

A Guide for Patients and Families

# Care of Patients with Gallstones

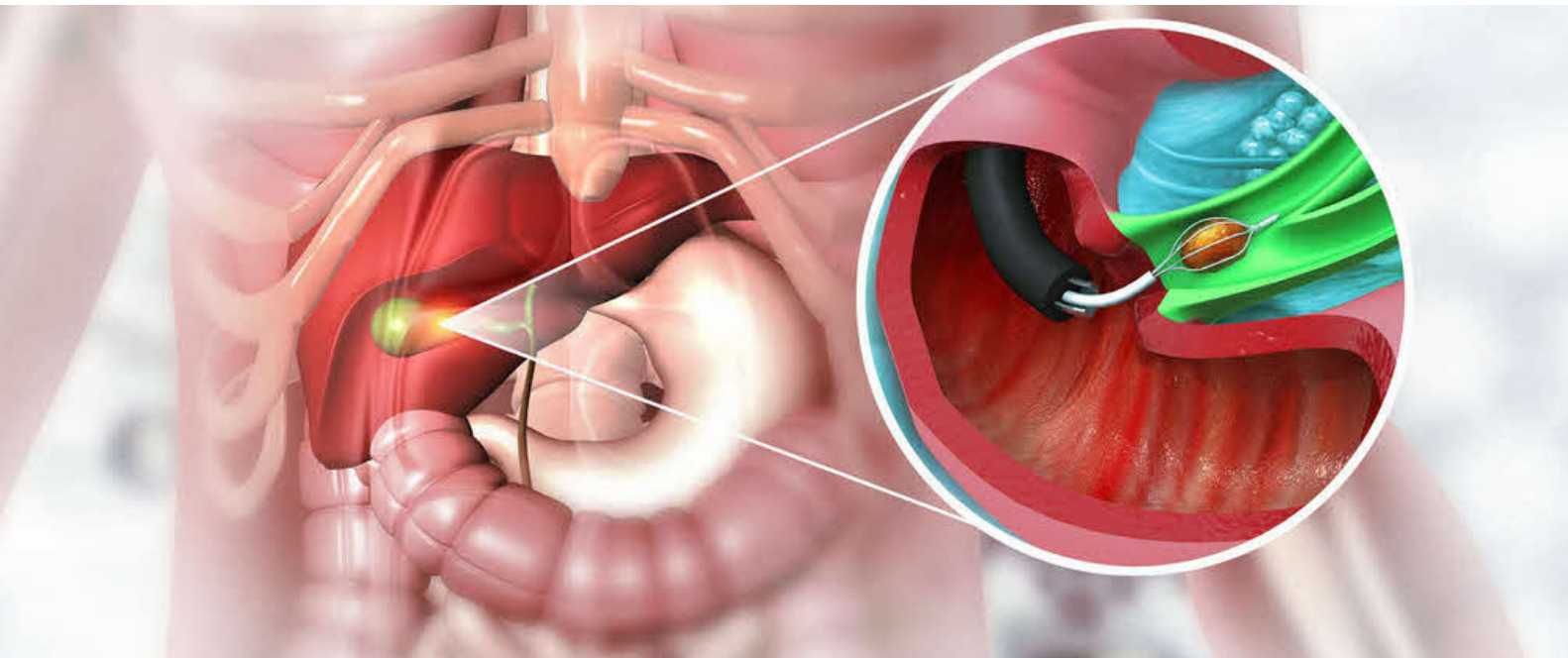
## Overview

The gallbladder is an organ that contains bile (fluid produced by the liver) that aids in breaking down fatty food. After removal, the bile flows directly into the small intestine with amounts regulated by the liver instead of being stored and secreted from the gallbladder. Gallstones are solid particles that form from cholesterol, bacteria and bile pigments in the gallbladder. The gallbladder is a small sac-like organ located under the liver. The function of the gall bladder is to store bile. Bile is a fluid made by the liver to help in the digestion of fats. Gallstones can vary in size, from the size of a grain of sand to as large as a golf ball. There is a risk of developing gallstones if you are older, female or overweight. Rapid weight loss or eating a very low calorie diet can also put you at risk of gallstones. Complications from gallstones can be serious, and even fatal, if left untreated.



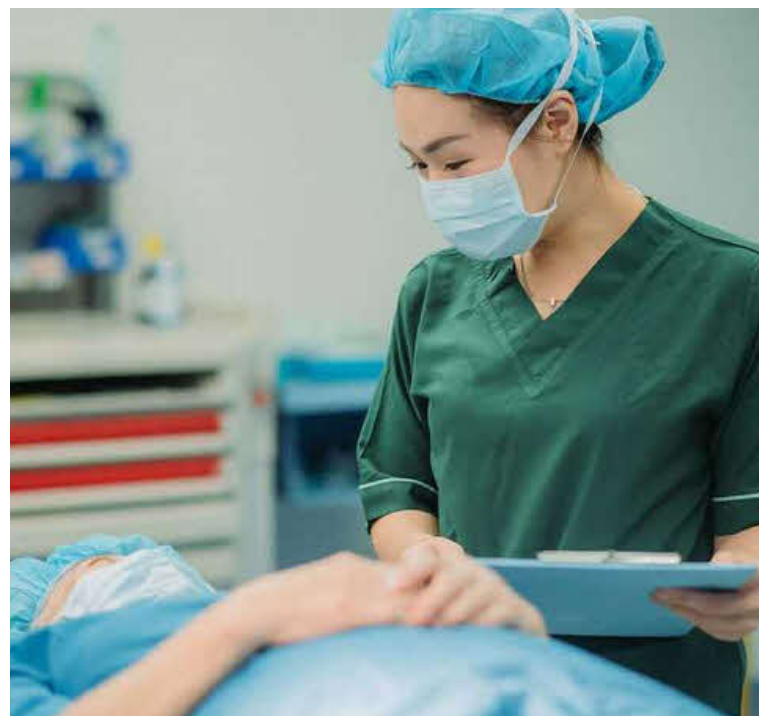
How are gallstones treated?

Most gallstones causing pain or blockage are best treated by removing the gallbladder (cholecystectomy). The gallbladder is an organ that people can live without. After removal, the bile flows directly into the small intestine with amounts regulated by the liver instead of being stored and secreted from the gallbladder.



### Preparation prior to operation

Patients are advised to refrain from eating fatty food, as this might aggravate the gallbladder. Patients will be requested to fast for a few hours before the operation; further details will be provided during the pre-op counselling. Both operations are performed under general anaesthesia, therefore patients will be seen by anaesthetists prior to the operation.



## Types of surgery

There are 2 methods of operation to remove the gall bladder:

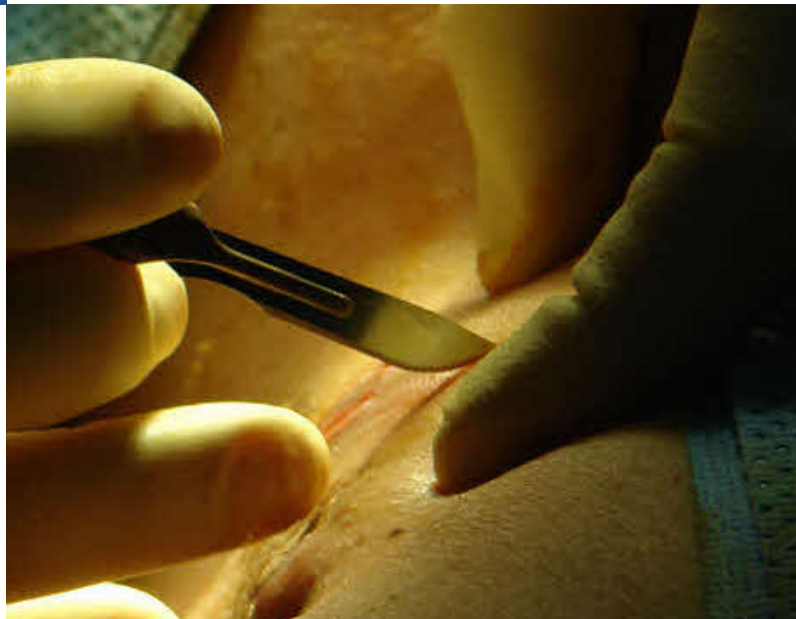


### Laparoscopic

Surgery is done using several tiny incisions rather than one large one. Special instruments and a fiber-optic tube fitted with a camera are inserted into the abdomen through these incisions. Gall bladder is usually removed through the incision around umbilicus.

### Open Incision

Open removal is through an incision made through the skin and muscles of the abdomen. Your surgeon will recommend this method if it is more suitable for your condition. Additional procedures to remove gallstones in the main bile duct may be advised by your surgeon.



### Route to recovery

The duration for recovery depends on how the cholecystectomy was carried out. At times a plastic tube can be placed to remove fluid that collects at the surgical site.

	Laparoscopic	Open Incision
Hospital	Day Surgery	3 – 4 days
Cosmesis	3 – 4 cuts (0.5 – 2cm)	A 10 – 15cm cut
Anaesthesia	General	General

## Care and Management:

### Do's

- Take painkillers only when needed.
- Complete antibiotics if prescribed.
- Shower, keep wound clean and dry.
- Follow up with appointment for review and removal of stitches if any.

### Don'ts

- Do not lift heavy objects.
- Do not over-exert yourself.
- Do not do strenuous activities till you are seen in follow-up clinic.



## When to seek medical attention

- Persistent fever ( $>38.5^{\circ}\text{C}$ ), chills.
- Abdominal pain not relieved by medication.
- Persistent nausea and vomiting.
- Yellow colouring of skin and the white of eyes.
- Blood or yellowish fluid around the operated site.
- Redness surrounding the incision site that is getting worse or bigger.

## What happens if left untreated?

Complications from gallstones can be serious, and even fatal, if left untreated. They include:

- Blockage and inflammation of the gallbladder or the main bile duct.
- Infection of the gall bladder or liver.
- Perforation of gall bladder with severe abdominal pain can be fatal.

## What are the risks?



Complications related to general anaesthesia



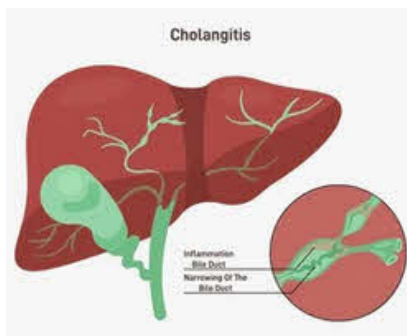
Bleeding



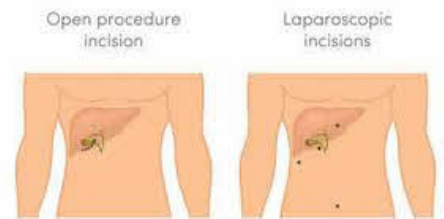
Wound infection



Bile leak



Bile duct injury (<1%)



Conversion from Laparoscopic to Open Procedure

Please proceed to Emergency Department immediately if any of the above occurs.