

Your Guide to Gallbladder Surgery



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CAMBRIDGE GALLSTONE CLINIC

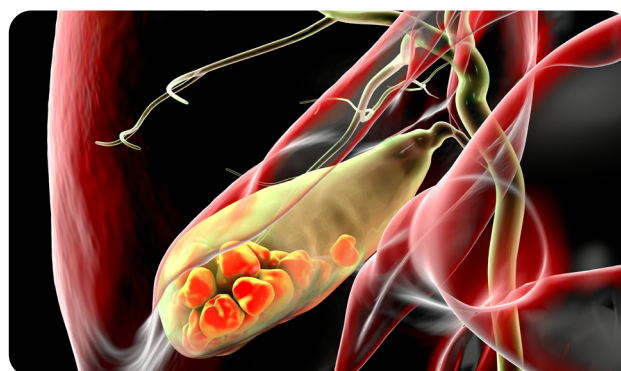
If you're dealing with persistent abdominal pain caused by gallstones or gallbladder inflammation, you're not alone. Gallbladder issues can have a major impact on your daily life, but surgery performed by an **expert HPB (Hepato-Pancreato-Biliary) surgeon** can help restore your quality of life.

In this guide, you will learn everything you need to know about **gallbladder removal surgery**, also known as a cholecystectomy. We will walk you through:

- What is the gallbladder and what does it do
- What are the typical symptoms of gallstones
- What are the differences between biliary colic and other gallbladder conditions
- What is cholecystectomy surgery
- The different types of cholecystectomy procedures
- What to expect during recovery

A thorough surgical assessment will help determine whether your symptoms are related to gallbladder disease. If so, an experienced HPB surgeon can help you navigate the next steps and ensure a safe, smooth recovery.

What Is the Gallbladder and What Does It Do?



The **gallbladder** is a small organ located beneath the right lobe of the liver; positioned near key digestive structures such as the **bile duct, stomach, duodenum** (the first part of the small intestine), and the **right side of the large bowel (colon)**.

Its primary role is to **store bile**, a digestive fluid produced by the liver. Bile plays a crucial part in helping your **body break down food — particularly fats**.

Sometimes, **gallstones** — small, hard deposits — can form inside the gallbladder. These develop mainly due to the **crystallisation of cholesterol or bile salts**, and they can cause significant discomfort or complications if not addressed.



What Are the Typical Symptoms of Gallstones?

While **many people with gallstones are asymptomatic**—a condition known as “**silent**” gallstones—some may experience distinct and often painful symptoms. Asymptomatic gallstones generally **do not require treatment** unless complications develop.

Common Symptoms Include:

1

Biliary Colic

This is the most **classic symptom** of gallstones.

- **Location:** Sudden, sharp pain in the **upper right abdomen**, just under the rib cage.
- **Character:** Pain is described as **deep, cramping, squeezing**, or **gnawing**.
- **Radiation:** May radiate to the **right shoulder** or **back**.
- **Timing:** Often begins **after eating**, especially **fatty meals**.
- **Duration:** Can last from **several minutes to several hours**.
- **Pattern:** Pain builds to a peak and then **gradually fades** (episodic but persistent during the episode).

Cause: Usually occurs when the gallbladder contracts against a stone or when a stone temporarily blocks the cystic duct (duct joining the gallbladder and bile duct), increasing pressure within the gallbladder and therefore causing pain.

2

Nausea and Vomiting

Often accompany biliary colic due to impaired digestion or pain-related distress.

3

Jaundice

- **Yellowing of the skin and eyes** may occur if a gallstone blocks the **bile duct**, leading to bile buildup in the bloodstream.
- This is a sign of a more serious blockage and may indicate **choledocholithiasis** (stones in the common bile duct).

4

Fever and Chills

These symptoms suggest **inflammation** or **infection** such as:

- **Cholecystitis** (inflamed gallbladder)
- **Cholangitis** (bile duct infection)

These are medical emergencies and require prompt evaluation and treatment.

Other Accompanying Symptoms of Biliary Colic:

- **Abdominal tenderness** (particularly in the upper right quadrant)
- **Restlessness** (due to pain severity—patients often cannot find a comfortable position)

Summary Table:

Symptom	Description
Biliary Colic	Sharp upper right pain, post-meal, radiates to shoulder/back
Nausea/Vomiting	Common during painful episodes
Jaundice	Yellowing of skin/eyes, suggests bile duct blockage
Fever/Chills	Sign of possible infection or inflammation
Abdominal Tenderness	Often localised to upper right quadrant

If symptoms persist, worsen, or involve **fever or jaundice**, it is important to seek **medical attention immediately**, as complications can become serious.

Biliary Colic vs. Other Gallbladder Conditions: What’s the Difference?

Not all gallbladder problems are the same. While **biliary colic** is one of the most common symptoms of gallstones, there are other, more serious gallbladder conditions that can develop. Understanding the differences can help you recognize when symptoms may be something more urgent and when to seek medical attention.

Other Gallbladder Conditions:

1

Acute Cholecystitis (Inflamed Gallbladder)

This is a **complication of gallstones which causes inflammation and infection** of the gallbladder.

Signs to watch For:

- Persistent **right upper abdominal pain** lasting **more than several hours**
- **Fever and chills**
- Nausea, vomiting, and tenderness over the upper right abdomen
- May feel worse when taking deep breaths or moving

This condition requires urgent medical attention. Left untreated, it can lead to complications such as a ruptured gallbladder or infection spreading to the bloodstream.



2

Cholangitis (Bile Duct Infection)

When a gallstone blocks the **common bile duct**, it can cause a serious infection known as **cholangitis**.

Classic Symptoms — Charcot’s Triad:

- **Fever**
- **Jaundice** (yellowing of skin and eyes)
- **Upper right abdominal pain**

Other symptoms may include low blood pressure, confusion, or rapid heartbeat, especially in more severe cases.

Cholangitis is a medical emergency and often requires hospitalization, antibiotics, and possibly urgent procedures to relieve the blockage.

3

Gallstone Pancreatitis

Sometimes, a gallstone can block the bile duct near where it joins the **pancreatic duct**, leading to inflammation of the pancreas.

Symptoms Include:

- **Severe, constant upper abdominal pain** that may radiate to the back
- **Nausea and vomiting**
- Fever may be present
- Pain may worsen after eating

Pancreatitis is a medical emergency. This condition can range from mild to life-threatening and usually requires hospital

Summary: Comparing Conditions

Condition	Pain Characteristics	Fever	Jaundice	Urgency
Biliary Colic	Sudden, sharp, cramping pain; short-lived	No	No	Low to moderate
Cholecystitis	Prolonged pain, tenderness, nausea	Yes	Rare	Urgent
Cholangitis	Pain + fever + jaundice (Charcot’s Triad)	Yes	Yes	Emergency
Gallstone Pancreatitis	Deep, radiating pain; nausea/vomiting	Sometimes	Rare	Emergency



When to Seek Medical Advice

You should contact a healthcare provider if:

- You experience **frequent episodes** of biliary colic
- Pain **lasts longer than a few hours**
- You develop **fever, jaundice**, or **persistent vomiting**

These may indicate a transition from a mild biliary colic to a more serious condition like **cholecystitis** or **cholangitis**, which require prompt treatment. Early evaluation helps prevent complications and allows for timely treatment, which may include gallbladder surgery if necessary.

What Is Gallbladder Surgery?

If gallstones are causing ongoing symptoms or complications, your doctor may recommend **gallbladder removal surgery**, also known as a **cholecystectomy**. The gallbladder is not an essential organ — your body can still digest food normally without it.

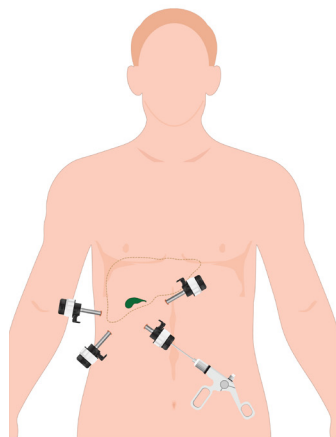
Surgery is generally advised when:

- You have had repeated bouts of gallbladder pain
- There is infection or inflammation
- Gallstones block the bile ducts
- There is a risk of developing **pancreatitis**, a serious condition where the pancreas becomes inflamed

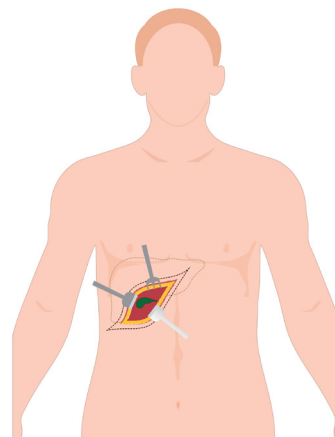
Acting early can make the surgery safer and the recovery smoother. Waiting too long may lead to more complex procedures and a higher risk of complications.

Types of Gallbladder Surgery

**Laparoscopic
Cholecystectomy
(Keyhole Surgery)**



**Open
Cholecystectomy**



Laparoscopic Cholecystectomy (Keyhole Surgery)

Mr Liau, an expert in this technique, has performed over 1000 of such procedures, including many complex laparoscopic cases.

This is the most common and least invasive type of gallbladder surgery. Surgeons make small cuts in the abdomen and use a camera and slim instruments to remove the gallbladder. This method usually involves:

- Minimal scarring
- Less pain after surgery
- A quicker return to normal activities
- A short hospital stay

Often, an **intraoperative cholangiogram** is performed during this surgery — a special X-ray using contrast dye — to ensure the bile ducts are clear and that no stones have moved into them.

Watch an illustrative video here: [Laparoscopic Cholecystectomy Surgery](#)



Robotic-Assisted Cholecystectomy

Mr Liau introduced this technique to Addenbrooke's Hospital in Cambridge, where it is currently available.

This advanced surgical method is similar to laparoscopic surgery but uses a robotic system controlled by the surgeon, which offers excellent precision during the surgery. Our experience suggests that robotic-assisted cholecystectomy offers patients with rapid recovery and faster return to normal activities. Given that it offers greater precision, this technique is useful in most cases including some of the more complex cases.

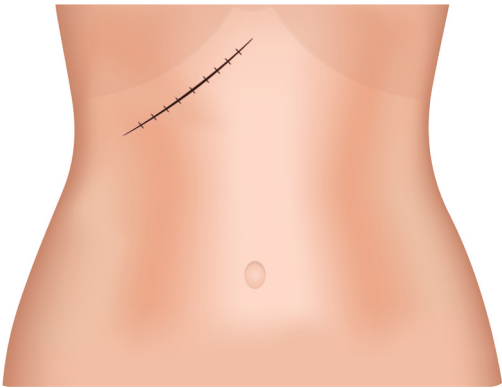
Watch a video here: [Robotic-Assisted Gallbladder Surgery](#)
Patient experience: [Robotic-Assisted Surgery for Gallbladder](#)



Open Cholecystectomy

Sometimes, an open procedure becomes necessary during a laparoscopic surgery (i.e. open conversion if the surgery proves challenging for due to more complex disease, anatomical anomalies or when complications arise). This involves a larger incision (cut), up to 20-30cm. While recovery time is longer, it remains a safe and effective option when needed. Open surgery can be life-saving and highly effective in complicated cases.

In certain cases — such as severe inflammation, complex anatomy, or prior surgeries — your surgeon may recommend an open cholecystectomy **up front**.



Final Thoughts

While gallstones don't always cause symptoms, it is important to know when to seek help. If your symptoms are persistent, worsening, or include fever or jaundice, do not delay in getting evaluated.

Surgery to remove the gallbladder is a common, well-established treatment with excellent outcomes — particularly when done early and by experienced surgeons. Whether through keyhole, robotic, or open surgery, the goal is always the same: to relieve pain, prevent complications, and help you return to a healthy, comfortable life.

Comparison: Types of Gallbladder Surgery

Feature	Laparoscopic Cholecystectomy	Robotic-Assisted Cholecystectomy	Open Cholecystectomy
Incision Size	Small (1-1.5 cm) incisions	Small incisions (similar to laparoscopy)	Large incision (10–20 cm)
Scarring	Minimal	Minimal	Noticeable
Recovery Time	1–2 weeks	1–2 weeks (sometimes faster)	4–6 weeks or more
Pain After Surgery	Mild	Often even less than laparoscopic	More discomfort
Hospital Stay	0–1 night	0–1 night	2–5 days or longer
Surgeon Control	Hand-held instruments	Surgeon-controlled robotic arms	Direct hands-on surgery
Visual Precision	2D camera view	High-definition 3D view, tremor-free surgery	Direct line of sight
Suitability	Most patients	Most patients; can handle more complex cases	Complex, high-risk, or failed keyhole attempts
Availability	Widely available	Depends on hospital resources	Universally available



Understanding the Risks and Complications of Gallbladder Removal Surgery

Gallbladder removal surgery, or cholecystectomy, is one of the most commonly performed surgeries and is generally considered safe. Many people who undergo the procedure do so to relieve painful gallstones or gallbladder inflammation. While most recover smoothly, it is natural to wonder what the possible risks and side effects might be.

Let us walk through what you might expect—both the common and less common outcomes—so you can feel informed and prepared.

The Immediate Postoperative Phase

Most common symptoms after surgery will be the incisional (i.e. wound) soreness, which typically resolves within days to weeks. Local anaesthetic will be infiltrated around the wounds during the surgery, so most patients will have minimal discomfort around the wounds straight after surgery but the discomfort may increase slightly when the local anaesthetic wears off. Further some patients experience shoulder pain due to the distension from the gas (CO₂) used during laparoscopic or robotic surgery but this will usually resolve fairly quickly.

The Most Common Experience: A Change in Digestion

For many patients, the biggest change after surgery is how the body digests food—especially fatty meals. Without the gallbladder acting as a storage pouch for bile, bile flows directly from the liver into the small intestine. This change is usually well-tolerated, but in the early weeks following surgery, you might notice looser stools, more frequent trips to the bathroom, or occasional bloating.

Some people describe a period of adjustment, with their body slowly adapting to the new way bile is released. In most cases, these digestive symptoms improve over time. Eating smaller, low-fat meals during recovery can help ease this transition.



When Things Don't Go Perfectly: Less Common Complications After Gallbladder Surgery

While gallbladder removal (cholecystectomy) is a safe and common procedure—some people may experience complications during recovery. These are generally uncommon, but it is helpful to know what to watch for.

Bile Leakage

Sometimes, bile can leak into the abdomen instead of flowing through the normal ducts. This usually happens if a bile duct is injured or not sealed properly during surgery.

What to watch for:

- Ongoing or worsening abdominal pain
- Nausea
- Fever or a general feeling of being unwell
- Swelling or bloating

What might be needed:

- A drain to remove bile from the abdomen
- In some cases, a second procedure (such as a stent or additional surgery) to fix the problem

Infection

Like any surgery, there is a risk of infection. This could be a minor infection at the incision site or a deeper infection inside the abdomen.

Warning signs:

- Redness, warmth, or swelling around the incisions
- Pus or discharge
- Fever or chills
- Increasing pain after initial improvement

Treatment:

- Most infections respond well to antibiotics
- If an abscess forms, drainage may be required

Bleeding

Though rare, internal bleeding can occur after surgery. It is important to recognize the signs early.

Possible symptoms:

- Dizziness or lightheadedness
- Low blood pressure
- New or worsening abdominal pain
- Fatigue or weakness

Management:

- May require a blood transfusion
- In some cases, surgical intervention is needed to stop the bleeding



Rare but Serious Complications

These are very uncommon but can lead to more complex or long-term issues.

Injury to the Bile Ducts

Occasionally, the common bile duct or nearby ducts may be accidentally damaged during surgery.

Possible outcomes:

- Bile spillage into abdomen (causing peritonitis)
- Narrowing of the bile duct (called a stricture)

Treatment may include:

- ERCP (a scope procedure) with stent placement
- Laparotomy, washout and reconstructive surgery in severe cases (usually performed by a HPB surgeon)

Injury to Nearby Organs

In rare cases, other organs such as the intestines, liver, or blood vessels can be injured—especially if there's inflammation or scar tissue.

- **May require:** Additional surgery to repair any damage

Blood Clots (DVT or Pulmonary Embolism)

After surgery, especially if you are not moving around, blood clots can form in the legs or lungs.

Prevention:

- Get up and walk as soon as your doctor says it is safe
- Avoid being sedentary for too long postoperatively
- Compression stockings
- Follow post-op instructions carefully and in most healthy patients, early mobilisation is sufficient
- In some higher risk patients, injections of blood thinners (Dalteparin) may be given

Symptoms to look out for:

- Leg pain or swelling
- Shortness of breath or chest pain

Looking Ahead: What to Expect After Surgery

Most people feel better soon after recovering from gallbladder removal, especially if they were suffering from painful gallstones. But it is important to monitor your health in the weeks that follow, and Mr Liao will review you a week or two following your surgery regardless.

Go to the emergency department if you have:

- Fever over 38°C (100.4°F)
 - Worsening pain that is not helped by medication
 - Redness, warmth, or pus around the wound
 - Yellowing of the skin or eyes (jaundice)
 - Nausea or vomiting that prevents you from drinking fluids
 - Swelling or pain in your legs (possible blood clot)
 - You have chest pain or difficulty breathing
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What You Can Do

- Follow pre- and post-operative instructions closely.
 - Notify your healthcare team of any unusual or persistent symptoms.
 - Attend follow-up appointments to monitor healing and discuss any concerns.
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Follow-Up Appointments

Mr Liao will schedule a check-up within a few weeks after surgery to make sure everything is healing well.

Be Prepared To:

- Have staples removed (only if open surgery)
 - Ask about returning to work, driving, or resuming physical activity
 - Share any lingering symptoms or concerns
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PDF Download:

- [Cholecystectomy patient information sheet – American College of Surgeons](#)
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Trusted cholecystectomy information pages:

- <https://www.nhs.uk/conditions/gallbladder-removal/what-happens/>
 - <https://www.nuffieldhealth.com/treatments/laparoscopic-cholecystectomy>
 - <https://www.hcahealthcare.co.uk/services/treatments/cholecystectomy>
 - <https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/cholecystectomy>
 - <https://www.mskcc.org/cancer-care/patient-education/about-your-gallbladder-removal-surgery>
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