Function of the Digestive System

- The digestive organs connect to form a continuous passageway from the mouth to the anus.
- With the help of accessory organs, the digestive tract prepares ingested food for use by body cells through physical and chemical digestion and eliminates the solid waste products from the body.
Organs of the Digestive System
Organs of the Digestive Tract

- **mouth**: opening through which food passes into the body
  - palate (soft): posterior portion (not supported by bone)
  - palate (hard): anterior portion (supported by bone)
  - **Uvula**: soft V-shaped mass that hangs from the soft palate; directs food into the throat
Uvula
Soft palate
Palatoglossal arch
Palatine tonsil
Hard palate
Oral cavity
Tongue
Lingual tonsil
Oropharynx
Epiglottis
Laryngopharynx
Hyoid bone
Esophagus
Trachea
Opening of pharyngotympanic (auditory) tube in nasopharynx
Organs of the Digestive Tract (cont’d)

- **tongue**: attached in the posterior region of the mouth. It provides movement of food for mastication, directs food to the pharynx for swallowing, and is a major organ for taste and speech.

- **pharynx (throat)**: performs the swallowing action that passes food from the mouth to the esophagus.
Organs of the Digestive Tract (cont’d)

- **esophagus:** 10-inch tube that extends from the pharynx to the stomach
- **stomach:** J-shaped sac that mixes and stores food container for food
  - **fundus:** uppermost domed portion of the stomach
  - **body:** central portion of the stomach
  - **pylorus:** lower part of the stomach that connects to the small intestine
  - **antrum:** portion of the pylorus that connects to the body of the stomach
Organs of the Digestive Tract (cont’d)

- **stomach (cont’d)**
  - **pyloric sphincter:** ring of muscle that guards the opening between the stomach and duodenum

- **small intestine:** 20-foot canal extending from the pyloric sphincter to the large intestine
  - **duodenum:** 1st 10 to 12 inches of small intestine
  - **jejunum:** 2nd portion; approx. 8 feet
  - **ileum:** 3rd portion; approx. 11 feet connects with large intestine
Duoden/o
Helpful Information

- Ileum is the third portion of the small intestine
- Ilium are pelvic bones
Organs of the Digestive Tract (cont’d)

- **large intestine**: canal approx. 5 feet and extends from the ileum to the anus
  - **cecum**: blind U-shaped pouch that is the first portion of the large intestine
  - **colon**: next portion; divided into 4 parts: ascending, transverse, descending, and sigmoid
  - **rectum**: last portion; approx. 8 to 10 inches long, extends from the sigmoid colon to the anus
**anus:** sphincter muscle that keeps an opening tight at the end of the digestive tract
Accessory Organs

- **salivary glands**: produce saliva, which flows into the mouth to begin the digestion process.
- **liver**: produces bile, which is necessary for the digestion of fats.
- **bile ducts**: passageways that carry bile; hepatic duct is passageway for bile from liver, and the cystic duct carries bile from the gallbladder; they join to form the common bile duct, which conveys bile to the duodenum.
Accessory Organs (cont’d)

- **gallbladder**: small, sac-like structure that stores bile
- **pancreas**: produces pancreatic juice, which helps digest all types of food and secretes insulin for carbohydrate metabolism
Accessory Organs
Liver, Gall Bladder, Pancreas
Other Structures

- **peritoneum**: serous sac lining of the abdominal and pelvic cavities
- **appendix**: small pouch, which has no known function, attached to the cecum
- **abdomen**: portion of the body between the thorax and the pelvis
Combining Forms for the Digestive Tract

- an/o
- antr/o
- cec/o
- col/o, colon/o
- duoden/o
- enter/o
- esophag/o
Combining Forms for the Digestive Tract (cont’d)

- gastr/o
- ile/o
- jejun/o
- or/o, stomat/o
- proct/o, rect/o
- sigmoid/o
Combining Forms for the Accessory Organs/Combining Forms Commonly Used with Digestive System Terms

- abdomin/o, celi/o, lapar/o
- appendic/o
- cheil/o
- cholangi/o
- chol/e
- choledoch/o
Combining Forms for the Accessory Organs/Combining Forms Commonly Used with Digestive System Terms

- diverticul/o
- gingiv/o
- gloss/o, lingu/o
- hepat/o
- herni/o
- palat/o
- pancreat/o
- peritone/o
- polyp/o
- pylor/o
- sial/o
- uvul/o
Diverticulum of the Large Intestine
Prefix and Suffix

- Prefix
  - hemi-

- Suffix
  - -pepsia
Types of Hernias

A, Hiatal; B, inguinal; C, umbilical.
Polyps

Sessile rectal polyp (broad base)

Pedunculated rectal polyp (attached to mucosa by thin stalk)

Nasal polyp

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Disease and Disorder Terms Built from Word Parts

- appendicitis
- cholangioma
- cholecystitis
- choledocholithiasis
- cholelithiasis
- diverticulosis
- gingivitis
- gastroenteritis
- hepatoma
Disease and Disorder Terms Built from Word Parts

1, Normal appendix.
2, (appendix) / (inflammation).
gall / cv / (stone) / (condition)
(common bile duct) / cv / (stone) / (condition)
Disease and Disorder Terms
Built from Word Parts

- pancreatitis
- peritonitis
- polyposis
- proctoptosis
- sialolith
- uvulitis
Disease and Disorder Terms
Not Built from Word Parts

- adhesion
- anorexia nervosa
- bulimia nervosa
- cirrhosis
- Crohn disease
- duodenal ulcer
- gastric ulcer
- gastroesophageal reflux disease (GERD)
intussusception
irritable bowel syndrome (IBS)
obesity
peptic ulcer
polyp
ulcerative colitis
Peptic Ulcer Sites
Surgical Terms Built from Word Parts

- abdominoplasty
- antrectomy
- appendectomy
- cheilorrhaphy
- colostomy
- diverticulectomy
- esophagogastroplasty
- gastrectomy
Surgical Terms Built from Word Parts

- gastrojejunostomy
- gastroplasty
- glossorrhaphy
- herniorrhaphy
- ileostomy
- laparotomy
- polypectomy
- pyloromyotomy
- uvulopalatopharyngoplasty
1, (ileum) / cv / (artificial opening)
2, (colon) / cv / (artificial opening)
(stomach) / (surgical removal)
Surgical Terms Not Built from Word Parts

- abdominoperineal resection
  (A & P resection)
- anastomosis
- vagotomy
Diagnostic Terms Built from Word Parts

- **Diagnostic imaging**
  - cholangiogram
  - cholecystogram
  - CT colonoscopy
- **Endoscopy**
  - colonoscopy
  - endoscopy
  - esophagogastroduodenoscopy
  - sigmoidoscopy
1. Abdominal ultrasound showing cholelithiasis.
2. Oral (gall) / cv / (bladder) / cv / (x-ray image showing stones).
Diagnostic Terms Not Built from Word Parts

- **Diagnostic imaging**
  - barium enema (BE)
  - upper GI (gastrointestinal)

- **Endoscopy**
  - endoscopic retrograde
  - cholangiopancreatography (ERCP)
  - endoscopic ultrasound (EUS)
Barium Enema for small bowel obstruction
Endoscopic retrograde cholangiopancreatography
ERCP
Laboratory
- *Helicobacter pylori (H. pylori)* antibodies test
- fecal occult blood test
Complementary Terms
Built from Word Parts

- abdominal
- aphagia
- colorectal
- dyspepsia
- dysphagia
- gastroenterology
- gastromalacia
- glossopathy
Complementary Terms Built from Word Parts (cont’d)

- ileocecal
- nasogastric
- pancreatic
- peritoneal
- proctologist
- stomatogastric
- sublingual
Complementary Terms Not Built from Word Parts

- ascites
- diarrhea
- dysentery
- flatus
- gavage
- hematemesis
- nausea
- reflux
- vomit (emesis)
Abbreviations

- A & P resection
- BE
- ERCP
- GERD
- GI
- *H. pylori*
- IBS
- N & V
- UGI
- UPPP