





### Stomach(fundic region)

1- **mucosa A: epithelium** simple columnar whose surface lining cells produce a mucous substance that coats and protects the stomach lining from the low pH environment and from autodigestion.

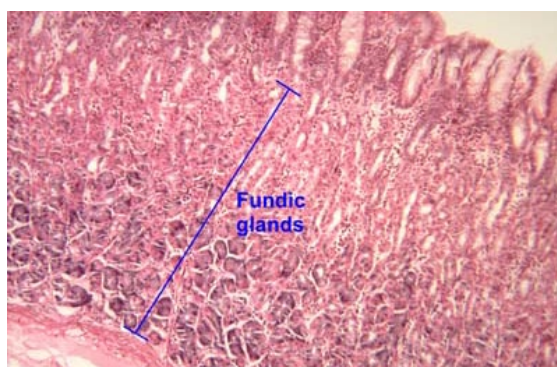
B- **lamina propria:** c.t. + gastric glands (parietal cells, chief cells, mucous neck cells, surface lining cells)

C- **muscularis mucosa** consist of two layers

2-**sub mucosa:** wide layer of c.t

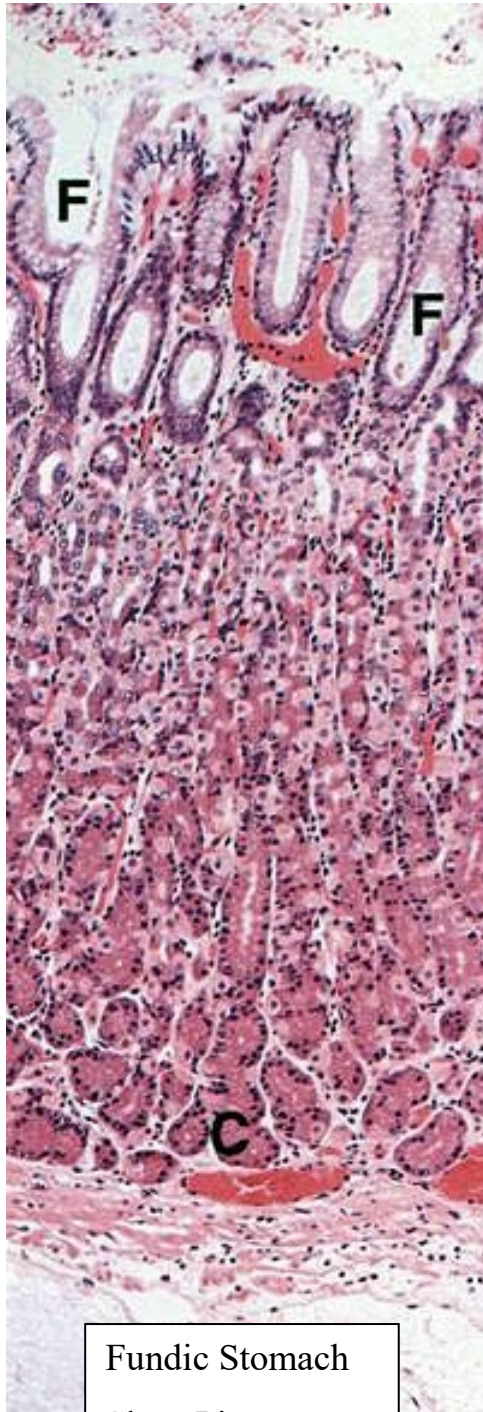
3-**muscularis externa** consist of three layers.

4-**serosa** consist of mesothelium



### Pyloric region

The mucosa of the pyloric antrum possesses deep gastric pits and gastric glands.



Fundic Stomach  
Short Pits  
Long Glands



Pyloric Stomach  
Long pits (P)  
Short Glands

Small Intestine

The small intestine is composed of the duodenum, jejunum, and ileum.

Mucosa (a b c)

a-the epithelium is simple columnar epithelium and contain goblet cells.

b-lamina propria: loose c.t and crypt of Lieberkühn gland.

c.muscularis mucosa: smooth muscle fibers.

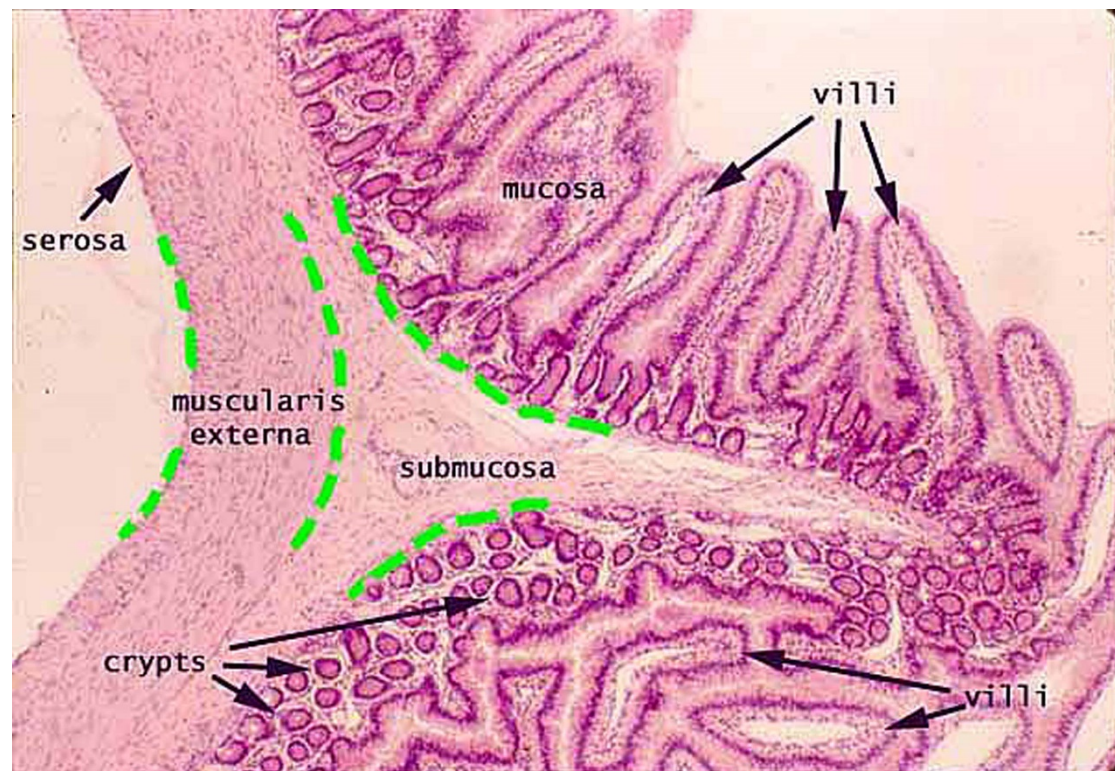
2-submucosa: filled with duodenal gland (Brunner's gland).

3-muscularis externa: inner circular layer and outer longitudinal layer and between them found Auerbach's myenteric plexus.

4-serosa and adventitia while in jejunum and ileum only serosa.

**Jejunum** similar to duodenal but the villi are folded.

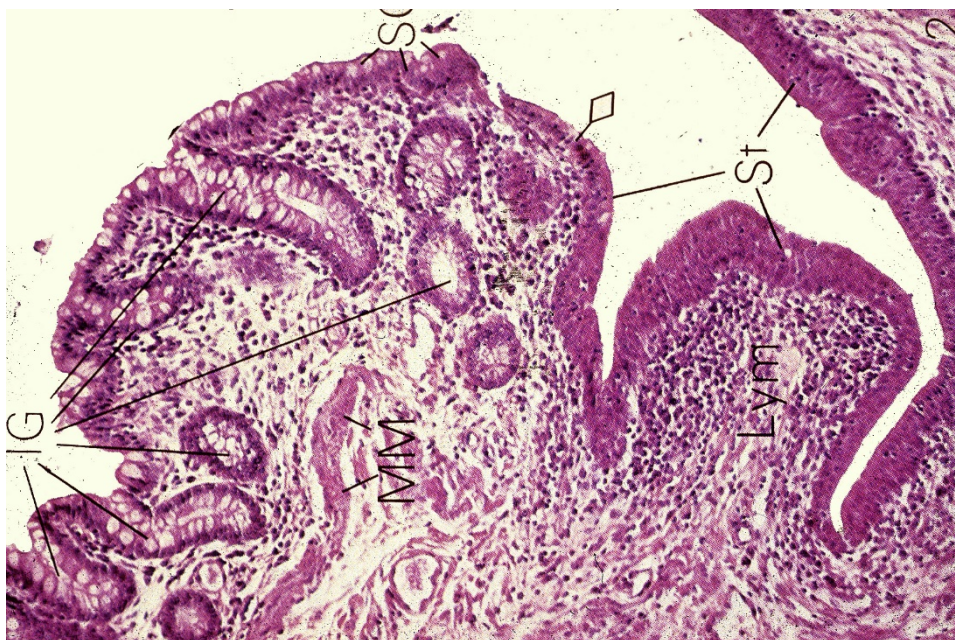
**Ileum** in lamina propria contain lymphatic nodules called payers patches.



## Large intestine

Appendix, cecum, ascending, transvers and descending colon, rectum and anal canal.

- **Colon**
- 1-mucosa
- a-simple columnar epithelium and highly goblet cells without villi
- b-lamina propria contain lymphatic tissues and intestinal gland larger than in small intestine.
- c-muscularis mucosa.
- 2-submucosa c.t
- 3-muscularis externa.
- 4-serosa and adventitia.
- **Anal region**
- 1-mucosa shifting to st, sq non cornified without gland
- Lamina propria contain dense irregular c.t and highly blood vessels (hemorrhoidal plexuses).2-submucosa merge with lamina propria.
- 3-muscularis externa: internal sphincter (smooth muscle).
- external sphincter (skeletal muscle)
- 4-adventitia.



Anal region