

# Achalasia

- Progressive degeneration of ganglion cells in myenteric plexus (ganglion of Auerbach plexus) within esophageal wall which results with failure of lower esophageal sphincter to relax within swallowing and loss of esophageal body peristalsis resulting in esophageal dilation

## Causes

Primary achalasia

- No known cause

Secondary achalasia

- Esophageal cancer, Chagas disease (protozoan infection due to *Trypanosoma cruzi* » loss of intramural ganglion cells)

## Symptoms

Dysphasia   Vomiting undigested food   Chest pain   Heartburn   Odynophagia   Regurgitation   Weight loss

## Diagnosis

Chest X-ray

- Fluid filled dilated esophagus & absence of gastric air bubble

Barium swallow X-ray

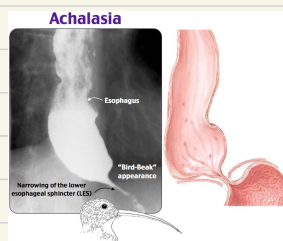
- Normal peristalsis not seen, tapering of distal esophagus and dilated proximal esophagus » bird beak

Esophageal manometry

- Definitive diagnostic test » absence of peristalsis, limited or absence of relaxation of LES

Endoscopy

- To rule out benign strictures or malignancy



# Complication

Esophageal perforation

GERD

Malnutrition

- Following LES disruption

# Treatment

Non surgical treatment

- Botulinum toxin injections: reserved for elderly or high-risk patients unable to undergo surgery or more invasive procedures. Relief is temporary, and repeat treatments are needed.
- Medications: Calcium channel blockers or nitrates may be considered, but are not very effective, usually for patients who decline or cannot undergo other treatments.

Minimally invasive treatment

- Pneumatic dilation: A balloon is used to dilate the LES. It has a moderate success rate and carries a risk of perforation.
- Peroral endoscopic myotomy (POEM): endoscopic approach to cut the LES muscle, it's is effective, though it may increase the risk of reflux.

Surgical treatment

- Heller myotomy (with or without fundoplication): A laparoscopic or robotic procedure to cut the LES. A fundoplication is often performed simultaneously to reduce the risk of GERD after the myotomy.

