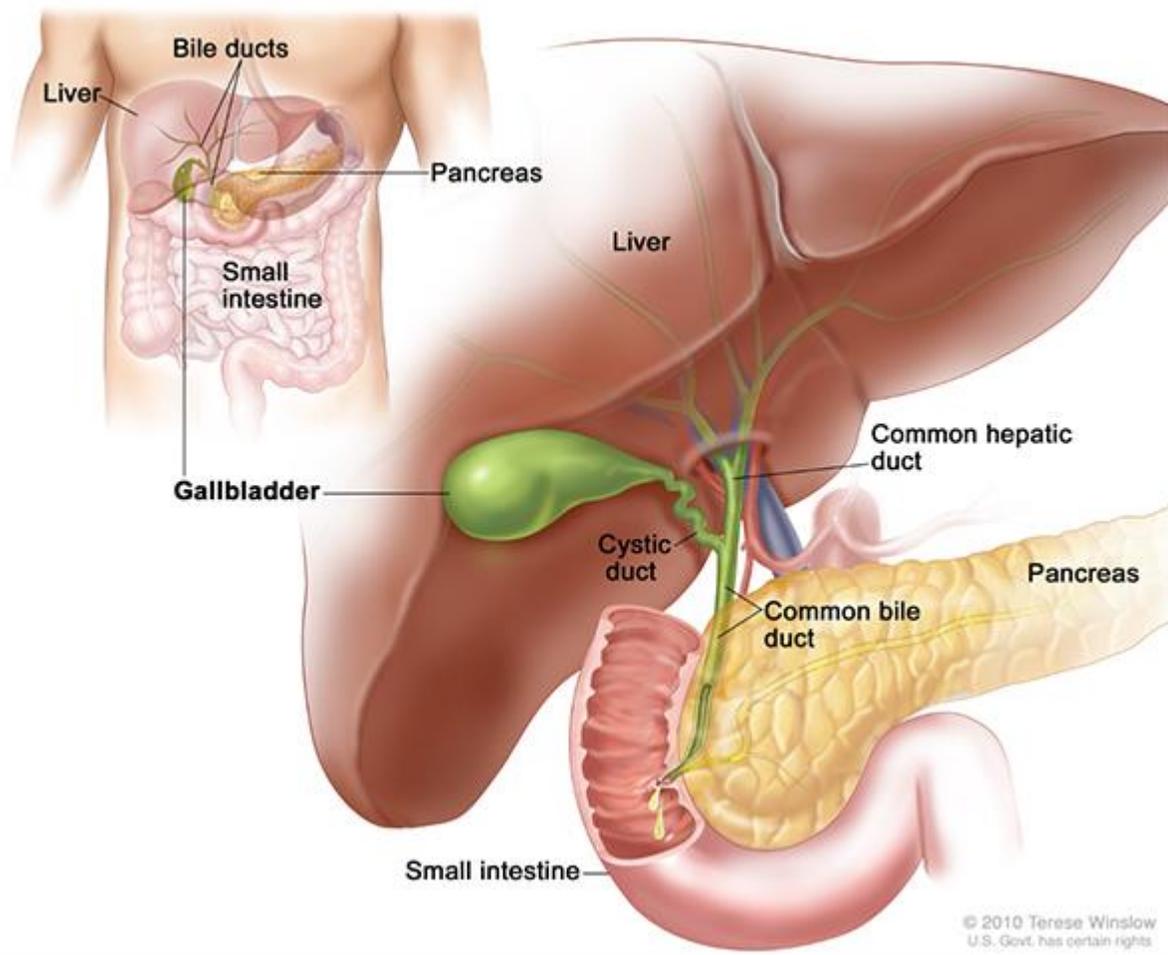


Pancreatitis

Definition & Facts

What is pancreatitis?

Pancreatitis is [inflammation](#) of the [pancreas](#). The pancreas is a large gland behind the [stomach](#), close to the first part of the [small intestine](#), called the duodenum. The pancreas has two main functions—to make [insulin](#) and to make [digestive juices](#), or enzymes, to help you digest food. These enzymes digest food in the intestine. Pancreatitis occurs when the enzymes damage the pancreas, which causes inflammation. Pancreatitis can be acute or chronic. Either form is serious and can lead to [complications](#).



The pancreas makes digestive juices, or enzymes, to help you digest food.

Acute pancreatitis

Acute pancreatitis occurs suddenly and is a short-term condition. Most people with acute pancreatitis get better, and it goes away in several days with treatment. Some people can have a more severe form of acute pancreatitis, which requires a lengthy hospital stay.

Chronic pancreatitis

Chronic pancreatitis is a long-lasting condition. The pancreas does not heal or improve. Instead, it gets worse over time, which can lead to lasting damage to your pancreas.

How common is pancreatitis?

Acute pancreatitis has become more common, for reasons that are not clear. Each year, about 275,000 hospital stays for acute pancreatitis occur in the United States.¹ Although pancreatitis is rare in children, the number of children with acute pancreatitis has grown.

Chronic pancreatitis is less common, with about 86,000 hospital stays per year.²

Who is more likely to get pancreatitis?

Certain groups of people are more likely to get acute or chronic pancreatitis than others:

- Men are more likely to get pancreatitis than women.¹
- African Americans have a higher risk of getting pancreatitis.³
- People with a family history of pancreatitis have a higher risk.
- People with a personal or family history of [gallstones](#) also have a higher risk.

People with certain health conditions

You are more likely to get pancreatitis if you have one of the following health conditions:

- [diabetes](#)
- gallstones
- high [triglycerides](#)
- [genetic disorders](#) of the pancreas
- certain [autoimmune](#) conditions
- [cystic fibrosis](#)

People with other health concerns

You are also more likely to get pancreatitis if you

- have [obesity](#)
- are a heavy alcohol user
- are a smoker

What are the complications of pancreatitis?

Both acute and chronic pancreatitis can lead to complications that include

- narrowing or blockage in a [bile](#) or [pancreatic duct](#)
- leakage from the pancreatic duct
- [pancreatic pseudocysts](#)
- damage to your pancreas
- heart, lung, or [kidney failure](#)
- death

Acute pancreatitis

Repeat episodes of acute pancreatitis may lead to chronic pancreatitis. Other complications of acute pancreatitis include

- [dehydration](#)
- bleeding
- infection

Chronic pancreatitis

Complications of chronic pancreatitis include

- chronic pain in your abdomen
- maldigestion, when you can't digest food properly
- [malnutrition](#) and [malabsorption](#)
- problems with how well your pancreas works
- scars in your pancreas
- diabetes
- [pancreatic cancer](#) , which is more likely in people with both diabetes and pancreatitis
- [osteopenia](#) , [osteoporosis](#) , and bone fractures

Symptoms & Causes

What are the symptoms of pancreatitis?

The main symptom of [acute](#) and [chronic](#) pancreatitis is

- pain in your upper [abdomen](#) that may spread to your back

People with acute or chronic pancreatitis may feel the pain in different ways.

Acute pancreatitis

Acute pancreatitis usually starts with pain that

- begins slowly or suddenly in your upper abdomen
- sometimes spreads to your back
- can be mild or severe
- may last for several days

Other symptoms may include

- fever
- [nausea](#) and [vomiting](#)
- fast heartbeat
- swollen or tender abdomen

People with acute pancreatitis usually look and feel seriously ill and need to see a doctor right away.

The main symptom of pancreatitis is pain in your upper abdomen that may spread to your back.

Chronic pancreatitis

Most people with chronic pancreatitis

- feel pain in the upper abdomen, although some people have no pain at all.

The pain may

- spread to your back
- become constant and severe
- become worse after eating
- go away as your condition gets worse

People with chronic pancreatitis may not have symptoms until they have complications.

Other symptoms may include

- [diarrhea](#)
- nausea
- greasy, foul-smelling [stools](#)
- vomiting
- weight loss

Seek care right away for pancreatitis

Seek care right away for the following symptoms of severe pancreatitis:

- pain or tenderness in the abdomen that is severe or becomes worse
- nausea and vomiting
- fever or chills
- fast heartbeat
- shortness of breath
- yellowish color of the skin or whites of the eyes, called jaundice

These symptoms may be a sign of

- serious infection
- [inflammation](#)
- blockage of the pancreas, gallbladder, or a [bile](#) and [pancreatic duct](#)

Left untreated, these problems can be fatal.

What causes pancreatitis?

The most common causes of both acute and chronic pancreatitis are

- gallstones
- heavy alcohol use
- [genetic disorders](#) of your pancreas
- some medicines

Other causes include

- infections, such as [viruses](#) or [parasites](#)
- injury to your abdomen
- [pancreatic cancer](#)
- having a procedure called [endoscopic retrograde cholangiopancreatography \(ERCP\)](#) to treat another condition

- [pancreas divisum](#)

Acute pancreatitis

The most common cause of acute pancreatitis is having gallstones.

Gallstones cause inflammation of your pancreas as stones pass through and get stuck in a bile or pancreatic duct. This condition is called [gallstone pancreatitis](#).

Chronic pancreatitis

The most common causes of chronic pancreatitis are

- heavy alcohol use
- genetic disorders of your pancreas

Other causes include

- blockage in your pancreatic duct
- high levels of blood fats, called lipids
- high level of [calcium](#) in your blood

In many cases, doctors can't find the cause of pancreatitis. This is called idiopathic pancreatitis.

Diagnosis

What tests do health care professionals use to diagnose pancreatitis?

Health care professionals may use lab or imaging tests to diagnose pancreatitis and find its causes. Diagnosing chronic pancreatitis can be hard in the early stages. Your doctor will also test for other conditions that have similar symptoms, such as [peptic ulcers](#) or [pancreatic cancer](#).

Lab tests

Lab tests to help diagnose pancreatitis include the following:

Blood tests. A health care professional may take a blood sample from you and send the sample to a lab to test for

- high amylase and lipase levels—digestive [enzymes](#) made in your [pancreas](#)
- high [blood glucose](#), also called blood sugar
- high levels of blood fats, called lipids

- signs of infection or [inflammation](#) of the [bile ducts](#), pancreas, [gallbladder](#), or [liver](#)
- pancreatic cancer

Stool tests. Your doctor may test a stool sample to find out if a person has fat [malabsorption](#).

Imaging tests

Health care professionals also use [imaging](#) tests to diagnose pancreatitis. A technician performs most tests in an outpatient center, a hospital, or a doctor's office. You don't need [anesthesia](#), a medicine to keep you calm, for most of these tests.

Ultrasound. Ultrasound uses a device called a transducer, which bounces safe, painless sound waves off your organs to create a picture of their structure. Ultrasound can find gallstones.

Computed tomography (CT) scan. CT scans create pictures of your pancreas, gallbladder, and bile ducts. CT scans can show pancreatitis or pancreatic cancer.

Magnetic resonance cholangiopancreatography (MRCP). MRCP uses a magnetic resonance imaging (MRI) machine, which creates pictures of your organs and soft tissues without x-rays. Your doctor or a specialist may use MRCP to look at your pancreas, gallbladder, and bile ducts for causes of pancreatitis.

Health care professionals use MRCP to look at your pancreas, gallbladder, and bile ducts for causes of pancreatitis.

Endoscopic ultrasound (EUS). Your doctor inserts an [endoscope](#)—a thin, flexible tube—down your throat, through your [stomach](#), and into your [small intestine](#). The doctor turns on an ultrasound attachment to create pictures of your pancreas and bile ducts.

Treatment

How do health care professionals treat pancreatitis?

Treatment for [acute](#) or [chronic](#) pancreatitis may include

- a hospital stay to treat [dehydration](#) with [intravenous](#) (IV) fluids and, if you can swallow them, fluids by mouth
- pain medicine, and [antibiotics](#) by mouth or through an IV if you have an infection in your pancreas
- a low-fat diet, or [nutrition](#) by feeding tube or IV if you can't eat

Acute pancreatitis

Mild acute pancreatitis usually goes away in a few days with rest and treatment. If your pancreatitis is more severe, your treatment may also include:

Surgery. Your doctor may recommend surgery to remove the gallbladder, called cholecystectomy, if gallstones cause your pancreatitis. Having surgery within a few days after you are admitted to the hospital lowers the chance of complications. If you have severe pancreatitis, your doctor may advise delaying surgery to first treat complications.

Procedures. Your doctor or specialist will drain fluid in your abdomen if you have an [abscess](#) or infected [pseudocyst](#), or a large pseudocyst causing pain or bleeding. Your doctor may remove damaged tissue from your pancreas.

Endoscopic Cholangiopancreatography (ERCP). Doctors use [ERCP](#) to treat both acute and chronic pancreatitis. ERCP combines [upper gastrointestinal endoscopy](#) and [x-rays](#) to treat narrowing or blockage of a [bile](#) or [pancreatic duct](#). Your gastroenterologist may use ERCP to remove gallstones blocking the bile or pancreatic ducts.

Chronic pancreatitis

Treatment for chronic pancreatitis may help relieve pain, improve how well the pancreas works, and manage complications.

Your doctor may prescribe or provide the following:

Medicines and vitamins. Your doctor may give you enzyme pills to help with digestion, or [vitamins](#) A, D, E, and K if you have [malabsorption](#). He or she may also give you [vitamin B-12](#) shots if you need them.

Treatment for diabetes. Chronic pancreatitis may cause [diabetes](#). If you get diabetes, your doctor and health care team will work with you to create an eating plan and a routine of medicine, [blood glucose monitoring](#), and regular checkups.

Surgery. Your doctor may recommend surgery to relieve pressure or blockage in your pancreatic duct, or to remove a damaged or infected part of your pancreas. Surgery is done in a hospital, where you may have to stay a few days.

In patients who do not get better with other treatments, surgeons may perform surgery to remove your whole pancreas, followed by islet auto-transplantation. Islets are groups of cells in your pancreas that make [hormones](#), including [insulin](#). After removing your pancreas, doctors will take islets from your pancreas and transplant them into your [liver](#). The islets will begin to make hormones and release them into your bloodstream.

Procedures. Your doctor may suggest a nerve block, which is a shot of numbing medicine through your skin and directly into nerves that carry the pain message from your pancreas. If you have stones blocking your pancreatic duct, your doctor may use a procedure to break up and remove the stones.

Treatment for acute or chronic pancreatitis may include a hospital stay to treat dehydration and prescribe pain medicine, antibiotics, and nutrition.

How can I help manage my pancreatitis?

Stop drinking alcohol

Health care professionals strongly advise people with pancreatitis to stop drinking alcohol, even if your pancreatitis is mild or in the early stages. Continuing to drink alcohol when you have acute pancreatitis can lead to

- more episodes of acute pancreatitis
- chronic pancreatitis

When people with chronic pancreatitis caused by alcohol use continue to drink alcohol, the condition is more likely to lead to severe [complications](#) and even death.

Talk with your health care professional if you need [help to stop drinking alcohol](#) .

Stop smoking

Health care professionals strongly advise people with pancreatitis to stop smoking, even if your pancreatitis is mild or in the early stages. Smoking with acute pancreatitis, especially if it's caused by alcohol use, greatly raises the chances that your pancreatitis will become chronic. Smoking with pancreatitis also may raise your risk of [pancreatic cancer](#) .

Talk with your health care professional if you need [help to stop smoking](#) .

How can I help prevent pancreatitis?

You can't prevent pancreatitis, but you can take steps to help you stay healthy.

Maintain a healthy weight or lose weight safely

[Maintaining a healthy lifestyle and a healthy weight](#)—or losing weight if needed—can help to

- make your pancreas work better
- lower your chance of getting [gallstones](#), a leading cause of pancreatitis
- prevent [obesity](#)—a risk factor for pancreatitis
- prevent diabetes—a risk factor for pancreatitis

Keeping a healthy weight—or losing weight if needed—can help lower your chances of getting gallstones, a leading cause of pancreatitis.

Avoid alcohol use

Alcohol use can cause acute and chronic pancreatitis. Talk with your health care professional if you need help to stop drinking alcohol.

Avoid smoking

Smoking is a common risk factor for pancreatitis—and the chances of getting pancreatitis are even higher in people who smoke and drink alcohol. Talk with your health care professional if you need help to stop smoking.

Eating, Diet, & Nutrition

Can what I eat help or prevent pancreatitis?

During pancreatitis treatment, your doctor may tell you not to eat or drink for a while. Instead, your doctor may use a feeding tube to give you nutrition. Once you may start eating again, he or she will prescribe a healthy, low-fat eating plan that includes small, frequent meals.

You can decrease your risk of pancreatitis by sticking with a low-fat, healthy eating plan.

If you have pancreatitis, drink plenty of fluids and limit caffeine. Health care professionals strongly advise people with pancreatitis not to drink any alcohol, even if your pancreatitis is mild.

Having an eating plan high in fat and calories can lead to high levels of fat in your blood, which raises your risk of pancreatitis. You can lower your chances of getting pancreatitis by sticking with a low-fat, [healthy eating plan](#).

References

[1] Forsmark CE, Vege SS, Wilcox CM. Acute pancreatitis. *The New England Journal of Medicine*. 2016; 375(20):1972–1981.

[2] Ketwaroo GA, Freedman SD, Sheth, SG. Approach to patients with suspected chronic pancreatitis: a comprehensive review. *Pancreas*. 2015;44(2):173–180.

[3] Tang J. Acute pancreatitis. Medscape website. <https://emedicine.medscape.com/article/181364-overview#a5>. Updated February 13, 2017. Accessed September 27, 2017.

November 2017

This content is provided as a service of the [National Institute of Diabetes and Digestive and Kidney Diseases](#) (NIDDK), part of the National Institutes of Health. The NIDDK translates and disseminates

research findings through its clearinghouses and education programs to increase knowledge and understanding about health and disease among patients, health professionals, and the public. Content produced by the NIDDK is carefully reviewed by NIDDK scientists and other experts.

The NIDDK would like to thank:

Christopher E. Forsmark, M.D., University of Florida College of Medicine