❑ PANCREATIC CANCER AND PANCREATITIS

SUBJECT :- PATHOANATOMY

GROUP :- 4

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DEFINITION :-

Pancreatic cancer begins in the tissues of your pancreas — an organ in your abdomen that lies behind the lower part of your stomach. Your pancreas releases enzymes that aid digestion and produces hormones that help manage your blood sugar.

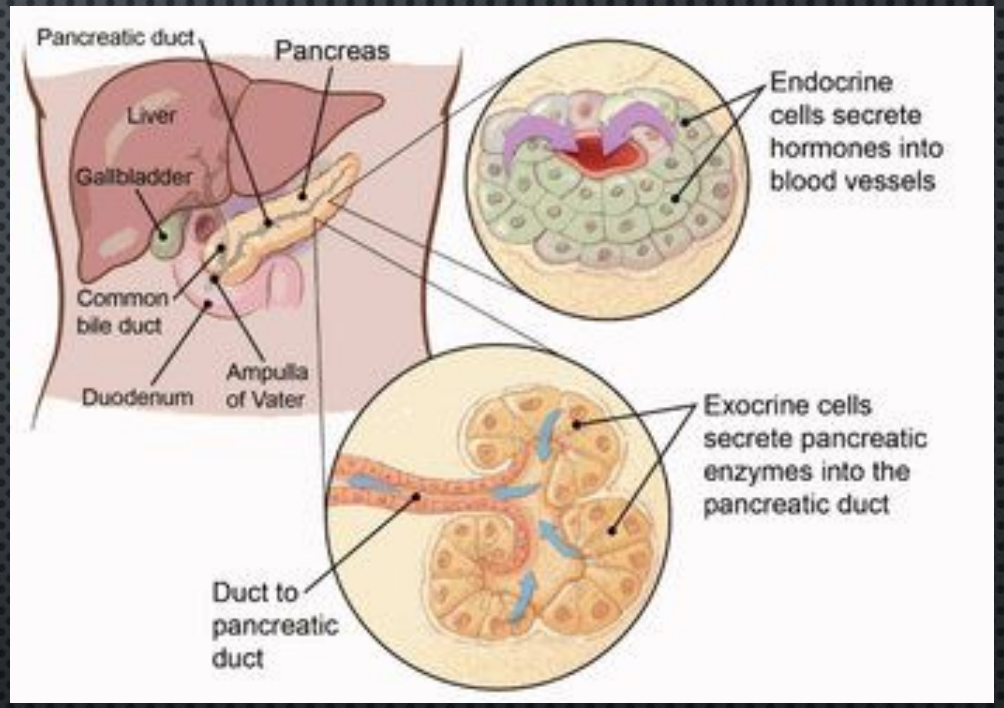
Several types of growths can occur in the pancreas, including cancerous and noncancerous tumors. The most common type of cancer that forms in the pancreas begins in the cells that line the ducts that carry digestive enzymes out of the pancreas (pancreatic ductal adenocarcinoma).

- **Exocrine (Nonendocrine) Pancreatic Cancer**

Exocrine pancreatic cancer develops from exocrine cells, which make up the exocrine gland and ducts of the pancreas.
The exocrine gland secretes enzymes that help break down carbohydrates, fats, proteins and acids in the duodenum. The various types of exocrine pancreatic cancers make up more than 95 percent of all cancers of the pancreas.

Adenocarcinoma

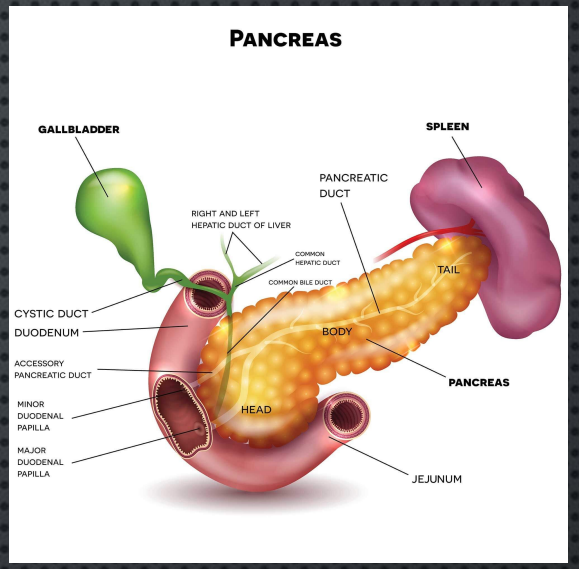
Also called ductal carcinoma, adenocarcinoma, is the most common type of pancreatic cancer, accounting for more than 90 percent of pancreatic cancer diagnoses. This cancer occurs in the lining of the ducts in the pancreas.

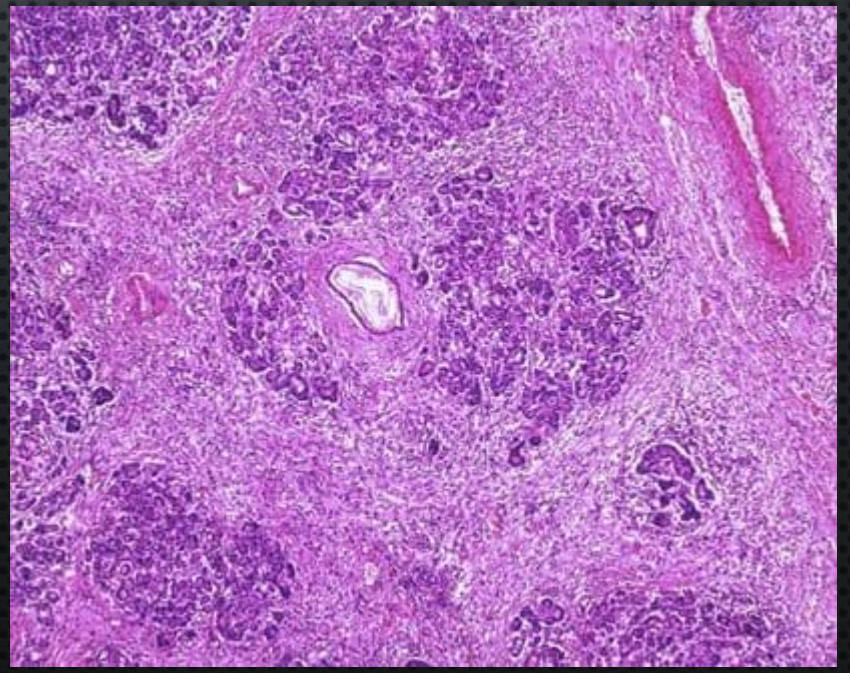


It's also possible for adenocarcinoma to develop from the cells that create pancreatic enzymes. When this occurs, it is called acinar cell carcinoma

Squamous Cell Carcinoma

This extremely rare nonendocrine cancer of the pancreas forms in the pancreatic ducts, and is made purely of squamous cells, which are not typically seen in the pancreas.





Adenosquamous Carcinoma

This rare type of pancreatic cancer represents 1 percent to 4 percent of exocrine pancreatic cancers. Compared with adenocarcinoma, adenosquamous carcinoma is a more aggressive tumor with a poorer prognosis. These tumors show characteristics of both ductal adenocarcinoma and squamous cell carcinoma.

Colloid Carcinoma

Another rare type, colloid carcinomas account for 1 percent to 3 percent of exocrine pancreatic cancers. These tumors tend to develop from a type of benign cyst called an intraductal papillary mucinous neoplasm (IPMN). Because the pancreatic colloid tumor consists of malignant cells that float in a gelatinous substance called mucin, it is not as likely to spread and is easier to treat than other pancreatic cancers. It also has a much better prognosis.

Neuroendocrine Pancreatic Cancer

Pancreatic neuroendocrine tumors (NETs) develop from cells in the endocrine gland of the pancreas, which secretes the hormones insulin and glucagon into the bloodstream to regulate blood sugar. Also known as endocrine or islet cell tumors, neuroendocrine cancers are rare, making up less than 5 percent of all pancreatic cancer cases.

Benign Precancerous Lesions

Cysts and other benign tumors can form in the pancreas, and some can be precursors to pancreatic cancer, including intraductal papillary-mucinous neoplasms (IPMNs). Often, IPMNs and other benign lesions are found when a patient is being scanned for an unrelated medical reason.

Symptoms

Yellowing of the skin and eyes
Dark urinePale
greasy stools that float in the toiletPruritus (itchy skin)
Loss of appetite
Indigestion
Nausea
Vomiting
Bloating or swelling in the abdomen

Pancreatic Cancer Diagnosis

- Percutaneous Transhepatic Cholangiography (PTC)
- Positron Emission Tomography (PET) Scan
- CA 19-9 Blood Test
- Pancreas Scan
- Endoscopic Retrograde Cholangiopancreatography (ERCP)
- Transabdominal Ultrasound
- Computerized Tomography (CT) Scan

Pancreatic Cancer Risk Factors

- Cigarette Smoking
- Chronic Pancreatitis
- Family History

Other Risk FactorsAdditional risk factors for developing pancreatic cancer include:

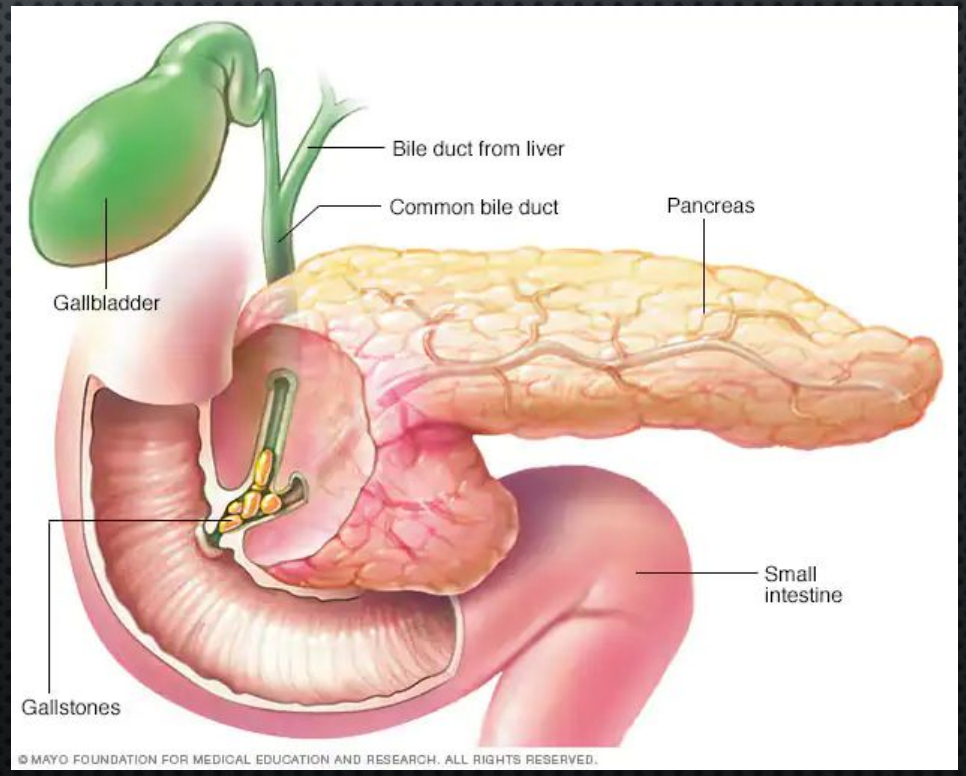
- Some studies have linked type 2 diabetes , which occurs when the hormone insulin does not work as well to process sugars in the body, to pancreatic cancer.
- Pancreatic cystic tumors
- Industrial chemical exposure
- Gender
- Age

Pancreatic Cancer Treatment

Pancreatic cancer treatment may involve surgery, chemotherapy, radiation therapy, vaccination, pain management, immunotherapy and dietary changes.
Surgery is available to about 20 percent of pancreatic cancer patients as a potentially effective treatment. Stereotactic body radiation therapy may be used to treat early-stage pancreatic cancer when surgery is not an option.

❑ Pancreatitis

Pancreatitis is inflammation of the pancreas.



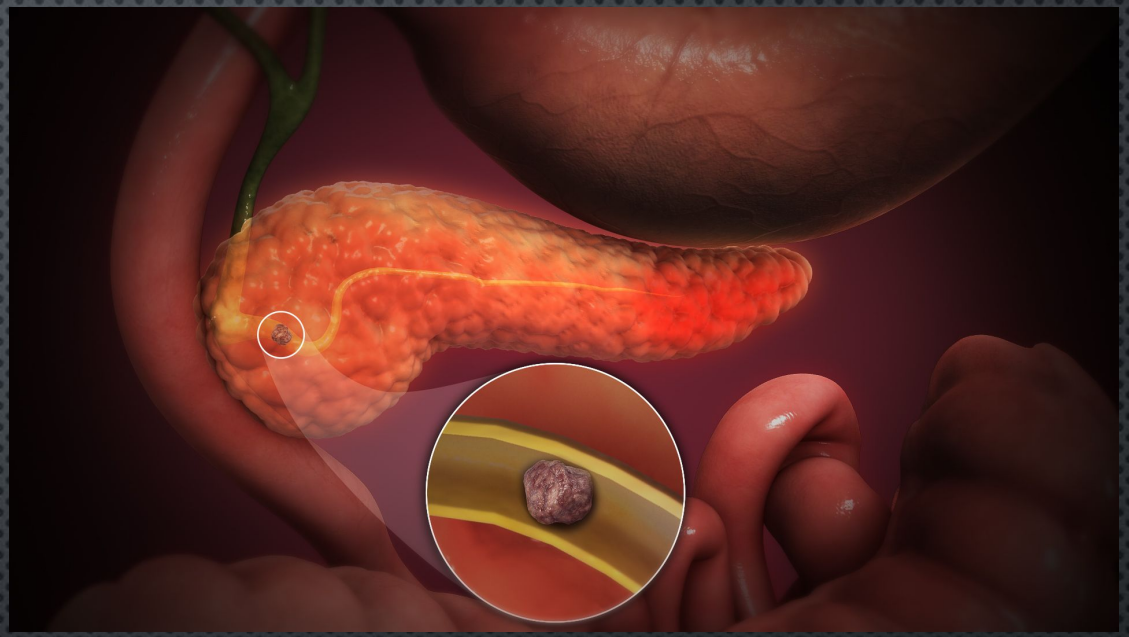
The pancreas is a large gland behind your stomach and next to your small intestine. Your pancreas does two main things:

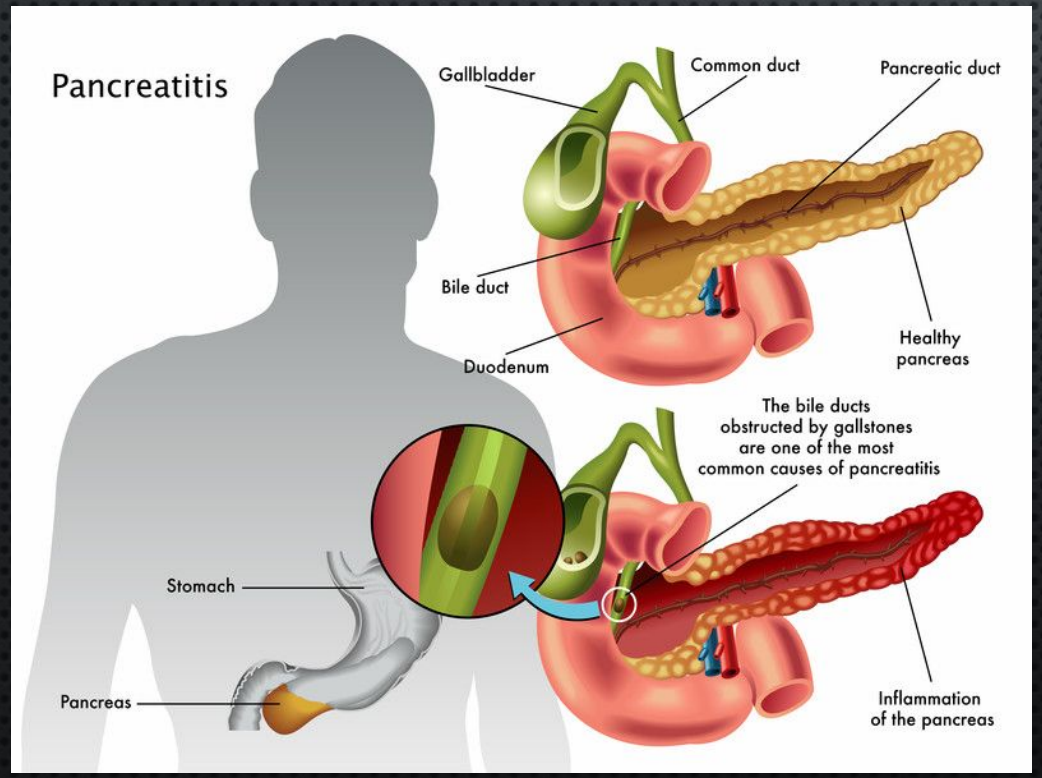
1. It releases powerful digestive enzymes into your small intestine to help you digest food.

2. It releases insulin and glucagon into your bloodstream. These hormones help your body control how it uses food for energy.

Types of Pancreatitis

Acute pancreatitis
Chronic pancreatitis



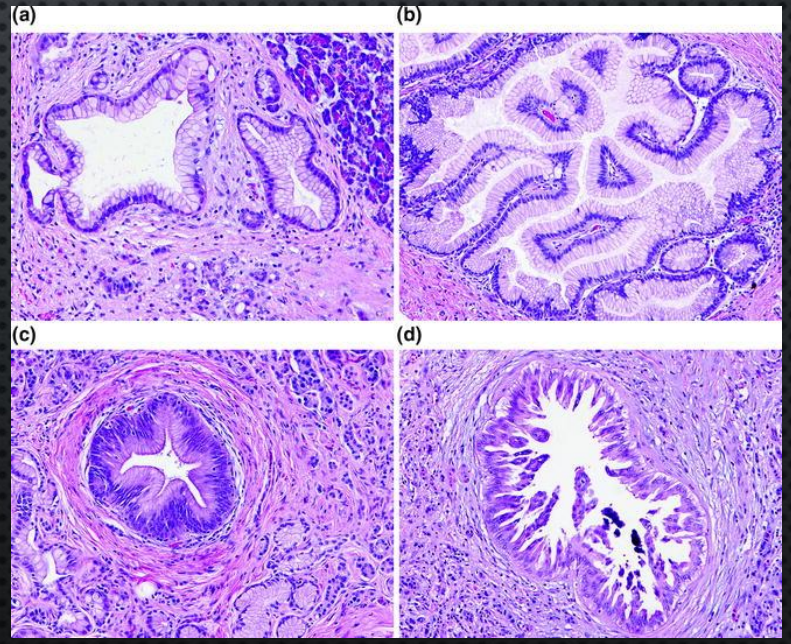


Acute pancreatitis

sudden inflammation that lasts a short time. It can range from mild discomfort to a severe, life-threatening illness.

acute pancreatitis can cause bleeding, serious tissue damage, infection, and cysts

Chronic pancreatitis is long-lasting inflammation



❑ Signs and symptoms of pancreatitis

may vary, depending on which type you experience.
Acute pancreatitis signs and symptoms include:
Upper abdominal pain
Abdominal pain that radiates to your back
Tenderness when touching the abdomen
Fever
Rapid pulse
Nausea
Vomiting

❑ Chronic pancreatitis signs and symptoms

include
Upper abdominal pain
Abdominal pain that feels worse after eating
Losing weight without trying
Oily, smelly stools (steatorrhea)

❑ Causes

Pancreatitis occurs when digestive enzymes become activated while still in the pancreas
irritating the cells of your pancreas and causing inflammation.

With repeated bouts of acute pancreatitis, damage to the pancreas can occur and lead to chronic pancreatitis

A poorly functioning pancreas can cause digestion problems and diabetes.

Conditions that can lead to acute pancreatitis include:

Gallstones
Alcoholism
Certain medications
High calcium levels in the blood
Pancreatic cancer
Abdominal surgery
Cystic fibrosis
Infection
Injury to the abdomen Obesity
Trauma

❑ Risk factors

Excessive alcohol consumption
Cigarette smoking
Obesity
Diabetes
Family history of pancreatitis.

Complications

Kidney failure
Breathing problems
Infection
Pseudocyst
Malnutrition
Diabetes
Pancreatic cancer.


Thank you