CHOLECYSTECTOMY

Enhanced Recovery After Surgery (ERAS) Program

A guide on how to achieve a better, faster recovery following surgery for cholecystitis

UNIVERSITY of ROCHESTER MEDICAL CENTER

What is the Enhanced Recovery After Surgery (ERAS) program?

Enhanced Recovery After Surgery is based on scientific evidence about surgical recovery. Our goal is to work with you to provide an improved surgical experience and to get you back to normal as soon as possible after your surgery.

By changing the way we manage your care before and after surgery and including you as a very important part of the team.

This booklet will:

- Help you prepare for your surgery.
- Outline what to expect after leaving the operating room.
- Explain ways to improve your recovery

How do we do this?

Research shows that you will recover faster if you do the things explained in this booklet. There are instructions about eating and drinking, physical activity, and controlling your pain. These things will help you to feel better faster and to go home safer and sooner.

Please hold onto this booklet for information regarding your surgery. Use it as a guide during your hospital stay. We may refer to it as you recover, and review it with you when you are ready to go home.

Having surgery can be stressful for you and your family. The good news is that you are not alone. We will support you each step of the way. Please ask us if you have questions about your care. We want to be sure to answer all your questions!

The Surgical Team

You will see many different people from your team during your hospital stay. One surgeon is assigned to patients during the daytime from 7:00am-4:00pm. This surgeon will be taking care of our patients for an entire week. Beginning at 4:00pm each day, a different surgeon takes night call from 4:00pm until 7:00am the next day. The daytime surgeon for the week will then come back the next day to take care of you along with the residents, nurse practitioners and physician assistants. We work together to check your condition and plan the best steps towards returning your body to its normal state. Please see photos of your care team on the following page.

Meet Your Surgical Care Team

Dr. Paul Bankey

Dr. Julius Cheng

Dr. Mark Gestring

Dr. Michael Nabozny

Dr. Yanjie Qi

Dr. Ayodele Sangosanya

Dr. Nicole Stassen

Dr. Michael Vella

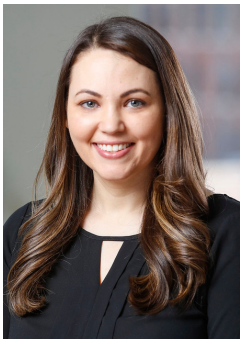
Nichole Coleman
Nurse Practitioner

Leah Green
Nurse Practitioner

Andrea Masiello
Nurse Practitioner

Kelsey Potter
Nurse Practitioner

Jacob Privitera
Physician Assistant



Caitlin Randall
Nurse Practitioner

Zachary Woughter
Physician Assistant

Tammy Cullen, RN
Outpatient Care Coordinator

Office Staff

Laura Borate
Stephanie Fitzgerald
Emily Julian

Cholecystitis

The Condition

The gallbladder is a small pear-shaped organ under the liver. Its main purpose is to store and squeeze out bile, which is made by the liver every day. Bile helps digest fats. When fatty foods are eaten, the gallbladder squeezes out bile into the duct and into the small intestine.

Gallstones can form in the gallbladder from hardened digestive fluid. The medical term for gallstones is cholelithiasis. Gallstones can block the exit to the gallbladder causing pain and swelling. This is called symptomatic cholelithiasis.

A gallstone can sometimes get ejected from the gallbladder and stuck in the common bile duct. This is called choledocholithiasis. This blocks the flow of bile into the duct. If this occurs, a gastroenterologist (doctor who treats problems with your stomach and related organs) will be consulted to help remove the gallstone from the duct before an operation.

Symptoms

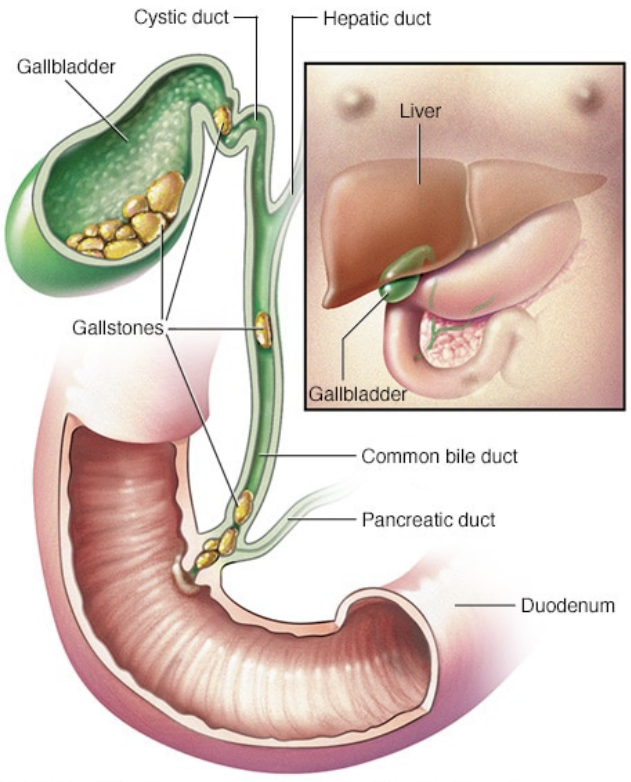
Common symptoms of cholecystitis include:

- Sharp pain in the right upper abdomen or right shoulder
- Fever
- Nausea and/or vomiting
- Yellowing of the skin

Cholecystitis is inflammation of the gallbladder and can become an infection. If this happens suddenly, it is called acute cholecystitis. If this has happened over months to years, it is called chronic cholecystitis.

Gallstone pancreatitis can occur when a gallstone gets ejected from the gallbladder and blocks the common bile duct, the pancreatic duct or both. This irritates the pancreas causing it to become inflamed.

All of the above are potential reasons for cholecystectomy. Gallstones causing pain (biliary colic) is the most common reason for cholecystectomy.



Cholecystectomy: An Overview

Definition

Cholecystectomy is the surgical removal of the gallbladder, which is located in the upper right abdomen. The gallbladder can be removed due to pain from gallstones or infection, which is called cholecystitis.

Surgical Management

Laparoscopic cholecystectomy

The gallbladder is removed through small abdominal incisions (surgical cuts) with the use of a camera and surgical instruments.

Open cholecystectomy

The gallbladder is removed through a larger abdominal incision made in the upper right abdomen. A surgical drain (tube used to drain fluids) may be placed by your surgeon.

Risks and Benefits

Cholecystectomy removes the infected gallbladder and relieves pain. Once removed, cholecystitis should not occur again. Your surgeon will review complications that may arise before the surgery.

Non- Surgical Management

Surgery is the gold standard for treating gallstones and an infected gallbladder (acute cholecystitis). In certain patients, antibiotics (medicine to treat bacterial infections) can be used instead.

In very sick patients, antibiotics are started and a radiologist (doctor who diagnosis and treats patients using x-rays) is consulted to place a drain into your gallbladder. This helps inflammation around your gallbladder improve while the antibiotics treat the infection. Surgery can then be an option 6 weeks later after a discussion about the risks and benefits with your surgeon.

Common Diagnostic Tests

There is no single test to confirm the diagnosis. A history and physical exam will help check your abdominal pain before having a cholecystectomy.

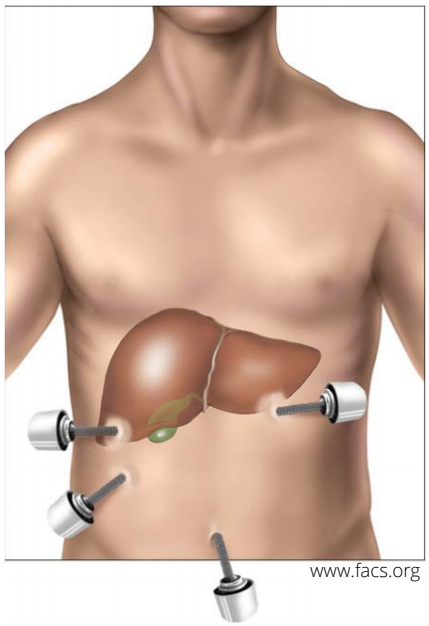
Abdominal ultrasound or CT scan: Checks for gallstones and signs of inflammation.
Bloodwork: Blood tests looking for signs of infection
Hepatobiliary iminodiacetic acid scan (HIDA): Nuclear medicine test that fills the gallbladder with dye to see how well it is emptying.
Magnetic Resonance Cholangiopancreatography (MRCP): MRI of the abdomen to check anatomy of the liver and biliary system
Endoscopic Retrograde Cholangiopancreatography (ERCP): Procedure to identify and remove stones from the common bile duct.

Surgical Treatment

Laparoscopic Cholecystectomy

This is the most common way to remove the gallbladder. The surgeon will make 4 small abdominal incisions to place surgical instruments into your abdomen. Carbon dioxide gas is used to inflate the abdomen to view the gallbladder more easily. The gallbladder is then removed using a laparoscope (camera) and the surgical instrument through the small incisions. This usually takes 1-2 hours.

Laparoscopic Cholecystectomy



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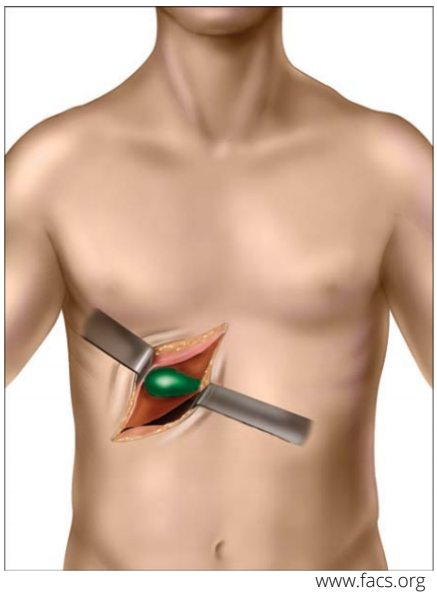
Open Cholecystectomy



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Open Cholecystectomy

The gallbladder is removed through a larger abdominal incision about 6 inches long in the right upper abdomen. The gallbladder is removed from under the liver and the cystic duct is clamped off. A drain may be placed during this procedure and is usually removed in the hospital. Incisions are closed with absorbable sutures or staples. You will likely remain in the hospital for 3-5 days.

Non-Surgical Management

Watchful waiting may be recommended if you have gallstones, but do not have any symptoms. If you have an infection of your gallbladder, but are too sick to undergo surgery, a drain is sometimes placed into your gallbladder by a radiologist and you will be treated with antibiotics. A few weeks after your drain is placed you may be able to have a cholecystectomy.

Pain Control

- While you are in the hospital we will ask you to rate your level of pain on a scale of 0 to 10
- For most people ibuprofen (Advil™) and acetaminophen (Tylenol™) are strong enough to control their pain
- Sometimes your surgeon will give you narcotic pain medicine for a short period of time

Narcotics should only be taken if you really need them

- **They have side effects like constipation, nausea, itching, and sleepiness**
- **They can be addictive if not used correctly**

For your safety, please <u>do not</u> drive, operate machinery, drink alcohol, swim, or watch children while you are taking narcotic pain medicine

Alternative Pain Control

Distraction

Keep your mind occupied with engaging activities to distract you from the pain. Music, gaming or puzzles can be effective.

Splinting your stomach

Using a pillow to apply firm pressure before a cough, sneeze or activity can help reduce pain. This can be especially helpful in children.

Meditation

Meditation or guided imagery can help redirect your focus and control your emotions. Control your breathing with slow inhales and exhales while picturing a peaceful setting. Maintain your focus on the image to help calm the mind.

Before The Operating Room

When you have cholecystitis you have an infected gallbladder. You will be started on antibiotics to help treat this infection.

When you have an operation, you are at risk of getting blood clots because of not moving during anesthesia. This is decreased by walking 5-6 times per day, wearing special support stockings, and by taking a medicine that thins your blood which you will receive before surgery.

An intravenous line (IV) will be started to give you fluids and medicine.

The amount of pain experienced by each person is different. We will start with non-narcotic medicine to control pain, but stronger medicine is available if needed.

Our skilled nurses will monitor you before surgery and be able to help you with your needs. They will check your blood sugar before going to the operating room.

Our nurses will help you to the bathroom so you may empty your bladder before surgery.

After The Operating Room

As long as your gallbladder was not perforated (or burst) we will stop your antibiotics.

When you wake up, you will be able to drink small amounts of liquid. If you do not feel sick, you will begin eating regular foods.

Once you are eating we will discontinue your fluids through your intravenous line (IV).

We will continue to treat your pain with a combination of non-narcotic and narcotic pain medicine as needed. You will change from getting medicine in your IV to getting medicine you can swallow.

Our nurses will check you frequently and help you with walking soon after your surgery. They will be able to tell your surgical team if you are meeting all of your recovery milestones.

Our goal is to have you safely recover from surgery and be able to leave the hospital a few hours later.

Once You Are Home

DIET

Once you are home, please resume your regular diet. It is normal to have less energy and not feel hungry as your recover. Continue to drink several (4-6) glasses of water daily to stay hydrated. Use stool softeners and/or laxatives for easier bowel movements.

ACTIVITY

Walking and stairs are encouraged! You should slowly increase your activity without overdoing it and should not lift anything heavier than 20 pounds for 14 days. Avoid intense activity for 3 to 5 days after a laparoscopic procedure and 10 to 14 days after an open procedure. Please ask your surgeon when it is safe to resume sexual activity.

RETURN TO WORK/SCHOOL

You may return to work once you feel well enough. Timing will be discussed with your surgeon. Most children return to school before 1 week and sports / gym within 2 weeks.

WOUND CARE

You may shower after the surgery. Do not soak in a bathtub, pool, etc. until your incisions are healed. You have absorbable sutures under your skin and either skin glue or Steri-Strips over the incisions. If you have skin glue, allow it to flake off. Steri-Strips will begin to peel in the corners and can be removed at that time. If you have any gauze over your belly button incision, remove this on the 2nd day after your surgery.

DRIVING

Do not drive while you are taking narcotic pain medicine.
You may drive after your surgery only after you have stopped taking narcotic pain medicine and you feel that you can react safely while driving.

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When to Call Your Doctor

- Fever greater than 101°F
- Pain that will not go away or worsens
- Nausea or vomiting
- Swelling, redness, bleeding or drainage from your wound
- No bowel movement or unable to pass gas for 3 days after your procedure
- Watery diarrhea lasting longer than 3 days

Call 911 anytime you think you may need emergency care:

- If you have chest pain
- Lose consciousness
- Experience uncontrolled bleeding
- Have shortness of breath

Other Instructions / Notes:


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