

Digestive System Study Guide

Given a list of organs in the body be able to identify those that are part of the digestive system and those that are digestive accessory organs.

Be able to identify the four layers of the GI tract.

Differentiate between the submucosal plexus and the myenteric plexus - where they are located and their general functions.

Understand how coordinated contraction of the circular and longitudinal smooth muscle of the GI tract moves food along the GI tract (peristalsis). Be able to distinguish between peristalsis and segmentation.

Be able to describe the role the mouth plays in the digestive process.

Recognize the roles of saliva.

Name the sphincter that prevents retrograde movement of chyme.

Name the condition commonly referred to as “heartburn” that results from the retrograde movement of chyme.

Name the sphincter that chyme passes through from the stomach to the intestines.

List and describe the three phases of gastric secretion.

List the cells that make up gastric glands and give the role of each. (Be able to describe the structure of the gastric gland.)

Name the three sections of the small intestines and give some important features of each.

List the enzymes produced by the pancreas

Be able to explain what a zymogen is.

Describe the structure and function of the pancreatic acini (sometimes referred to as the exocrine pancreas).

List the main components of bile and describe the role of bile salts in digestion.

Describe the process of digestion and absorption of lipids, proteins, and carbohydrates.

Describe the general transport form for lipids: chylomicrons, LDL, VLDL, and HDL.

Describe the role of CCK and secretin in digestion.

Describe three gut reflexes.

Be able to describe the role the stomach, small intestines, and large intestines play in digestion.