaphragm encircles the esophagus tightly, and the stomach lies completely within the abdomen.

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- **Hiatus (or hiatal) hernia**, the opening in the diaphragm through which the esophagus passes becomes enlarged, and part of the upper stomach tends to move up into the lower portion of the thorax
- **Etiology**. The actual cause of hiatal hernia is unknown
- **Predisposing factors**
  - Structural changes , such as weakening of the muscles in the diaphragm around the esophagogastric opening

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- Factors that increase intraabdominal pressure:

  Obesity,pregnancy,ascites,tumors,tight corsets,intense physical exertion,and heavy lifting on a continual basis

- Other predisposing factores are

  increased age, trauma, poor nutrition and a forced recumbent position ,in some cases ,congenital weakness is a contributing factors

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Incidence of Hiatal hernia

- Common in older adults
- Occur more often in women than in men

Types of Hiatal hernia

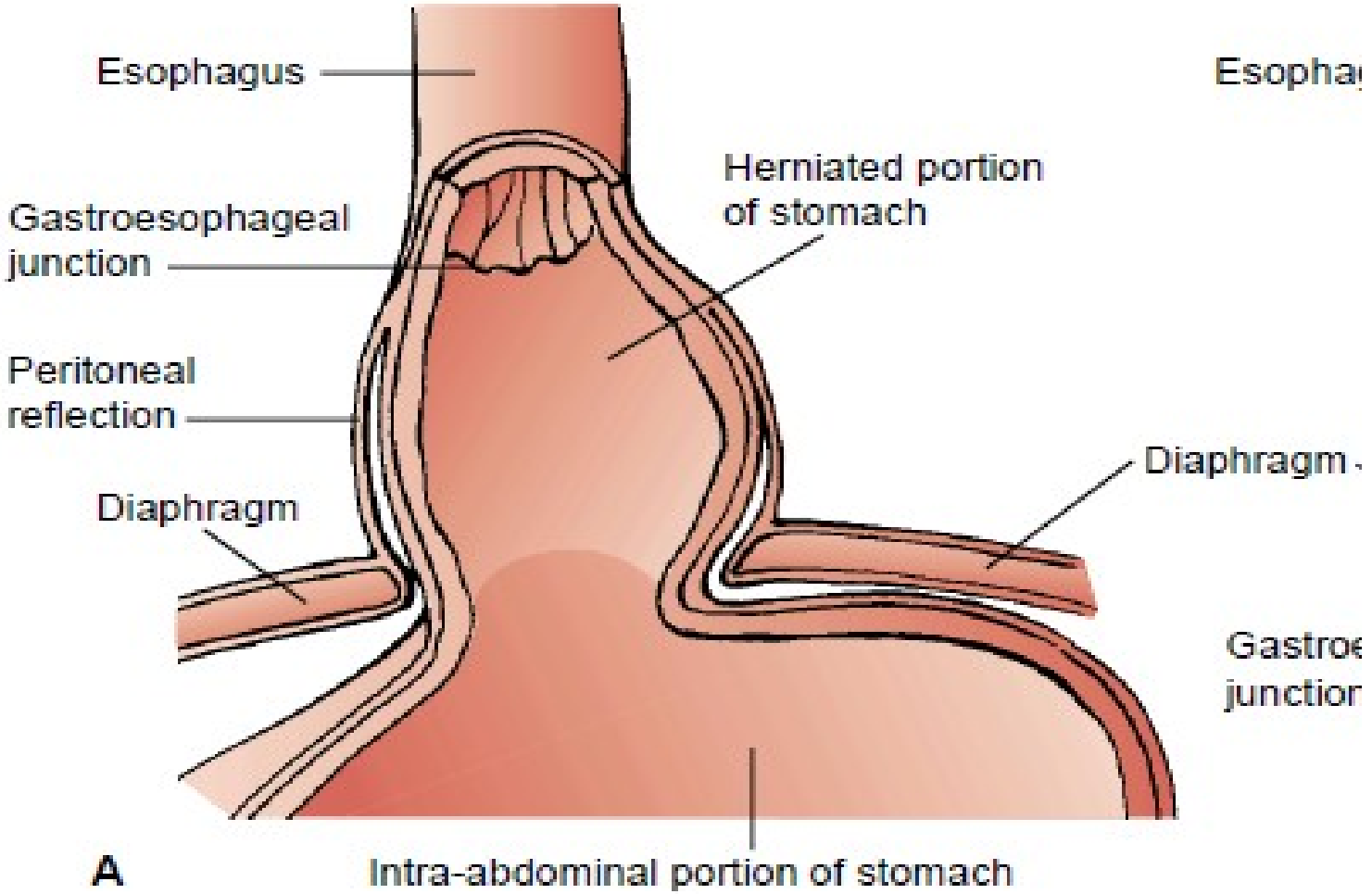
- There are two types of hiatal hernias
  - Sliding hernia(type I)
  - Paraesophageal hernia(type II),Rolling hernia

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Sliding hernia (type I)

- Occurs when the upper stomach and the Gastroesophageal junction (GEJ)
  - Are displaced upward and slide in and out of the thorax
- Accounts about 90% of total hiatal hernia

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Clinical manifestation

❖Vary in kinds and severity

In sliding hernia

✓50% patients are asymptomatic

✓Heart burn, Regurgitation

✓Dysphagia, has symptoms of reflux

✓Substernal pain, burning, non radiating, position -dependent epigastric pain, substernal tightness

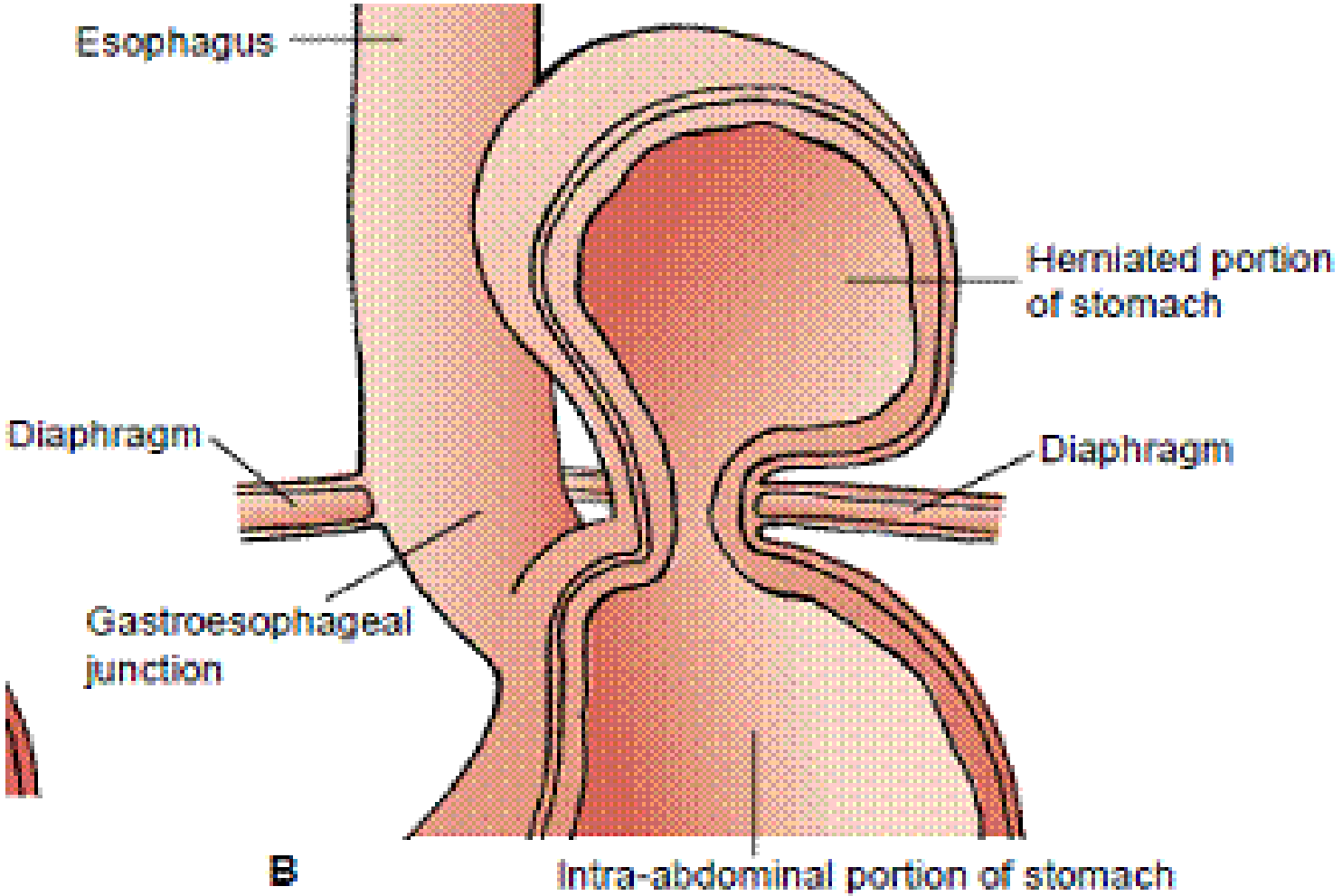
✓Symptoms may be exacerbated by gastric irritants (alcohol, tobacco, caffeine)

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Type II(paraesophageal hernia),Rolling hernia

- Occurs when all or part of the stomach pushes through the diaphragm beside the esophagus.
- Accounts 10% of the total hernia

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Clinical Manifestations

- A sense of fullness after eating
- Does not have symptoms of reflux
- Chest pain
- Reflux usually does not occur, because the gastroesophageal sphincter is intact.

Complication

- Hemorrhage, obstruction, and strangulation can occur with any type of hernia.

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Management

- Frequent, small feedings that can pass easily through the esophagus.
- No food intake several hours before bed
- Weight reduction
- Sleep with head at 30^0
- Avoid gastric irritants,alcohol,tobacco,and caffeine)
- Regular use of antiacids

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- The patient is advised not to recline for 1 hour after eating, to prevent reflux or movement of the hernia,
- To elevate the head of the bed on 4- to 8-inch (10- to 20-cm) blocks to prevent the hernia from sliding upward.
- Avoid gastric irritants, alcohol, tobacco, and caffeine
- Avoid lifting and straining
- If overweight, the patient should be encourage to lose weight

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Surgical Management

- Nissan fundoplication(an abdominal approach is usually used and the fundus is wrapped 360 degree around the lower esophagus
- Hill's operation (a partial wraparound 180 degree of the stomach around the esophagus
- Belsey's repair(consisting of placating the anterior and lateral aspects of stomach onto the distal esophagus, this procedure has a 280 degree esophageal wraparound and a Ant reflux

Thank You!

