

## Pancreatitis explained

Pancreatitis is inflammation of the pancreas, which can either be acute (sudden and severe) or chronic (ongoing). The pancreas is a gland that secretes both digestive enzymes and important hormones. Heavy alcohol consumption is one of the most common causes of chronic pancreatitis, followed by gallstones.

Pancreatitis is one of the least common diseases of the digestive system. Treatment options include abstaining from alcohol, fasting until the inflammation subsides, medication and surgery.

### A range of causes

Around half of all people with acute pancreatitis have been heavy drinkers, which makes alcohol consumption one of the most common causes. Gallstones cause most of the remaining cases.

In rare cases, pancreatitis can be caused by:

- Trauma or surgery to the pancreas region
- Inherited abnormalities of the pancreas
- Inherited disorders of metabolism
- Viruses (particularly mumps)
- Medications (including some diuretics), which can also trigger inflammation.

### The dual roles of the pancreas

The pancreas is one of the body's biggest glands. It has two roles:

- **The exocrine pancreas** – produces alkaline substances to counteract stomach acids before food enters the small intestine and makes enzymes to help break down food into its smaller components. These secretions travel along the pancreatic duct system and enter the intestine through a narrow opening called the papilla. 'Exocrine' refers to glands that secrete their substances through ducts to specific targets.
- **The endocrine pancreas** – produces hormones such as insulin, which helps to regulate the amount of sugar circulating in the blood. Problems with insulin production can lead to diabetes. 'Endocrine' refers to glands that secrete their substances into the bloodstream.

### Acute pancreatitis

Acute pancreatitis is a sudden, debilitating attack of severe upper abdominal pain. Pancreatic enzymes irritate and burn the pancreas and leak out into the abdominal cavity. Complications include respiratory, kidney or heart failure, all of which can be fatal.

The most common cause of severe acute pancreatitis is gallstones blocking the pancreatic duct. This can sometimes occur even if the gallbladder has been previously removed. When triggered by excessive alcohol consumption, acute pancreatitis usually resolves itself with rest and abstinence from drinking.

Common symptoms of an acute attack include:

- Severe abdominal pain, often spreading through into the back
- Bloating
- Fever
- Sweating
- Nausea
- Vomiting
- Collapse.

The symptoms of acute pancreatitis can sometimes be confused with symptoms of other emergencies such as heart attack, biliary colic (gallbladder stones) or perforation of a gastric or duodenal ulcer. Acute pancreatitis generally causes severe pain and the sufferer will need emergency treatment in a hospital.

### **Chronic pancreatitis**

Chronic pancreatitis typically involves recurring bouts of pancreatic inflammation, often even when known triggers are eliminated. People who drink excessive amounts of alcohol are at increased risk of developing this condition. Over time, the pancreas may be damaged, or parts of it destroyed, by the relentless inflammation. This leads to digestive upsets. The person may pass fatty, foul-smelling faeces (poo) or even drops of oil. The damage to the pancreas is typically permanent.

Some people with chronic pancreatitis suffer recurrent or even constant abdominal pain, which may be severe. Other symptoms include steady weight loss, caused by the body's inability to properly digest and absorb food. If much of the pancreas has been damaged, loss of insulin production can cause diabetes. Chronic pancreatitis can contribute to the development of pancreatic cancer.

### **Diagnosis**

Pancreatitis is generally diagnosed quickly, by examination of the abdomen, and confirmed using a series of medical tests including:

- **General tests** – such as blood tests, physical examination and x-rays.
- **Ultrasound** – sound waves form a picture that detects the presence of gallstones.
- **CT scan** – a specialised x-ray takes three-dimensional pictures of the pancreas.
- **MRI scan** – this uses a strong magnetic field rather than radiation to take pictures of the abdomen. A special form of MRI called MRCP can also be used to get images of the ducts of the pancreas and help determine the cause of pancreatitis and the extent of damage.

### **Treatment**

Treatment depends on the causes and severity of the condition.

#### **Acute pancreatitis**

Treatment may include:

- **Hospital care** – in all cases of acute pancreatitis.
- **Intensive care in hospital** – in cases of severe acute pancreatitis.
- **Fasting and intravenous fluids** – until the inflammation settles down.
- **Pain relief** – adequate pain relief is essential and is often given into the vein (intravenously). With appropriate pain relief, a person with pancreatitis is able to draw deep breaths, which helps to avoid lung complications such as pneumonia.
- **Endoscopy** – a thin tube is inserted through your oesophagus to allow the doctor to see your pancreas. This device is used to inject dye into the bile ducts and pancreas. Gallstones can be seen and removed directly.
- **Surgery** – if gallstones are present, removing the gallbladder will help prevent further attacks. In rare cases, surgery is needed to remove damaged or dead areas of the pancreas.
- **Lifestyle change** – not drinking alcohol.

#### **Chronic pancreatitis**

Treatment may include:

- Lowering fat intake
- Supplementing digestion by taking pancreatic enzyme tablets with food
- Cutting out alcohol
- Insulin injections, if the endocrine function of the pancreas is compromised
- Analgesics (pain-relieving medications).

### **Where to get help**

- Your doctor
- Gastroenterologist

### **Things to remember**

- Pancreatitis is inflammation of the pancreas, which can be either acute or chronic.
- Treatment options include fasting until the inflammation subsides, removing gallstones, abstaining from alcohol, medications and surgery.

**This page has been produced in consultation with, and approved by:**

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