

Laparoscopic Gallbladder Surgery

Prior to your procedure you will complete a pre-admission testing (PAT) phone call appointment. This call will come from (920) 206-3820.

My PAT Appointment time is: _____

You will receive a phone call within a **one-hour window** of this scheduled time.

It is important that you are not distracted during this appointment. You will receive instructions on preparation including diet, medication changes, and arrival time.

Please have a list of current allergies, medications, and diagnosed medical conditions prepared prior to your phone call with PAT. During your PAT phone call, please complete the following:

1. Surgery scheduled with Dr. _____
2. Date of surgery: _____
3. Hospital arrival time: _____
4. Time to stop drinking clear liquids: _____
5. Medications to **stop** prior to surgery, with date each should be stopped:

6. Post-operative appointment date/time: _____

Please consult your prescribing provider to verify it is safe to temporarily discontinue any medications you are instructed to stop. Contact the *General Surgery Clinic* at (920) 206-3042 with any questions/concerns.

Due to anesthesia, **you cannot drive after your procedure**. You will need a ride to and from the hospital. Please arrange this ahead of time.

Laparoscopic Gallbladder Surgery

The Normal Gallbladder

The gallbladder is a small, sac-like, pear shaped organ. It sits under the liver in the upper right part of the abdomen. The liver produces a substance called bile, a fluid that breaks down fats in foods to aid in digestion. Bile is stored in the gallbladder and concentrated by removal of excess water. After eating food high in fat, hormones signal the gallbladder to squeeze bile into the small intestine for digestion.

Gallstones: The Most Common Gallbladder Problem

If the bile stored in the gallbladder contains too much of certain chemicals such as cholesterol or bilirubin, it can harden into stones. If the stones remain in the gallbladder, they may irritate the gallbladder wall or cause blockage of the ducts which exit into the small intestine. This results in symptoms including pain, nausea, vomiting, and jaundice. Symptoms can become severe and often occur following high-fat meals. If left untreated, the disease can progress into more severe forms requiring emergency care.

Treatment Options

The most effective treatment method for gallstones and resulting conditions is removal of the gallbladder, a procedure termed “cholecystectomy.” Most often, this surgery is performed laparoscopically through small incisions with the use of a laparoscopic camera and tools. In some cases, the surgery is performed in an open fashion, with a larger incision made in the right upper abdomen and traditional surgical tools used for removal. Your doctor will discuss the most appropriate procedure for you based on factors including previous surgeries, bleeding disorders, pregnancy, and body habitus. If surgery is not recommended, following a low-fat diet can limit symptoms of gallbladder disease.

During Gallbladder Surgery

You will be asked to avoid eating the day of your surgery, so that you can safely undergo anesthesia. This will keep you asleep and free from pain during the procedure. You will arrive at the hospital early to check in for surgery, and be taken back to the operating room. If performed laparoscopic, your abdomen will be inflated with carbon dioxide gas to allow visualization of the abdominal organs. Instruments will be used to dissect the gallbladder from the liver bed, clip the ducts and artery which enter at the base of the gallbladder, and safely remove the gallbladder from the abdomen. If it is determined the

procedure is unsafe to continue laparoscopically, it may be converted to an open procedure. An intraoperative cholangiogram may also be performed, which is a special form of x-ray used to visualize any gallstones which are obstructing the ducts exiting the gallbladder.

Preparing for Gallbladder Surgery

7 Days

Before your procedure

Arrange transportation

Please confirm that a family member or friend is available to drive you to and from your surgery and remain at the hospital for the duration of the procedure.

Review Medications

You may be instructed to discontinue certain medications prior to your procedure. Call the prescribing provider to discuss how to safely do this.

Medications to stop 7 days prior to gallbladder surgery:

- **Antiplatelet Blood Thinners:** Pletal (Cilostazol), Effient (Prasugrel)
- Phentermine
- Vitamins and supplements

5 Days

Before your procedure

Medications to stop 5 days prior to gallbladder surgery:

- Antiplatelet blood thinners: Plavix (Clopidogrel), Brilinta (Ticagrelor)
- Coumadin (Warfarin)

Note: If you take this medication, please contact your prescribing provider to inquire if “bridging” will be required.

3 Days

Medications to stop 3 days prior to gallbladder surgery:

Before your procedure

- **PDE-Inhibitors**, unless taken for pulmonary hypertension: Sildenafil (Viagra), Tadalafil (Cialis), Vardenafil (Levitra and Staxyn), Avanafil (Stendra), Cilostazol (Pletal), Dipyridamole (Attia), Milrinone (Primacor), Amrinone, Apremilast (Otezla), Crisaborole (Eucrisa), and Roflumilast (Deliresp)
- **DOAC blood thinners:** Eliquis (Apixaban), Xarelto (Rivaroxaban), Pradaxa (Dabigatran), Savaysa (Edoxaban)

2 Days

Before your procedure

In the evening, follow instructions in the provided scrub kit to clean your body thoroughly. After performing the scrub, remember to avoid other hair and skin care products as they carry bacteria. If you notice an allergic reaction notify the General Surgery Clinic in the morning or present to the emergency room if severe.

1 Day

Before your procedure

Please do not consume any *solid food* after **midnight** the evening prior to your procedure. Doing so will result in cancellation. After this time, you may however consume **clear liquids** following the attached diet guide.

GLP-1 Agonist users: Please follow a **clear liquids only** diet for a complete *24 hours prior* to your surgery.

- Includes: Semaglutide (Ozempic, Rybelsus), Tirzepatide (Mounjaro), Dulaglutide (Trulicity), Exenatide (Byetta), Liraglutide (Victoza, Saxenda), Lixisenatide (Adlyxin)

Again, in the evening, complete the second body scrub as instructed in the provided scrub kit.

Medications to stop one day before gallbladder surgery:

- Insulin: Follow provided protocol (See end of packet)

Procedure Day

Please remember to have a friend or family member drive you to and from the hospital for your procedure. You cannot drive after receiving anesthesia.

You may drink **clear, noncarbonated** liquids up until **two hours** prior to **arrival**. This is four hours prior to your scheduled procedure time.

- Please do not drink soda or carbonation the day of your procedure.
- Please do not consume gum, hard candy, suckers, etc. the day of your procedure.

Medications to stop the day of gallbladder surgery:

- Insulin: Follow provided protocol (See end of packet)
- Metformin
- Lisinopril (Zestril, Prinivil), Benazepril (Lotensin), Captopril, Enalapril (Vasotec), Losartan (Cozaar), Valsartan (Diovan), Olmesartan (Benicar), Candesartan (Atacand)
- Rosiglitazone (Avandia), Pioglitazone (Actos)
- Glimepiride (Amaryl), Glipizide (Glucotrol), Glyburide (Micronase, Glynase, Diabeta)
- Sitagliptin (Januvia), Saxagliptin (Onglyza), Linagliptin (Tradjenta), Alogliptin (Nesina)

After Your Surgery

After Surgery in The Hospital

When you wake from surgery, you will find small bandages covering your incisions. The IV will remain in place briefly until you are able to safely drink fluids. You may experience discomfort of the right upper abdomen or right shoulder, which will go away in time. Within a few hours after surgery you will feel more awake and will be able to leave the hospital for further recovery at home.

After Surgery at Home

After surgery, you may notice swelling, bruising, or soreness near your incisions. You may feel bloated, constipated, or more tired than usual. These effects will go away with time. Your doctor may give you medications to take during recovery. You will have either small bandages or glue over your incisions, please leave in place until your follow up visit.

You will be given instructions with your discharge paperwork that cover important restrictions to follow:

- **Bathing:** you may shower after 24 hours but avoid immersion in water such as baths, hot tubs, and pools for at least two weeks after surgery
- **Lifting:** for the first few weeks after surgery, you may not lift any objects heavier than 15-20 pounds. This is important to allow healing of the repair as heavy lifting can cause significant damage and risk of hernia recurrence.
- **Sexual activity:** you may resume sexual activity as soon as it feels comfortable, again remembering to avoid heavy lifting for the first weeks after surgery.
- **Driving:** do not drive for the first 1-2 days after surgery, and at any time of taking narcotic pain medications. Otherwise, you may drive when you feel comfortable being able to slam the breaks if necessary without pain.
- **Work:** you may be able to return to an office job within a few days, and more physical jobs after a few weeks. Your surgeon will provide clearance for you to return to work based on your occupation and progress after surgery.

Follow Up

You will have a post-operative visit scheduled for 7-10 days after your surgery. At this time your doctor will assure there are no complications present, your pain is well managed, and determine when you may return to activities such as work and exercise.

When to Call Your Doctor

After your surgery, call your doctor if you notice any of the following:

- You have a fever (over 101.4 F) or chills
- You have an incision that drains liquid for longer than a day or increasing incisional redness, swelling, or pain
- You are unable to urinate for greater than one day
- You have severe abdominal pain, nausea, or vomiting

You may have a mild sore throat after the procedure, which should resolve in approximately 24 hours. You may resume a low-fat diet once home from the hospital, as high fat meals frequently cause diarrhea after gallbladder removal.

Do not smoke, drink alcohol, or take sleep aids until the day after your surgery. Do not drive or operate heavy machinery until the day after your surgery, and while taking narcotic medications.

You will be notified of any pathology results from your procedure at your post-operative visit.

Clear Liquid Diet

OK to drink:

- Water
- Tea and black coffee **without** any cream, milk, or lightener (including non-dairy options)
- Flavored water without red or purple dye
- Clear, light colored juices such as apple, white grape, lemonade without pulp, and white cranberry

Avoid these drinks:

- Alcoholic beverages
- Milk (including non-dairy)
- Smoothies
- Milkshakes
- Cream
- Orange juice
- Grapefruit juice
- Tomato juice
- Soup other than clear broth
- Cooked cereal

- Clear broth including chicken, beef, or vegetable
- Sports drinks such as gatorade or propel
- Popsicles without fruit or cream
- Jello or other gelatin without fruit
- Powdered drinks such as kool-aid or crystal light

- Gum, hard candy, suckers

Anything with **red or purple coloring** such as juice, popsicles, sports drinks, or gelatins

Low Fat Diet

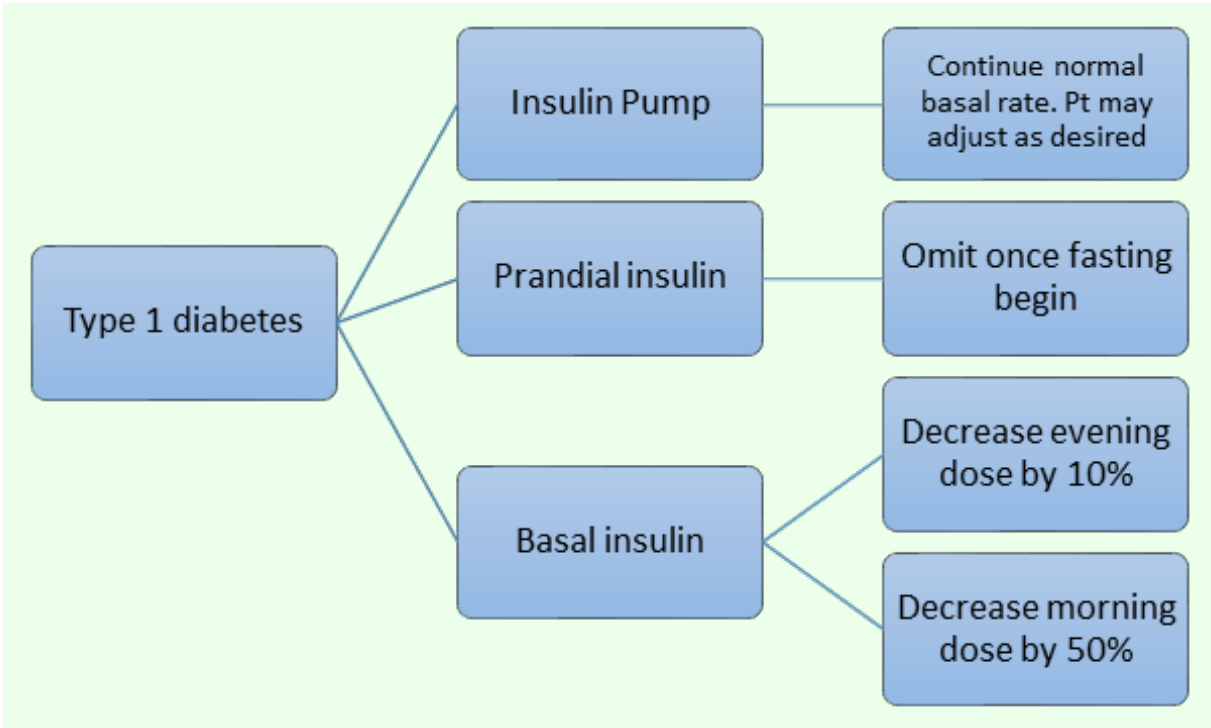
OK to eat:

- Fruits and vegetables
- Lean meats: chicken, turkey, duck, tuna, lean or beef trimmed of fat
- Whole grain cereals, breads, crackers, rice, and pasta
- Skim or zero fat dairy products
- Dairy alternatives such as soy
- Low fat snack crackers, rice cakes, unbuttered popcorn
- Fat-free soups, broths, bouillon
- Non-fat frozen yogurt, skim milk sherbet, fruit popsicles

Avoid these foods:

- Fried or buttered foods
- High fat meats: bacon, sausage, salami, beef
- High fat dairy products: whole milk, cream, sour cream, cheese
- Pastries, cakes, pies, cookies, and other baked goods
- Muffins and doughnuts
- Packaged snacks such as potato chips and granola bars
- Coconut and avocado
- High fat candy such as chocolate and nougat

Pre-operative Insulin Protocol



Pre-operative Insulin Protocol

