

# Gallstones

## What Are Gallstones?

Gallstones are small, solid particles that form in the gallbladder, a small organ located under the liver. The gallbladder stores bile, a digestive fluid produced by the liver that helps break down fats. Gallstones can vary in size, from tiny grains of sand to large stones, and are made up of cholesterol, bile salts, or bilirubin. While some people with gallstones experience no symptoms, others may develop painful symptoms or complications that require treatment.

## Causes And Risk Factors For Gallstones

Several factors contribute to the formation of gallstones. These include:

- **Excess cholesterol:** When there is too much cholesterol in the bile, it can form into crystals and eventually harden into stones.
- **Bilirubin build-up:** Bilirubin is a substance produced when red blood cells break down. Conditions that cause excessive bilirubin production, such as liver disease or infections, can lead to the formation of pigmented gallstones.
- **Gallbladder dysfunction:** When the gallbladder does not empty properly, bile can become concentrated, leading to stone formation.

The risk of developing gallstones is higher in individuals with:

- **Obesity:** Excess weight is linked to higher cholesterol levels in the bile.
- **Age:** Gallstones are more common in people over the age of 40.
- **Female gender:** Women are more likely to develop gallstones.
- **Diabetes:** High blood sugar levels are associated with an increased risk of gallstones.
- **Rapid weight loss:** Losing weight too quickly can disrupt the balance of bile salts and cholesterol, leading to gallstone formation.

## Symptoms Of Gallstones

Gallstones often do not cause symptoms, especially if they remain in the gallbladder and do not obstruct bile flow. However, when a gallstone blocks a bile duct, it can cause painful symptoms known as biliary colic.

Common symptoms of gallstones include:

- **Severe abdominal pain:** Usually in the upper right or centre of the abdomen, this pain can last from several minutes to hours and may spread to the shoulder or back.
- **Nausea and vomiting:** These symptoms often accompany biliary colic.
- **Jaundice:** Yellowing of the skin and eyes can occur when a bile duct is blocked.
- **Fever and chills:** These symptoms may indicate an infection of the gallbladder or bile ducts, such as cholecystitis or cholangitis, which requires urgent medical attention.

If you experience any of these symptoms, it is important to seek medical advice promptly to prevent complications.

## Diagnosing Gallstones

At Birmingham Liver Clinic, we use advanced diagnostic tools to accurately identify gallstones and assess the severity of your condition. Diagnostic methods include:

- **Ultrasound:** This is the most common imaging test for detecting gallstones. It uses sound waves to create detailed images of the gallbladder and bile ducts.
- **CT or MRI scans:** These imaging techniques provide more detailed views of the gallbladder and surrounding organs, helping to identify complications.
- **Endoscopic Retrograde Cholangiopancreatography (ERCP):** This procedure involves passing a flexible tube with a camera through the mouth to the small intestine to view the bile ducts. ERCP can also be used to remove gallstones from the bile ducts.
- **Blood tests:** These may be done to check for signs of infection, inflammation, or liver function problems.

## Treatment Options For Gallstones

For patients who experience symptoms or complications from gallstones, surgery is often the most effective treatment. The primary surgical procedure for gallstones is cholecystectomy, which involves removing the gallbladder.

- **Laparoscopic Cholecystectomy:** This is the most common type of gallbladder removal surgery. It is a minimally invasive procedure that involves making small incisions in the abdomen to insert a camera and surgical instruments. The gallbladder is then removed through one of the small incisions. Laparoscopic cholecystectomy offers quicker recovery times, less pain, and minimal scarring compared to open surgery.
- **Open Cholecystectomy:** In rare cases where laparoscopic surgery is not suitable, an open cholecystectomy may be performed. This involves making a larger incision to remove the gallbladder. Recovery takes longer, but it may be necessary for patients with complex conditions or significant scarring from previous surgeries.
- **ERCP with Stone Removal:** If gallstones are located in the bile ducts, ERCP can be used to remove them without removing the gallbladder. This is a less invasive option for patients with stones obstructing the bile ducts.

## Recovery After Gallstone Surgery

Most patients recover quickly after laparoscopic cholecystectomy, with many able to return home the same day or the next. Full recovery usually takes about 1-2 weeks. Patients who undergo open cholecystectomy may require a longer hospital stay and recovery period of around 4-6 weeks.

After surgery, most people can live a healthy life without a gallbladder. The liver will continue to produce bile for digestion, although some patients may need to make dietary adjustments to avoid fatty foods that can cause digestive discomfort.

## Why Choose Birmingham Liver Clinic?

At Birmingham Liver Clinic, we provide expert, personalised care for patients with gallstones. Our team is committed to delivering the highest quality treatment, whether you require surgery to remove gallstones or advanced management for related complications. We use state-of-the-art diagnostic tools and tailor treatment plans to meet each patient's individual needs.

## Contact Us

If you are experiencing symptoms of gallstones or would like to learn more about your treatment options, contact Birmingham Liver Clinic today. Our expert team is ready to provide the care and support you need for

your liver health.