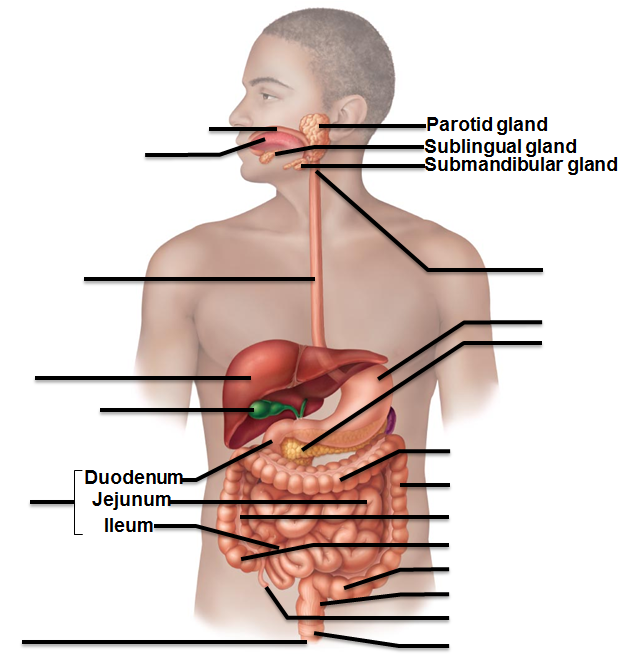
Pages 850 - 854 Overview

1. Label the structures indicated.

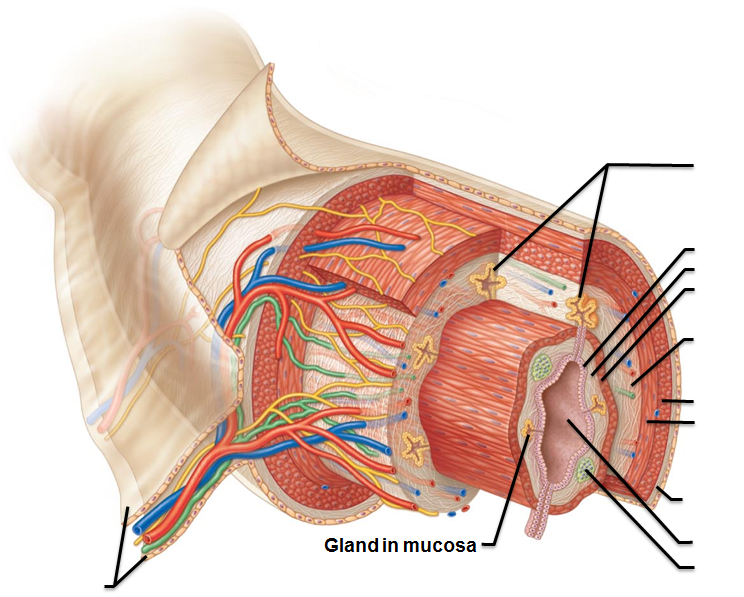


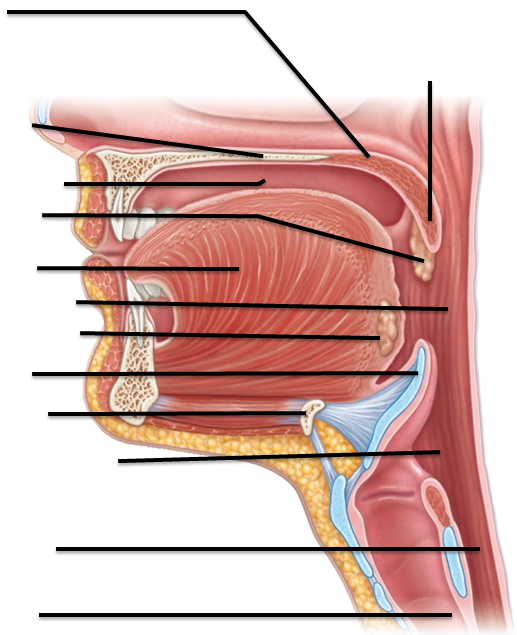
1. What is the alimentary canal?
2. Why is a “living” alimentary canal shorter than one from a cadaver?
3. Why is the inside of the digestive tract (the lumen) considered an external environment?
4. List and give a general summary of the six functions of the digestive tract

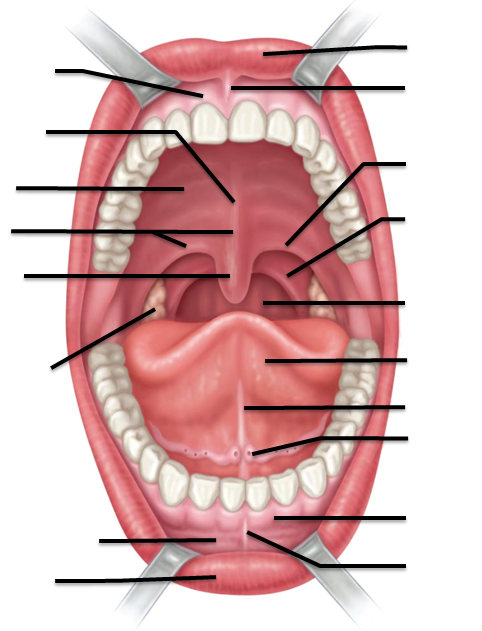
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1. What are the extrinsic controls of the digestive system activity? The intrinsic controls? Which is the “gut brain”?
2. Compare the visceral to the parietal peritoneum.
3. What is mesentery?
4. Which organs are intraperitoneal and which are retroperitoneal?
5. What causes peritonitis?

**Pages 854 - 860**

1. What are layers of the alimentary canal?
2. The mucosa is not just a layer of cells, but several layers of tissues. What three divisions are found within the mucosa and what do they do?
3. How does the muscularis mucosae compare with this muscularis externa? How do their functions differ?
4. Compare the locations of the submucosal nerve plexus with the myenteric nerve plexus. What is the function of each?
5.  Label the structures indicated.
6. Which division of the autonomic nervous system will enhance digestive function?
7. What type of epithelial tissues line the mouth? What advantage does this have?
8. What function does the soft palate have?
9. What is a bolus?
10. Identify the structures indicated

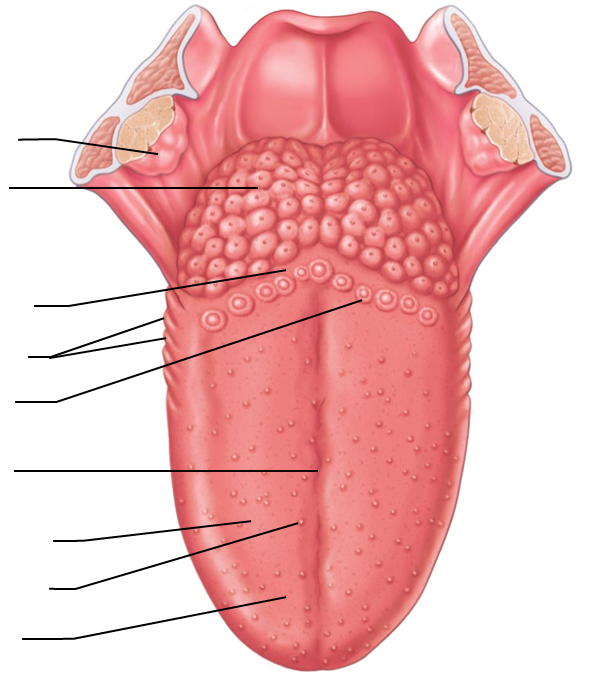




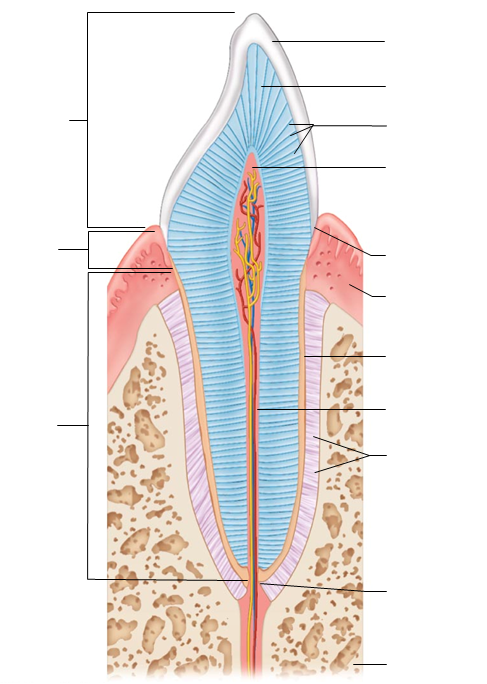
1. What’s the difference between the intrinsic and extrinsic tongue muscles?
2. Identify and list the various papillae on the tongue and their general function.

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1. What is lingual lipase and where does it function?
2. Label the structures indicated on the image of the tongue.



1. Where is the parotid gland located? Which cranial nerve is nearby?
2. Where is the submandibular gland located?
3. What is the difference between serous cell and mucous cell production?
4. How is saliva protective?
5. What happens to our salivary glands and mouth when we are nervous, anxious, frightened, etc. and the sympathetic nervous system is activated?
6. In the respiratory system, we talk about alveoli as the air-filled sacs for gas exchange. In the mouth/jaw, where and what are the alveoli?
7. Label the structures indicated in the tooth below:



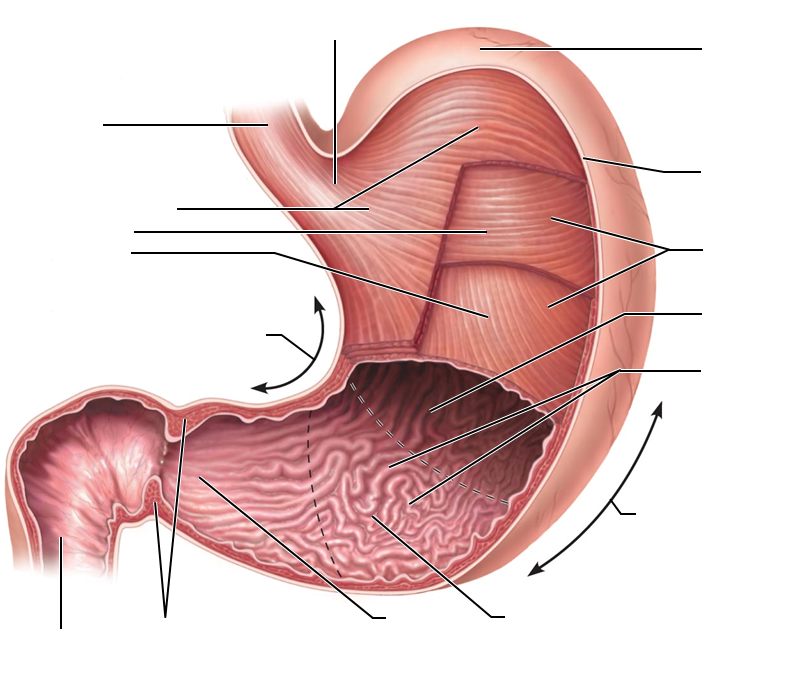
1. Why, when our “baby teeth” fall out, do we only see the crown, but if as an adult we have a tooth pulled, it looks much different?
2. List the shapes of the adult teeth and a general function:

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1. What is the gingiva? What is gingivitis?

Pages 862 – 877

1. What is the esophageal hiatus?
2. What type of secretions are produced in the esophagus and how does this product help?
3. What is mastication?
4. What is deglutition?
5. Which phases are voluntary
6. Which phases are involuntary?
7. What is chyme
8. What are the four regions of the stomach?
9. Label the structures and regions of the stomach:



1. What’s different about the muscularis layer of the stomach?
2. List the cells found in the gastric glands and indicate their general function

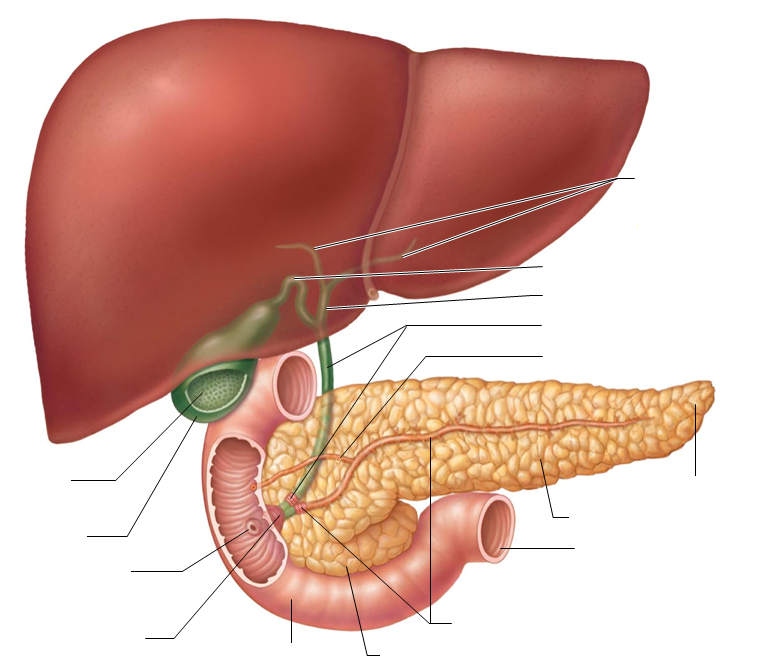
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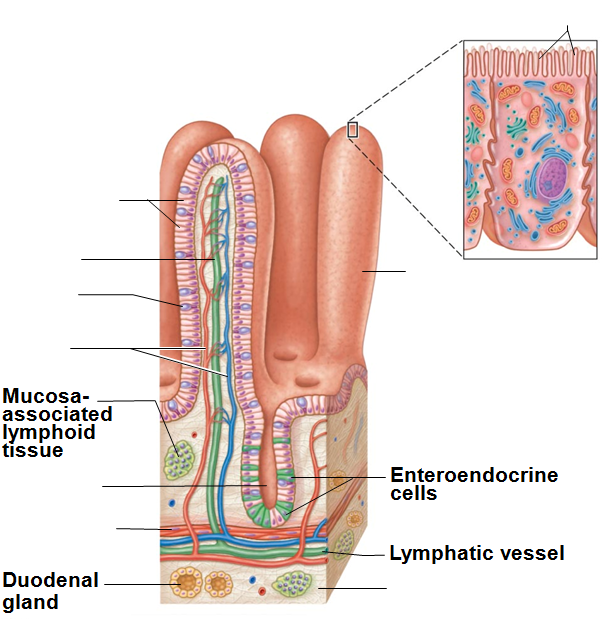
1. What is the function/advantage of the mucosal barrier?
2. What triggers the cephalic reflex and what happens as a result?
3. What triggers the gastric phase?
4. What triggers the intestinal phase?
5. Why is the stress-relaxation response important in the stomach?
6. Compare how carbohydrates affect gastric empyting versus fatty foods.
7. What is emesis?

As we look at the functions of the stomach, intestines, gall bladder, and pancreas, we will discuss or reference many of the hormones listed below. Hormone: circulated systemically (travels through the blood to the whole body) and Paracrine: (circulated locally through blood or fluids to **nearby/neighboring** structures. )

|  |  |
| --- | --- |
| Hormone | Function |
| Cholecystokinin |  |
| Gastrin |  |
| Intestinal gastrin |  |
| Secretin |  |
| Somatostatin |  |
| Histamine |  |

1. What is the main function of the small intestine?
2. What are the three regions of the small intestine?
3. Where is the hepatopancreatic sphincter and what is its function?
4. Compare the following structures: plica circulars, villi, and microvilli



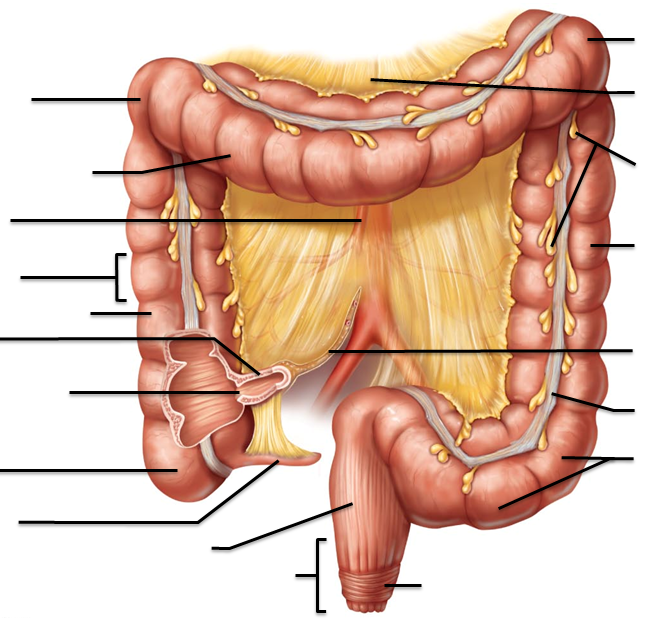


**Pages 878 -886 Liver, Gallbladder, and Pancreas**

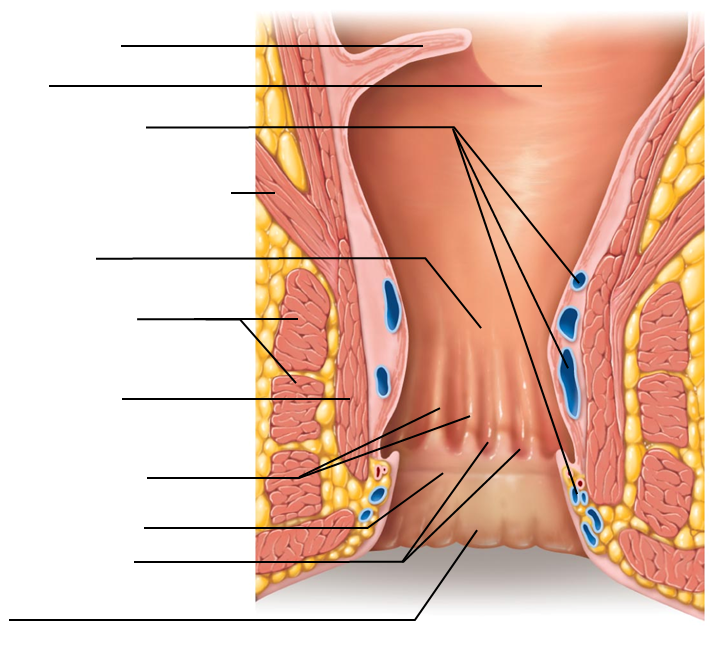
1. Review the gross anatomy of the lover on page 878. What is the term used to refer to “liver”?
2. What are the bile canaliculi?
3. Compare hepatitis to cirrhosis
4. What does “*caput medusa*” translate to, and when it is seen?
5. What is bile’s function?
6. What does it mean to emulsify fats as opposed to chemically digest them?
7. What are the functions of the gallbladder?
8. What are *biliary calculi*?
9. What are some complications of blocking the bile duct?
10. What are the pathways out of the pancreas and into the duodenum called? List the ducts and the sphincters.
11. Compare the endocrine products of the pancreas to pancreatic juice.
12. What’s the pH of the pancreatic juice? Is this alkaline or acidic? How does that compare to the pH of the gastric juice?
13. What is the effect of CCK (Cholecystokinin) on the gallbladder and neighboring structures?
14. How does Secretin compare in function to CCK? (what are their targets and triggers?)
15. At the duodenum, which categories (carbohydrates, proteins, nucleic acids, and lipids) are completely digested? Partially digested? Not digested at all?
16. Compare segmentation to peristalsis in terms of locations and type of movement.

**Pages 886 - 892 Large Intestine**

1. What is the gastroileal reflex? (what’s the trigger and what’s the result?)
2. What are the functions of the large intestine?
3. Where is the vermiform appendix located, and what is its function?
4. Why can a ruptured appendix be life threatening?
5. Increasing intra-abdominal pressure causes gas to be expelled from the body. Increasing the intra-abldominal pressure causes feces to be expelled from the body. Why can gas be expelled independently from the feces? (without feces being expelled at the same time)?
6. Label the structures indicated in the image



1. Compare the internal anal sphincter to the external anal sphincter. What types of muscle are they composed of, and what controls them?
2. What is the function of mucus in the large intestine?
3. What are the functions of the anal sinuses?
4. Which superficial veins can become hemorrhoids? What are hemorrhoids?
5. What is “bacterial flora”?
6. How is the gastocolic reflex related to Mass movements?
7. Identify the structures indicated below:



1. What’s the difference between diverticulosis and diverticulitis?
2. What pathways and structures are involved in the defecation reflex?
3. What conditions in the digestive system trigger diarrhea? Constipation?

Page 893 -

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| Compound | Where is it digested? | Where is it absorbed? |
| Carbohydrates: glucose and galactose |  |  |
| Whole proteins |  |  |
| Amino acids |  |  |
| Fats  monoglycerides and fatty acids |  |  |
| Nucleic acids |  |  |

1. What is another term for Celiac Disease?
2. How does the gluten sensitivity compromise nutrition absorption?

Pages 904-905, Clinical Terms:

1. What is an “ascites” and which conditions is it associated with?
2. What is “bruxism?”
3. What is “dysphagia:
   1. Dys:
   2. Phag
4. What conditions/disorders are associated with Inflammatory Bowel Disease?
5. What is a peptic ulcer?
6. What happens with a pyloric stenosis?
7. What is a vagotomy and when is it performed?
8. What is xerostomia
   1. Xer/zer:
   2. stom
   3. what causes it?