

**Introduction**

1. Gallbladder, a sac connected to the biliary tree, serves to concentrate and store bile for fat digestion.
2. Gallstone and acute cholecystitis are common conditions. Removal of gallbladder (cholecystectomy) together with the stones inside is indicated for patients who have symptomatic gallbladder disease, such as indigestion, nausea and upper abdominal pain. (Acute cholecystitis may present with severe pain with fever).
3. Removal of gallbladder will not significantly affect the normal digestive function.

**Procedure**

1. Operation is done under general anaesthesia.
2. The operation could be performed by “Laparoscopic” or “Open” approach:
  - a. Laparoscopic cholecystectomy
    - Three to four ports (incision size 0.5-1 cm) are introduced through abdominal wall. Operating space created with CO<sub>2</sub> insufflations. Visualization of intra-abdominal organs achieved with video instruments.
    - Success rate 60 - 90%, high failure rate in acute cholecystitis and contracted gallbladder.
    - Conversion to open cholecystectomy is necessary in case of difficulty (10 - 40%).
  - b. Open Cholecystectomy
    - Oblique or vertical incision in upper abdomen.
3. Gallbladder resected after ligation of cystic duct and artery.
4. If common bile duct stones are discovered during operation, appropriate measures would be taken.
5. Abdominal drain left for drainage of fluid if necessary / Wound closed with suture.

**Risks****A. Anaesthesia related complications**

1. Cardiovascular: myocardial infarction or ischaemia, stroke, deep vein thrombosis, pulmonary embolism, etc.
2. Respiratory: atelectasis, pneumonia, asthmatic attack, exacerbation of chronic obstructive airway disease.
3. Allergic reaction and shock.

**B. Procedure related complications (not all possible complications are listed)**

1. Wound infection (5%) / Post cholecystectomy syndrome (30%)
2. Bile duct injury (0.1. - 1%) including bile leakage (0.5-1% in laparoscopic cholecystectomy)
3. Laparoscopic procedure related complications: e.g. bowel perforation and vascular injury (<0.1%)
4. Postoperative intra-abdominal bleeding : e.g. slipped cystic artery ligature
5. Retained cystic duct stones / Port site herniation / Adhesive colic or intestinal obstruction
6. Mortality (0.1 - 1%)

**Preoperative preparation**

1. Procedures could be performed as elective or emergency depending on the clinical condition.
2. For elective cholecystectomy, admit 1 day or on the same day.
3. Anaesthetic assessment before procedure / Keep fast 6 to 8 hours before operation.
4. Change to operation room clothes before transfer to operating room.
5. Empty bladder before surgery, otherwise urinary catheterization may be required.
6. Pre-medications and intravenous drip / Antibiotic prophylaxis or treatment may be required.
7. Inform your doctors about drug allergy, regular medications or other medical conditions.

**Postoperative care****A. General**

1. May feel mild throat discomfort or pain because of intubation
2. Mild discomfort, pain over abdomen, shoulder or neck are common because of gas insufflations. Inform nurse or doctor if pain is severe.
3. Nausea or vomiting are common; inform nurses if severe symptoms occur.
4. Inform nurses if more analgesics are required.
5. Can mobilize and get out of bed 6 hours after operation, if no drain or drip attached.
6. Usually go home 1 to 2 days after elective operation.

**B. Wound care**

1. Abdominal drain, placed for removal of tissue fluid, usually removed on day 2-5.
2. On the first day after operation, patients can have shower with caution (keep wound dressing dry).
3. Stitches or skin clips (if present) will be taken off around 7-10 days.

**C. Diet**

1. May be restricted in the initial period.
2. Resume diet gradually in the next day as advised by doctor / Fluid and fibers are encouraged.

**Things to take note after discharge**

1. Contact your doctor or the Accident and Emergency Department if there is increased discharge, pain or redness around the wounds / fever and chill / onset of jaundice.
2. Take the analgesics prescribed if necessary.
3. Fat intolerance with mild diarrhea may be experienced in first 6 months.
4. Resume your daily activity gradually (according to individual situation).
5. Avoid lifting heavy objects, bending or extending the body excessively in the first 4 weeks.
6. Remember the dates of taking off stitches / clips in the clinic, and follow-up in the specialist clinic.

**Remarks**

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

**Reference**

Hospital Authority: "Cholecystectomy (Laparoscopic/Open)" (2020)

Smart Patient: [https://www.ekg.org.hk/pilic/public/surgery\\_pilic/surgery\\_laparoscopicopencholecystectomy\\_0152\\_eng.pdf](https://www.ekg.org.hk/pilic/public/surgery_pilic/surgery_laparoscopicopencholecystectomy_0152_eng.pdf) (24-07-2023)