



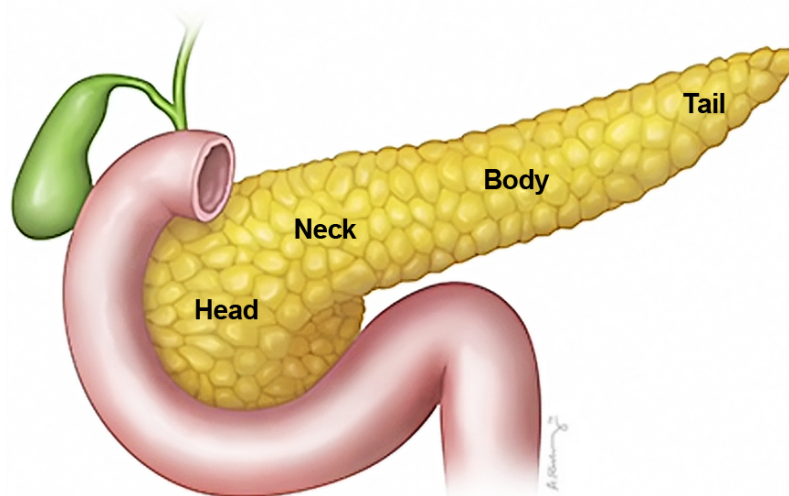
The Pancreas MMW-1

Location of the Pancreas

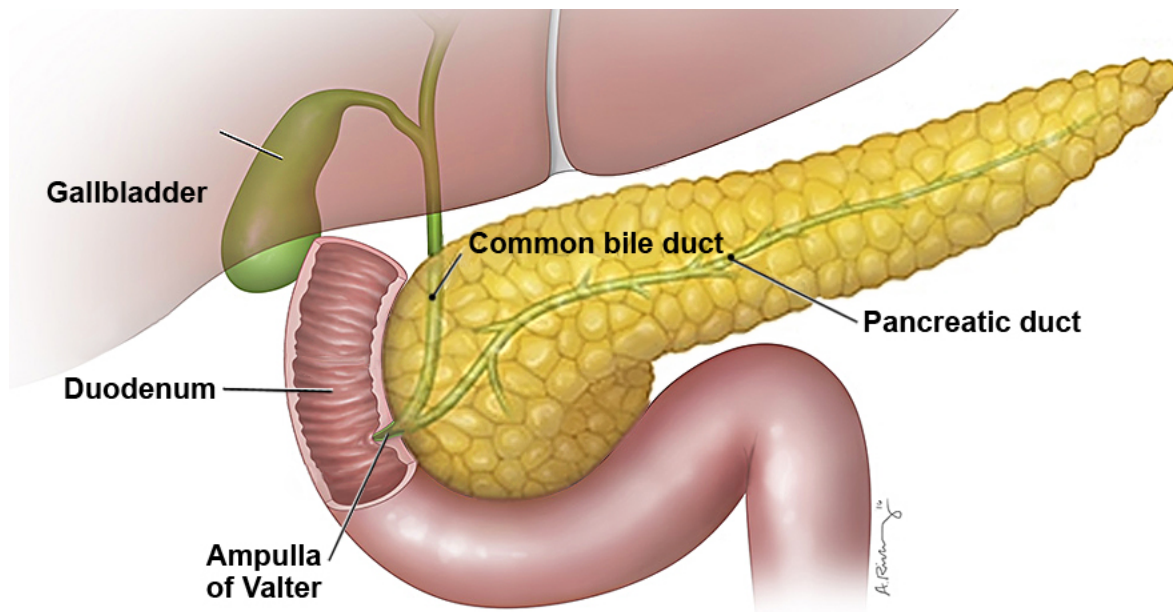
The pancreas is located behind the stomach in the upper left abdomen. It is surrounded by other organs including the small intestine, liver, and spleen. It is spongy, about six to ten inches long, and is shaped like a flat pear or a fish extended horizontally across the abdomen.

The wide part, called the head of the pancreas, is positioned toward the center of the abdomen. The head of the pancreas is located at the juncture where the stomach meets the first part of the small intestine. This is where the stomach empties partially digested food into the intestine, and the pancreas releases digestive enzymes into these contents.

- The central section of the pancreas is called the neck or body.
- The thin end is called the tail and extends to the left side.



Several major blood vessels surround the pancreas, the superior mesenteric artery, the superior mesenteric vein, the portal vein, and the celiac axis, supplying blood to the pancreas and other abdominal organs.



Exocrine Function

The pancreas contains exocrine glands that produce enzymes important to digestion. These enzymes include trypsin and chymotrypsin to digest proteins; amylase for the digestion of carbohydrates; and lipase to break down fats. When food enters the stomach, these pancreatic juices are released into a system of ducts that culminate in the main pancreatic duct. The pancreatic duct joins the common bile duct to form the ampulla of Vater which is located at the first portion of the small intestine, called the duodenum. The common bile duct originates in the liver and the gallbladder and produces another important digestive juice called bile. The pancreatic juices and bile that are released into the duodenum, help the body to digest fats, carbohydrates, and proteins.

Endocrine Component

The endocrine component of the pancreas consists of islet cells (islets of Langerhans) that create and release important hormones directly into the bloodstream. Two of the main pancreatic hormones are insulin, which acts to lower blood sugar, and glucagon, which acts to raise blood sugar. Maintaining proper blood sugar levels is crucial to the functioning of key organs including the brain, liver, and kidneys.

