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## Pancreatitis – Acute and Chronic

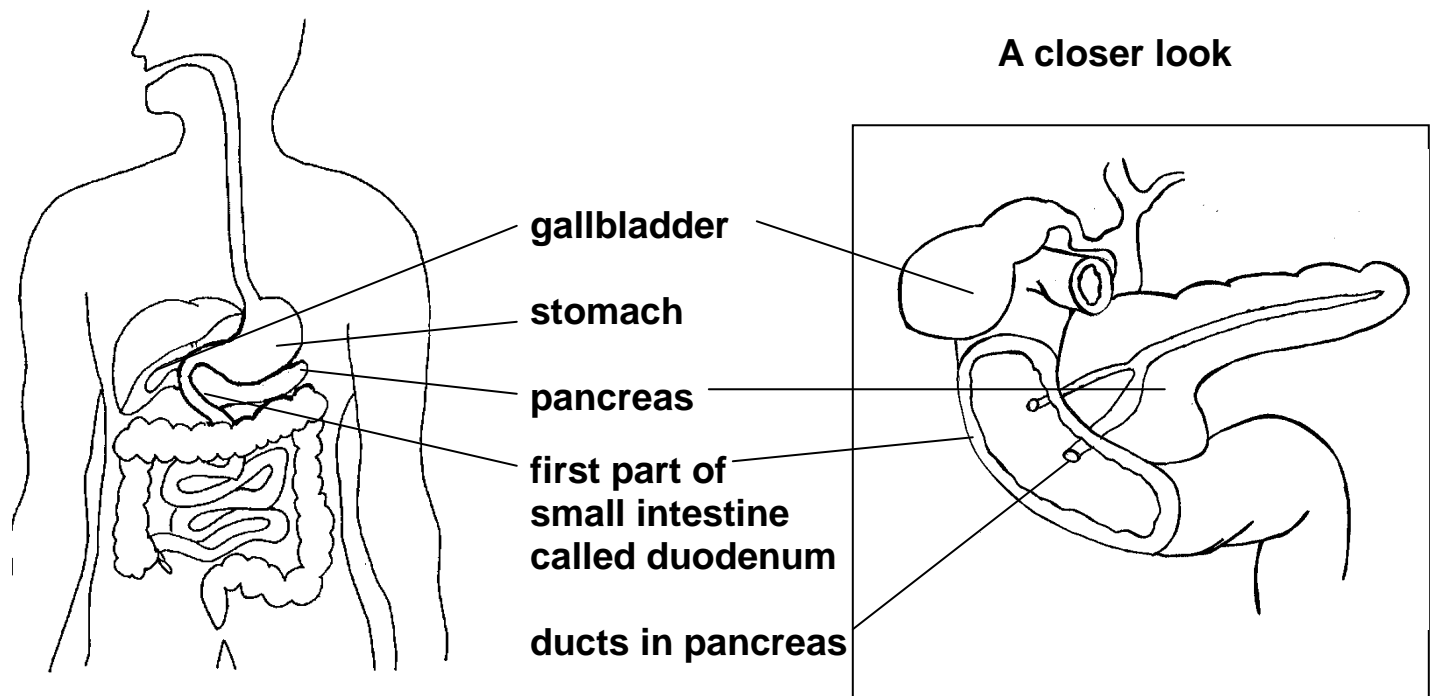
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### What is the pancreas?

The pancreas is a large gland in your abdomen behind the stomach.

The pancreas has 2 main jobs:

1. When you eat, the stomach breaks the food up. The food then passes into the first part of the small intestine called the duodenum. As the food enters the duodenum, the pancreas secretes enzymes through ducts to help your body digest the food.
2. The pancreas also releases insulin and glucagon into the blood. These hormones help your body use the sugar called glucose that comes from food for energy.



### What is pancreatitis?

Pancreatitis means the pancreas is inflamed or red, hot and swollen. This happens when the enzymes the pancreas sends into the duodenum stay in the pancreas and begin working in the pancreas instead.

## What causes pancreatitis?

Pancreatitis is most often caused by:

- a gallstone
- drinking too much alcohol

A **gallstone** can block a duct in the pancreas. This is the small opening where enzymes from the pancreas go into the duodenum. If an opening is blocked, the enzymes stay in the pancreas and begin to digest the pancreas instead of the food.

**Alcohol** affects the pancreas in many ways. Alcohol poisons the cells of the pancreas. It also destroys the cells of the ducts.

**Rarely** pancreatitis may be caused by some medications, trauma or surgery. Some people are born with a genetic problem and inherit pancreatitis. Pancreatitis may also be caused by an infection such as mumps. Sometimes the cause of pancreatitis is unknown.

## What are the complications of pancreatitis?

Pancreatitis can lead to severe problems such as bleeding, tissue damage and infection.

Cysts or sacs of fluid may form in the pancreas causing pain, blockage or impaired function of the pancreas.

When the pancreas tissue is destroyed the enzymes and wastes may go into the blood and injure the heart, lungs, kidneys and other organs. This can be life-threatening.

## What are the types of pancreatitis?

There are 2 types of pancreatitis:

- acute
- chronic

## **Acute Pancreatitis**

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### **What is acute pancreatitis?**

Acute pancreatitis occurs suddenly. It lasts for a short period of time and often gets better. Some people only have one attack over a lifetime while others have many.

Acute pancreatitis often begins with pain in the upper abdomen that may last for a few days. The pain may begin slowly and get worse when you eat food. The pain may be sudden and severe.

You may feel pain in the upper abdomen only or the pain may spread to the back or other areas. The pain is usually worse lying down.

Sitting and leaning forward may help decrease the pain.

Other symptoms of acute pancreatitis include:

- looking and feeling very sick
- bloated, swollen or tender abdomen
- nausea or vomiting
- fever
- fast heart beat

Severe acute pancreatitis may cause dehydration, bleeding and low blood pressure. This may lead to heart, lung and kidney problems and death.

### **How is acute pancreatitis diagnosed?**

The doctor takes a full medical history and does a complete medical exam. Blood tests show an increase in 2 enzymes called amylase and lipase made by the pancreas. Blood tests often show changes in other things such as white blood cells, glucose, sodium, calcium and potassium. These tests are also done during and after treatment to see if the levels go back to normal.

You may have an ultrasound test of the abdomen to check for gallstones. During an ultrasound, a small probe that looks like a microphone slides over your abdomen. Sound waves bounce off the organs in your abdomen and problems can be seen on a monitor that looks like a television.

### **How is acute pancreatitis diagnosed? (continued)**

You may also have a CAT scan to look for inflammation and cysts and check the condition of the pancreas. During a CAT scan, you lie on a table as it moves into a donut shaped machine. A computer takes detailed pictures of your pancreas as it scans your body.

### **What is the treatment for acute pancreatitis?**

Treatment depends on the cause. Treatment aims to relieve symptoms, support life and prevent complications. If there are no complications, acute pancreatitis often gets better by itself.

- Most people need to have fluids replaced and pain controlled in the hospital. Fluids are given through a tube in a vein in the arm called an intravenous (IV). The IV is also used to give pain control medications.
- Nausea and vomiting are controlled by medication. Some people need to have a tube passed through the nose into the stomach to remove fluid and air and give the abdomen a chance to rest.
- If the lungs are involved, oxygen may be given through a face-mask. If lung failure occurs, a breathing machine called a ventilator is needed.
- If cysts are found, the doctor may have to drain them or take them out by surgery.
- If gallstones are found, surgery may be needed to remove them. This may be done right away or need to wait until the abdomen calms down.
- If an infection is found, you will be given antibiotic medication to fight the infection.
- If there is bleeding, surgery may be needed to stop the problem.
- When acute pancreatitis is severe, your body may need some time to heal and you may be fed through a tube for a few weeks.

### **What is the treatment after an attack?**

Your doctor or health care provider will try to find the cause of your attack and advise you what to do.

Here are some general guidelines to follow:

- Avoid alcohol, nicotine and caffeine.
- Eat small, low fat meals.
- Report fever, pain and swelling in your abdomen to your doctor.

## **Chronic Pancreatitis**

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### **What is chronic pancreatitis?**

Chronic pancreatitis occurs when the tissues of the pancreas and the area around it are destroyed. There is scarring and pain. Chronic pancreatitis does not get better and slowly destroys the pancreas.

### **What causes chronic pancreatitis?**

Chronic pancreatitis is most often caused by many years of drinking alcohol. It can also be caused by any acute attack, or problems such as trauma, cysts, or medication that damages the pancreatic ducts. Some people inherit chronic pancreatitis and sometimes there is no known cause.

### **What are the symptoms of chronic pancreatitis?**

Some people have no pain. Some people have pain off and on. However, most people have constant pain in the abdomen and back. The constant pain often makes it hard to carry out normal daily activities. When much of the tissue in the pancreas is destroyed, the pain may go away.

Weight loss is common even when you have a normal appetite. When the pancreas does not produce enzymes, food is not broken down and the body does not absorb the nutrients. The healthy part of the food passes through the body into the stool. This may cause fatty looking and foul smelling bowel movements.

If the cells that make insulin are destroyed you may develop diabetes.

### **How is chronic pancreatitis diagnosed?**

Chronic pancreatitis is often hard to diagnose. Blood, urine and stool tests check to see how well the pancreas is working.

Any tests that are ordered will be explained to you before you have them.

A CAT scan may be done to look for the problems. During a CAT scan, you lie on a table as it moves into a donut shaped machine. A computer takes detailed pictures of your pancreas as it scans your body.

An ERCP test may also be done. During an ERCP, the doctor puts a small tube with a light at the end down your throat, into your stomach and then into the first part of your small intestine. This allows the doctor to see your stomach, the first part of the small intestine and ducts. Dye is put into the ducts to look for problems.

### **What is the treatment for chronic pancreatitis?**

The first goal is to control or relieve pain. Members of the health care team work closely with you to help you manage the pain.

You will learn to follow a diet that is high in carbohydrates and low in fat.

You may need to take pancreatic enzymes with meals. These can be taken orally with each meal. They will help you digest food and gain weight.

You may also have to take Vitamin A, Vitamin D and calcium supplements each day.

You will be advised to stop drinking alcohol.

If you develop diabetes, you will learn how to manage this. You may need to take insulin.

Surgery may be done to relieve pain, drain the duct or take part of the pancreas out.

**Notes:**

