

## Component 3-Terminology in Healthcare and Public Health Settings

### Unit 6-Digestive System

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## Digestive System

- Objectives
  - Define, understand and correctly pronounce medical terms related to the digestive system
  - Describe the following related to the digestive system
    - common diseases and conditions
    - laboratory and diagnostic procedures
    - medical and surgical procedures
    - medications

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## Digestive System

- Also called Gastrointestinal System (GI)
- Function
  - Digestion of food
  - Absorption of nutrients
  - Elimination of solid wastes

SEER Training Modules, Anatomy & Physiology. U.S. National Institutes of Health, National Cancer Institute. 6/27/2010  
<<http://training.seer.cancer.gov/anatomy/digestive/>>

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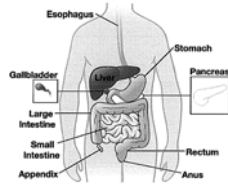
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## Digestive System

- Organs of the gastrointestinal tract
  - Oral cavity
  - Pharynx
  - Esophagus
  - Stomach
  - Small intestine
  - Colon



SEER Training Modules, Anatomy & Physiology, U.S. National Institutes of Health, National Cancer Institute, 6/27/2010  
<http://training.seer.cancer.gov/anatomy/digestive/regions>

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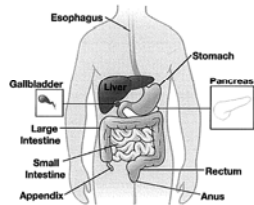
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## Digestive System

- Accessory Organs
  - Pancreas
  - Liver
  - Gallbladder
  - Salivary glands



SEER Training Modules, Anatomy & Physiology, U.S. National Institutes of Health, National Cancer Institute, 6/27/2010  
<http://training.seer.cancer.gov/anatomy/digestive/regions>

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## Digestive System

- Oral Cavity
  - Digestion begins when food enters mouth
  - Saliva
    - Contains digestive enzymes
    - Lubricates
- Pharynx
  - Common pathway
    - Digestion
    - Respiration
  - Directs food into the esophagus

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## Digestive System

- **Esophagus**
  - Food enters from pharynx
  - Delivered to stomach
  - Propelled along by wavelike muscular movements
- **Stomach**
  - Collects and churns food
  - Mixes it with hydrochloric acid (HCl)
  - Forms chyme
    - Watery mix of food and digestive juices

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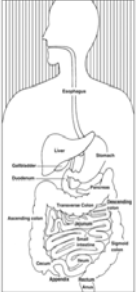
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## Digestive System

- **Small Intestine**
  - Completion of digestion
  - Majority of absorption
  - Divided into three sections
    - **Duodenum (first section)**
      - Approximately 10-12 inches long
    - **Jejunum (second section)**
      - Approximately 8 feet long
    - **Ileum (third section)**
      - Approximately 12 feet long



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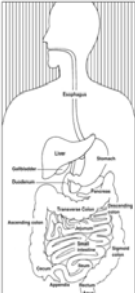
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## Digestive System

- **Colon**
  - 5 feet long
  - Receives fluid that remains after digestion and absorption
    - Most is water and is reabsorbed into the body
  - Feces is left over solid waste
    - Evacuated in bowel movements



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## Rectum and Anus

- Rectum
  - Storage of feces
- Anus
  - External opening at end of digestive system
  - Evacuation of feces

SEER Training Modules, Anatomy & Physiology. U.S. National Institutes of Health, National Cancer Institute. 6/27/2010  
<<http://training.seer.cancer.gov/anatomy/digestive/regions/intestine.html>>

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## Accessory Organs

- Produce substances necessary for the breakdown of food
- Organs
  - Salivary glands
  - Liver
  - Gallbladder
  - Pancreas



SEER Training Modules, Anatomy & Physiology. U.S. National Institutes of Health, National Cancer Institute. 9/27/2010  
<<http://training.seer.cancer.gov/anatomy/digestive/regions/>>

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## Salivary Glands

- Location
  - Oral cavity
- Function
  - Produce saliva
    - Allow food to be swallowed without choking
  - Saliva + food = bolus
    - Contains amylase
      - Aids in digestion of carbohydrates

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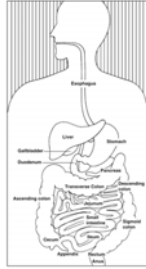
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## Liver

- Location
  - Upper right quadrant of abdomen
- Functions
  - Processes nutrients
  - Detoxifies harmful substances
  - Produces bile
    - Emulsification
      - Breaks up fat



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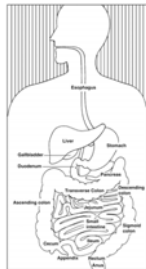
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## Gallbladder

- Location
  - Under liver
- Function
  - Stores bile produced by liver
- Ducts
  - Hepatic duct
  - Common bile duct
  - Cystic duct



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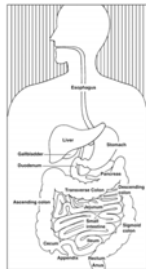
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## Pancreas

- Location
  - Under the stomach
- Function
  - Production of digestive juices
    - neutralize acidic chyme
    - digest carbohydrates, lipids, and proteins



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## Peptic Ulcer

- A sore in the lining of the stomach or duodenum
- Most common symptom
  - Burning stomach pain
- Cause
  - Digestion acids damage the walls of the stomach or duodenum
- Treatment
  - Medicines to block stomach acids
  - Antibiotics to kill ulcer-causing bacteria.

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## Cholelithiasis (Gallstones)

- Form when substances in bile harden
- Symptoms
  - Nausea
  - Vomiting
  - Pain in the abdomen, back, or just under the right arm.
- Most common among older adults, women, overweight people, Native Americans and Mexican Americans
- Treatment
  - Surgical removal of the gallbladder

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## Crohn's Disease

- Regional enteritis or regional ileitis
- Inflammation of the digestive system
- Often affects the lower part of the small intestine
- Can occur in people of all age groups
  - Most often diagnosed in young adults
- Common symptoms include
  - Pain in the abdomen and diarrhea
  - Bleeding from the rectum, weight loss, joint pain, skin problems and fever
  - Intestinal blockage and malnutrition
- Treatment
  - Medicines, nutrition supplements, surgery or a combination

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### Digestive System Combining Forms

- |               |                 |                |
|---------------|-----------------|----------------|
| • an/o        | anus            | anal           |
| • chol/e      | bile, gall      | cholelithiasis |
| • cholecyst/o | gallbladder     | cholecystitis  |
| • col/o       | colon           | colostomy      |
| • enter/o     | small intestine | enteritis      |
| • esophag/o   | esophagus       | esophageal     |

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### Digestive System Combining Forms

- |           |                    |                |
|-----------|--------------------|----------------|
| • gastr/o | stomach            | gastritis      |
| • hepat/o | liver              | hepatitis      |
| • jejun/o | jejunum            | jejunal        |
| • lapar/o | abdomen            | laparotomy     |
| • lith/o  | stone              | cholelithiasis |
| • or/o    | mouth              | oral           |
| • proct/o | anus and<br>rectum | proctologist   |
| • pylor/o | pylorus            | pyloric        |
| • rect/o  | rectum             | rectal         |

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### Tell me, Detective . . .

- Jane is 25 and is having abdominal pain, diarrhea and rectal bleeding for the last several days. In talking with her doctor, she tells him that there is a family history of having digestive problems. These symptoms are indicative of:

- Peptic Ulcer
- Cholelithiasis
- Crohn's Disease



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For additional information on content covered in this unit, please visit

<  
<http://www.nlm.nih.gov/medlineplus/digestivesystem.html/>>

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