

General Histology Practical for second stage students

Lab 12



Layers of digestive tract From

These layers from inside to outside

1. Mucosa

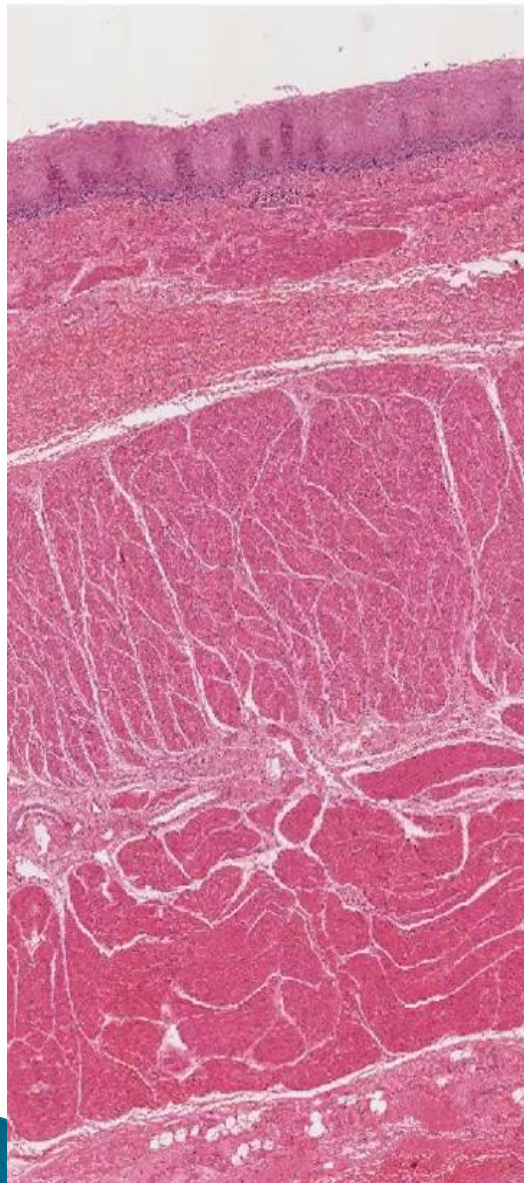
- A. Lumen lined by an epithelium
- B. Lamina propria which is a loose connective tissue.
- C. Muscularis mucosae composed of an inner circular and an outer longitudinal layer of smooth muscle.

2. Submucosa : surrounded by a dense, irregular fibro- elastic connective tissue layer.

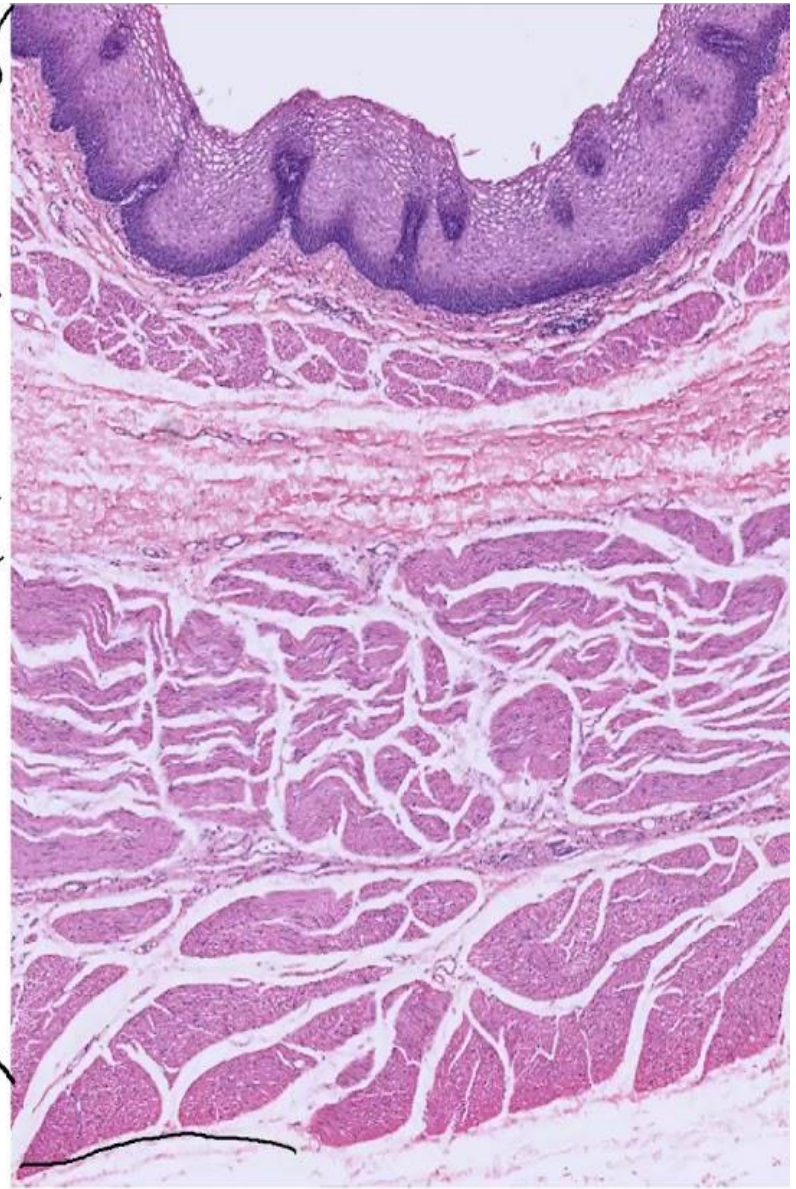
3-Muscularis extena : composed of smooth muscle (except in the esophagus) and is usually organized in an inner circular and an outer longitudinal layer.

4-Serosa or adventitia:

The muscularis externa is surrounded by a thin connective tissue layer that may or may not be covered by the simple squamous epithelium of the visceral peritoneum.

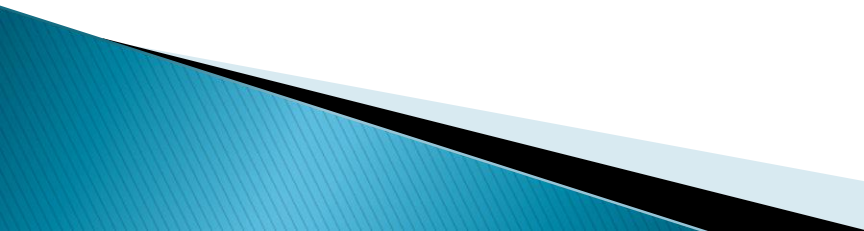


Mucosa
Submucosa
Muscularis externa
Adventitia/Serosa



Esophagus

1. Mucosa

- ▶ **Lumen** lined by a stratified squamous non keratinized epithelium.
 - ▶ **Lamina propria** is unremarkable and houses esophageal glands.
 - ▶ **Muscularis mucosae** consist of a single layer of longitudinally oriented smooth muscle fibers.
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Esophagus

- ▶ **2. Submucosa** composed of a dense fibroelastic connective tissue and houses the esophageal glands proper (tubuloacinar glands).
- ▶ **Note** : the esophagus and duodenum only have glands in submucosa.

Esophagus

- ▶ **3. Muscularis externa** arranged in two layers Inner circular and outer longitudinal.
- ▶ composed of both skeletal and smooth muscle fibers .
- ▶ **Upper third** → skeletal muscle
- ▶ **Middle third** → skeletal and smooth
- ▶ **Lowest third** → smooth muscle fibers
- ▶ **4.** The esophagus is covered by an **adventitia** when pierces the diaphragm covered by a **serosa**.

