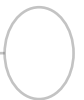
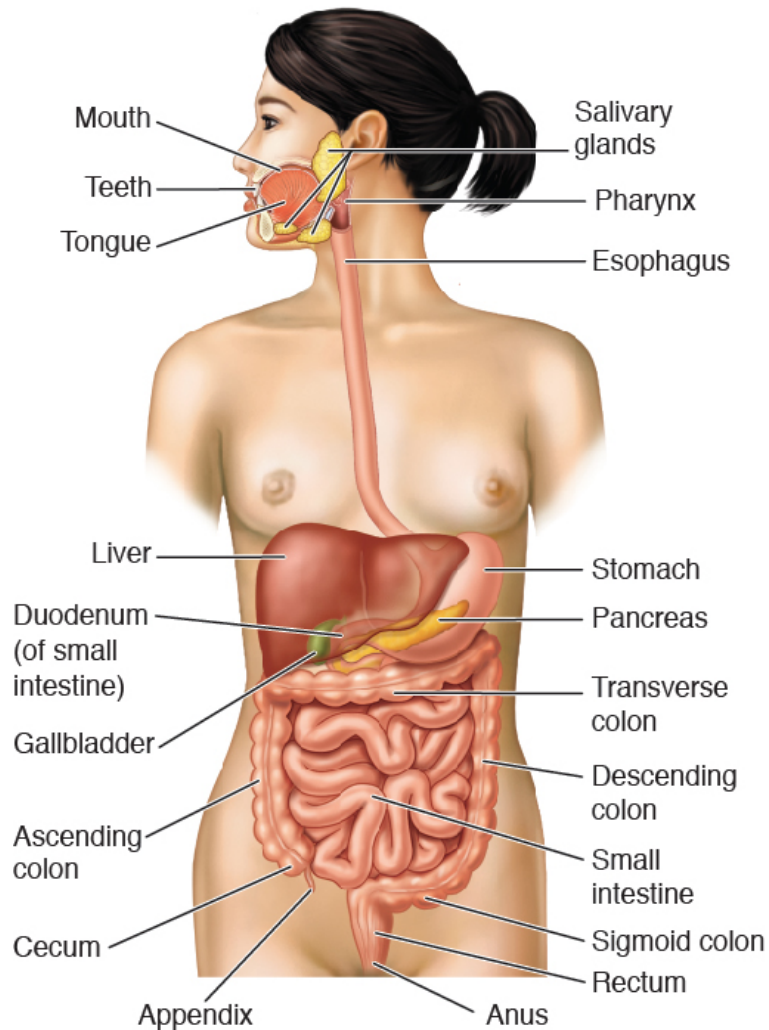


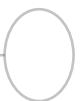
# Digestive System Image Bank

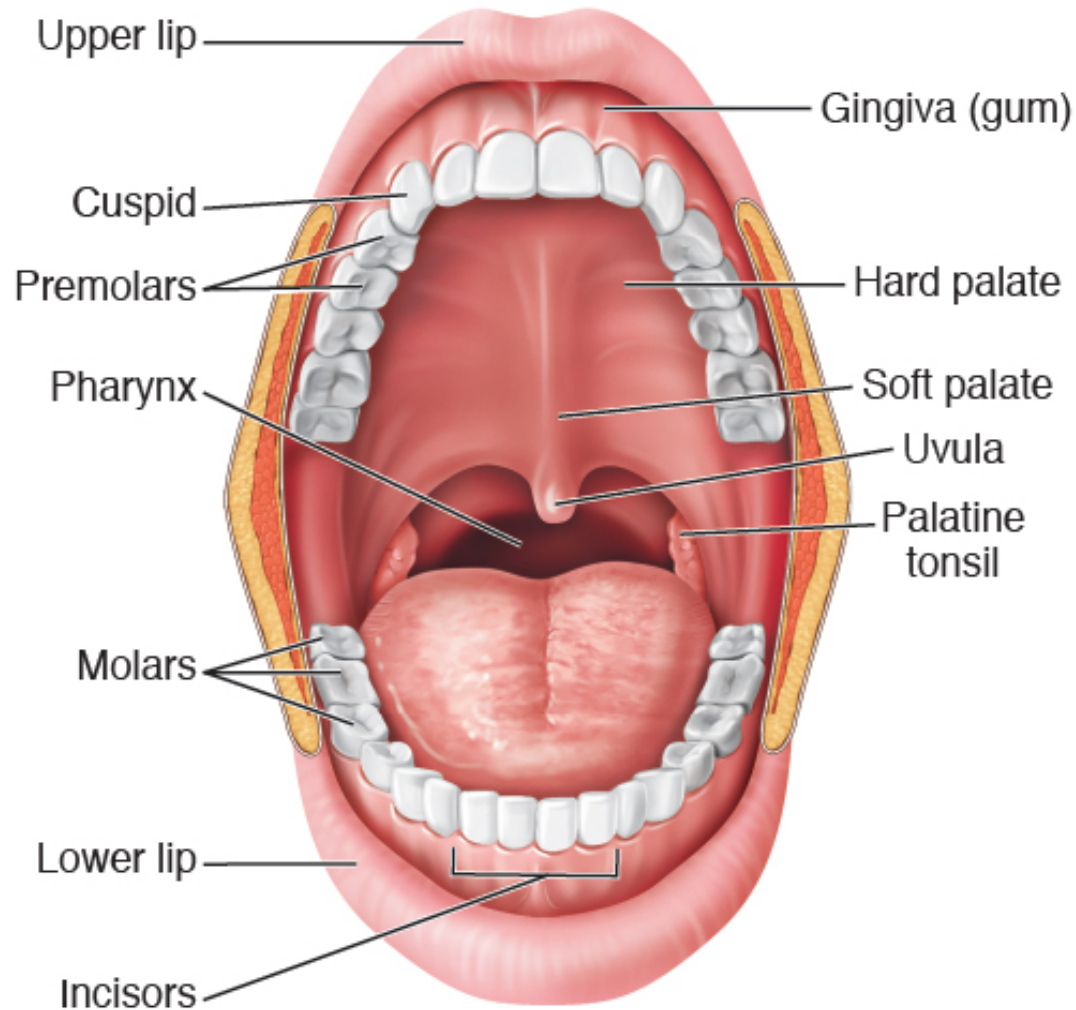




Digestive system. Divisions of the gastrointestinal tract are shown along with the accessory organs, the salivary glands, liver, gallbladder, and pancreas.

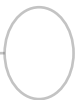
McConnell T, Hull K. Human Form, Human Function. Philadelphia, PA: Lippincott Williams & Wilkins; 2011.

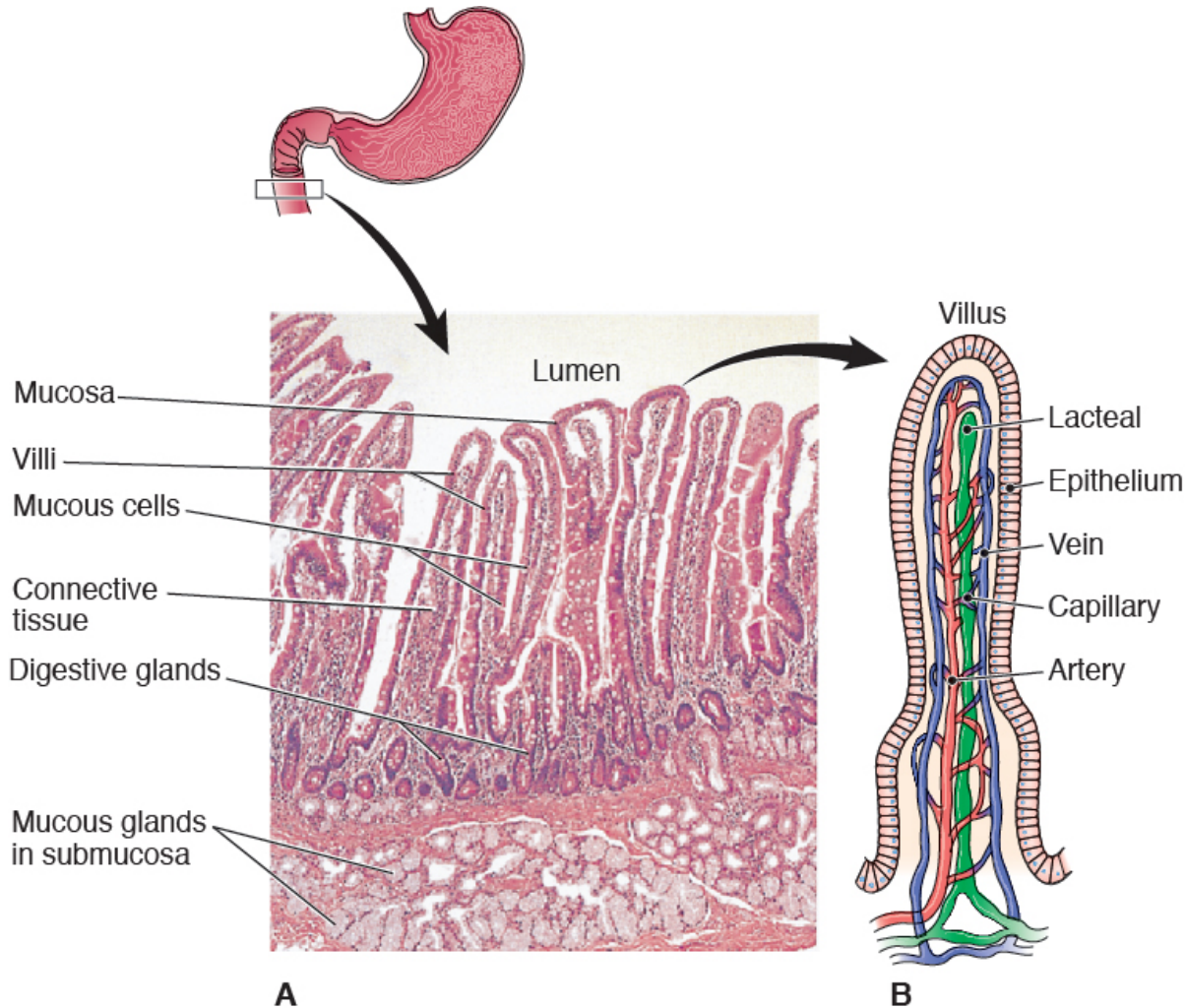




The mouth. The teeth, pharynx, tonsils, and other structures in the oral cavity are shown.

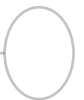
McConnell T, Hull K. Human Form, Human Function. Philadelphia, PA: Lippincott Williams & Wilkins; 2011.

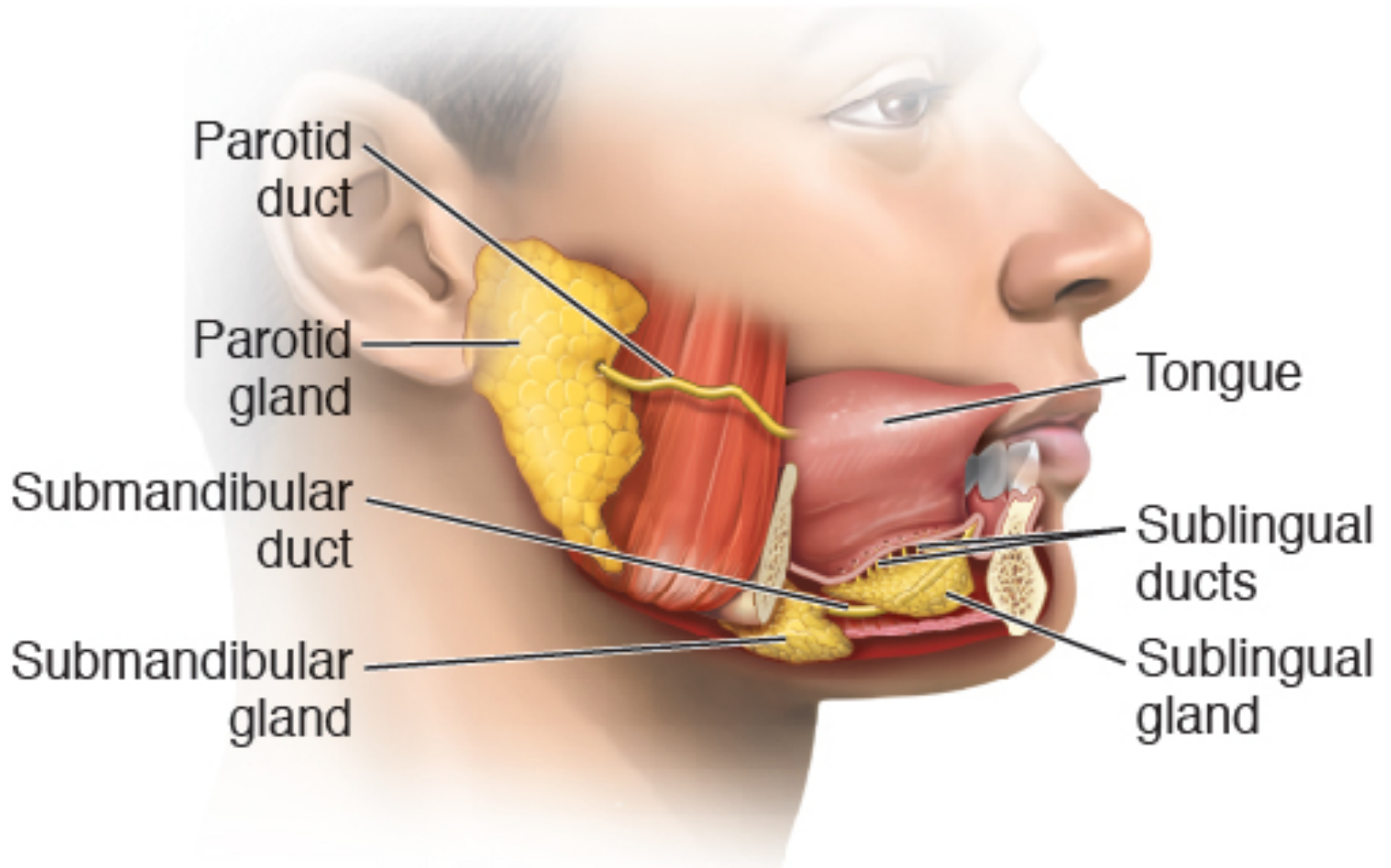




Intestinal villi. A. Microscopic view of the small intestine's lining showing villi and glands that secrete mucus and digestive juices. The lumen is the central opening. B. An intestinal villus. Each villus has blood vessels and a lacteal (lymphatic capillary) for nutrient absorption.

Cohen B, Hull K. Memmler's The Human Body in Health and Disease. 14th ed. Baltimore, MD: Lippincott Williams & Wilkins; 2019.

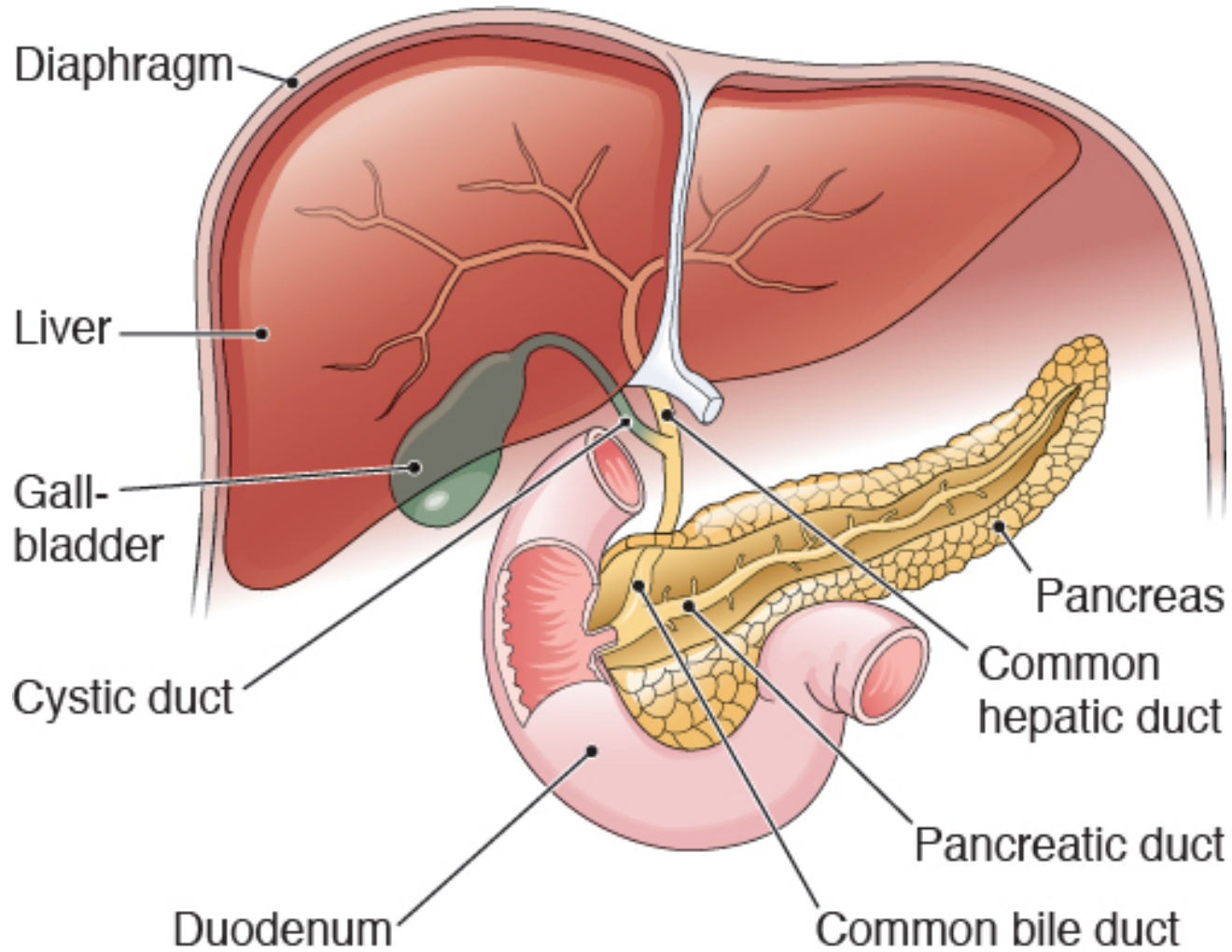




Salivary glands. These accessory organs of digestion secrete into the mouth.

McConnell T, Hull K. Human Form, Human Function. Philadelphia, PA: Lippincott Williams & Wilkins; 2011.





Accessory organs of digestion, which secrete into the small intestine. The organs and ducts are shown. The diaphragm is shown for reference.



# Roots for the Mouth

Root	Meaning	Example	Definition of Example
bucc/o	cheek	buccoersion <i>buk-ko-VER-zhun</i>	turning toward the cheek
dent/o, dent/i	tooth, teeth	edentulous <i>e-DEN-tu-lus</i>	without teeth
odont/o	tooth, teeth	periodontics <i>per-e-o-DON-tiks</i>	dental specialty that deals with the study and treatment of the tissues around the teeth
gingiv/o	gum (gingiva)	gingivectomy <i>jin-jih-VEK-to-me</i>	excision of gum tissue
gloss/o	tongue	glossoplegia <i>glos-o-PLE-je-ah</i>	paralysis (-plegia) of the tongue
lingu/o	tongue	orolingual <i>or-o-LING-gwal</i>	pertaining to the mouth and tongue
gnath/o	jaw	prognathous <i>PROG-nah-thus</i>	having a projecting jaw
labi/o	lip	labium <i>LA-be-um</i>	lip or lip-like structure
or/o	mouth	circumoral <i>sir-kum-OR-al</i>	around the mouth
stoma, stomat/o	mouth	xerostomia <i>ze-ro-STO-me-ah</i>	dryness (xero-) of the mouth
palat/o	palate	palatine <i>PAL-ah-tine</i>	pertaining to the pal-ate (also palatal)
sial/o	saliva, salivary gland, salivary duct	sialogram <i>si-AL-o-gram</i>	radiograph of the sali-vary glands and ducts
uvul/o	uvula	uvulotome <i>U-vu-lo-tome</i>	instrument (-tome) for incising the uvula



# Roots for the Digestive Tract (Except the Mouth)

Root	Meaning	Example	Definition of Example
esophag/o	esophagus	esophageal* e-sof-ah-JE-al	pertaining to the esophagus
gastr/o	stomach	gastroparesis gas-tro-pah-RE-sis	partial paralysis (pa-resis) of the stomach
pylor/o	pylorus	pyloroplasty pi-LOR-o-plas-te	plastic repair of the pylorus
enter/o	intestine	dysentery DIS-en-ter-e	infectious disease of the intestine
duoden/o	duodenum	duodenostomy du-o-deh-NOS-to-me	surgical creation of an opening into the duodenum
jejun/o	jejunum	jejunectomy jeh-ju-NEK-to-me	excision of the jeju-num
ile/o	ileum	ileitis il-e-I-tis	inflammation of the ileum
cec/o	cecum	cecoptosis se-kop-TO-sis	downward displace-ment of the cecum
col/o, colon/o	colon	coloclysis ko-lo-KLI-sis	irrigation (-clysis) of the colon
sigmoid/o	sigmoid colon	sigmoidoscope sig-MOY-do-skope	an endoscope for ex-amining the sigmoid colon
rect/o	rectum	rectocele REK-to-sele	hernia of the rectum
proct/o	rectum	proctopexy PROK-to-pek-se	surgical fixation of the rectum
an/o	anus	perianal per-e-A-nal	around the anus

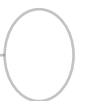
\*Note addition of e before -al.

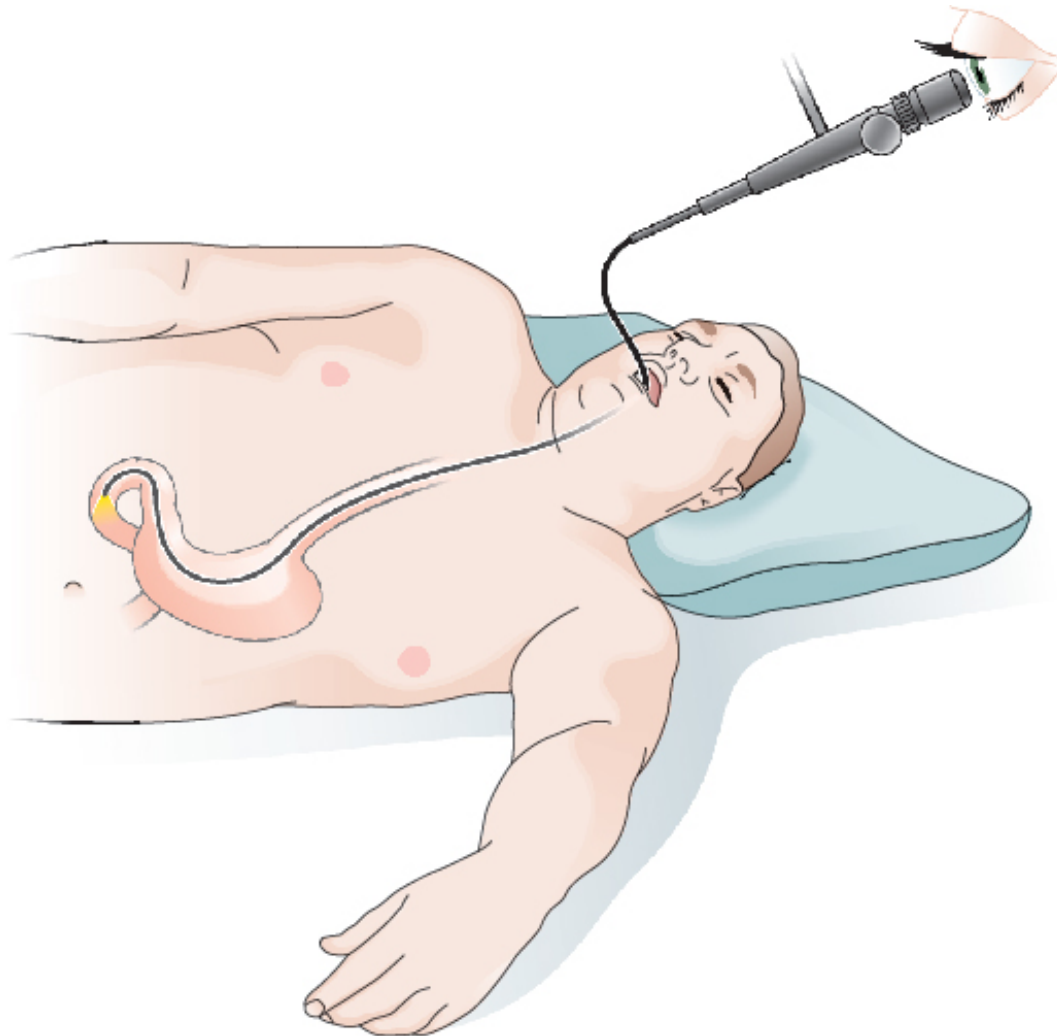




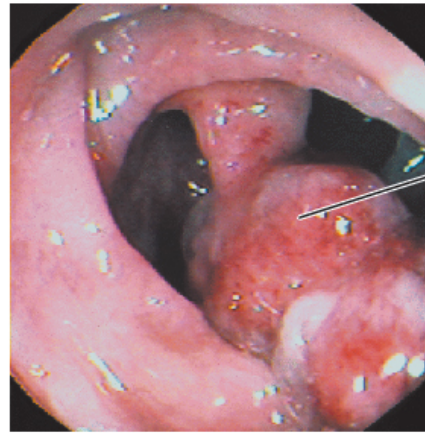
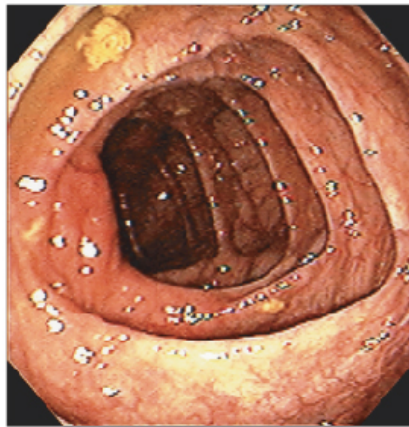
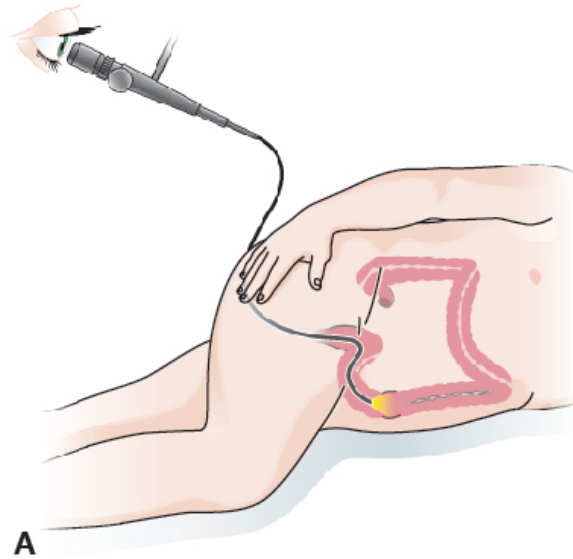
## Roots for the Accessory Organs

Root	Meaning	Example	Definition of Example
hepat/o	liver	hepatocyte <i>HEP-ah-to-site</i>	a liver cell
bili	bile	biliary <i>BIL-e-ar-e</i>	pertaining to the bile or bile ducts
chol/e, chol/o	bile, gall	cholestasis <i>ko-le-STA-sis</i>	stoppage of bile flow
cholecyst/o	gallbladder	cholecystogram <i>ko-le-SIS-to-gram</i>	radiograph of the gallbladder
cholangi/o	bile duct	cholangioma <i>ko-lan-je-O-mah</i>	cancer of the bile ducts
choledoch/o	common bile duct	choledochal <i>KO-le-dok-al</i>	pertaining to the common bile duct
pancreat/o	pancreas	pancreatotropic <i>pan-kre-at-o-TROP-ik</i>	acting on the pancreas



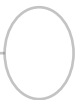


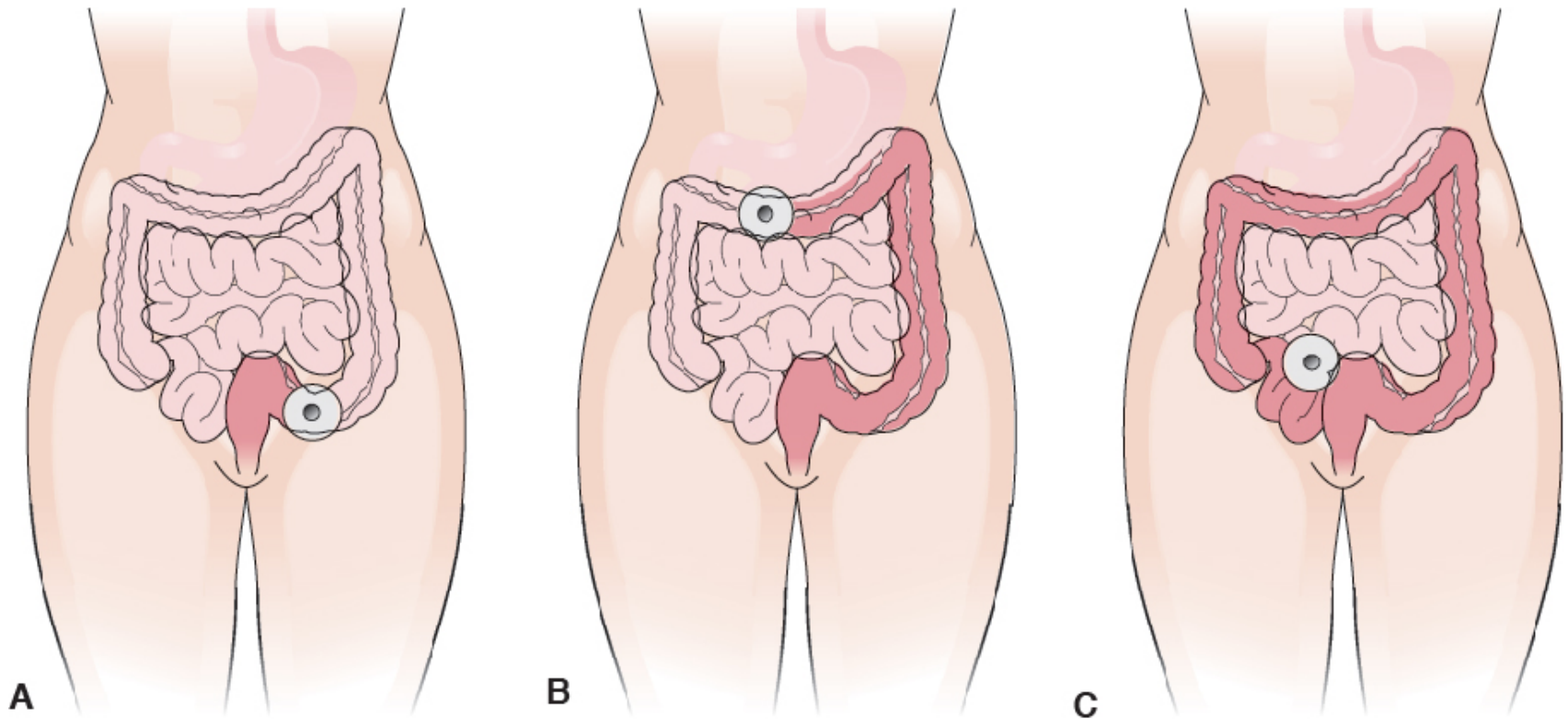
Endoscopy. A patient undergoing gastroscopy is shown.



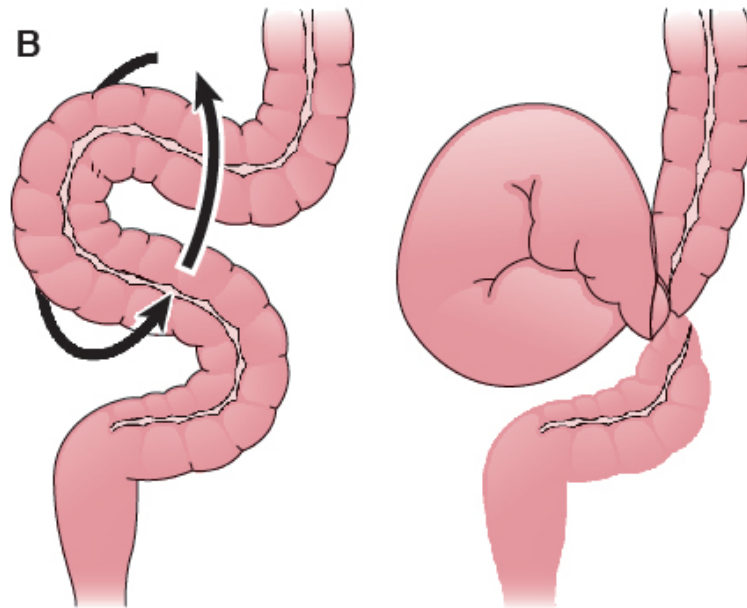
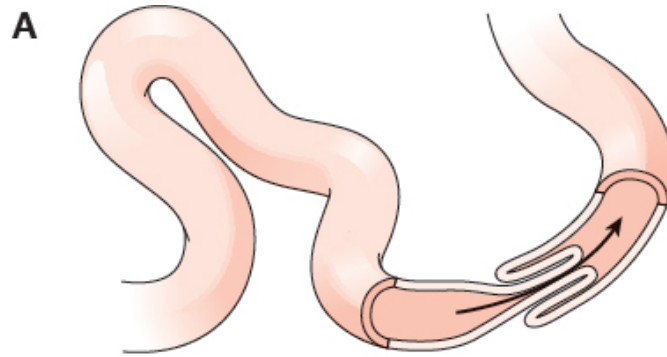
Colonoscopy. A. Sigmoidoscopy. The flexible fiberoptic endoscope is advanced past the proximal sigmoid colon and then into the descending colon. B. Endoscopic image of the cecum, the first portion of the large intestine. C. Endoscopic image of a colonic polyp.

C: Mulholland MW, et al. Greenfields Surgery Scientific Principles and Practice. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2006.

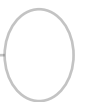


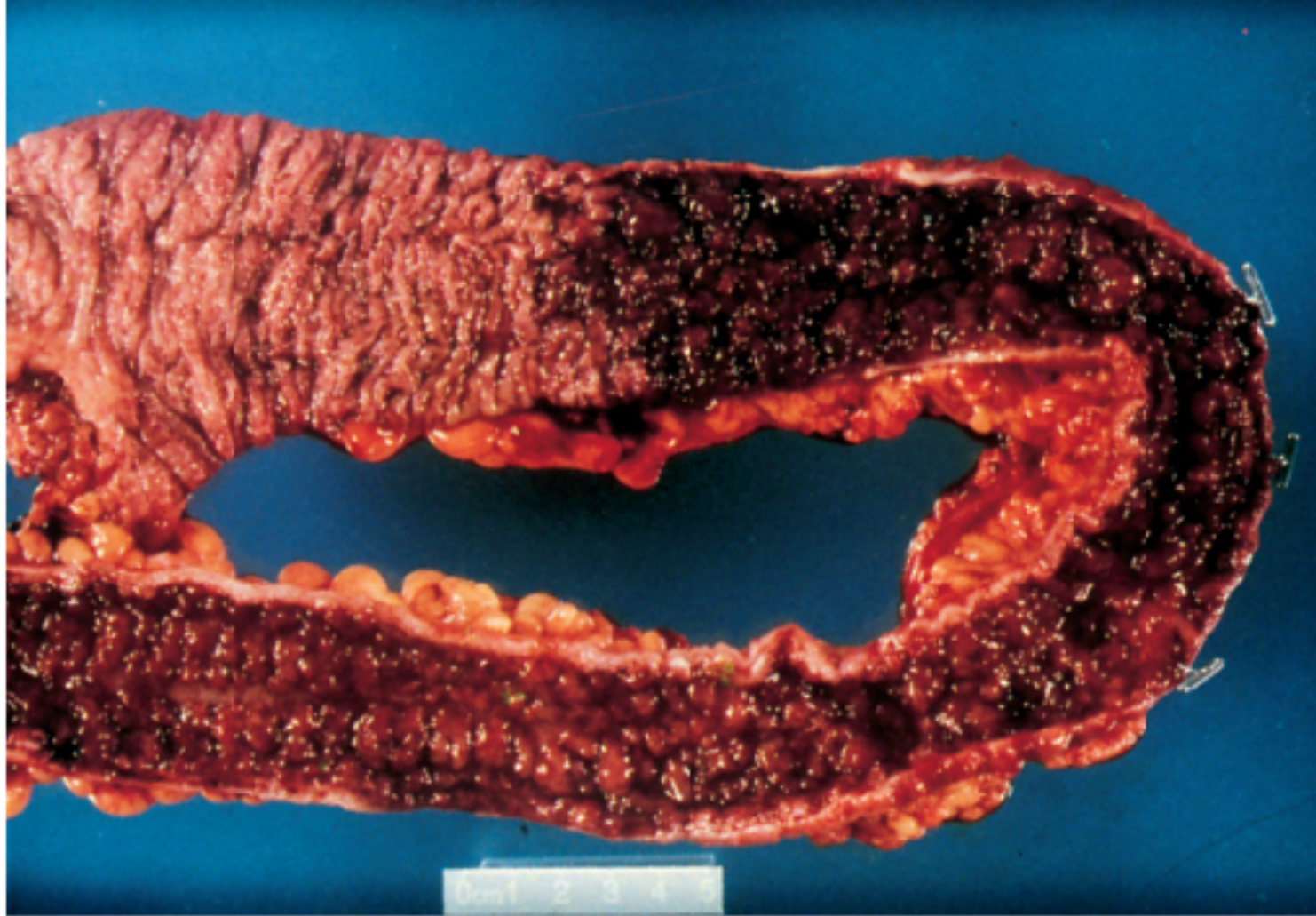


Ostomy surgery. Various locations are shown. The shaded portions represent the bowel sections that have been removed or are inactive. A. Sigmoid colostomy. B. Transverse colostomy. C. Ileostomy.



Intestinal obstruction. A. Intussusception. B. Volvulus, showing counterclockwise twist.

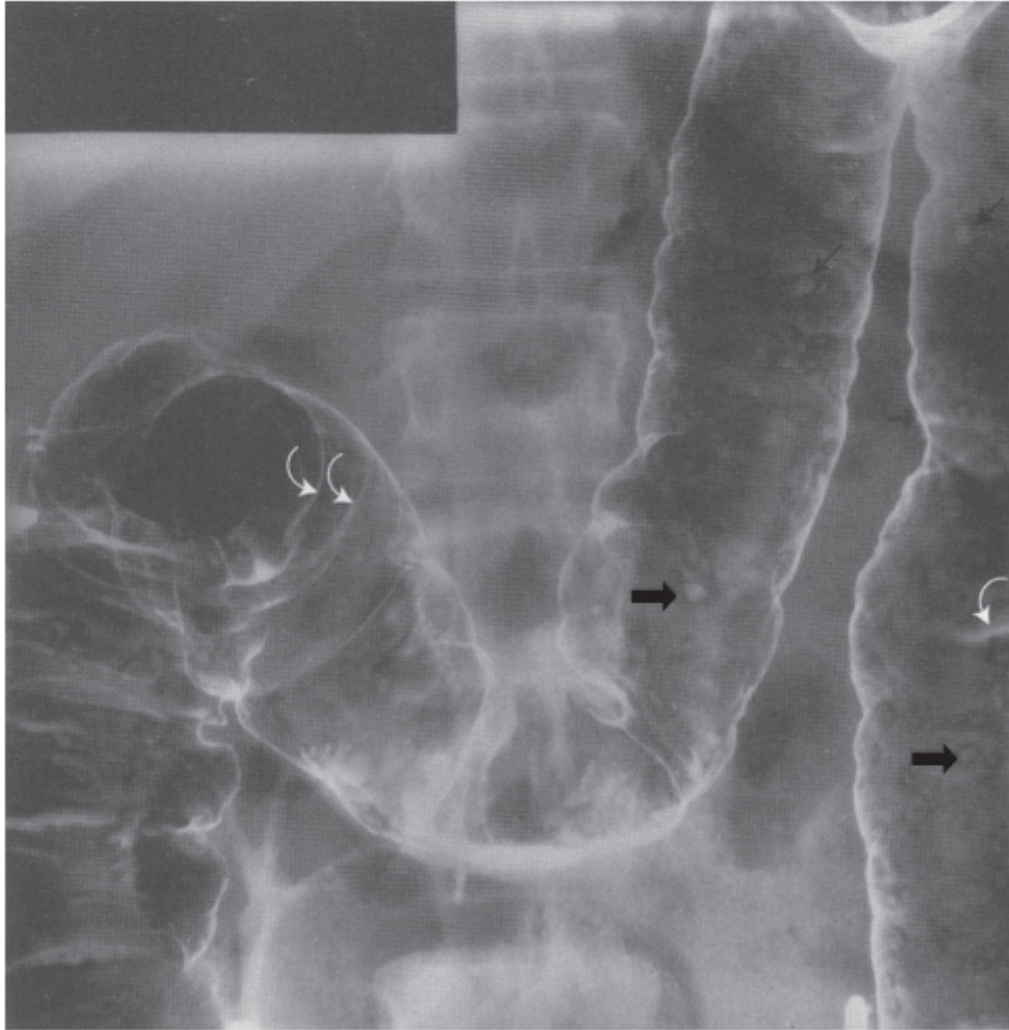




Ulcerative colitis. Prominent erythema and ulceration of the colon begin in the ascending colon and are most severe in the rectosigmoid area.

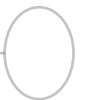
Rubin R, Strayer DS. Rubin's Pathology. 6th ed. Philadelphia, PA: Wolters Kluwer Health; 2012.

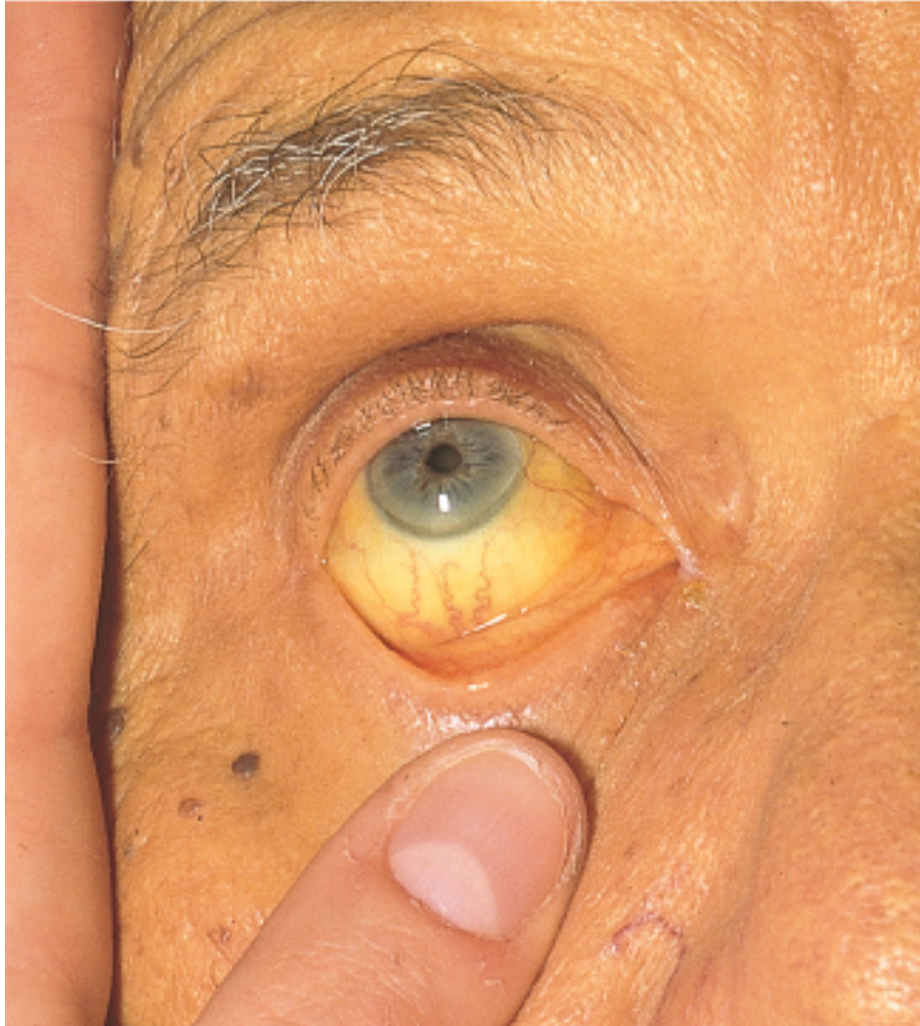




Lower gastrointestinal (GI) series. Barium enema shows lesions of enteritis (straight arrows) and thickened mucosa (curved arrows).

Erkonen WE. Radiology 101. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2004.



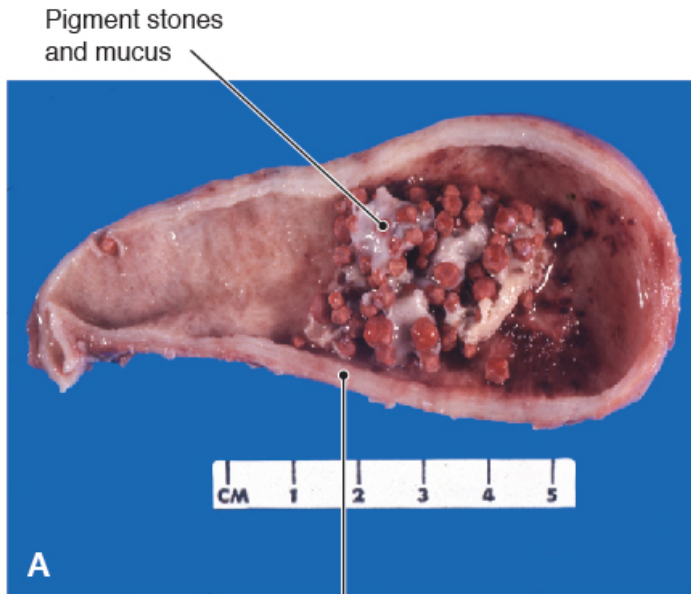


**Jaundice. Yellowish discoloration due to bile pigments in the blood is seen in the eye.**

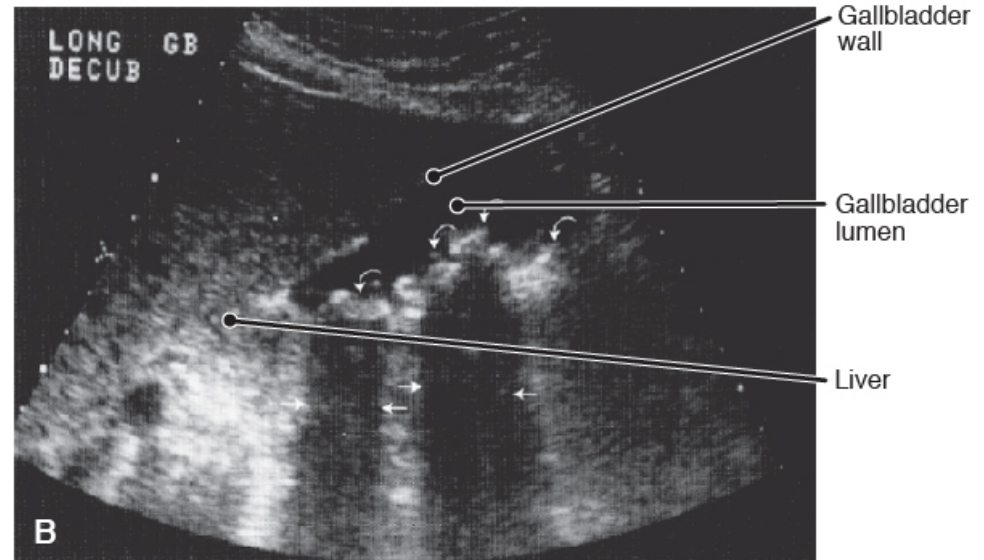
Bickley LS. Bates' Guide to Physical Examination and History Taking. 10th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2009.







Thick, fibrotic gallbladder wall



Cholelithiasis (gallstones). A. Formation of gallstones (cholelithiasis) causes gallbladder inflammation (cholecystitis) and bile obstruction. Numerous gallstones and a thickened gallbladder wall caused by chronic inflammation are evident in this figure. B. Sonogram shows dense gallstones (curved arrows). Shadows appear (between the straight arrows) because the sound waves cannot penetrate the stones (calculi).

A: McConnell TH. The Nature of Disease. 2nd ed. Baltimore, MD: Lippincott Williams & Wilkins; 2013. B: Erkonen WE, Smith WS. Radiology 101. 3rd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2010.

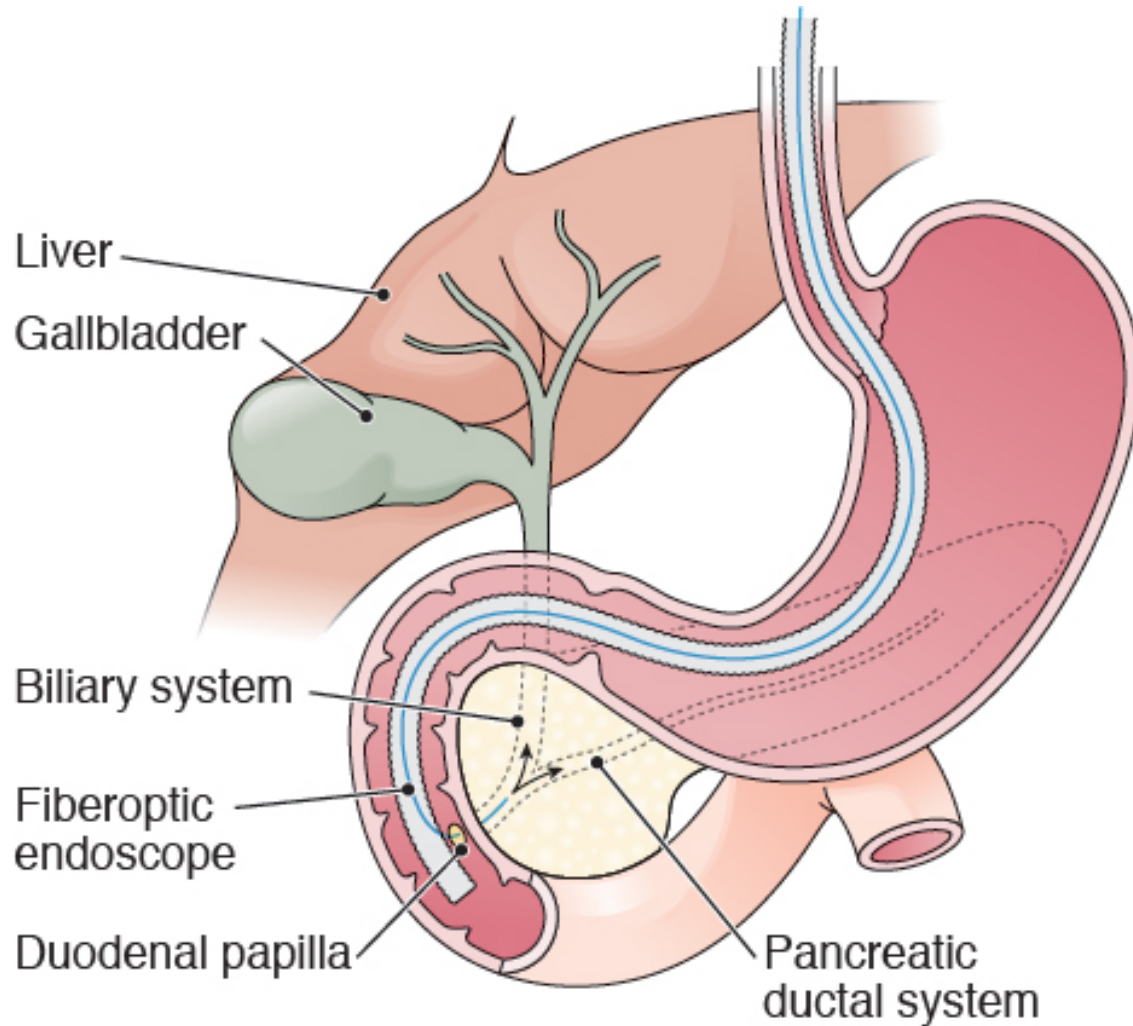
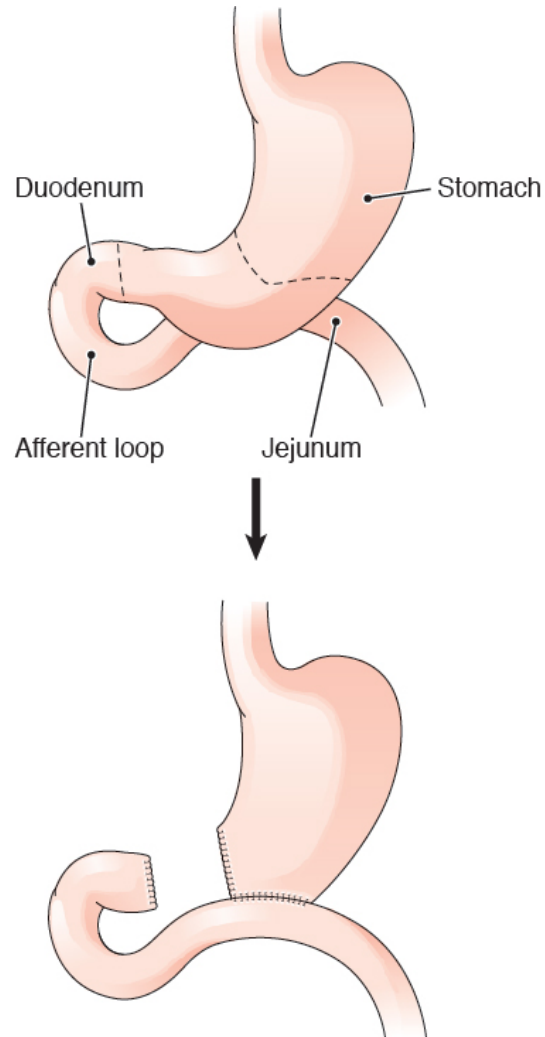
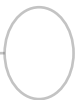
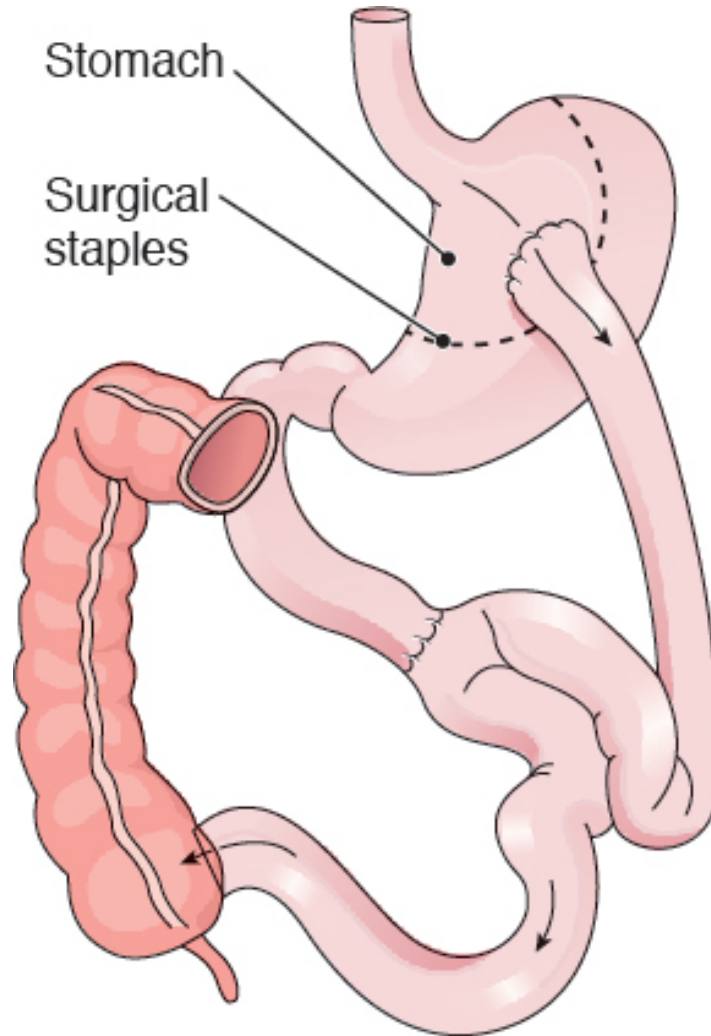


FIGURE 13.F016: Endoscopic retrograde cholangiopancreatography (ERCP). A contrast medium is injected into the pancreatic and bile ducts in preparation for radiography.



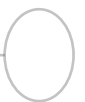
Gastric bypass. For treatment of morbid obesity, a small pouch is created in the stomach to limit food intake. The pouch is attached to the jejunum in a gastrojejunostomy to bypass the stomach and reduce nutrient absorption.

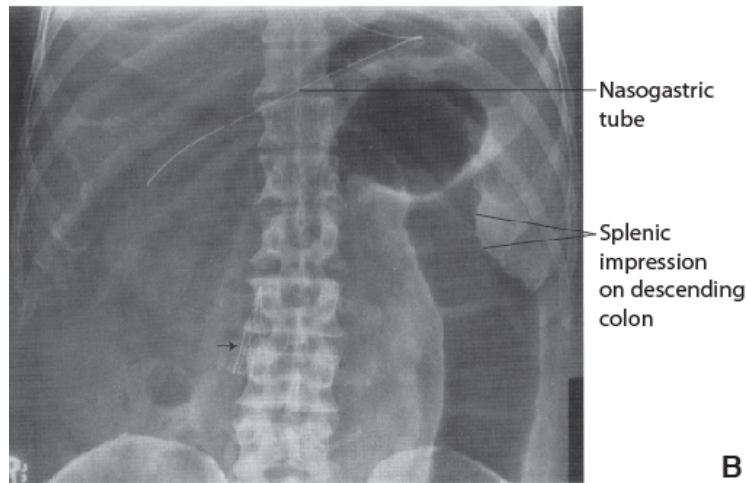
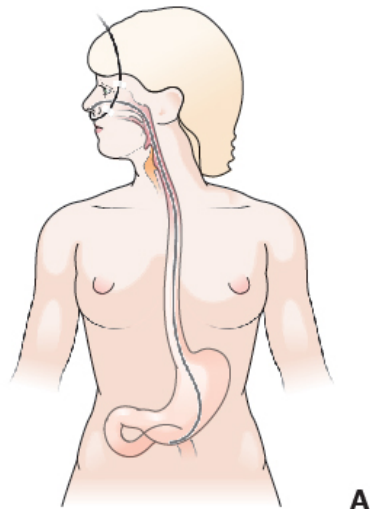




**Gastrojejunostomy (Billroth II operation).** The dotted lines show the portion removed.

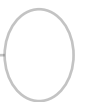
Stedman's Medical Dictionary for the Health Professions and Nursing. 6th ed. Baltimore, MD: Lippincott Williams & Wilkins; 2008.

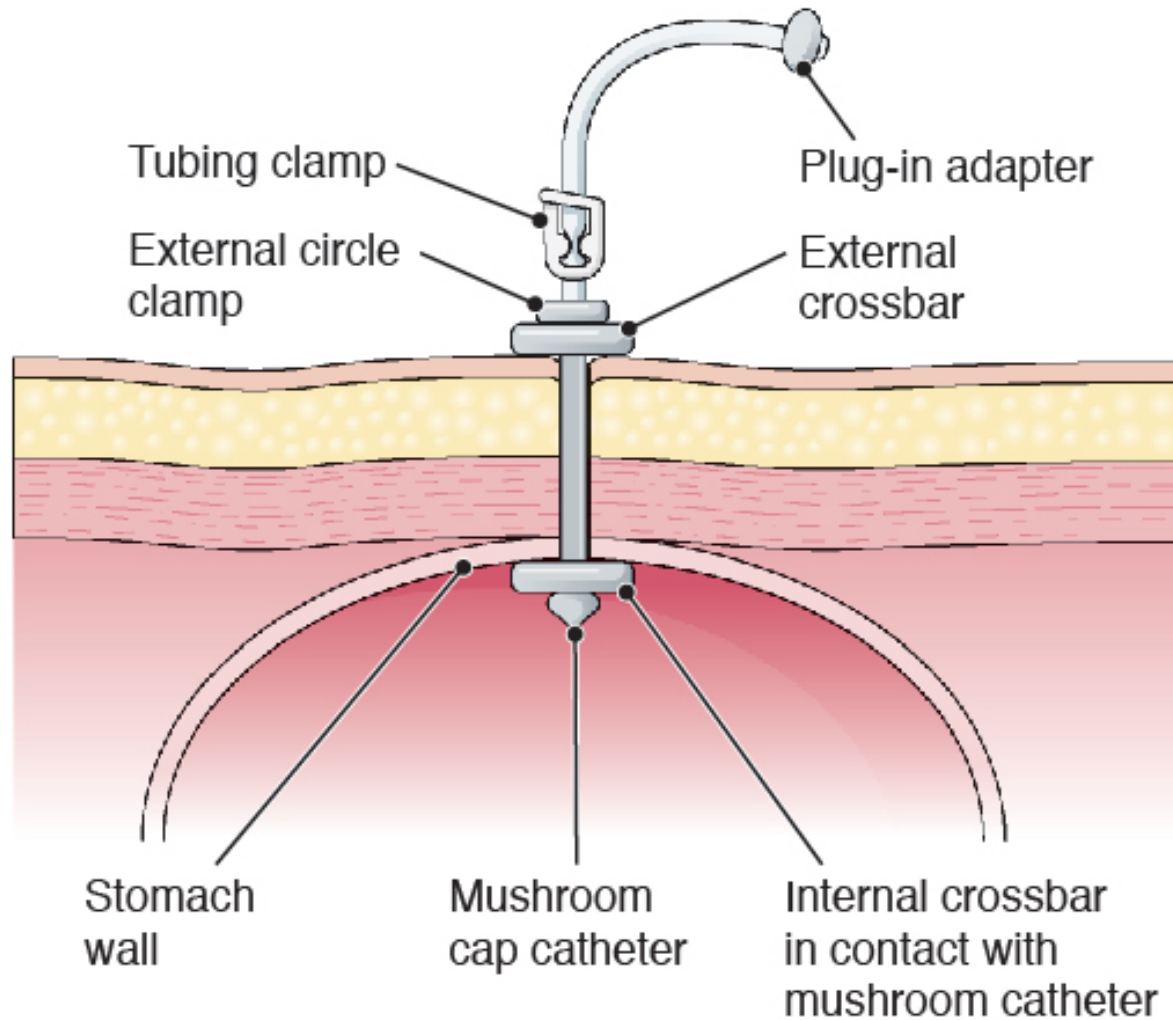




A nasogastric (NG) tube. A. Diagram showing an NG tube in place. B. Abdominal radiograph showing an NG tube. The filter (arrow) shown in the inferior vena cava is meant to trap emboli that might originate in the lower extremities and pelvis.

B: Erkonen WE. Radiology 101. 2nd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2004.





Percutaneous endoscopic gastrostomy (PEG) tube. The tube is shown in place in the stomach.

