# Esophagus

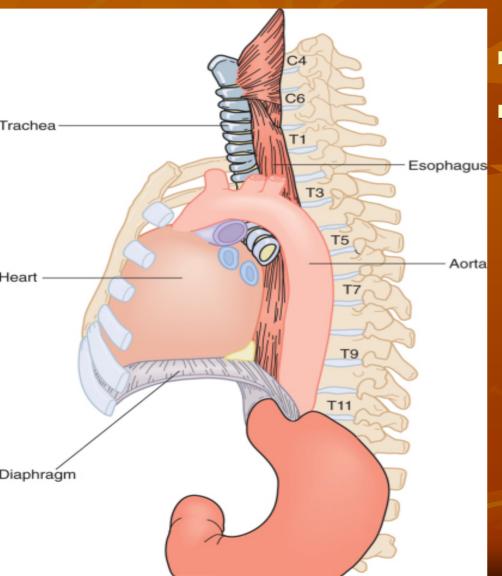
#### **Objectives**

Describe anatomic and physiologic factors predispose to reflux esophagitis
Symptoms of reflux esophagitis
Describe hiatal hernia (types)
Describe indications for operative management.

### **Objectives**

- Describe achalasia
- Radiologic findings and evaluation
- Esophageal diverticula
- Cancers
- Perforations

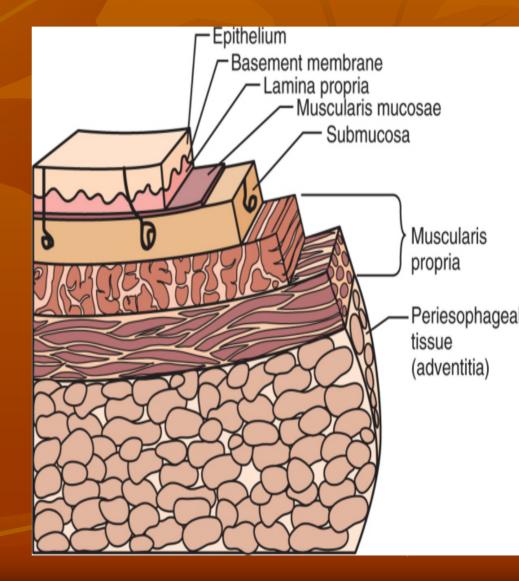
#### Anatomy



Originates where?
Traverses what to get to ABD?

#### Anatomy

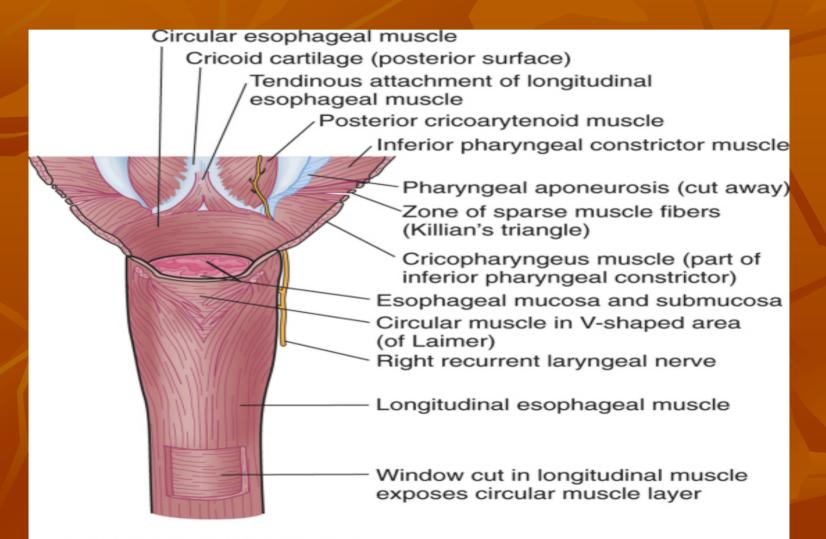
# Layer of esophagusMuscles





SphinctersWhere and how many?

## **Upper Sphincter**



Posterior view with pharynx opened and mucosa removed

#### **Lower Sphincter**

Purpose to prevent gastric reflux
Resting pressure

### **History and physical**

#### • What questions?

#### Presentation

Dysphagia Odynophagia Globus hystericus Heartburn Regurgitation Vomiting Recurrent bronchitis or pneumonia hiccups

#### **Physical and tests**

Physical of the esophagus?What tests?

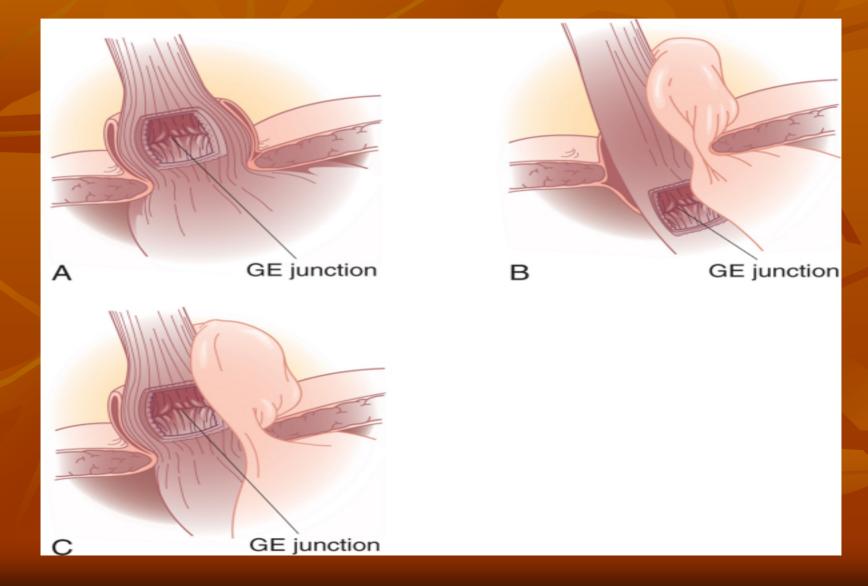
#### **Diagnostic Studies**

- CXR
- Barium swallow
- CT
- Esophagoscopy
- Manometry and fluoroscopy
- pH monitoring

#### **Hiatal Hernia**

What are the major types?Which is the most common?

### **Types of hiatal hernias**



### **Pathophysiology**

- Loss of anatomic relationship
- Reflux
- Barrett's esophagusShortened IA esophagus

### **Barrett's esophagus**



#### Presentation

- Burning epigastric pain or tightness
- Lump or food stuck
- Alcohol, ASA, tobacco, caffeine, chocolate
- Aspiration pneumonitis or asthma or laryngitis
- Dysphagia, bleeding, respiratory distress



Barium swallow
EGD
Schatzki ring

#### Schatzki's ring

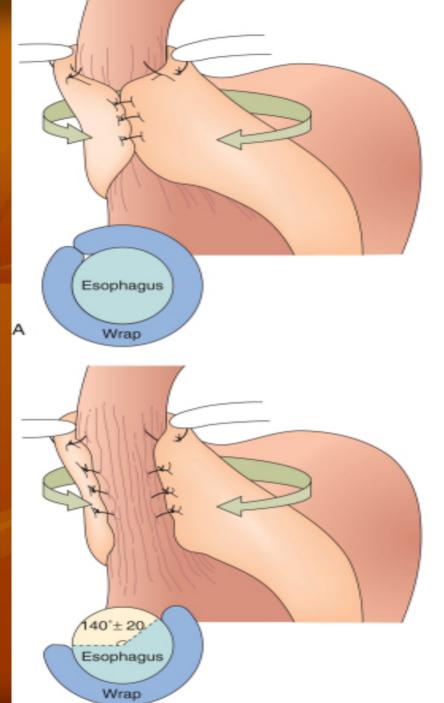


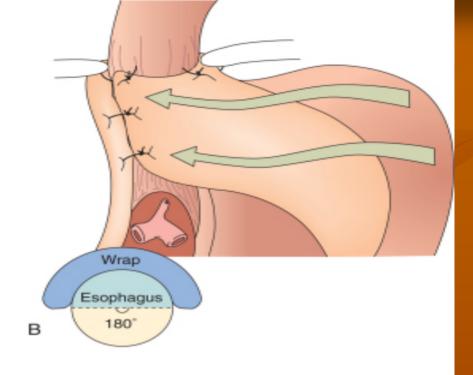
#### **Medical Treatment**

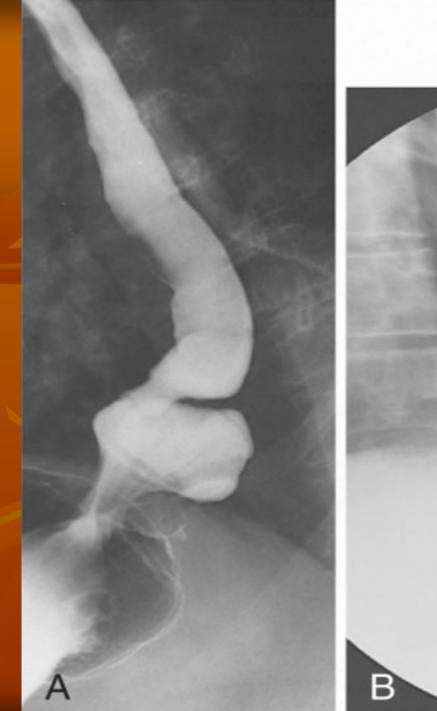
- 80% respond
- Avoidance
- Tight garments
- Antacids
- Abstinence prior to sleep
- Elevated HOB
- Weight loss

#### **Surgical Treatment**

Correct anatomic defect
Transthoracic or transabdominal
Complications- gas-bloat syndrome
Prognosis- 90% relief of symptoms









#### Achalasia

- Failure to relax
- Distal esophagus
- Chagas disease (trypanosomiasis)
- Presentation- dysphagia, regurgitation, weight loss

Liquid to force food downAspiration pneumonia

#### Achalasia

- Dx- contrast studies
- Manometric pressures show tertiary waves with diffuse spasm
- Treatment- medical not helpful
- Treatment- surgical 95% complete relief

#### **Medical treatment**

- Balloon dilatation
- Rupture the circular muscle
- Complication perforation

#### **Surgical Treatment**

 Heller myotomy- distal 5 cm of esophagus and extend 1 cm onto stomach.
 Modified fundiplication



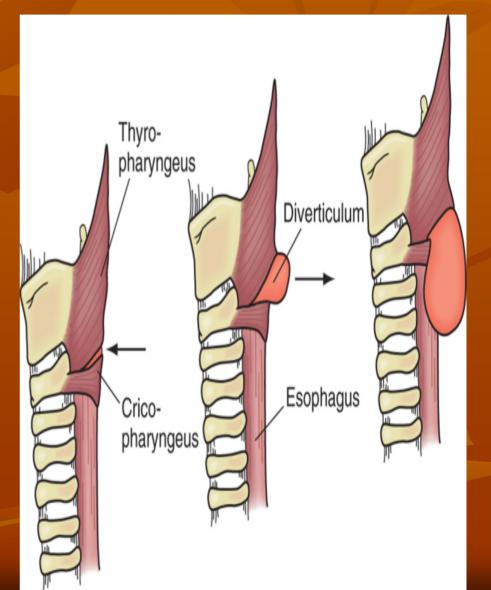
#### Diverticula

Outpouching of all or part of the wall.
Types- traction and pulsion
At any level

#### **Zenker's Diverticula**

#### Pulsion

- Dysfunction of cricopharyngeal muscle
  Between oblique fibers of thyropharyngeal ms and cricopharyngeus
- elderly



#### Zenker's

 Regurgitation, choking, putrid breath odor
 Treatment – myotomy of cricopharyngeal ms and excision or elevation of diverticulum



#### **Traction diverticula**

Middle thirdMediastinal inflammation

Mid-esophageal diverticulum

Epiphrenic diverticulum

Stomach

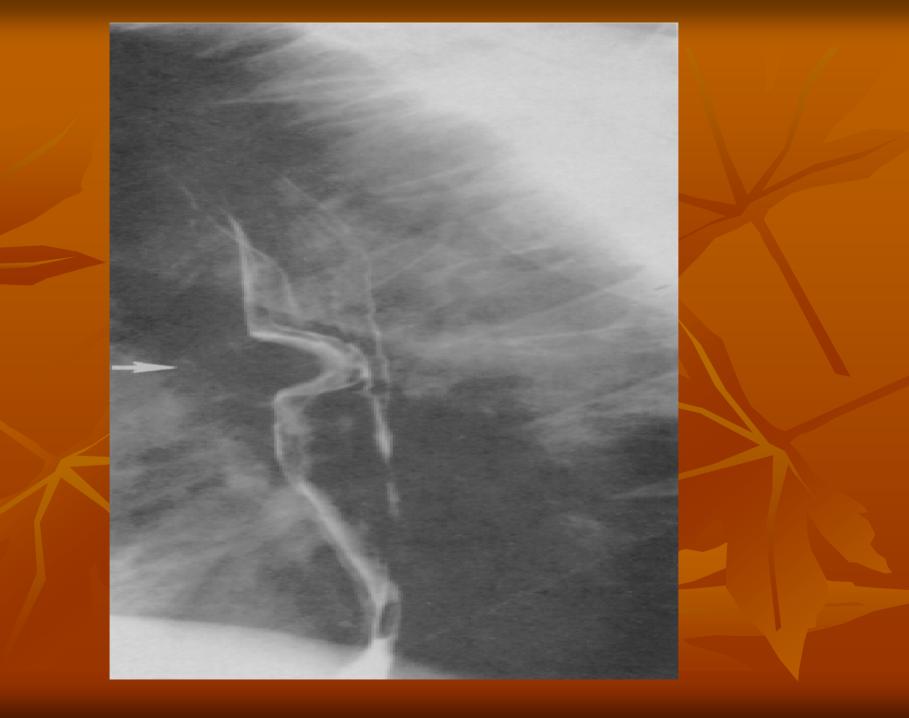
#### Neoplasms

Benign- rare
Lieomyomas
Excision to eliminate tumor growth

Malignant
Squamous carcinoma-85%
Adenocarcinoma- 10%

Sarcomas

Iymphoma



#### **Presentation**

- Insidious onset precluding early dx
- Dysphagia- solids first then liquids
- Retrosternal pain, odynophagia
- Constant pain in back and chest
- Hoarseness
- 75% positive nodes at presentation

#### neoplasms

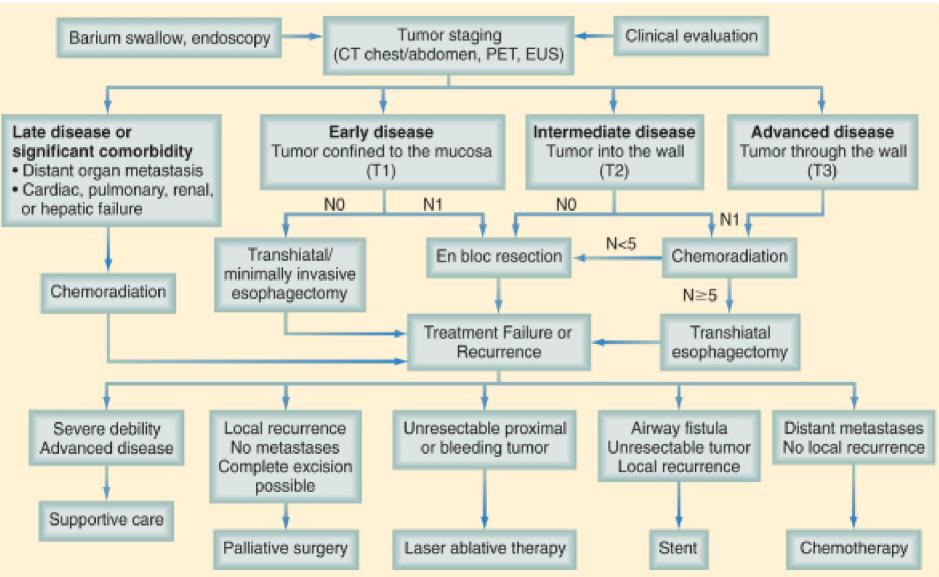
Dx- ragged edge, shelf or apple core appearance
Upper GI series follow by EGD
CT- extranodal mets
EUS staging

Esophageal carcinoma

Apple core lesion

#### Treatment

MANAGEMENT OF CARCINOMA OF THE ESOPHAGUS





SCC and adenocarcinoma very poor prognosis
Seldom exceeds 20%
Cure rate 5%

#### Traumatic

Perforations
Most instrumentation
Boerhaave's syndrome

 Ingestion acid or alkaline products
 Alkaline- deep penetration and liquefactive necrosis
 Acid – coagulative necrosis

#### Treatment

