

FUNCTIONAL NUTRITION

The esophagus is a hollow muscular tube approximately 25 to 30 centimeters in length and 1 to 2 centimeters wide. It carries, via peristalsis, bolus from the mouth to the stomach. This process takes approximately 6 seconds.

LOWER ESOPHAGEAL SPHINCTER (LES)

The lower esophageal sphincter is a bundle of muscles located at the junction between the esophagus and the stomach. When the LES is closed, stomach acid and stomach contents are prevented from traveling back into the esophagus.



Trivia

Too much coffee, alcohol, sugar, and/or chocolate can weaken the LES and cause the LES to open at any time allowing stomach acid to enter the esophagus.

STOMACH



Trivia

In the abdominal region, the placement of the anatomical parts is divided into 4 quadrants: upper right, upper left, lower right, and lower left.

The stomach is a muscular pear-shaped organ located on the upper left side of the abdomen. The bolus enters the stomach through the LES. In the stomach, stomach acid and digestive juices will be secreted. With the help of the ridges of smooth muscle tissue, called rugae that line the stomach, protein digestion begins.



Word Alert

Chyme: In the stomach, the ball of bolus is further broken down into a liquid and mushy substance, referred to as chyme.

PYLORIC SPHINCTER

The pyloric sphincter is a muscular valve, located at the junction between the stomach and small intestine. It will open to allow food to pass from the stomach to the small intestine.

SMALL INTESTINE

The small intestine is an approximately 20-foot-long tube that is divided into 3 parts: duodenum, jejunum, and ileum. The surface area in the small intestine is large; creating the opportunity for more enzymes and digestive secretions to attach to chyme. This allows for optimal breakdown and absorption of chyme.