CONDITION

Chronic cholecystitis

Learn how long-term gallbladder inflammation causes recurring upper abdominal pain, how it is diagnosed, and when surgery or urgent care may be needed.

WHAT IT IS
Long-term gallbladder inflammation and scarring

BODY SYSTEM
Digestive

MAIN SYMPTOMS
Upper abdominal pain, nausea, vomiting, bloating

WHAT CAUSES IT
Repeated blockage from gallstones

HOW IT IS DIAGNOSED
Ultrasound and microscopic tissue examination

MAIN TREATMENT
Surgical gallbladder removal

CAN IT BE CURED?
Yes, gallbladder removal is definitive

IS IT AN EMERGENCY?
Sometimes, severe illness with confusion or fainting

LONG-TERM OUTLOOK
May remain stable but serious complications can occur

Overview

Chronic cholecystitis is long-term inflammation and scarring of the gallbladder. The gallbladder is a small organ under the liver. It stores bile, a digestive fluid that helps the body break down fats.

Most cases develop after repeated blockage or irritation from gallstones. Gallstones are hardened deposits that form in bile. When a stone temporarily blocks the opening of the gallbladder, pressure builds and may cause upper abdominal pain. Repeated episodes can make the gallbladder wall thick, stiff, and less able to empty normally.

Unlike acute cholecystitis, which causes sudden and ongoing inflammation, chronic cholecystitis often produces symptoms that come and go. Some people have mild or unclear symptoms. Others experience repeated attacks of pain, sometimes called biliary colic.

Chronic cholecystitis matters because symptoms may interfere with eating and daily life. Gallstones can also move into the main bile duct or contribute to acute inflammation, infection, or pancreatitis. These complications are not inevitable, but they affect decisions about treatment.

Symptoms

The most common symptom is pain in the upper right or upper middle abdomen. Pain may spread to the back or right shoulder blade. It often begins after eating, especially after a large or high-fat meal, because eating signals the gallbladder to contract.

A typical episode may:

Some people report bloating, belching, or indigestion. These symptoms are common in many digestive conditions, however, and do not by themselves show that the gallbladder is the cause.

Between episodes, a person may feel well. Fever and jaundice are not expected with uncomplicated biliary pain. Jaundice means yellowing of the skin or whites of the eyes.

Seek prompt medical evaluation for pain that is new, keeps returning, or affects eating or normal activities.

Severe or persistent abdominal pain needs urgent assessment, especially when it occurs with fever, chills, repeated vomiting, jaundice, dark urine, pale stools, or increasing tenderness. Call emergency services for severe illness with confusion, fainting, difficulty breathing, or other signs of medical instability.

- Build over several minutes and remain steady rather than coming in waves
- Last from about 30 minutes to several hours
- Cause nausea or vomiting
- Return at irregular intervals
- Improve after the blockage clears

Causes and risk factors

Gallstones are the main cause of chronic cholecystitis. Most gallstones are made primarily of cholesterol. Others contain bilirubin, a substance produced when the body breaks down old red blood cells.

A stone may temporarily lodge in the cystic duct, the narrow passage through which bile leaves the gallbladder. Repeated obstruction and irritation can cause inflammation, fibrosis, and scarring. Over time, the gallbladder may shrink and develop a thickened wall.

Factors associated with a higher chance of gallstones include:

Having one or more risk factors does not mean a person has chronic cholecystitis. Many people with gallstones never develop symptoms. Gallstones found by chance usually do not require treatment unless they cause symptoms or there is another specific medical reason to intervene.

Less commonly, long-term gallbladder inflammation can occur without visible stones. Problems with gallbladder emptying or other forms of biliary disease may be considered, but these require careful evaluation because similar pain can come from the stomach, intestines, pancreas, liver, lungs, or heart.

- Increasing age
- Female sex
- Pregnancy
- Obesity or major weight gain
- Rapid weight loss, including after some weight-loss procedures
- A family history of gallstones
- Diabetes
- Certain intestinal or liver diseases
- Conditions that increase red blood cell breakdown
- Some medicines, including certain hormone treatments

Diagnosis

Diagnosis begins with a detailed history. A clinician will ask where the pain occurs, how long it lasts, whether it follows meals, and whether there is fever, jaundice, vomiting, or a change in urine or stool color. The abdomen will also be examined for tenderness.

Blood tests may include a complete blood count and tests of liver and pancreatic function. Results are often normal between uncomplicated attacks. Abnormal liver tests may suggest that a stone is blocking the common bile duct. A raised lipase level can indicate inflammation of the pancreas.

Ultrasound is usually the first imaging test. It can show gallstones, thickening of the gallbladder wall, and widening of the bile ducts. A shrunken or scarred gallbladder may support chronic inflammation, but imaging findings must be considered together with the symptoms.

Additional testing may be appropriate when the diagnosis is uncertain or a bile duct stone is suspected:

Endoscopic retrograde cholangiopancreatography, or ERCP, combines endoscopy and X-rays. Because it has meaningful risks, it is generally used to treat a suspected or confirmed bile duct blockage rather than as a routine diagnostic test.

After gallbladder removal, examination of the tissue under a microscope can confirm chronic inflammation and scarring.

- A hepatobiliary scan, also called a HIDA scan, follows the movement of a radioactive tracer through the liver, bile ducts, and gallbladder. It can assess blockage and, in some cases, how well the gallbladder empties.
- Magnetic resonance cholangiopancreatography, or MRCP, uses MRI technology to create detailed pictures of the bile ducts.
- Endoscopic ultrasound uses an ultrasound probe passed through the mouth into the digestive tract. It can detect small stones in the bile duct.
- CT may help identify complications or other causes of abdominal pain, although it does not show every type of gallstone.

Treatment and management

Treatment depends on how well the symptoms match gallbladder disease, how often they occur, whether complications have developed, and whether surgery is reasonably safe.

For people with recurring symptoms caused by gallstones, the usual definitive treatment is cholecystectomy, or surgical removal of the gallbladder. Most planned procedures are performed laparoscopically through several small abdominal incisions. Surgery may reduce future attacks and prevents new problems from arising within the removed gallbladder.

A person can usually digest food without a gallbladder. After surgery, bile flows directly from the liver into the small intestine. Some people have temporary loose stools, bloating, or difficulty with fatty meals during recovery. Persistent digestive symptoms should be discussed with the surgical team because they may have another cause.

All operations carry risks. Possible complications include bleeding, infection, blood clots, injury to the bile duct or nearby organs, bile leakage, and risks related to anesthesia. The surgical

team can explain how personal health factors affect these risks and what recovery is likely to involve.

If surgery would carry substantial risk, a clinician may discuss observation, symptom management, or other options. Medicines that dissolve certain cholesterol stones are used only in selected situations. They can take a long time to work, do not treat every type of stone, and stones may return after treatment stops.

ERCP can remove stones from the common bile duct, but it does not remove stones remaining in the gallbladder. Drainage tubes placed through the skin are generally reserved for acute inflammation in people who are too unwell for immediate surgery; they are not routine treatment for stable chronic cholecystitis.

While awaiting evaluation or treatment, it may help to note which meals are followed by symptoms and avoid personal triggers. Very restrictive diets are not usually necessary. Regular meals and gradual, medically supervised weight loss are preferable to rapid weight loss, which can promote gallstone formation.

Pain medicines or anti-nausea medicines may be used under a clinician's direction. Antibiotics like amoxicillin or doxycycline do not treat uncomplicated chronic inflammation and are generally reserved for suspected infection.

Complications

Chronic cholecystitis may remain stable, but gallstones can sometimes cause more serious problems.

Acute cholecystitis occurs when the gallbladder outlet remains blocked and sudden inflammation develops. Pain is usually persistent and may occur with fever and marked tenderness.

A stone in the common bile duct can block bile flow and cause jaundice. If infection develops behind the blockage, the condition is called cholangitis and requires urgent treatment. A stone near the pancreatic duct can also trigger acute pancreatitis.

Other possible complications include pus within the gallbladder, tissue damage, perforation, or an abnormal connection between the gallbladder and intestine. These are uncommon but require prompt medical care.

Long-standing gallstones and chronic inflammation are associated with gallbladder cancer, but gallbladder cancer is rare. Most people with gallstones do not develop it.

Follow up

For stable, recurring symptoms without warning signs, arrange routine follow-up with a primary care clinician, gastroenterologist, or surgeon. Keep track of when pain occurs, how long it lasts, what was eaten beforehand, and whether there was vomiting, fever, jaundice, or a change in stool or urine color.

If surgery is planned, follow the surgical team's instructions about medicines, eating and drinking before the procedure, activity, wound care, and returning to work. Attend the postoperative appointment even if recovery seems straightforward.

Contact the surgical team promptly after gallbladder removal for worsening abdominal pain, fever, repeated vomiting, increasing redness or drainage from an incision, jaundice, or inability to eat or drink.

Seek urgent care rather than waiting for a routine appointment if upper abdominal pain lasts several hours, is getting worse, or occurs with fever, chills, jaundice, or persistent vomiting. Severe illness, confusion, fainting, or breathing difficulty warrants emergency help.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases. Gallstones: Symptoms and Causes; Diagnosis; Treatment . National Institutes of Health. Last reviewed November 2017.
- National Institute for Health and Care Excellence. Gallstone Disease: Diagnosis and Management . NICE Clinical Guideline CG188. Published October 29, 2014.
- European Association for the Study of the Liver. EASL Clinical Practice Guidelines on the prevention, diagnosis and treatment of gallstones. Journal of Hepatology . 2016;65(1):146-181.
- American College of Radiology. ACR Appropriateness Criteria: Right Upper Quadrant Pain . 2022 update.
- Society of American Gastrointestinal and Endoscopic Surgeons. Guidelines for the Clinical Application of Laparoscopic Biliary Tract Surgery . SAGES.
- Merck Manual Professional Edition. Chronic Cholecystitis . Merck & Co., Inc.