

Acute Pancreatitis

A guide to what it is, what causes it, how it is treated, and what to expect

This leaflet explains acute pancreatitis: what it is, the symptoms it causes, common causes, how doctors assess how severe it is, how it is treated, and what the short- and long-term outlook usually looks like. It is intended as general background information to support, not replace, the advice of your own clinical team.

What is acute pancreatitis?

Acute pancreatitis is sudden inflammation of the pancreas, the gland that sits behind your stomach and helps digest food and control blood sugar (see our separate leaflet, "My Pancreas", for more on its normal role). In acute pancreatitis, digestive enzymes that are usually only active once they reach the small bowel become switched on too early, inside the pancreas itself. This causes the gland to become inflamed and, in more severe cases, damaged.

It is one of the most common reasons for emergency hospital admission with abdominal pain. Most people (around 4 in 5) have a mild episode and make a full recovery within a week or so. A smaller number of people become more unwell and need a longer stay in hospital, sometimes including a period of high dependency or intensive care.

Acute pancreatitis is a different condition from chronic pancreatitis, which is long-standing, ongoing inflammation and scarring of the pancreas. Some people who have repeated attacks of acute pancreatitis, particularly if the underlying cause is not addressed, can go on to develop chronic pancreatitis over time.

What symptoms does it cause? How does it present?

The most common symptom is pain, but acute pancreatitis can present in several ways:

- **Abdominal pain:** usually sudden, severe pain in the upper abdomen, often described as a constant, boring pain. It frequently spreads through to the back and may be eased slightly by sitting forward or curling up, and worsened by lying flat or eating.
- **Nausea and vomiting:** very common alongside the pain.
- **Fever and a fast heart rate:** signs that the body is mounting an inflammatory response.
- **Abdominal tenderness and swelling:** your abdomen may feel tender to touch, bloated, or firm, and bowel sounds can be reduced.
- **Jaundice:** yellowing of the skin or eyes can occur if a gallstone is blocking the bile duct.
- **Breathlessness:** can occur in more severe cases if the lungs are affected.
- **Signs of a more severe attack:** confusion, a racing heart, low blood pressure, reduced urine output, or (rarely) bruising around the belly button or flanks, which can signal bleeding within or around the pancreas.

Because these symptoms overlap with other causes of abdominal pain, doctors rely on a combination of your history, examination, blood tests and sometimes imaging to confirm the diagnosis (see “How is it diagnosed?” below).

What causes acute pancreatitis?

There are many possible causes, though two account for the large majority of cases in the UK:

- **Gallstones:** the most common cause overall. A stone can temporarily block the shared opening where the pancreatic and bile ducts drain into the small bowel, triggering inflammation.
- **Alcohol:** the second most common cause, usually related to heavier or longer-term drinking, though it can occasionally follow a single large binge.

Other, less common causes include:

- High levels of fat (triglycerides) in the blood
- A procedure called ERCP (endoscopic examination of the bile duct), which can occasionally trigger pancreatitis
- Certain medicines
- Injury or trauma to the abdomen, including after some types of surgery
- High calcium levels in the blood
- Viral infections, such as mumps
- Autoimmune pancreatitis, where the immune system mistakenly attacks the pancreas
- Genetic and inherited causes
- No clear cause is found in a minority of cases (“idiopathic” pancreatitis), even after investigation

Identifying the cause matters because treating it (for example, removing the gallbladder after gallstone pancreatitis, or supporting someone to reduce or stop alcohol) significantly lowers the chance of a further attack.

How is it diagnosed?

Diagnosis is usually based on at least two of the following three things being present:

- Typical abdominal pain, as described above
- A blood test (amylase or lipase) showing a level at least three times the upper limit of normal
- Characteristic findings on a scan (ultrasound or CT)

Alongside these, your team will usually arrange blood tests to look for a likely cause (such as liver function tests and a check of your triglyceride and calcium levels), and tests such as CRP and a full blood count to help judge how your body is responding. An abdominal ultrasound is commonly done early on to look for gallstones. A CT scan is not always needed straight away; it is more useful a few days into the illness if the diagnosis is uncertain, or to look for complications if you remain unwell.

How severe is my pancreatitis, and how is that assessed?

Not all acute pancreatitis is the same, and part of your team's job in the first 24–48 hours is working out how severe your episode is likely to be, because this guides how closely you need to be monitored and where you are best cared for. Doctors commonly use scoring systems (such as the Glasgow-Imrie score or APACHE II) that combine things like your age, blood test results, and how your organs are functioning, to help flag people at higher risk early on.

Severity is formally categorised using the following framework (the “revised Atlanta classification”), based on whether any organs are affected and for how long:

Category	What it means	Typical course
Mild	No organ failure and no complications around the pancreas	About 4 in 5 people; usually settles within a week
Moderately severe	Organ failure that resolves within 48 hours, and/or a local complication such as a fluid collection	Longer hospital stay; close monitoring needed
Severe	Organ failure (for example of the lungs, kidneys or circulation) lasting more than 48 hours	Needs high dependency or intensive care; carries the highest risk

Certain factors make a more severe course more likely, including older age, obesity, and pancreatitis caused by alcohol. Your team will monitor you closely in the first few days regardless of your initial severity, since some people who start off looking well can deteriorate.

How is acute pancreatitis treated?

Initial (supportive) treatment

For almost everyone, the mainstay of early treatment is supportive care while the inflammation settles:

- **Fluids:** given through a drip to keep you well hydrated, since pancreatitis can cause significant fluid shifts in the body.
- **Pain relief:** regular painkillers, escalated as needed; pain control is a priority.
- **Anti-sickness medicine:** if you are vomiting.
- **Oxygen:** if your oxygen levels are low.
- **Nutrition:** current guidance favours eating and drinking as soon as you can tolerate it, rather than being kept “nil by mouth”. If you cannot eat, a feeding tube (usually passed through the nose) is generally preferred over intravenous feeding, which is reserved for when tube feeding is not possible or not tolerated.
- **Close monitoring:** of your vital signs, urine output and blood tests, more frequently if you have moderate or severe disease.

Antibiotics are not routinely given, because acute pancreatitis is caused by inflammation rather than infection in the first instance; they are reserved for when there is evidence of an actual infection, such as infected pancreatic necrosis.

Treating the underlying cause

- **Gallstones:** if a stone is blocking the bile duct or you have evidence of infection in the bile ducts (cholangitis), an urgent procedure called ERCP may be needed to clear it. Once you have recovered, removal of the gallbladder (cholecystectomy) is recommended, usually during the same hospital admission or within a couple of weeks, to prevent a further attack.
- **Alcohol:** support and advice to reduce or stop drinking, with referral to specialist alcohol services where helpful.
- **High triglycerides:** dietary changes and medication to lower the levels.
- **Medicines:** review of your regular medicines in case one may have contributed.

Care for more severe episodes

If you develop moderately severe or severe pancreatitis, you may need care on a high dependency or intensive care unit for support of your breathing, circulation or kidneys. Some people develop collections of fluid or dead pancreatic tissue (necrosis) around the pancreas; these are initially watched, and only treated (usually by a minimally invasive drainage procedure, and occasionally by surgery) if they become infected or are causing symptoms. Wherever possible, less invasive, delayed treatment is preferred over early surgery, as this tends to give better outcomes.

Short-term outcomes and possible complications

Most people with mild acute pancreatitis recover fully within about a week and leave hospital with no lasting problems. In a smaller proportion of people, complications can develop, particularly with moderately severe or severe disease (see the leaflet on Complications of Pancreatitis for more detailed information):

- Failure of one or more organs (commonly the lungs, kidneys or circulation) requiring extra support
- Collections of fluid around the pancreas
- Death of pancreatic tissue (necrosis), which can become infected
- Infection or abscess formation
- Bleeding
- Blood clots

Overall, acute pancreatitis has a low mortality rate (roughly 1–2% across all cases) but this rises considerably in severe disease with persistent organ failure or infected necrosis, where it can reach around 20–30%. This is why early recognition of severe disease and prompt, specialist supportive care make such a difference. Length of hospital stay varies from a few days for mild disease to several weeks or months for severe disease.

Long-term outcomes

Most people who have a single, mild episode of acute pancreatitis recover completely, with a pancreas that continues to work normally. However, some people experience longer-term effects, particularly after more severe or repeated episodes:

- **Recurrent attacks:** if the underlying cause is not treated (for example, if the gallbladder is not removed after gallstone pancreatitis, or if drinking and smoking continues), further episodes are more likely.

- **Chronic pancreatitis:** a minority of people, especially after repeated attacks or ongoing alcohol use, go on to develop long-term inflammation and scarring of the pancreas.
- **Exocrine insufficiency:** difficulty digesting food properly, particularly fat, due to reduced enzyme production. This can cause bloating, weight loss and loose, greasy stools, and is treated with pancreatic enzyme replacement capsules taken with food.
- **Diabetes:** new-onset diabetes can develop, especially after severe or necrotising pancreatitis, because of damage to the insulin-producing cells; this may be temporary or permanent.
- **Persistent fluid collections (pseudocysts):** occasionally, a collection of fluid persists after the acute episode and needs monitoring or, if it is causing symptoms, drainage.
- **Psychological impact:** some people feel anxious about a further attack, particularly after a severe illness; support is available if this affects you, and it is a reasonable thing to raise with your team.

Because of these possibilities, you will usually be offered follow-up after your admission: to check recovery, address the underlying cause if this has not already been done, and arrange further tests (such as scans, or blood tests for blood sugar and vitamin levels) if needed.

When to seek urgent medical help

- Severe or worsening abdominal pain
- Persistent vomiting or an inability to keep fluids down
- A high temperature, shivering, or feeling generally very unwell
- New confusion, severe breathlessness, or a racing heartbeat
- Little or no urine output
- Yellowing of the skin or eyes

Key points to remember

- Acute pancreatitis is sudden inflammation of the pancreas, most often caused by gallstones or alcohol.
- The classic symptom is severe upper abdominal pain, often spreading to the back, with nausea and vomiting.
- Most cases (around 4 in 5) are mild and settle within about a week with supportive treatment.
- A minority of cases are more severe and need closer monitoring, and sometimes high dependency or intensive care.
- Treating the underlying cause (such as removing the gallbladder or addressing alcohol use) reduces the risk of a repeat attack.
- Long-term effects are uncommon after a single mild episode, but can include diabetes, digestive enzyme problems, or (rarely) chronic pancreatitis after severe or repeated episodes.
- If you have any questions about your condition or treatment, please ask your care team; no question is too small.

This leaflet is for general information only and does not replace advice from your own doctor or specialist team. Every person's illness is different, and your team will tailor your care to your individual circumstances. If you are worried about any symptoms, please contact your care team or emergency services.

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