

## Pancreatitis

Pancreatitis is swelling or inflammation of the pancreas. Pancreatitis may be acute or chronic. Acute pancreatitis happens suddenly and lasts a short time. Symptoms range from mild to severe and may include pain and tenderness in the upper central belly, nausea, vomiting, diarrhea, fever, and a fast heart rate. Chronic pancreatitis is long-lasting inflammation that typically occurs after one or more episodes of acute pancreatitis. It may cause constant pain in the upper belly and back, diarrhea, weight loss, and vomiting.

To diagnose acute pancreatitis, your doctor will perform blood tests. Ultrasound, CT, or MR imaging can evaluate for complications from the pancreatitis and may identify a potential cause, such as gallstones.

Treatment for acute pancreatitis mainly consists of fluids, pain management, and nutritional support. Your doctor may also treat the underlying cause and complications of your condition, such as prescribing antibiotics for an infection. For chronic pancreatitis, treatment focuses on pain relief, therapy to help you digest food, and treating the underlying cause when possible.



## What is Pancreatitis?

The pancreas is a large gland located behind the stomach, in front of the spine, and next to the duodenum. It sends digestion juices, or enzymes (<http://www.radiologyinfo.org>), into the small intestine to help digest your food.

Acute pancreatitis occurs suddenly. Common symptoms are pain and tenderness in the upper belly that may spread to your back. You may have nausea, vomiting, fever, and a fast heartbeat. This typically goes away in a few days with treatment, but symptoms may last longer if you have more severe inflammation of the gland.

Chronic pancreatitis is a more long-standing inflammation of the gland. Repeat episodes of acute pancreatitis can lead to chronic inflammation. It may get worse over time and lead to permanent damage and other complications. Symptoms often include pain in the upper belly that spreads to your back and becomes worse after eating, smelly stools, and loss of weight without trying. Some people may have no pain at all until complications occur.

The most common causes of acute pancreatitis are *gallstones* (<https://www.radiologyinfo.org/en/info/gallstones>) and heavy alcohol use (or binge drinking). Other less common causes may include side effects of certain medications, high triglyceride levels, and injury to the pancreas related to a medical procedure. The cause may not be apparent in some patients. Chronic pancreatitis is less common than acute pancreatitis.

Either type can cause serious complications, such as:

- pancreatic necrosis (when part of the gland dissolves from severe injury)
- infection
- fluid collections in the belly
- pancreatic insufficiency
- diabetes.

Although rare, pancreatitis can occur in children.

## How is Pancreatitis diagnosed and evaluated?

Doctors mainly use blood tests to diagnose acute pancreatitis. Chronic pancreatitis may be diagnosed with stool tests. Medical imaging can also help diagnose both acute and chronic pancreatitis, identify the underlying cause, and assess for complications. Imaging tests create detailed images of the pancreas and gallbladder. These images let your doctor see the ducts that transport pancreatic and biliary fluids into the small bowel. Imaging tests can help show the extent of the inflammation and possible causes, such as a bile duct blockage or gallstones.

- *Abdominal ultrasound* (<https://www.radiologyinfo.org/en/info/abdominus>) : Ultrasound produces pictures of the gallbladder and bile ducts. Doctors commonly use ultrasound used to look for gallstones and to see whether there is any blockage of bile flow. *For information about ultrasound procedures performed on children, visit the Pediatric Abdominal Ultrasound* (<https://www.radiologyinfo.org/en/info/abdomus-pdi>) page.
- *Abdominal CT* (<https://www.radiologyinfo.org/en/info/abdominct>) : CT produces detailed pictures of the pancreas, gallbladder, and ducts. Your doctor will use it to look for signs of inflammation or a blockage in the pancreatic and bile ducts. Doctors often use CT when complications are present. CT scans may not see all gallstones. *See the Radiation Safety* (<https://www.radiologyinfo.org/en/info/safety-radiation>) page for more information about CT.
- *Magnetic resonance cholangiopancreatography (MRCP)* (<https://www.radiologyinfo.org/en/info/mrcp>) : MRCP is an MRI exam that produces detailed images of the liver, gallbladder, bile ducts, pancreas (<http://www.radiologyinfo.org>) and pancreatic duct (<http://www.radiologyinfo.org>) . It can diagnose gallstones and stones in the biliary tree (the drainage network that drains bile from the liver and gallbladder). Stones in the biliary tree are hard to see using ultrasound and CT. *See the Magnetic Resonance Imaging (MRI) Safety* (<https://www.radiologyinfo.org/en/info/safety-mr>) page for more information.
- *Endoscopic retrograde cholangiopancreatography (ERCP)*: ERCP examines the bile ducts using a thin, flexible tube with a camera called an endoscope (<http://www.radiologyinfo.org>) . The doctor passes the endoscope through your mouth into the stomach and the duodenum. They will inject a contrast material into the bile ducts to help locate and remove gallstones that may be causing a blockage. It can also look at the drainage of the pancreas itself.

## How is Pancreatitis treated?

Treatment for acute pancreatitis usually includes a hospital stay. This allows your doctor to closely monitor you for signs of serious problems and provide supportive treatments, such as intravenous (IV) fluids, pain medication, antibiotics, and nutrition by a feeding tube if needed.

For chronic pancreatitis, treatment goals include improving the function of your pancreas, pain relief, and managing complications. Your doctor may also recommend dietary changes, including not drinking alcohol and taking supplements to help you digest your food.

If the underlying cause of your pancreatitis is gallstones or a blockage in your pancreatic or bile ducts, your doctor may suggest specific treatments for those conditions. *See the Gallstones* (<https://www.radiologyinfo.org/en/info/gallstones>) and *Biliary Interventions* (<https://www.radiologyinfo.org/en/info/biliary>) pages for more information.

## Which test, procedure or treatment is best for me?

- *Acute Nonlocalized Abdominal Pain* (<https://www.radiologyinfo.org/en/info/acs-acute-nonlocalized-abdominal-pain>)

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