



ACCESSORY ORGANS

Salivary glands

Secrete saliva, which contains enzymes that initiate breakdown of carbohydrates

Liver

Produces bile, which emulsifies fat

Gallbladder

Stores bile and introduces it into small intestine

Pancreas

Produces and secretes pancreatic juice, containing digestive enzymes and bicarbonate ions, into small intestine

ALIMENTARY CANAL

Mouth

Mechanical breakdown of food; begins chemical digestion of carbohydrates

Pharynx

Connects mouth with esophagus.

Esophagus

Peristalsis pushes food to stomach

Stomach

Secretes acid and enzymes. Mixes food with secretions to begin enzymatic digestion of proteins

Small Intestine

Mixes food with bile and pancreatic juice. Final enzymatic breakdown of food molecules; main site of nutrient absorption

Large Intestine

Absorbs water and electrolytes to form feces

Rectum

Regulates elimination of feces

Anus

Figure 15.1
Major organs of the digestive system.



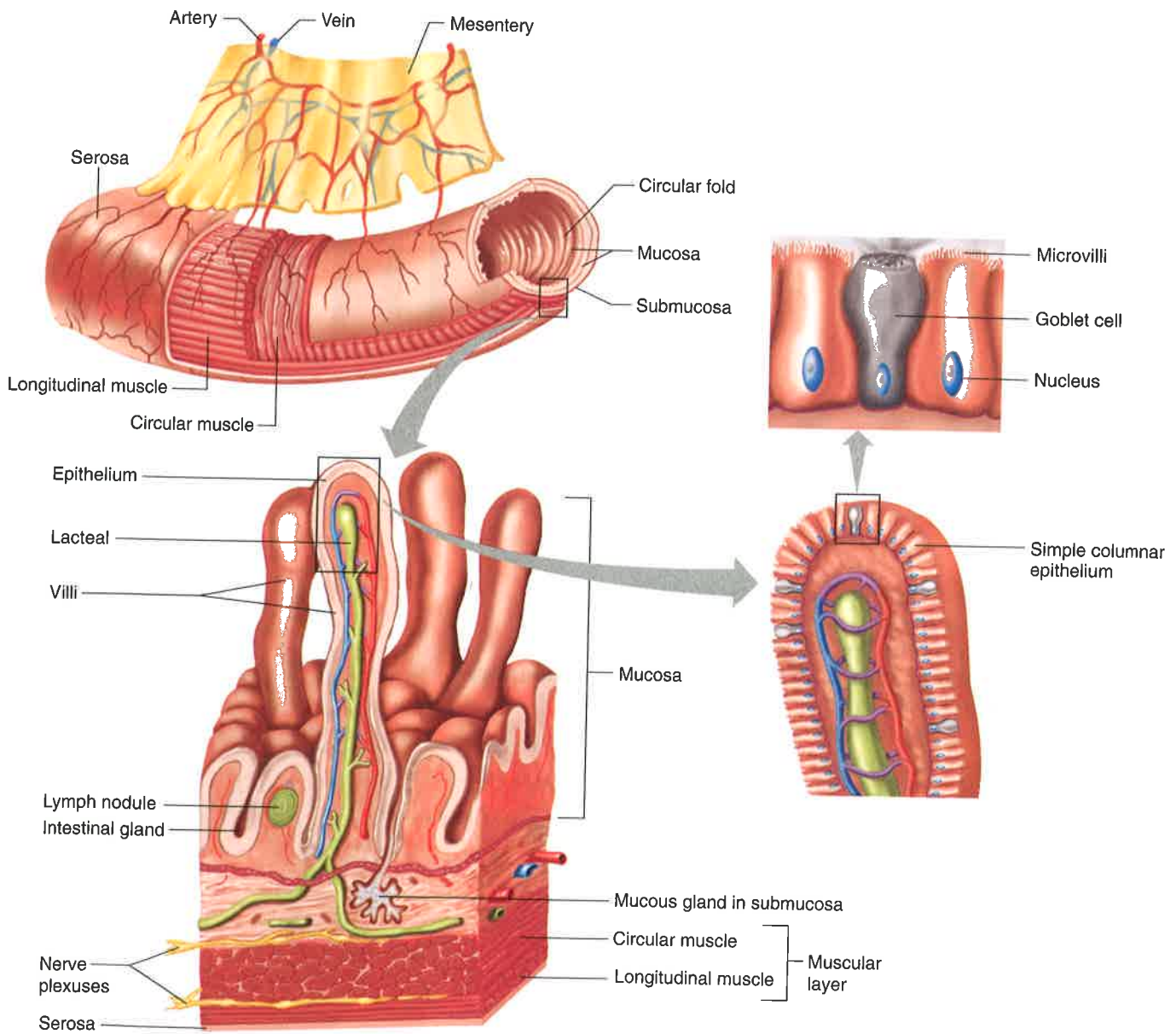


Figure 15.3

The wall of the small intestine, as in other portions of the alimentary canal, includes four layers: an inner mucosa, a submucosa, a muscular layer, and an outer serosa.

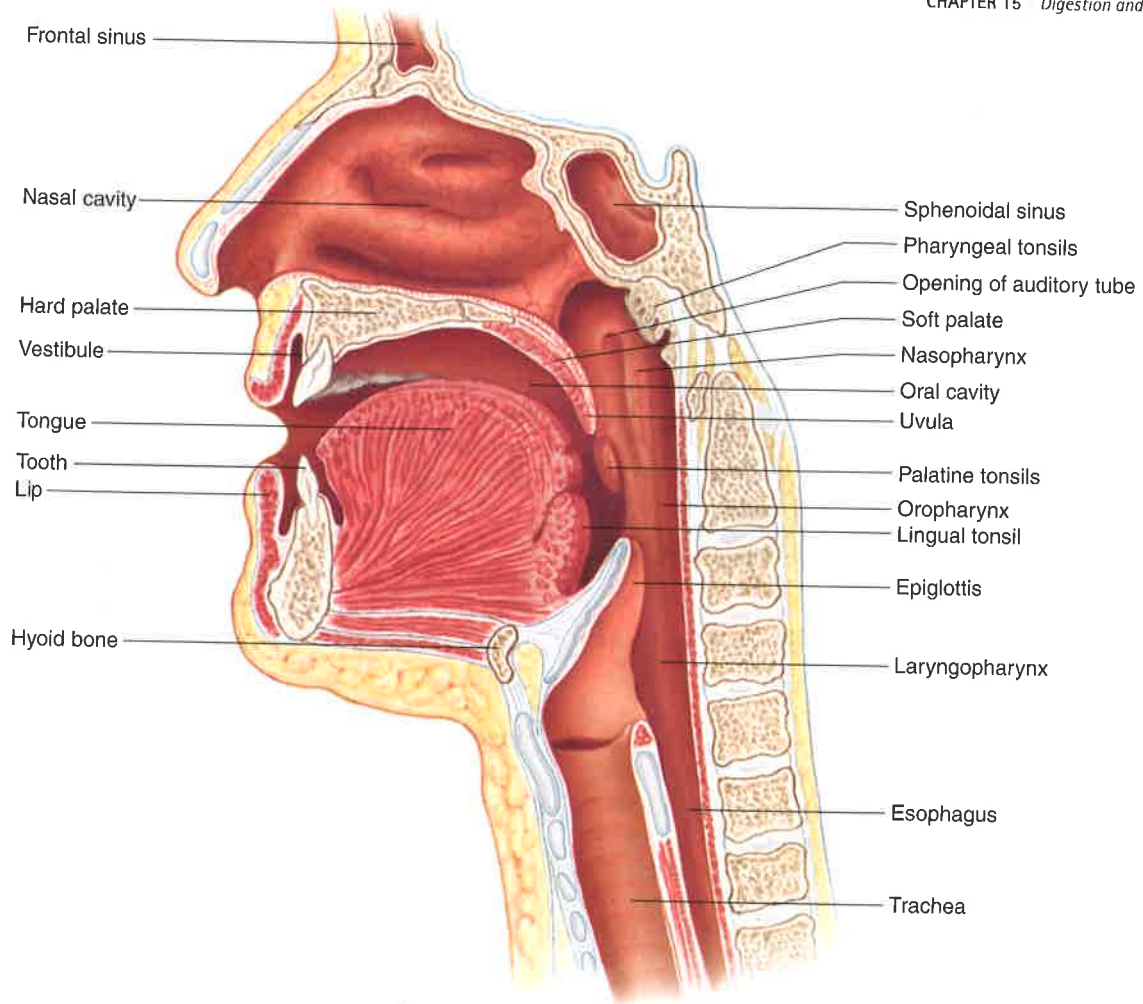


Figure 15.6
Sagittal section of the mouth, nasal cavity, and pharynx.

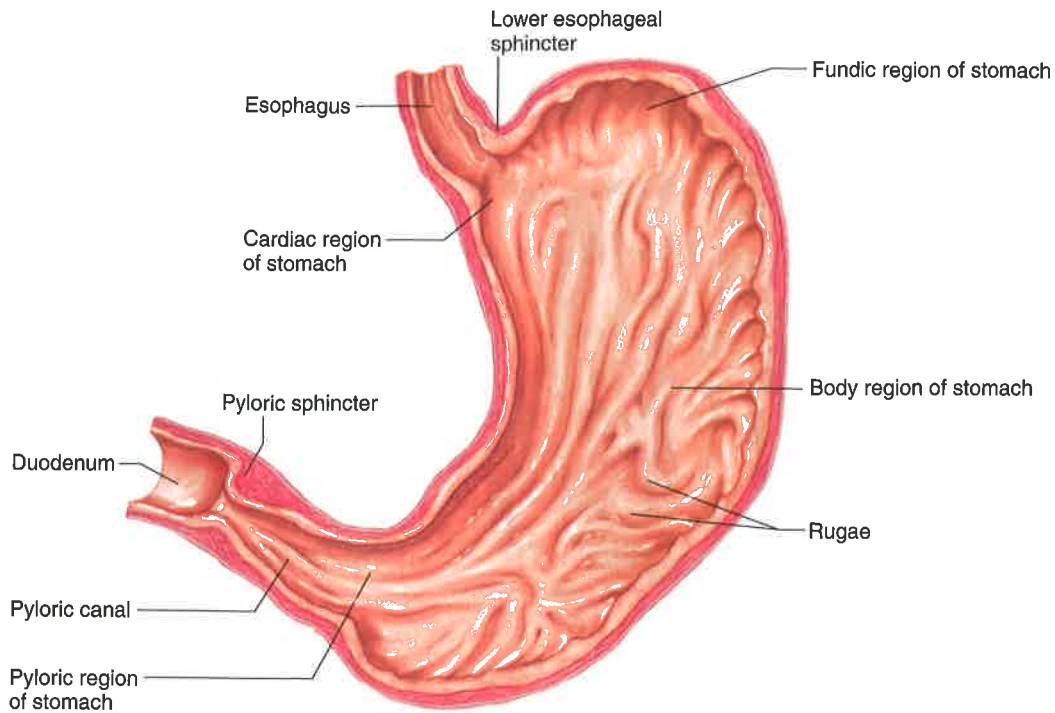


Figure 15.11
Major regions of the stomach.

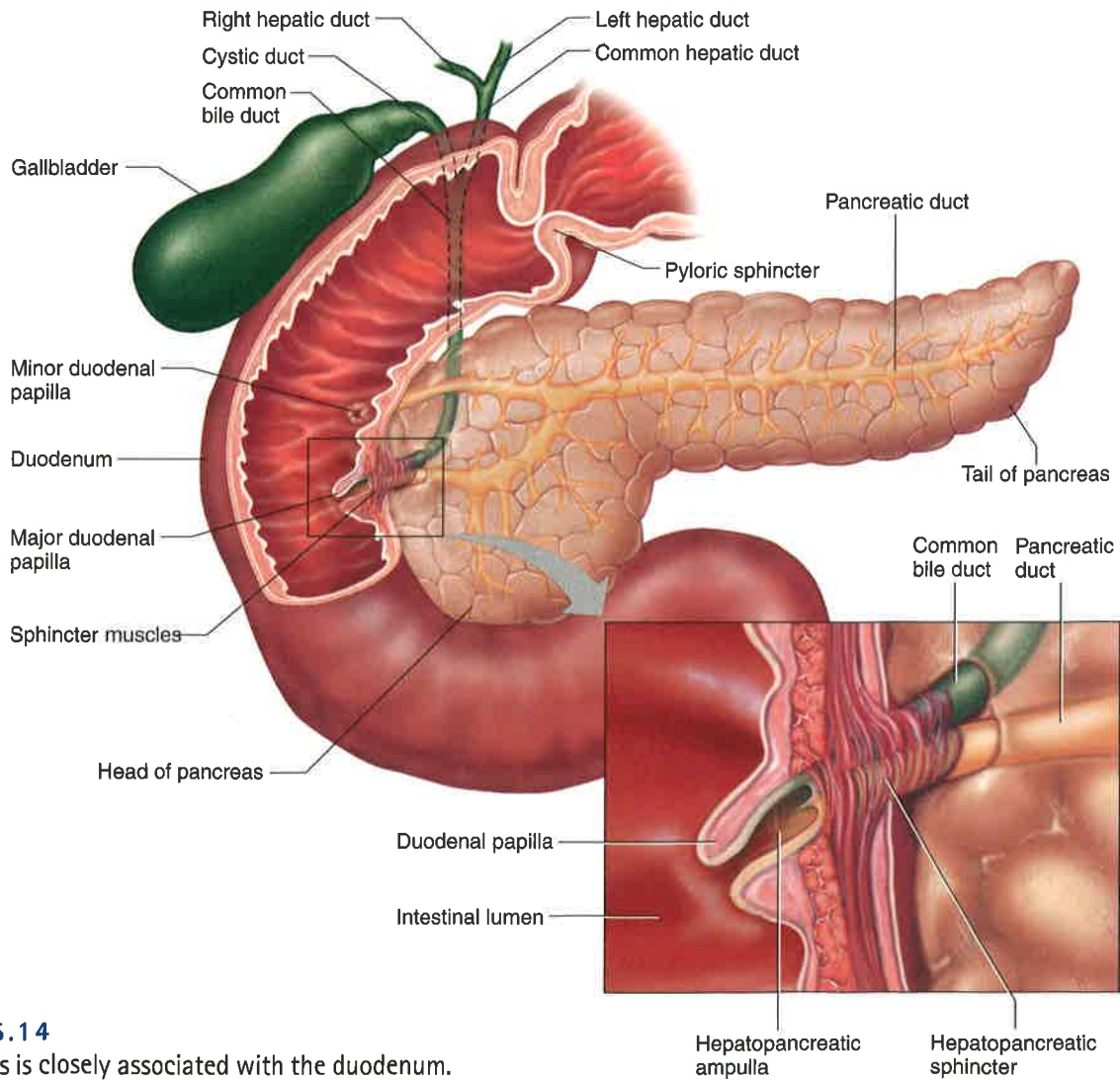


Figure 15.14
The pancreas is closely associated with the duodenum.

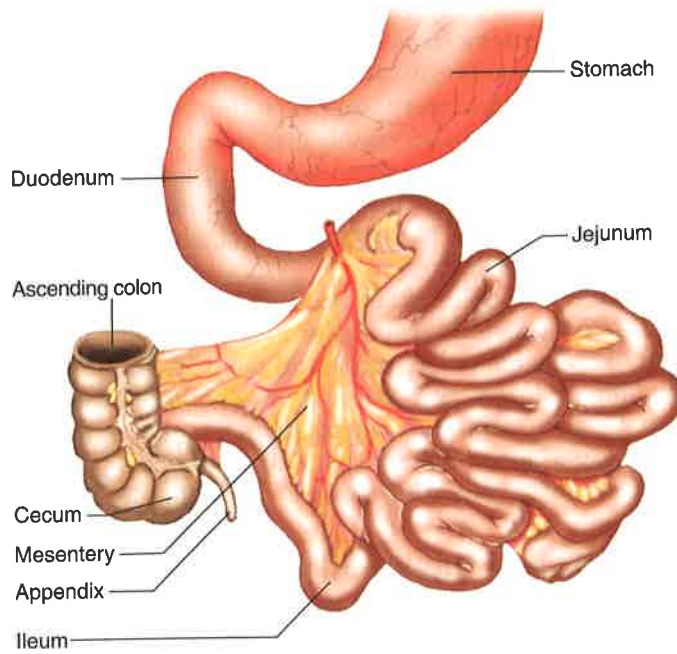


Figure 15.21
The three parts of the small intestine are the duodenum, the jejunum, and the ileum.

Figure 15.27
Parts of the large intestine (anterior view).

