

<u>DUODENUM</u>: "most digestion" occurs; broader villi; the only part of the small intestine with submucosal mucus glands called Brunner's glands (distinct from jejunum and ileum); proportionally few (if any) Peyer's patches.

<u>MUCOSA</u>: villi; microvilli; brush border; simple columnar (absorptive) epithelial cells-enterocytes; other cells of the epithelium include goblet (secrete mucin), paneth, and enteroendocrine cells; crypts of Lieberkuhn; lamina propria (lot of lymphocytes and plasma cells, occasional macrophages, lot of loose connective tissue and inflamatory cells, plasma cells); intestinal glands; lacteals.

SUBMUCOSA: rich in duodenal/Brunner's glands (unique to duodenum) secrete alkaline mucus; loose connective tissue; blood vessels; some lymphatics.

MUSCULARIS EXTERNA: circular (inner) and longitudinal (outer) layers of smooth muscle; few ganglion cells; loose connective tissue and blood vessels.

SEROSA8 most of the duodenum is retroperitoneal so there won't be much true serosa except perhaps in that first "bulb" part. So most of the connective tissue may be just called adventitia.

DI ICE HOUZ!

lacteal

microvilli & brush border

LUMEN