

The Pancreas

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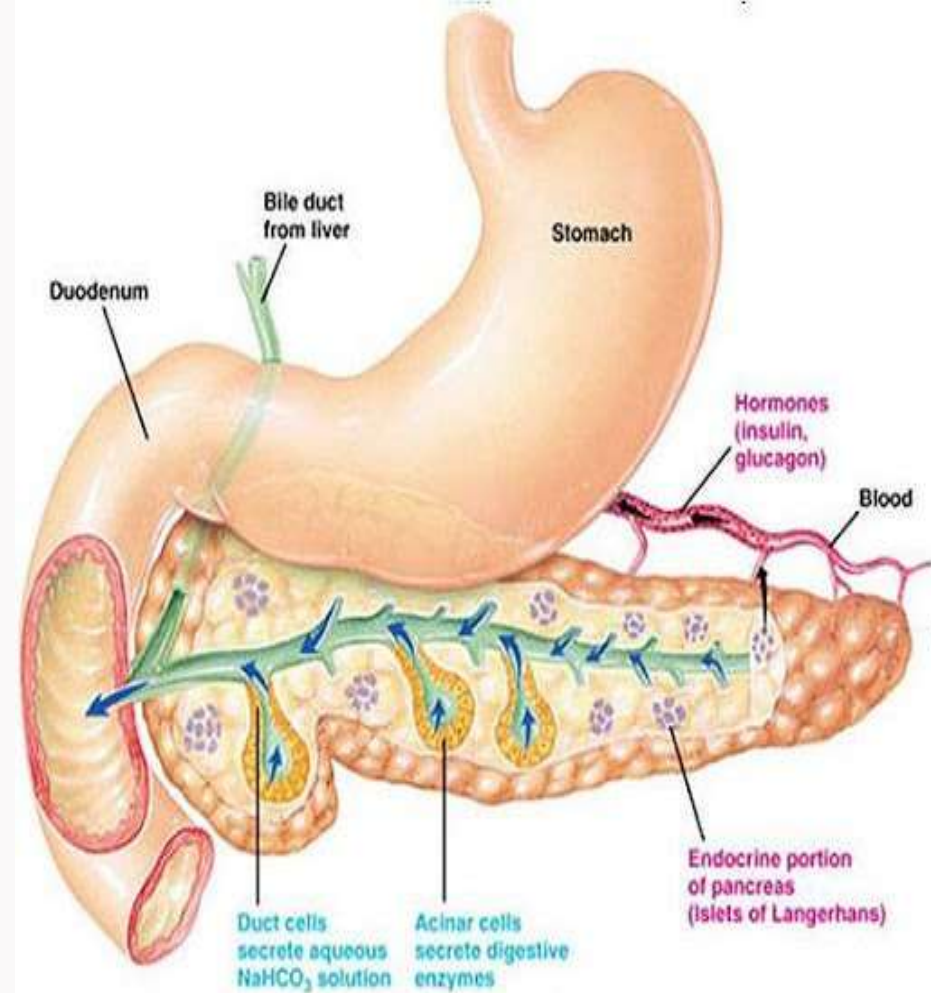
After this presentation you will be able to..

- Identify the pancreas organ and show its anatomical structure.
- Determine the pancreas location in the human body.
- List the functions of the pancreas as a gland & as an organ.
- List the most common pancreas disorders.



The pancreas...

The pancreas is an organ of the digestive system and endocrine system which means that the pancreas has both endocrine and a digestive exocrine functions.



The pancreas location...

It is located behind the stomach in the upper left abdomen and it is surrounded by other organs ; it is about six to ten inches long, and 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.



The pancreas as a gland & organ...



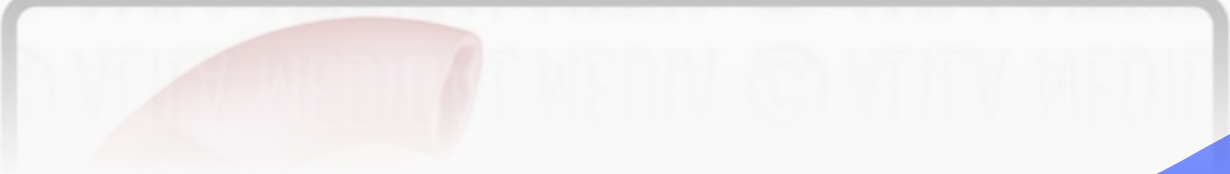
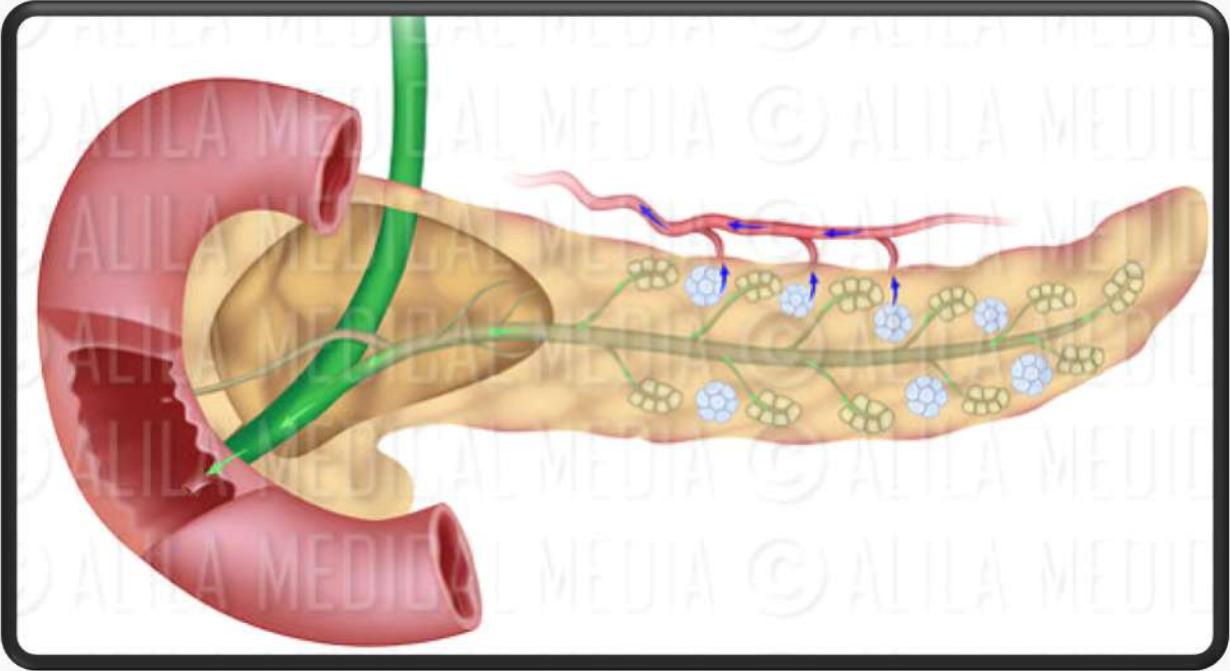
● Pancreatic enzymes:

Each day, your pancreas makes about 8 ounces of digestive juice which is secreted by the exocrine part of the pancreas and its filled with enzymes for EX:

- **Lipase:** This enzyme works together with bile to break down fat in your diet. If you don't have enough lipase, your body will have trouble absorbing fat and the important fat-soluble vitamins (A, D, E, K).
 - **Protease:** This enzyme breaks down proteins in your diet
 - **Amylase:** This enzyme helps break down starches into sugar, which your body can use for energy
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● Pancreatic hormones:

- **Insulin** :This hormone is made in cells of the pancreas known as beta cells. Without enough insulin, your sugar levels increase in your blood and you develop diabetes.
- **Glucagon** : Alpha cells ..They produce glucagon. If your blood sugar gets too low, glucagon helps increase it by sending a message to your liver to release stored sugar.
- **Gastrin and amylin** : Amylin is made in beta cells and helps control appetite and stomach emptying.



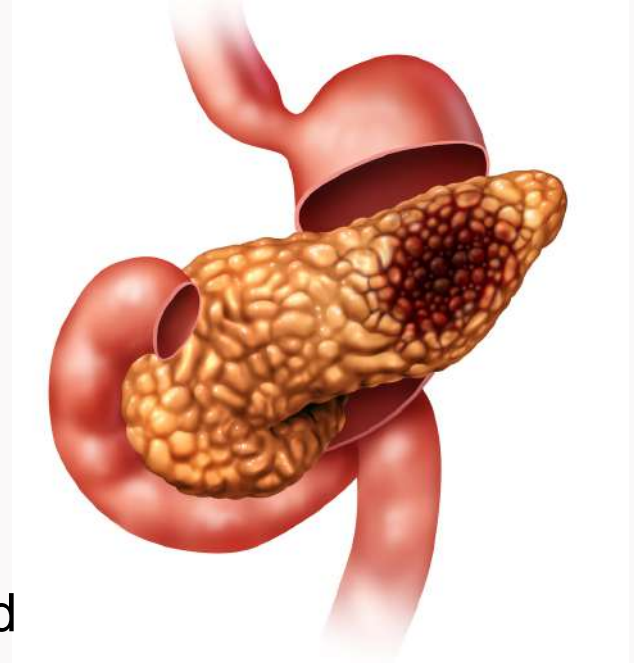
some diseases which are related to the pancreas...

- Acute pancreatitis.
- Cystic fibrosis.
- Diabetes type 1
- Diabetes type 2
- Pancreatic pseudocyst
- Pancreatic cancer

The pancreatic cancer...

Pancreatic cancer occurs when cells in your pancreas develop changes in their DNA.

These changes tell the cells to grow crazily and to continue living after normal cells would die; which can form a tumor; when left untreated, the pancreatic cancer cells can spread to nearby organs and blood vessels and to distant parts of the body.



Pancreatic cancer symptoms



**MID-BACK
PAIN**



**UNEXPLAINED
WEIGHT LOSS**



**LOSS OF
APPETITE**



**STOMACH
PAIN**



INDIGESTION



**NEW-ONSET
DIABETES**



JAUNDICE

Yellowing of
Eyes or Skin



**CHANGES
IN STOOL**

Summary...

- The pancreas is an organ of the digestive system and endocrine system.
- The pancreas is located behind the stomach in the upper left abdomen and it is surrounded by other organs.
- The pancreas secretes digestive enzymes such as amylase, proteases and lipase which helps in digesting sugar, proteins and fat .
- The pancreas also secretes hormones such as insulin and glucagon into the blood to regulate sugar levels.

REFERENCES...

1. <https://columbiasurgery.org/pancreas/pancreas-and-its-functions>.
2. <https://www.mayoclinic.org/diseases-conditions/pancreatic->
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Thank you..