

Lab 8 - Part 2

Gastrointestinal System Gross Anatomy

Esophagus

- Muscular Wall Details:
 - Proximal 1/3 is all Skeletal Muscle
 - Middle 1/3 is mixed Skeletal and Smooth Muscle
 - Distal 1/3 is all Smooth Muscle
 - Epithelial Lining:
 - Non-Keratinized Stratified Squamous Epithelium
 - Constrictions (normal compression points):
 - at the beginning (where it is connected to the laryngopharynx)
 - at the mid-point (as it goes past the Left Main Bronchus and Aortic Arch)
 - at the end (where it passes through the diaphragm)
 - Sphincters:
 - Upper Esophageal Sphincter
 - Lower Esophageal Sphincter
 - Gastroesophageal junction is transition point where the Stomach connects
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Stomach

- Regions:
 - Fundus** of the Stomach
 - Body** of the Stomach
 - Pyloric Region** of the Stomach
 - Muscular Wall Details:
 - Longitudinal Smooth Muscle** layer (Peristalsis)
 - Circular Smooth Muscle layer** (Segmentation)
 - Oblique Smooth Muscle layer** (Churning)
 - Other Details:
 - Greater Omentum** hangs off the Greater Curvature
 - Lesser Omentum** connects the Lesser Curvature to the Liver
 - Rugae** (folds present in stomach when it is empty)
 - Pyloric Sphincter** at distal end where it connects with Duodenum
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Small Intestine

- Duodenum**
- Jejunum**
- Ileum**
- Ileocecal Valve**

Liver

- Right Lobe**
- Left Lobe**
- Falciform Ligament**
- Round Ligament of the Liver (Ligamentum Teres)**
- Caudate Lobe**
- Quadrangle Lobe**
- Gall Bladder**
- "Bare Area" of the Liver**

Pancreas

- Pancreatic Duct**

Large Intestine

- Lined with **Simple Columnar Epithelium with Goblet Cells**
- Parts of the Large Intestine:
 - Cecum**
 - Appendix**
 - Ascending Colon**
 - Transverse Colon**
 - Descending Colon**
 - Sigmoid Colon**
- Other Features of the Large Intestine:
 - Haustra** (Sacculations)
 - Teniae Coli** (also Taeniae Coli and Tenia Coli)
 - 3 longitudinal smooth muscle ribbons that contract lengthwise to produce haustra
 - Hepatic Flexure**
 - Splenic Flexure**
 - Epiploic Appendages**
 - 50 to 100 fatty appendages hanging off the tenia coli

□ **Rectum & Anus**

- **Rectal Valves of Houston** (also known as Houston's Valves and Transverse Folds of the Rectum)
 - Usually just 3 of them (sometimes 2 or 4)
 - used to support the weight of fecal matter (poop) in a solid state, so you can pass gas (fart).
 - ...these valves will NOT hold diarrhea!

- **Internal Anal Sphincter**
 - Smooth Muscle
 - Involuntary Control

- **External Anal Sphincter**
 - Skeletal Muscle
 - Voluntary Control

- **Pectinate Line**
 - Divides the Anal Canal into an upper 2/3 and a lower 1/3.
 - Above the Pectinate Line:
 - Epithelium is Simple Columnar Epithelium with Goblet Cells
 - Internal Hemorrhoids (these are usually painless)
 - Below the Pectinate Line:
 - Epithelium is Non-Keratinized Stratified Squamous (becomes Keratinized at exit)
 - External Hemorrhoids (these are Painful !!!)