Core Competency Theme 12: Gastro-intestinal System

**Oesophagus**

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|  | Brief description | Functions |
| A  Mouth | Food begins its journey through the digestive system in the mouth, also known as the [oral cavity](http://www.innerbody.com/image/mouth.html). Inside the mouth are many accessory organs that aid in the digestion of food—the tongue, teeth, and salivary glands. | Teeth chop food into small pieces, which are moistened by saliva before the tongue and other muscles push the food into the pharynx.Once in the pharynx the epiglottis covers the larnyx to ensure food carries on into the oesophagus. |
| B  Oesophagus | The [esophagus](http://www.innerbody.com/image_dige01/dige03-new2.html) is a muscular tube connecting the pharynx to the stomach that is part of **the** [**upper gastrointestinal tract**](http://www.innerbody.com/anatomy/digestive/upper-torso). At the inferior end of the esophagus is a muscular ring called the lower esophageal sphincter or the cardiac sphincter. The function of this sphincter is too close of the end of the esophagus and trap food in the stomach. | The Oesophagus carries chew food boluses into the stomach, once swallowing has contracting smooth muscle help to move the bolus down the oesophagus known as peristalsis. |
| C  Stomach | The stomach stores swallowed food and liquid, mixes the food and liquid with digestive juice it produces, and slowly empties its contents, called chyme, into the small intestine. The muscle of the upper part of the stomach relaxes to accept large volumes of swallowed material from the esophagus. The muscle of the lower part of the stomach mixes the food and liquid with digestive juice. | The stomach contains hydrochloric acid and digestive enzymes that continue the digestion of food that began in the mouth |
| D  Large Intestine | The [large intestine](http://www.innerbody.com/anatomy/digestive/large-intestine) is a long, thick tube about 2 ½ inches in diameter and about 5 feet long. The waste products of the digestive process include undigested parts of food and older cells from the GI tract lining. Muscles push these waste products into the large intestine.  Also known as the colon. | The large intestine absorbs water and any remaining nutrients and changes the waste from liquid into stool. The rectum stores stool until it pushes stool out of the body during a bowel movement. |
| E  Small Intestine | The [small intestine](http://www.innerbody.com/image_digeov/dige10-new3.html) is a long, thin tube about 1 inch in diameter and about 10 feet long. The entire small intestine is coiled like a hose and the inside surface is full of many ridges and folds. These folds are used to maximize the digestion of food and absorption of nutrients. By the time food leaves the small intestine, around 90% of all nutrients have been extracted from the food that entered it. | The muscles of the small intestine mix food with digestive juices from the pancreas, liver, and intestine and push the mixture forward to help with further digestion. The walls of the small intestine absorb the digested nutrients into the bloodstream. The blood delivers the nutrients to the rest of the body. |
| F  Liver | The liver weighs about 3 pounds and is the second largest organ in the body. The liver has many different functions in the body, but the main function of the liver in digestion is the production of bile and its secretion into the small intestine. | The liver is thought to be responsible for up to 500 separate functions, usually in combination with other systems and organs.  E.G.   * Bile production * Carbohydrate, protein, amino acid, and lipid metabolism * Breakdown of [insulin](https://en.wikipedia.org/wiki/Insulin) and other [hormones](https://en.wikipedia.org/wiki/Hormone) * [Albumin](https://en.wikipedia.org/wiki/Albumin) production |
| G  Gall Bladder | The gallbladder is used to store and recycle excess bile from the small intestine so that it can be reused for the digestion of subsequent meals. | When a person eats, the gallbladder squeezes bile through the bile ducts, which connect the gallbladder and liver to the small intestine. The bile mixes with the fat in food. The bile acids dissolve fat into the watery contents of the intestine, so the intestinal and pancreatic enzymes can digest the fat molecules. |
| H  Pancreas | The pancreas is a large gland that secretes digestive enzymes into the small intestine to complete the chemical digestion of foods. | The pancreas delivers digestive juice to the small intestine through small tubes called ducts |
| I  Anus | The anus is the opening where the gastrointestinal tract ends and exits the body. The anus starts at the bottom of the rectum, the last portion of the colon (large intestine). The anorectal line separates the anus from the rectum | The anus controls the expulsion of the faeces. The flow of faeces through the anus is controlled by the anal sphincter muscle. The internal and external sphincter muscles relax, allowing the faeces to be passed by muscles and pulling the anus up over the exiting faeces. |