

Benign Esophageal Disorders

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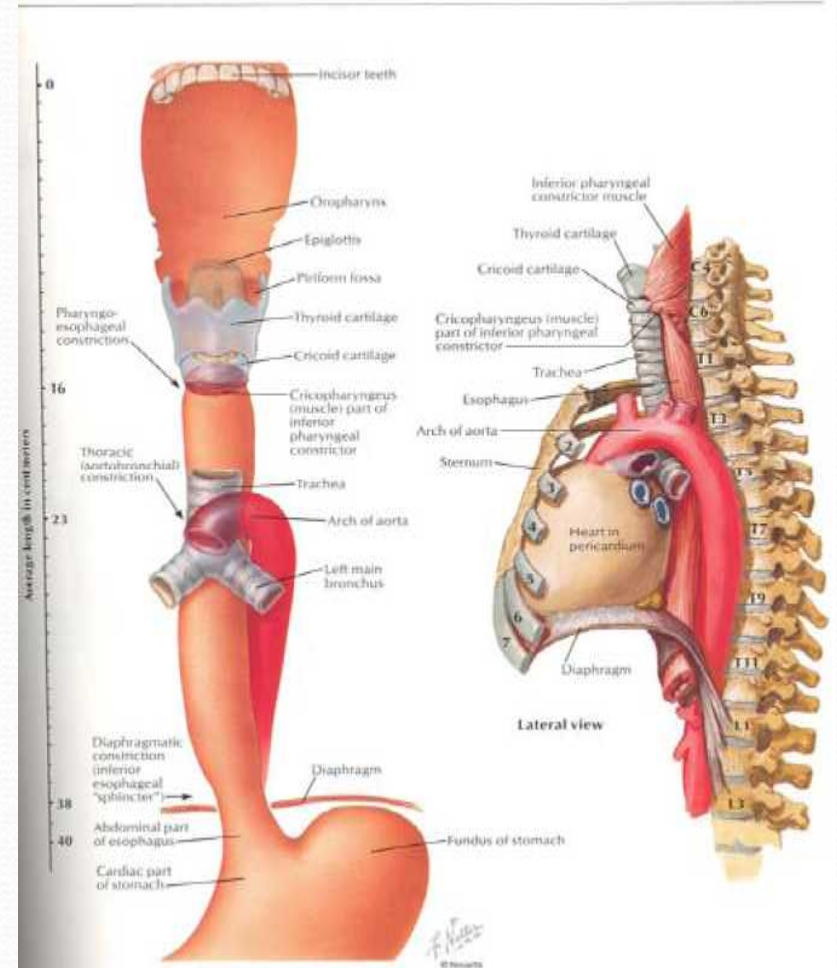
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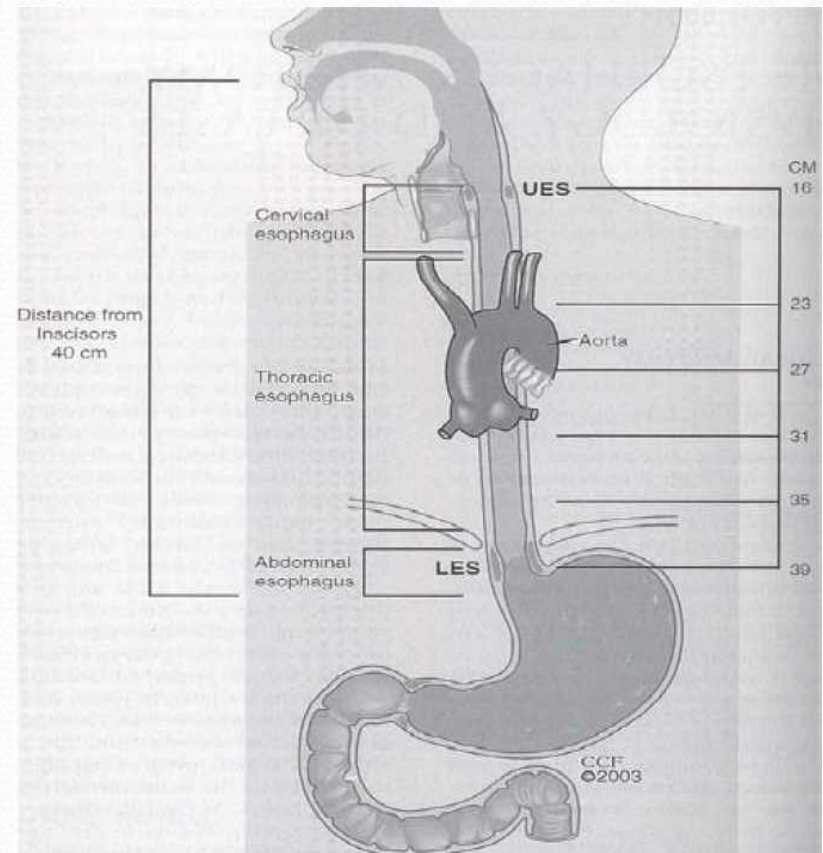
Surgical Anatomy

- The uppermost narrowing= cricopharyngeal muscle (1.5 cm)
- Middle narrowing= indentation of anterior and left lateral esophageal wall by left main bronchus and aortic arch (1.6 cm)
- Lowermost= hiatus (1.6- 1.9 cm)
- When the head is in normal position, transition from

Topography and Constrictions of Esophagus



- UES-junction of inferior pharyngeal constrictor and cricopharyngeus
- LES-2cm to 4cm segment of tonically contracted smooth muscle within the diaphragmatic hiatus



Cervical Portion of Esophagus

- 5 cm long
- Descends between the trachea and the vertebral column, from the level of sixth cervical vertebra to the level of interspace b/w 1st and 2nd thoracic vertebrae posteriorly.
- Recurrent laryngeal nerve lie in the right and left groove between the trachea and esophagus
- The left recurrent nerve lies somewhat closer to the esophagus than the right owing to the slight deviation of the esophagus to the left and more lateral course of the right recurrent nerve.

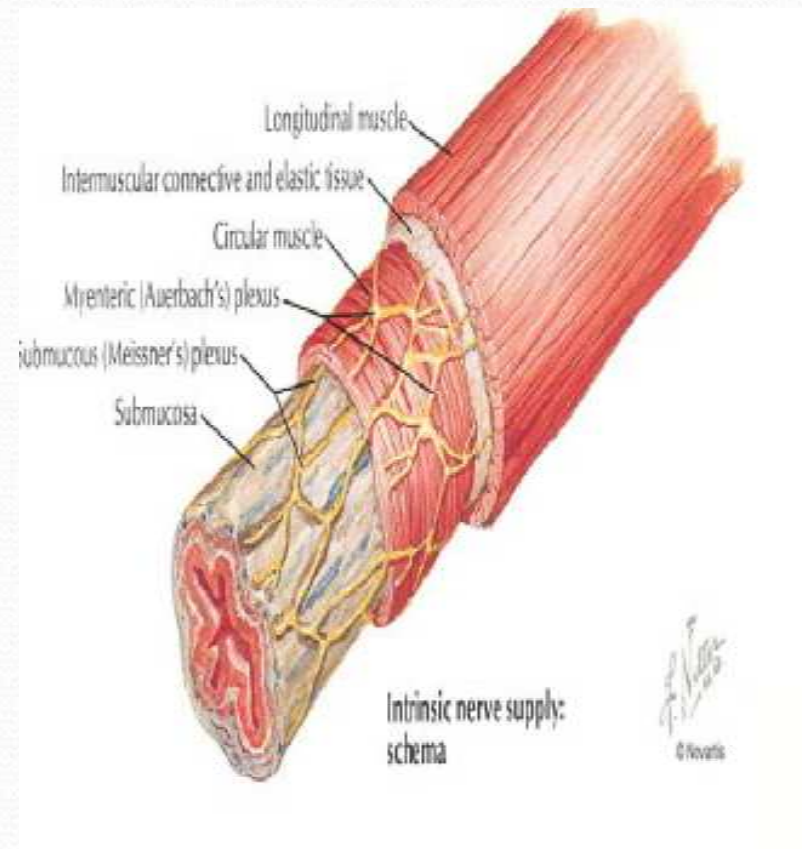
Thoracic Portion of Esophagus

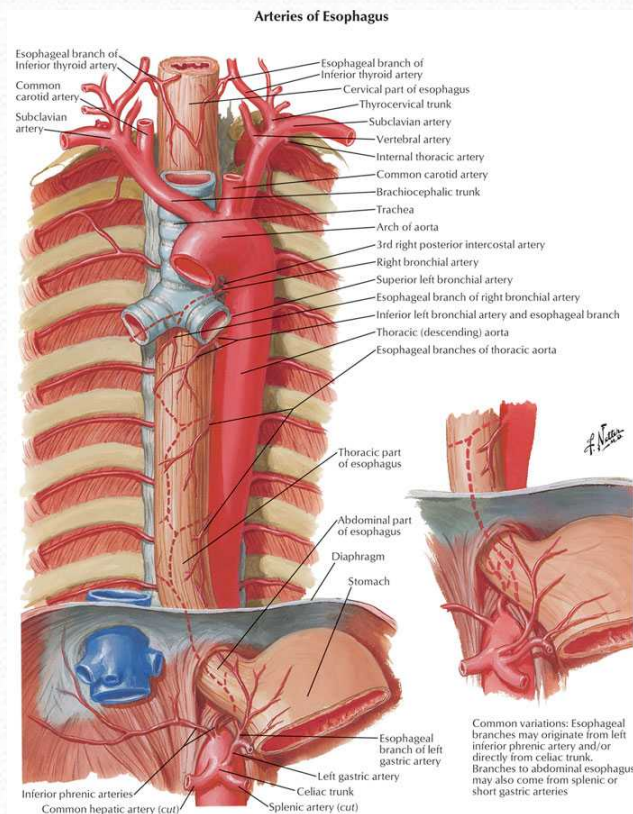
- 20 cm long
- It starts at the thoracic inlet . Just above tracheal bifurcation , the esophagus passes to the right of the aorta

Abdominal Portion

- 2 cm long
- Includes a portion of LES (T₁₁)
- It starts as the esophagus passes through the diaphragmatic hiatus and is surrounded by phrenoesophageal membrane, a fibroelastic ligament arising from the subdiaphragmatic fascia as continuation of transversalis fascia lining the abdomen.

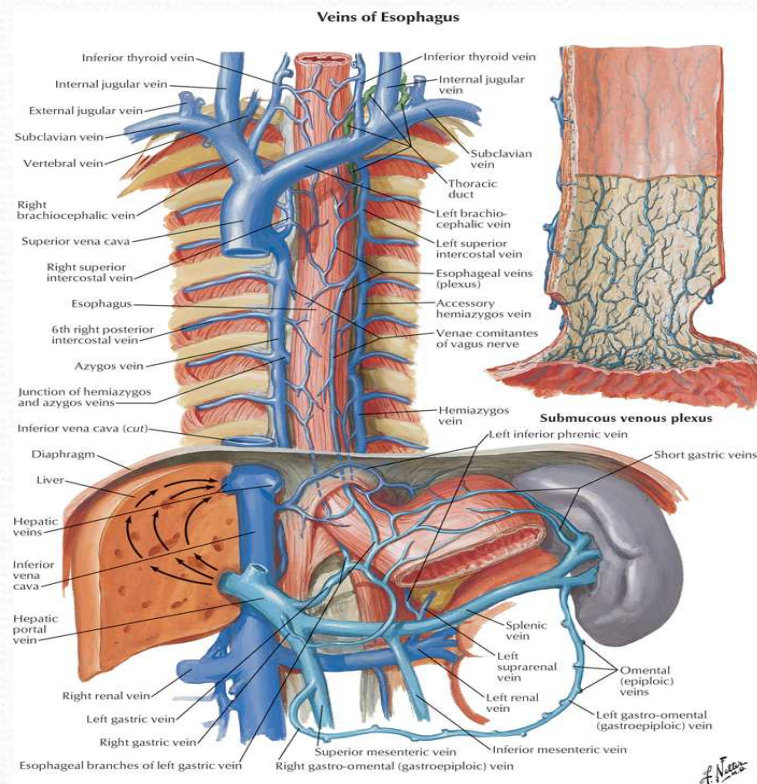
- Mucosa, submucosa, muscularispropria, and adventitia
- Inner circular and outer longitudinal muscle. The upper 2-6 cm of the esophagus contain only striated muscles
- Proximal skeletal and distal smooth muscle





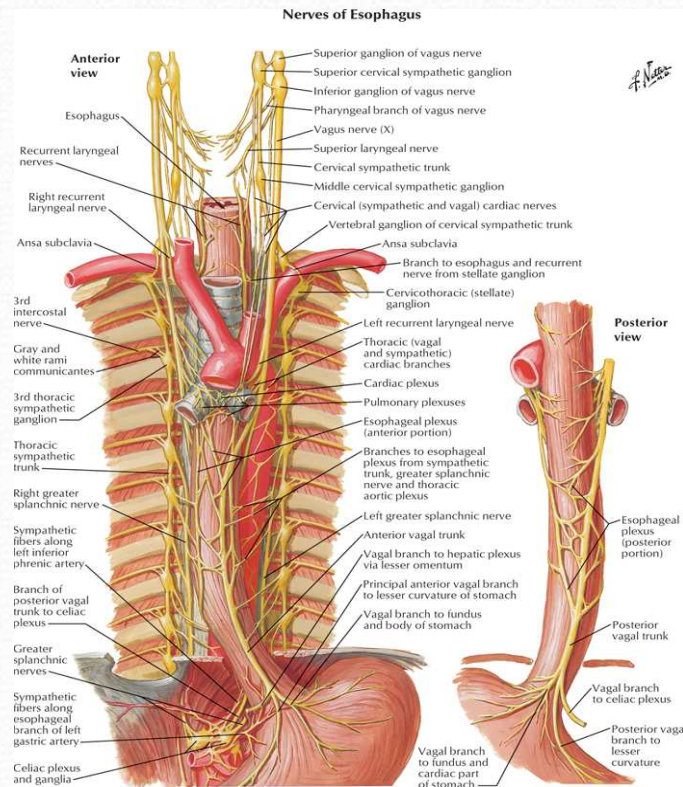
- Cervical portion= inferior thyroid artery
- Thoracic= bronchial arteries
- = esophageal branch from the aorta
- Abdominal= ascending branch of left gastric artery

Venous supply of the esophagus



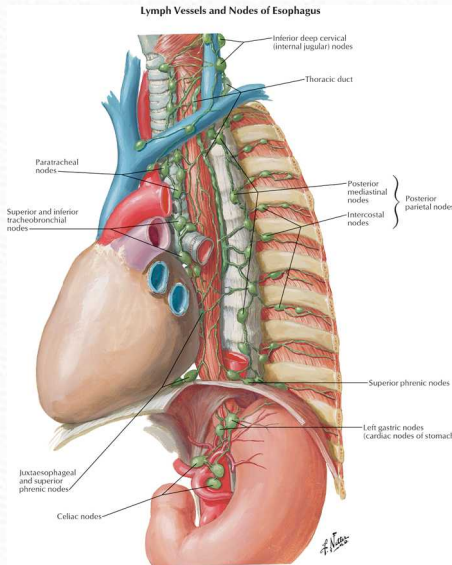
- Cervical portion, esophageal veins empty into inferior thyroid vein
- Thoracic= bronchial, azygous and hemiazygous
- Abdominal= coronary vein

Parasympathetic and Sympathetic Innervation



- Mainly provided by the vagus
- Constrictor muscles of pharynx= pharyngeal branch of vagus with contribution of CN IX and X
- Cricopharyngeal sphincter and cervical portion of esophagus = recurrent laryngeal nerve

Lymphatic Drainage



- In thoracic portion, the submucosal lymph plexus extends over a long distance in a longitudinal direction before penetrating muscle layer. As a consequence, primary tumor extends more superiorly and inferiorly as compared to the cervical portion.