CONDITION

# Gallbladder inflammation

Gallbladder inflammation is swelling and irritation of the gallbladder, usually caused by a gallstone blocking its drainage duct.

**WHAT IT IS**
Swelling and irritation of the gallbladder

**BODY SYSTEM**
Digestive system

**MAIN SYMPTOMS**
Upper-right abdominal pain, nausea, vomiting, fever

**WHAT CAUSES IT**
Usually gallstone blockage; sometimes severe illness

**HOW IT IS DIAGNOSED**
Ultrasound and blood tests, sometimes a HIDA scan

**MAIN TREATMENT**
Supportive care, antibiotics, and gallbladder removal

**CAN IT BE CURED?**
Yes - gallbladder removal usually prevents recurrence

**IS IT AN EMERGENCY?**
Sometimes - persistent pain, fever, jaundice, or confusion

**LONG-TERM OUTLOOK**
Usually full recovery after timely treatment

## Overview

Gallbladder inflammation is medically called cholecystitis . The gallbladder is a small pouch under the liver. It stores bile, a fluid made by the liver that helps digest fat.

Most cases happen when a gallstone blocks the cystic duct, the narrow tube that drains the gallbladder. Trapped bile stretches and irritates the gallbladder. Bacteria may also infect the trapped fluid.

Acute cholecystitis starts suddenly and usually causes steady abdominal pain lasting several hours. It needs prompt medical assessment because untreated inflammation can damage the gallbladder or spread infection.

Chronic cholecystitis develops after repeated irritation, often from gallstones. The gallbladder

may become scarred and work less effectively. Symptoms can be milder or come and go.

A less common form, called acalculous cholecystitis , occurs without gallstones. It mainly affects people who are seriously ill, have had major surgery or trauma, or need intensive care.

## Symptoms

The main symptom is steady pain in the upper-right or upper-middle part of the abdomen. Unlike brief indigestion, the pain often lasts for several hours and may become worse when you move or take a deep breath.

Pain can spread to the right shoulder or back. The area under the right ribs may feel tender. Other symptoms can include:

Jaundice is not present in every case. When it occurs, it may mean that a stone is also blocking the main bile duct or that another bile duct problem is present.

Older adults and people with diabetes or a weakened immune system may have less obvious symptoms. They may develop weakness, confusion, poor appetite, or a general decline instead of strong pain or fever.

Chronic inflammation may cause repeated episodes of upper abdominal discomfort, especially after meals. However, meal-related pain has many possible causes and does not confirm a gallbladder problem by itself.

- Nausea or vomiting
- Fever or chills
- Loss of appetite
- Sweating
- Abdominal bloating
- Yellow skin or eyes, called jaundice

## Causes and risk factors

Gallstones cause most cases. These are hardened pieces of material that form in bile. If a stone becomes lodged in the cystic duct, bile cannot leave the gallbladder normally. Pressure builds, blood flow can decrease, and inflammation follows. Infection may develop as a secondary problem.

Anything that increases the chance of gallstones can indirectly raise the chance of gallbladder

inflammation. Relevant factors include:

Having one or more risk factors does not mean you will develop gallstones or cholecystitis. Some people develop gallstones without a clear reason, and many gallstones never cause symptoms.

Acalculous cholecystitis has different triggers. Reduced blood flow, prolonged fasting, severe infection, major burns, trauma, or critical illness can prevent the gallbladder from emptying and damage its wall. This form can be difficult to recognise because the person is often already seriously unwell.

Less often, inflammation is linked to a tumour, scarring, or another condition that blocks bile drainage.

- Increasing age
- Pregnancy
- Obesity
- Rapid weight loss
- A family history of gallstones
- Some blood, liver, or intestinal conditions

## Diagnosis

A healthcare professional will ask where the pain is, when it started, and whether you have fever, vomiting, jaundice, or previous episodes. They will examine your abdomen. Pain when pressure is applied beneath the right ribs during a deep breath can support the diagnosis, but it is not enough on its own.

Blood tests may show inflammation or infection. Tests of liver function can suggest a blocked main bile duct. A pancreatic enzyme test may be used because gallstones can also cause pancreatitis, which is inflammation of the pancreas.

An abdominal ultrasound is usually the first imaging test. It can show gallstones, thickening of the gallbladder wall, fluid around the gallbladder, and tenderness when the ultrasound probe presses over it.

If the diagnosis remains uncertain, a HIDA scan may be used. This scan tracks a small amount of radioactive tracer through the liver, bile ducts, gallbladder, and intestine. Failure of the tracer to enter the gallbladder can show that its duct is blocked.

CT or MRI scans may be needed to look for complications or stones in the main bile duct. No

single finding confirms every case, so the diagnosis is based on symptoms, examination, blood results, and imaging together.

## Treatment and management

Acute cholecystitis is usually treated in hospital. Initial care may include fluids through a vein, pain relief, medicine for nausea, and a temporary break from eating or drinking. Antibiotics like amoxicillin or doxycycline are used when infection is suspected or the risk of infection is significant.

The main treatment for gallstone-related inflammation is usually surgery to remove the gallbladder. This operation is called a cholecystectomy . When appropriate, it is commonly performed during the same hospital admission rather than waiting for another attack.

Most operations are laparoscopic, or keyhole, procedures. The surgeon works through several small cuts in the abdomen. An open operation through a larger cut may be needed if there is severe inflammation, scarring, bleeding, or another technical concern.

If surgery is temporarily too risky, a tube may be placed through the skin to drain the gallbladder. This is called a cholecystostomy . It can control inflammation while the person recovers from critical illness or becomes well enough for further treatment.

A stone in the main bile duct may need to be removed using ERCP . During this procedure, a flexible camera is passed through the mouth into the small intestine, and instruments are used to open or clear the bile duct. ERCP treats a duct blockage but does not remove the gallbladder.

Antibiotics can treat associated infection, but they do not remove an obstructing gallstone. Symptoms may return if the gallbladder remains in place.

## Complications

Most people recover when the condition is identified and treated promptly. Possible complications include:

Repeated inflammation can thicken and scar the gallbladder. Rarely, an abnormal connection called a fistula can form between the gallbladder and the intestine. A large stone may then enter the intestine and cause a blockage.

These complications are not inevitable. The risk is one reason persistent gallbladder-type pain should be assessed rather than managed repeatedly at home.

- Pus collecting inside the gallbladder
- Loss of blood supply and death of gallbladder tissue
- A hole, or perforation, in the gallbladder
- An abscess or infection within the abdomen
- Infection spreading into the blood, called sepsis
- Pancreatitis caused by a migrating gallstone
- Infection of the main bile ducts, called cholangitis

## Prevention

Not every case can be prevented. Some risk factors for gallstones, such as age, pregnancy, family history, and certain medical conditions, cannot be changed. Acalculous cholecystitis usually occurs during severe illness and is not something a person can reliably prevent through lifestyle choices.

Maintaining a weight that is healthy for you may lower the chance of gallstones. If you are losing weight, gradual loss is less likely to encourage gallstones than very rapid loss or repeated crash dieting. Regular meals and a balanced diet containing fibre and healthy fats may also support normal gallbladder emptying.

These steps cannot guarantee prevention or dissolve an existing stone. If gallstones are causing repeated pain, medical follow-up is more useful than relying on diet alone.

## Living with it and what to expect

Acute inflammation often improves over days with hospital treatment, but the exact course depends on the severity, whether complications are present, and your overall health.

After laparoscopic gallbladder removal, many people return gradually to normal activities over the following weeks. Recovery may take longer after open surgery, severe infection, or a complicated hospital stay. Follow the wound-care and activity instructions given by the surgical team.

You can live without a gallbladder. Bile still travels from the liver directly into the intestine. Most people eventually eat a normal diet. Some have temporary loose stools, bloating, or discomfort after fatty meals. Smaller meals and a gradual return to richer foods may help during recovery.

If the gallbladder is not removed, another episode can occur because the stones or drainage problem may remain. Follow-up may include discussing surgery after recovery, particularly if treatment initially involved drainage or if an operation had to be delayed.

Seek routine follow-up for recurring brief episodes of upper abdominal pain, ongoing digestive symptoms after recovery, or concerns about a surgical wound that are not rapidly worsening.

## When to get medical help

Seek urgent medical assessment if you develop steady upper-right or upper-middle abdominal pain that lasts more than a few hours, especially with fever, repeated vomiting, or marked tenderness. New jaundice, dark urine, or pale stools also needs prompt assessment.

Call emergency services if abdominal pain is severe or rapidly worsening, or if it occurs with:

After surgery, get urgent advice for increasing wound redness, pus, worsening abdominal pain, persistent vomiting, fever, or jaundice. Mild soreness and tiredness can be expected during recovery, but symptoms that are getting worse rather than better should be reviewed.

- Confusion, fainting, or unusual drowsiness
- Difficulty breathing
- Cold, clammy skin or severe weakness
- A rigid or very swollen abdomen
- Vomiting blood or black, tar-like stools

## Common questions

Is gallbladder inflammation the same as gallstones?

No. Gallstones are solid deposits inside the gallbladder or bile ducts. Cholecystitis is inflammation of the gallbladder. Gallstones are the most common cause, but many people have stones without inflammation, and some inflammation occurs without stones.

Can gallbladder inflammation go away on its own?

Pain may ease if a stone moves and the blockage clears. However, it is not possible to know at home whether the inflammation has resolved or is progressing. Persistent pain, fever, vomiting, or jaundice needs prompt assessment. Even after symptoms settle, another episode may occur.

Can antibiotics cure cholecystitis?

Antibiotics can treat bacterial infection associated with cholecystitis. They do not remove a gallstone or correct continued blockage. Surgery or drainage may still be needed.

Can I live normally without a gallbladder?

Yes. The gallbladder stores bile but is not essential. After removal, the liver continues making bile and sends it directly into the intestine. Most people return to their usual food and activities after recovery.

What should I eat during recovery?

Follow the instructions from your treating team, especially around surgery. Once eating resumes, small, lighter meals may be more comfortable at first. Fatty meals can cause bloating or loose stools for some people, but a permanently fat-free diet is usually unnecessary.

How long does recovery take?

Recovery depends on whether treatment involved keyhole surgery, open surgery, drainage, or treatment for complications. Many people recover more quickly after uncomplicated keyhole surgery, while open surgery or severe infection can require several weeks or longer.

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