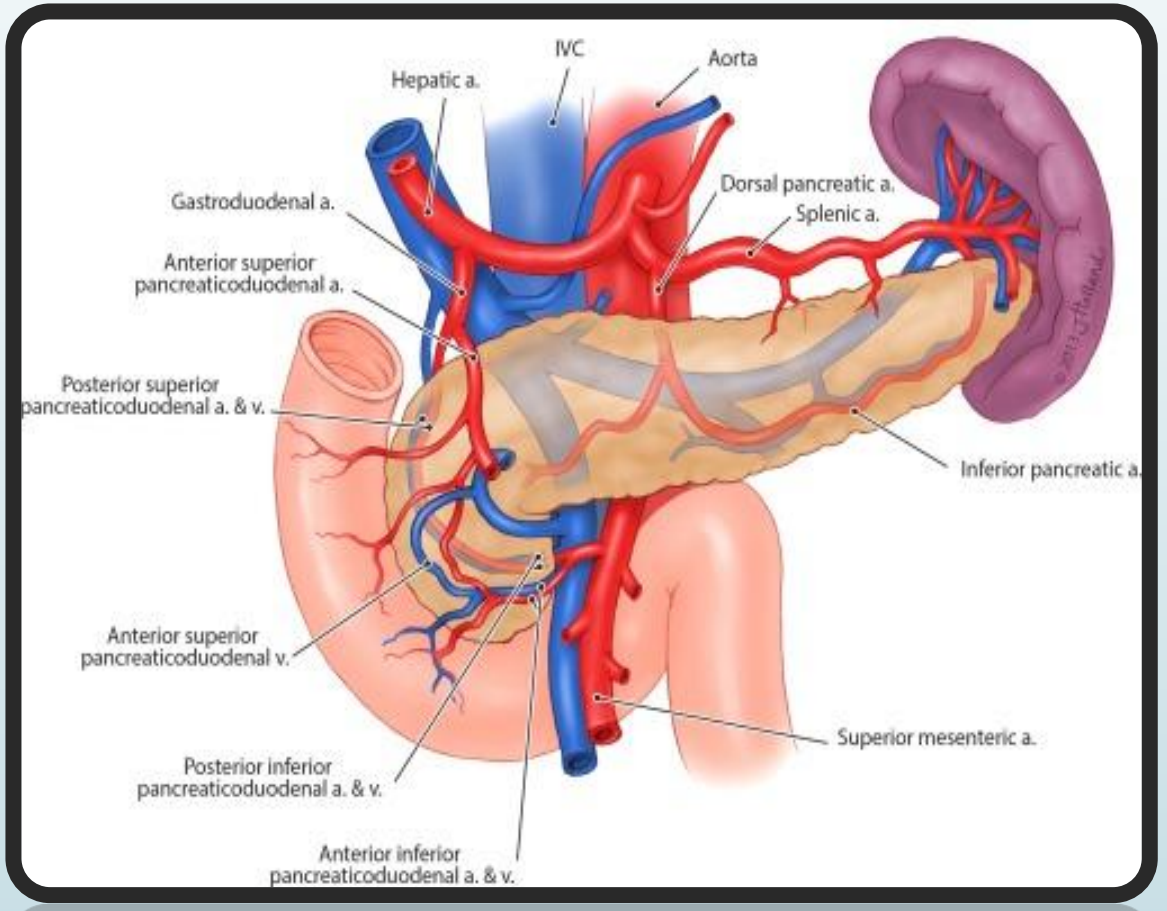
Pancreas

- Anatomy
- Physiology
- Functions
- Violation of functions

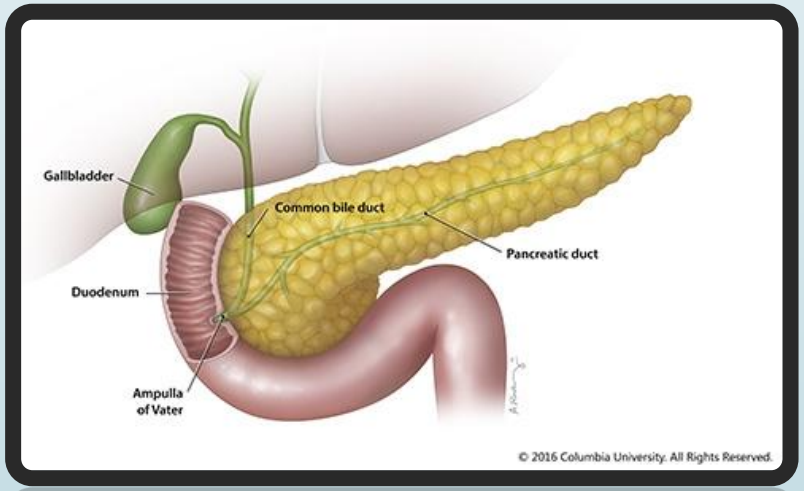
Anatomy



The pancreas is located mesoperitoneally: head and body in the abdominal cavity, tail in the retroperitoneal space

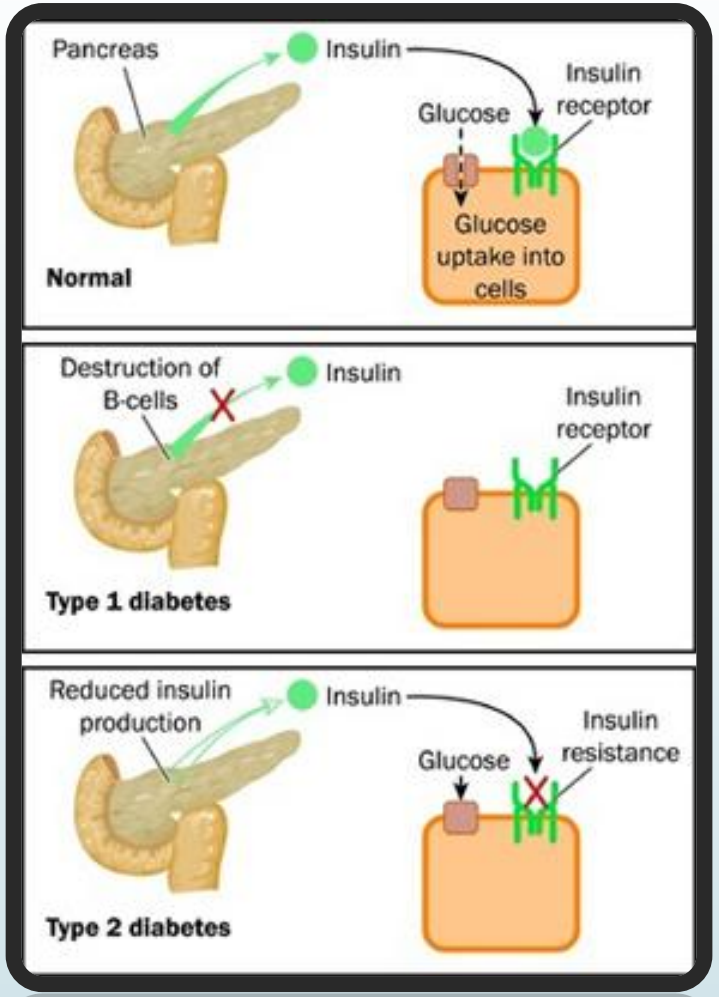
Physiology

Contains an islet of endocrine tissue that secretes the insulin hormone, glucagon, somatostatin. It secretes the enzymes needed for the digestive process. During the day, it produces over 800 ml of pancreatic juice. The pancreas opens its duct in the nipple fater, located in the duodenum.

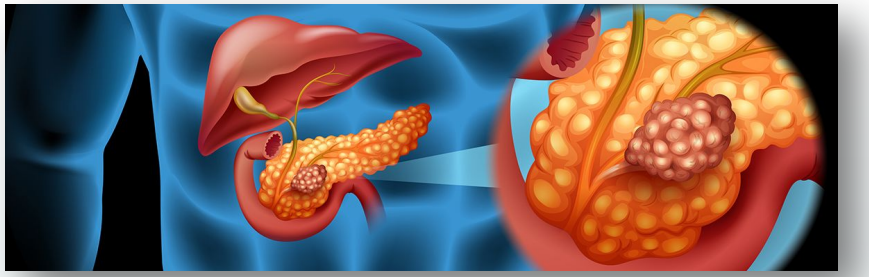


Hormones

Hormones of the pancreas - insulin and glucagon - regulate the metabolism of carbohydrates. Insulin promotes the conversion of glucose to glycogen, which is deposited in the liver. Regulates the content of sugar in the blood. Glucagon - cleaves the glycogen to glucose.



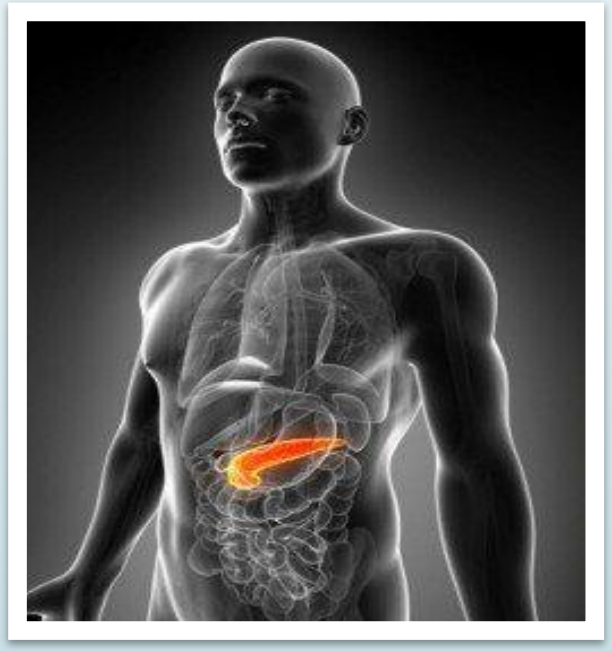
Functions



- The pancreas produces a number of enzymes necessary for the cleavage of proteins, fats and carbohydrates. By special ducts, pancreatic juice with enzymes poured into the duodenum, where the splitting of products continues to the desired state of absorption.
- Trypsin is an enzyme that breaks down proteins. In the pancreas, the proinfusion of this substance is called trypsinogen. When it enters the duodenum it undergoes bile transformation into active trypsin.
- Amylase, lactase, maltasa, invertase are necessary for normal digestion of carbohydrates.
- Lipaza helps to "disassemble" complex fats into components.

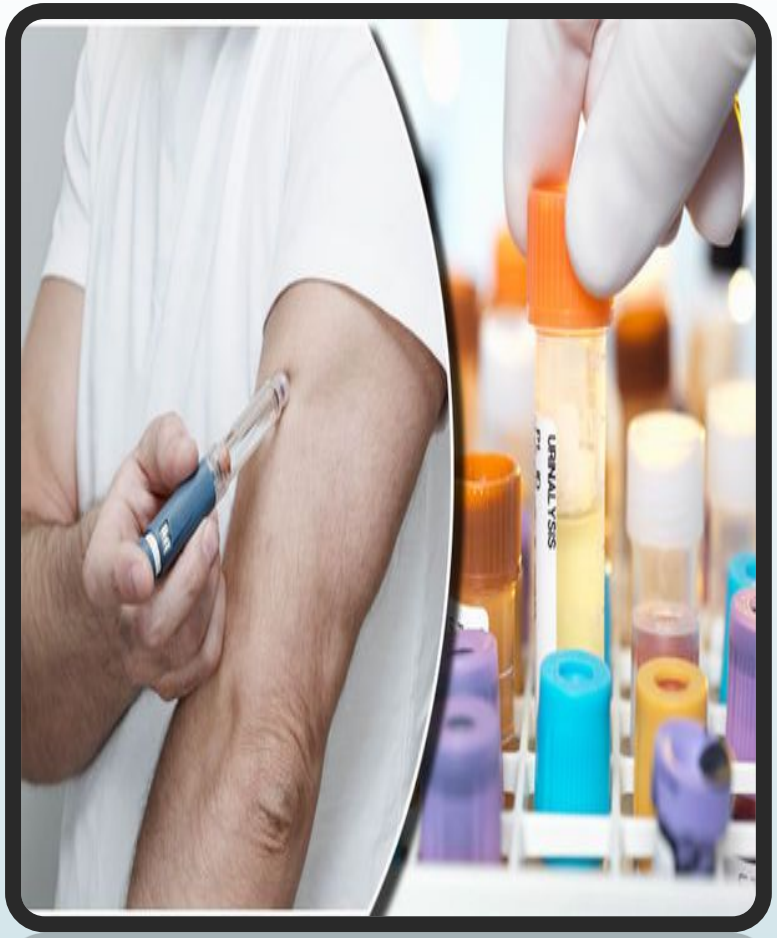
Violation of functions

- Acute pancreatitis
- Chronic pancreatitis
- Diabetes



Diabetes

- Signs are: dry mucous membranes, constant desire to eat or, conversely, its absence, excessive intake of water, sugar in urine, thirst, dehydration, weight loss, acetone secretion of the skin. A man is suffering from diabetes mellitus



Thank you for attention