Digestive System Anatomy

You should be able to identify the following structures and organs in the human models and in figures and diagrams.

Mouth and Pharynx

Hard palate
Soft palate
Uvula
Sublingual gland
Parotid gland
Submandibular glands
Parotid duct
Nasopharynx
Oropharynx
Epiglottis

Teeth

layers in longitudinal cross section
- enamel
- dentin
- pulp cavity

cementum
periodontal ligament
root canal
gengiva and gingival sulcus
crown
neck root

dentition
- incisors
- canines
- premolars
- molars

Esophagus

Cardiac and pyloric sphincters

Stomach

Cardia
Fundus
Pylorus/antrum
Greater curvature
Lesser curvature
Cardiac sphincter
Pyloric sphincter
Greater and lesser omenta
Rugae

Small intestine

Duodenum
Common bile duct
Hepatopancreatic ampulla
Hepatopancreatic sphincter
Plicae circulares
Villi
Mesentery
Jejunum
Ileum
Ileocecal valve

Liver and gall bladder

Lobe
Falciform ligament
Hepatic portal vein
Common hepatic duct
Cystic duct

Pancreas

Pancreatic duct
Observe spleen in close proximity to pancreas

Large Intestine

Cecum
Appendix
Ascending colon
Transverse colon
Descending colon
Sigmoid colon
Rectum
Anus
Haustra
Internal and external anal sphincters

Biology 326 Spring 2005
Human A & P Lab

Digestive system histology

Identify the following structures and features of the digestive tract using the lab manual atlas, lab electronic resources, and prepared microscope slides.

Tooth
enamel
dentine
pulp cavity

Salivary glands
Secretory units: mucous cells and serous demilunes
Duct

Esophagus
Mucosa: stratified squamous epithelium, lamina propria, muscularis mucosae.
Submucosa: esophageal glands may be visible.
Muscularis externa: there will probably be a combination of smooth and skeletal muscle.
Adventitia: note that esophagus has no serosa.

You should be able to ID a slide of the gastroesophageal junction.

Stomach
Mucosa: simple columnar epithelium, note goblet cells; gastric pits; lamina propria.
- gastric glands: note general area where mucous neck cells, parietal cells, chief cells, enteroendocrine cells are present
- lamina propria
- muscularis mucosae

Submucosa
Muscularis externa: view oblique, circular, longitudinal smooth muscle layers.
Serosa

Small intestine
Mucosa: villi, simple columnar epithelium, goblet cells, intestinal crypt; note lamina propria with capillaries and lacteals
Submucosa: Peyer's patches and duodenal glands
Muscularis externa: circular and longitudinal smooth muscle layers

Liver
Lobule: central vein, triad region.
Hepatocytes
Sinusoids: try to ID Kupffer cell.

Pancreas
Acini
Ducts
Islets of Langerhans

Large intestine
Mucosa: simple columnar epithelium with large numbers of goblet cells; also should be able to differentiate from small intestine
Submucosa
Muscularis externa: circular and longitudinal smooth muscle layers.
Examine slide of colo-rectal junction noting the transition from simple columnar epithelium of mucosa to stratified squamous epithelium