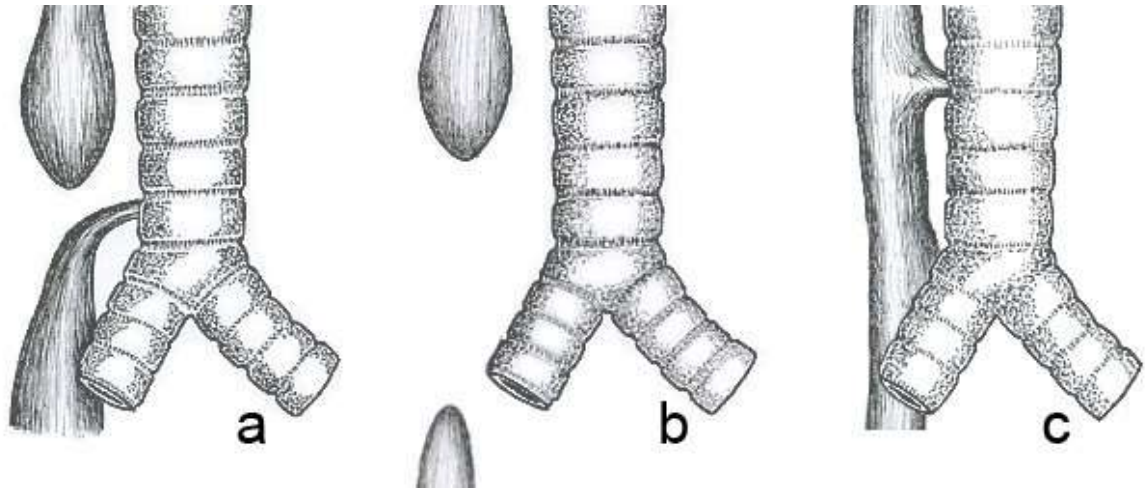
GI Pathologies ESOPHAGUS

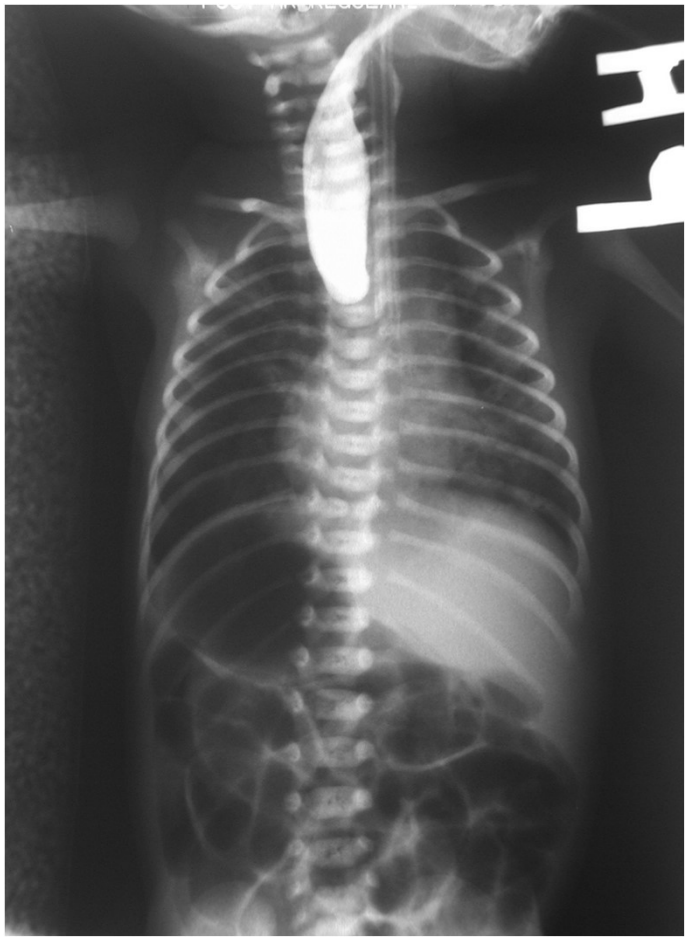
Atresia

- A blind pouch or end where there should be an opening
- Congenital



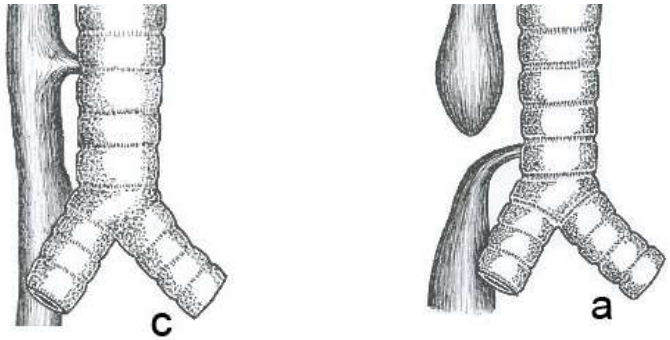
Lewis Spitz. Oesophageal atresia. Orphanet Journal of Rare Diseases. 2, 24. 2007. PMID 17498283

- Caused by the esophagus not developing into a continuous passage to the stomach
- Often detected soon after birth as the baby cannot keep milk down
- Can cause aspiration pneumonia if the milk overflows up into the trachea
- Must be surgically repaired as soon as possible



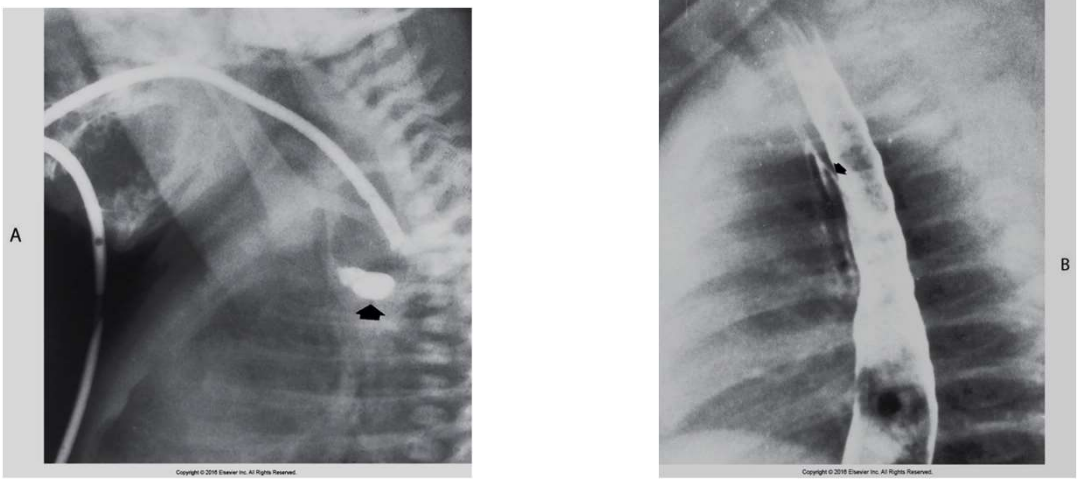
By DrM!KEY - Own work, Copyrighted free use, https://commons.wikimedia.org/w/index.php?curid=6724287

Tracheoesophageal Fistula



- May be congenital or acquired
- Congenital:
  - Failure of the esophagus and trachea to fully separate during development
- Acquired:
  - 50% are caused by mediastinal malignancy, the rest are due to infection or trauma

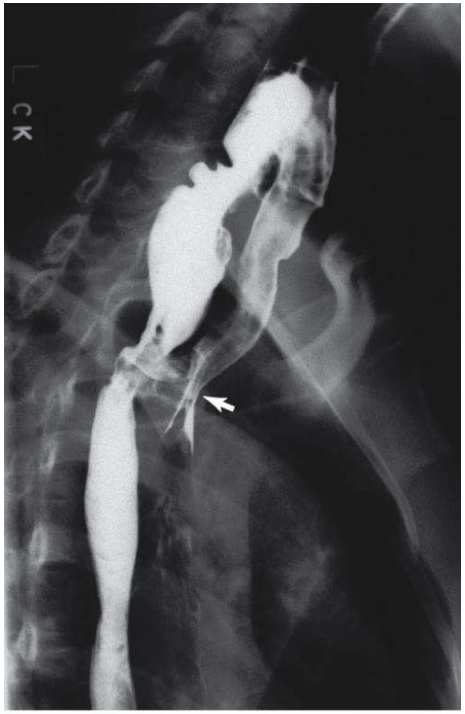
Tracheoesophageal fistula- congenital



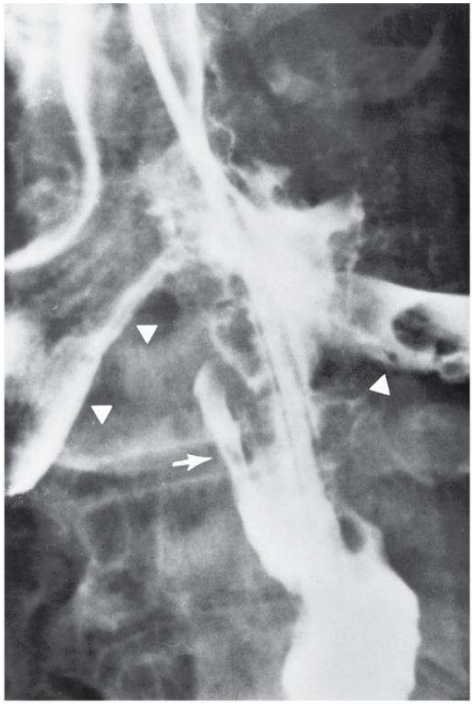
Different types of fistulas can be distinguished by the presence or absence of air in the stomach.

WHY?

Tracheoesophageal fistula- acquired



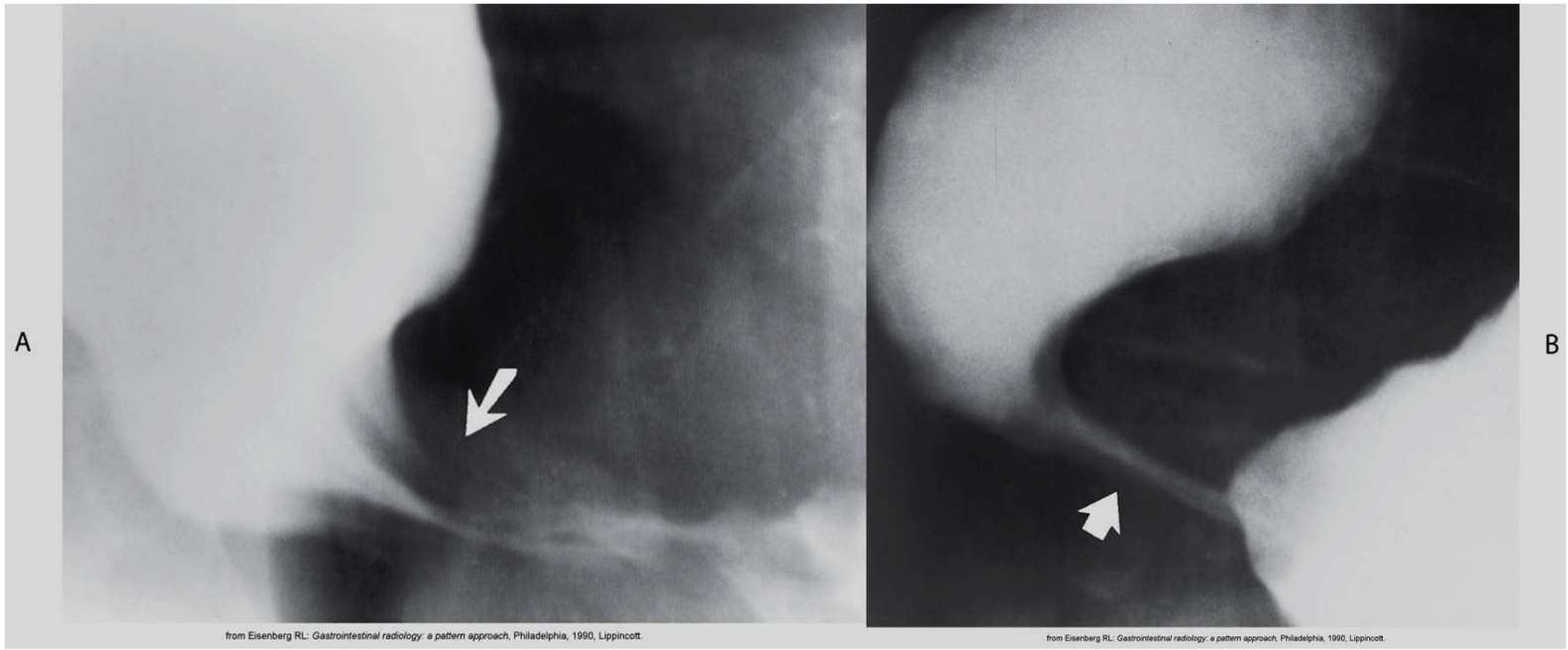
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Achalasia

- Achalasia results from the failure of smooth muscle to relax, so the lower esophageal sphincter stays closed
- Patients will have difficulty swallowing, regurgitation and possibly chest pain
- Treated with surgery, medication or dilation of the esophagus/sphincter

Achalasia

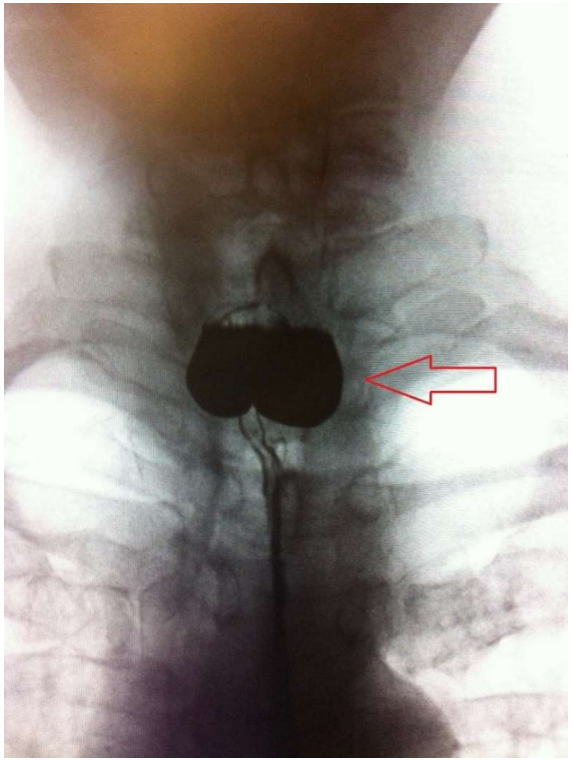


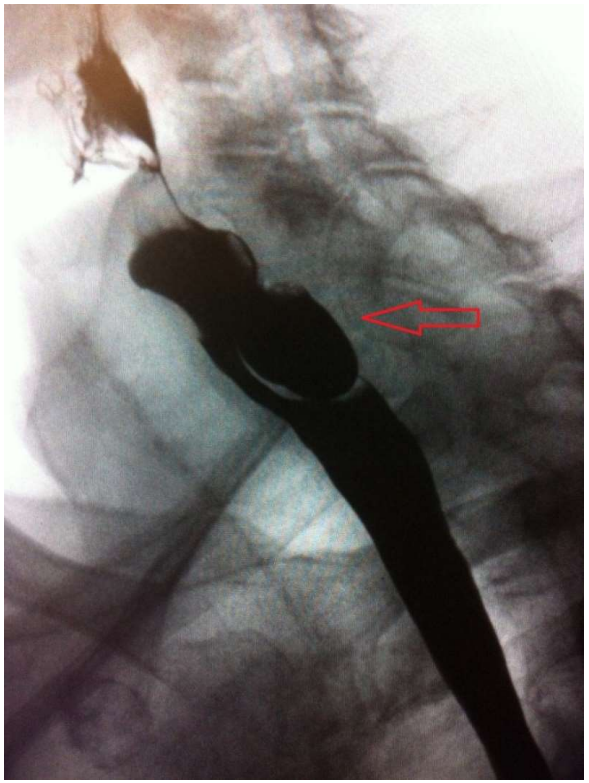
Eisenberg 5-25: Rat tail sign

Esophageal diverticulum

- Diverticula are outpouchings or pockets that form in the wall of the esophagus or intestines
- Zenker's diverticula form on the posterior wall of the upper esophagus
- Symptoms include:
  - Dyspahgia
  - Regurgitation due to food trapped in pocket
  - Cough

- Treatment includes surgical resection, stapling, endoscopic laser





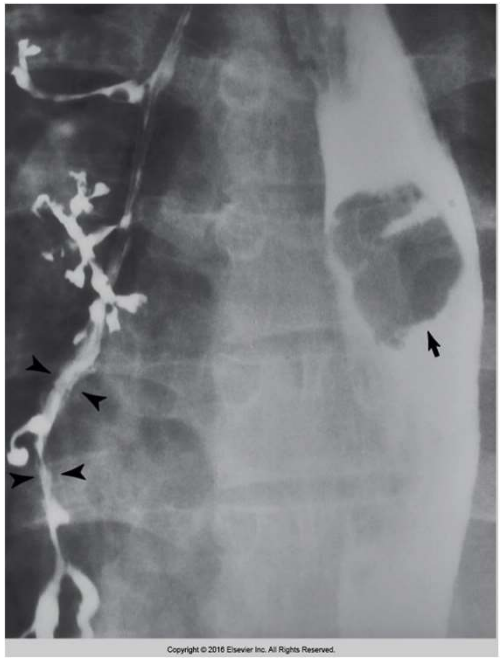
By James Heilman, MD - Own work, CC BY-SA 4.0,
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Foreign bodies

- Many objects can be lodged in the esophagus
- They usually end up stuck in the cervical esophagus, but can lodge more inferiorly as well

Foreign bodies in the esophagus

- Impacted bolus of hot dog in esophagus and barium aspirated into lungs


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Impacted fishbone in the esophagus

Esophageal varices

- Dilated veins in the wall of the esophagus
- Caused by portal hypertension due to cirrhosis of the liver
- Appearance of esophageal varices indicates advanced portal hypertension
- The risk of bleeding is high



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Esophagitis

- Acute inflammation of the esophagus
- Gastroesophageal reflux disease (GERD or acid reflux) is the most common cause
- Caused by stomach contents rise up into the esophagus
- Produces burning in the chest, pain, taste of acid in the mouth/throat, regurgitation
- Caused by incomplete closure of the LES

Esophagitis

- GERD can injure the esophagus, causing the following:
  - Inflammation of the epithelium, causing ulcerations
  - Narrowing of the esophagus due to inflammation
  - Barrett's esophagus- intestinal metaplasia, changing cells from squamous to columnar
  - Esophageal adenocarcinoma

Esophagitis and GERD

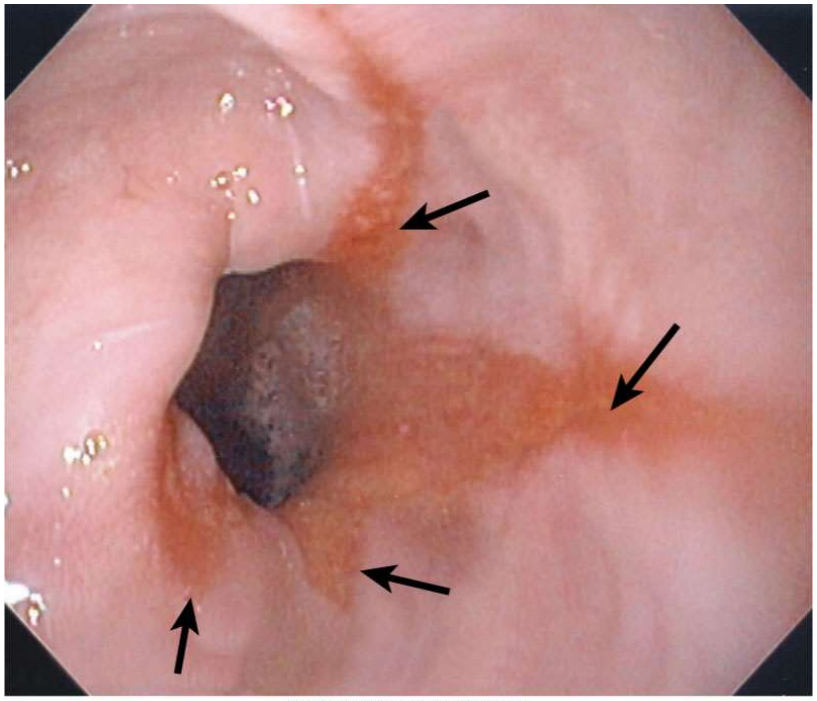
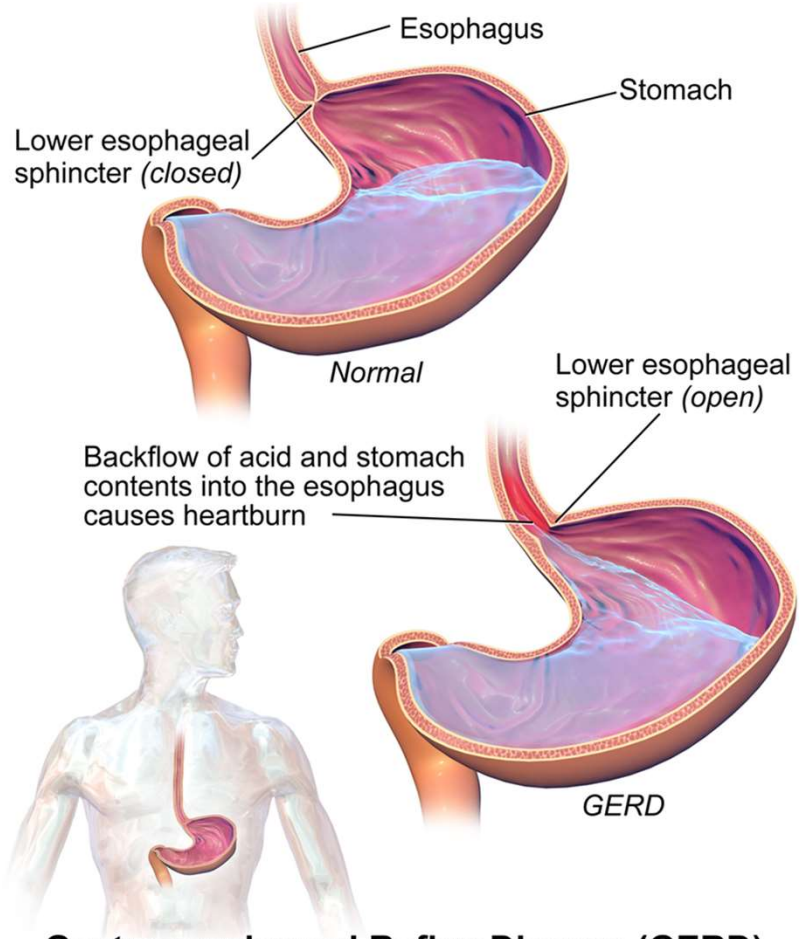


Figure 18-13- Patton and Thibodeau: Inflamed tissue caused by GERD- Gastroesophageal reflux disease



Gastroesophageal Reflux Disease (GERD)

By BruceBlaus - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=44923646

Lifestyle Changes

- Lifestyle changes can minimize acid reflux

➢ Eat smaller portions, and eat more often

➢ Remain upright for a few hours after eating

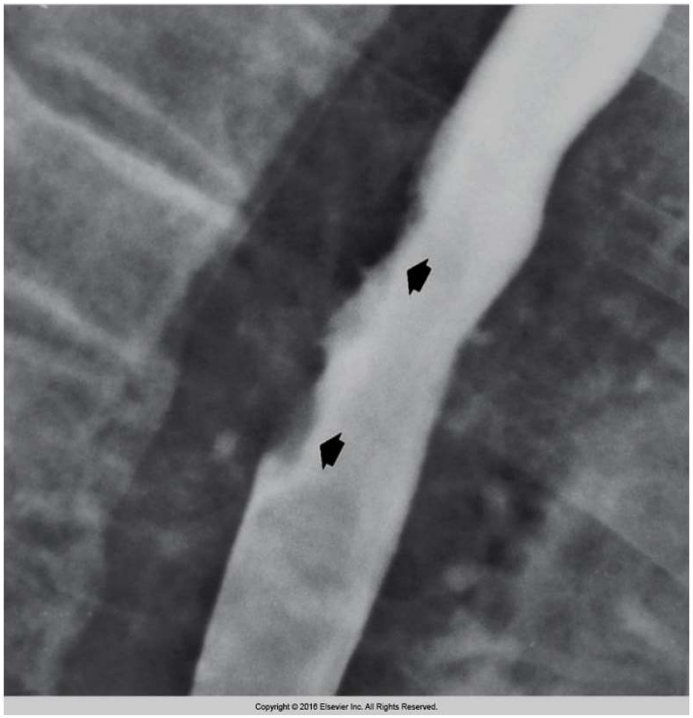
➢ Elevate the head of the bed when sleeping

➢ Avoid caffeine, nicotine, chocolate, wine, alcohol

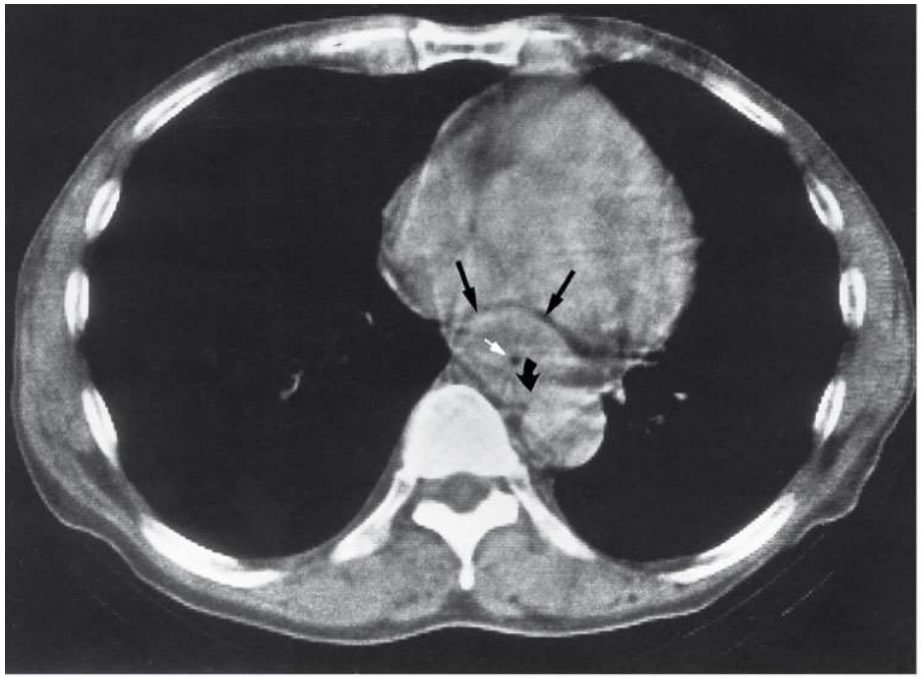
➢ Maintain healthy weight to decrease pressure on the stomach

Esophageal Carcinoma

- The prognosis is poor for esophageal CA
- Dysphagia is most common symptom but the disease is quite advanced by the time the disease is diagnosed
- More common in men than women
- Strong correlation between excessive alcohol consumption, smoking and esophageal carcinoma


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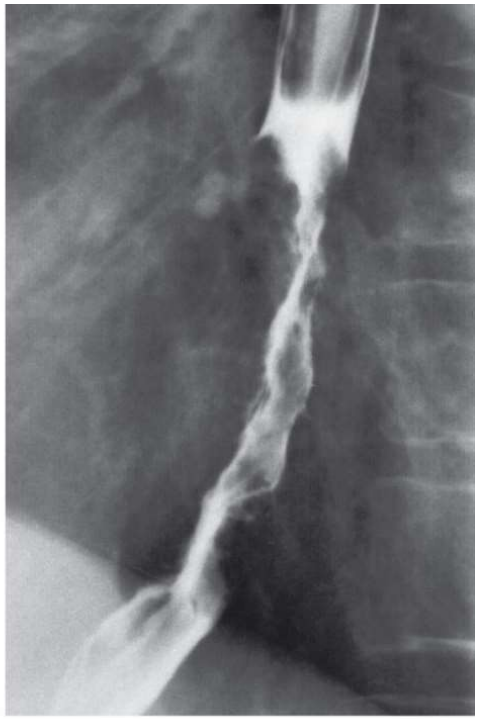
Esophageal carcinoma



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B

A



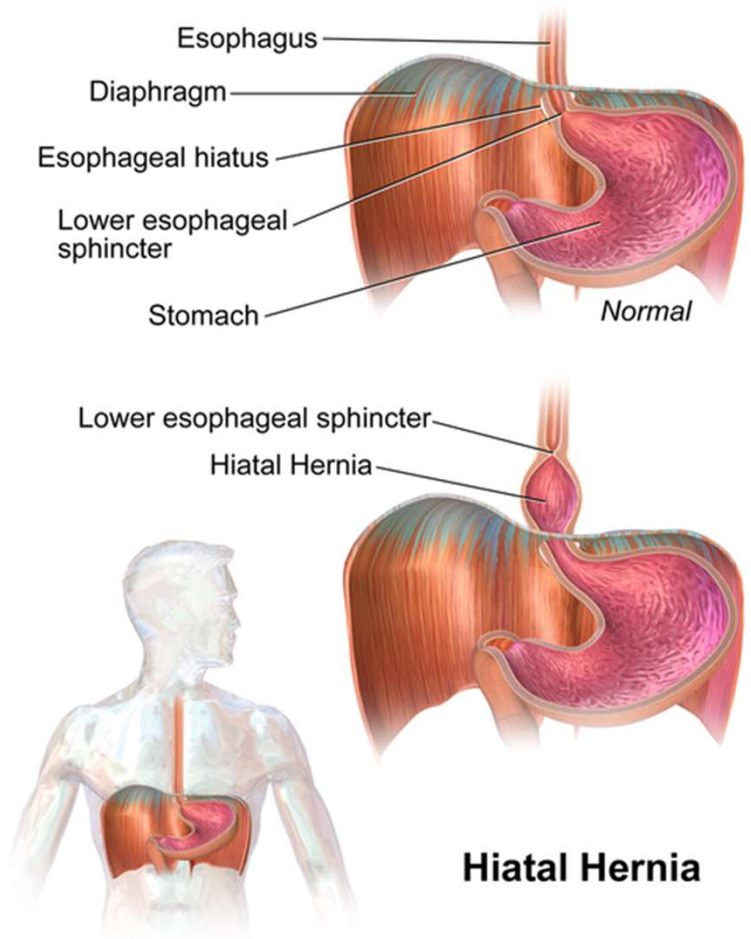
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Eisenberg 6th ed. 5-17

Hiatal Hernia

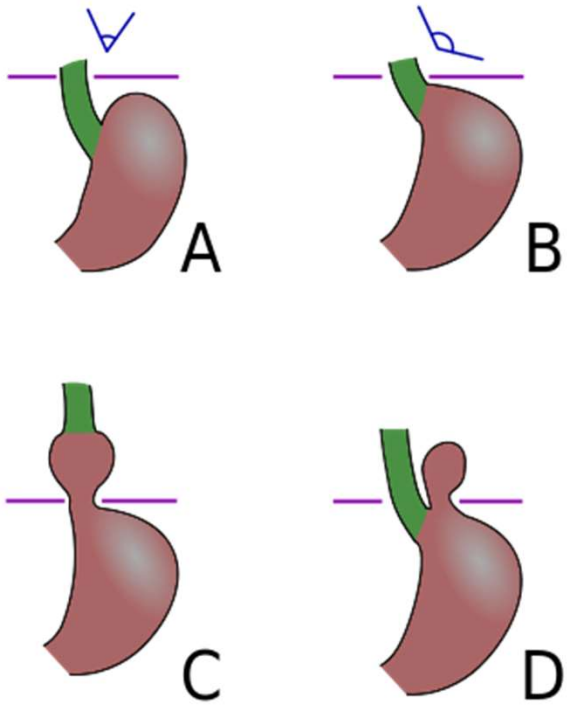
- A hernia occurs when tissue or an organ moves outside of the cavity where it is normally located

- A hiatal hernia occurs when a portion of the stomach moves through the diaphragm into the thoracic cavity



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Hiatal hernias protrude through the esophageal hiatus of the diaphragm; the point where the esophagus passes into the abdominal cavity



A: Normal anatomy
B: Pre-stage
C: Sliding hiatus hernia
D: Paraesophageal (rolling) hiatus hernia

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Sliding Hiatal Hernia (most common)


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Fig 5-53 Kowalczyk, N. (2014). Radiographic Pathology for Technologists (6th ed.). Maryland Heights, MO: Elsevier Mosby. pg. 173)

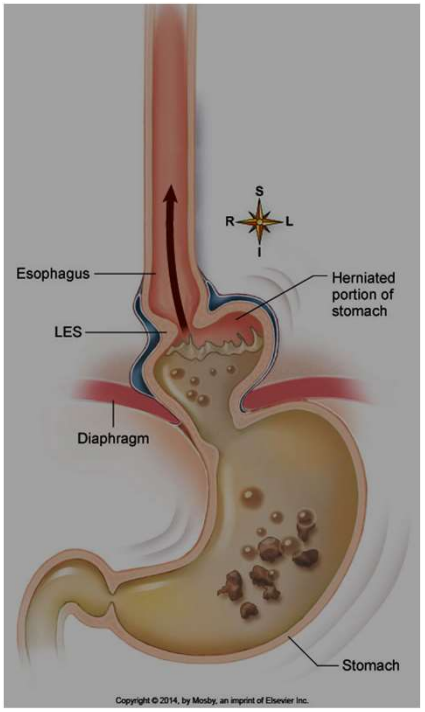
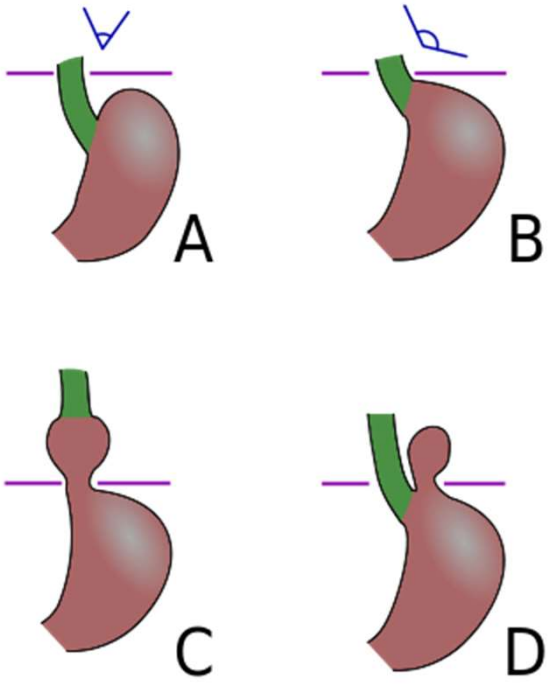


Figure 18-14 Patton and Thibodeau

Rolling or paraesophageal hernia



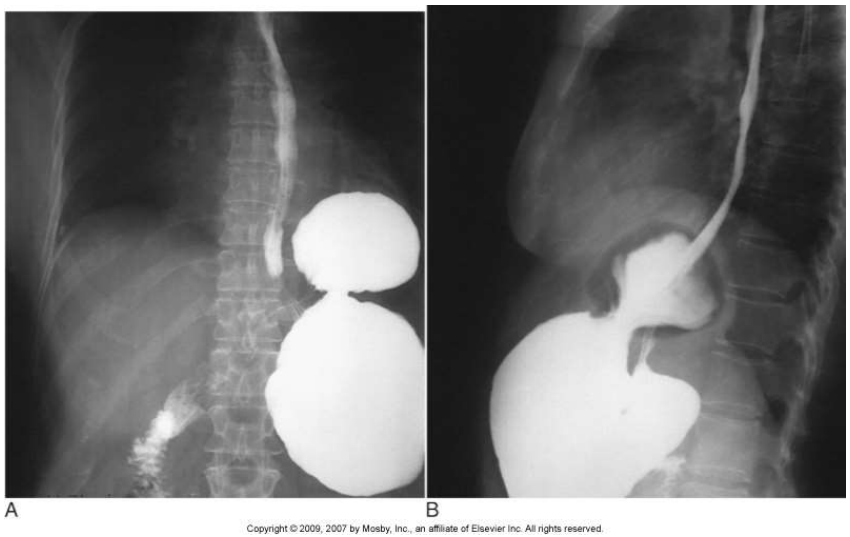
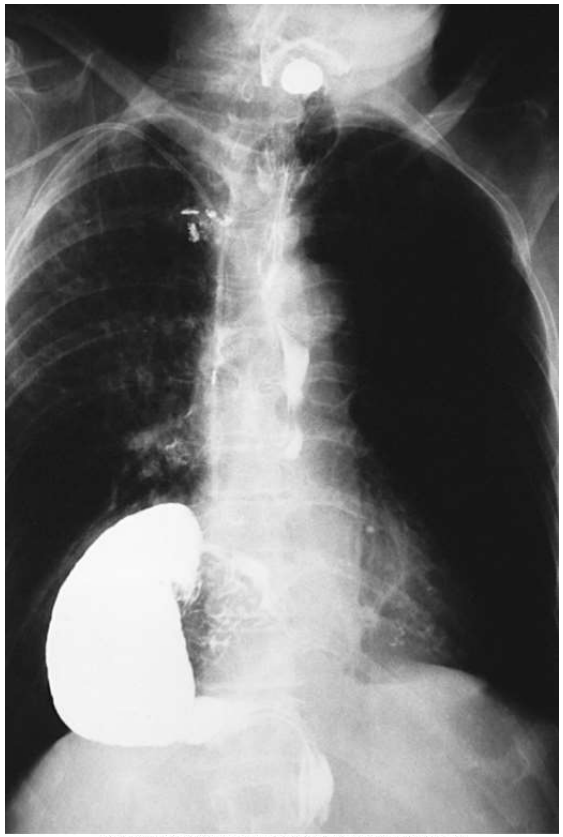


Fig 5-53 Kowalczyk, N. (2014). Radiographic Pathology for Technologists (6th ed.). Maryland Heights, MO: Elsevier Mosby. pg. 174)

Incarcerated stomach



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