# Guided Lecture Notes, Chapter 36, The Digestive System

Learning Objective 1. List the organs that make up the digestive system. (Refer to **PowerPoint slides 5 to 26**.)

* Describe the structure of the digestive system. Use an anatomic model with removable organs as you describe each part of the digestive system.
* Describe and use an anatomic chart to show the four layers that form the wall of the digestive tract. Explain the role of each layer.
* Explain how food begins its journey through the digestive tract at the mouth, moves into the pharynx (throat), and then into the esophagus.
* Remind students how the epiglottis covers the larynx during swallowing, preventing food from entering the windpipe.
* Describe how the esophageal mucosa, as well as the peristaltic action of the muscle layer, helps move food down into the stomach.
* Describe the function of the stomach. State that it has three regions. Explain how the esophageal (cardiac) sphincter (or lower esophageal sphincter [LES]) helps to prevent food and stomach acid from going back into the esophagus and the pyloric sphincter helps to prevent the return of food back into the stomach once it enters the small intestine.
* Discuss how the stomach is able to expand to accommodate large amounts of food.
* Describe the small intestine and its three regions.
* Describe the large intestine and its regions.
* Point out where the appendix is and explain to the students why it is clinically important, even though it performs no known function.
* Explain the role of the salivary glands, the liver, the gallbladder, and the pancreas.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 2. Explain the function of the organs of the digestive system. (Refer to **PowerPoint slides 28 to 37**.)

* List the functions of the digestive system, starting with the breakdown of food we eat into nutrients, the absorption of nutrients and water into the body, and finally the excretion of feces.
* Explain how the processes of digestion, absorption, and excretion take place in the digestive system and involve the following steps:
* Chewing the food in the mouth (called mechanical digestion)
* Further breakdown of food (called chemical digestion) through the action of enzymes in the mouth (saliva) and the stomach (stomach acid)
* Creation of chyme that passes through the small intestine, where absorption of nutrients takes place with the help of villi
* Further absorption of nutrients and water in the large intestine, leading to the formation of feces
* Excretion of feces through the rectum
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 3. Discuss the effects of aging on the digestive system. (Refer to **PowerPoint slides 39 to 42**.)

* Explain that older people are at an increased risk for choking because of less efficient chewing.
* Review the procedure needed to help a choking person that was introduced in Chapter 16.
* Describe the special care you need to take as a nursing assistant when you are helping an older person to eat.
* Explain how less efficient chewing often leads to less efficient digestion.
* Explain how in an older person, the movement of food through the digestive tract may be slower, which can put the older person at a risk for constipation.
* List the measures that can be taken to help patients and residents avoid constipation.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 4. Discuss common digestive disorders and their symptoms. (Refer to **PowerPoint slides 43 to 58**.)

* List the common digestive disorders.
* Describe ulcers and the common sites where they occur.
* List the causes of ulcers.
* List common symptoms of, and treatments for, ulcers.
* Explain that a hernia occurs when an internal organ bulges through a weakness in the muscular wall of the abdominal cavity.
* Describe the different types of hernias and their symptoms and treatment.
* Explain how gallstones can form and block the flow of bile from the gallbladder into the duodenum. List the symptoms of gallstones.
* Explain how diverticulosis results in diverticulitis. Discuss treatment and complications if left untreated.
* Explain that any organ of the human body is prone to cancer.
* List common signs and symptoms associated with cancer of the digestive system.
* Describe common treatments for cancer.
* Have learners refer to learning activities located at the end of the chapter.

Learning Objective 5. Describe some of the tools used to diagnose digestive disorders. (Refer to **PowerPoint slides 60 to 66**.)

* Explain that signs and symptoms related to digestive problems are common, and while many are not serious, they should never be ignored.
* List the common methods used to diagnose digestive disorders.
* Describe endoscopy and how a doctor uses this technique to diagnose a digestive disorder.
* Describe how imaging studies, such as x-rays, computed tomography (CT) scans, and magnetic resonance imaging (MRI) scans, allow the doctor to view the organs of the digestive system without actually entering the body.
* Discuss the care that may be required to get a person ready for one of these diagnostic tests.
* Have learners refer to learning activities located at the end of the chapter.