



For more information please visit us online at: <http://www.osmh.on.ca/diagnostics/>

If you or your support person do not clearly understand the procedure, please ask for clarification



CHOLECYSTOSTOMY DRAIN

What is it?

A cholecystostomy drain is a small tube inserted through the skin into the gallbladder to help it drain when it can't do so on its own. The drain relieves pain, inflammation, and reduces the risk of infection or complications from blocked bile ducts, which can cause jaundice or liver infection. The drain will be removed once symptoms improve or after a surgical plan has been created.

A cholecystostomy drain may need routine changes if it remains in place long-term or isn't functioning properly.

Why do I need it?

You may require a cholecystostomy drain insertion in order to^{3,4}:

- Manage acute cholecystitis
- Manage acute cholangitis
- To facilitate gallbladder and biliary tract access
- Divert bile from bile duct defect
- Dilate biliary strictures
- Stent malignant lesions
- Provide access to dissolution/remove stones
- Decompress obstructed biliary tract



HOW IS THE PROCEDURE PERFORMED?

Before

For specific questions regarding the clinical need for this procedure, please contact your ordering provider.

Patient Preparation:

You should wear loose-fitting clothing that is easy to change out of. Please bring a list of the medications you are currently taking and a list of any drug/medication allergies you may have.

New Insertions (i.e. never had a tube before):

- Arrange for someone to **drive you home after the procedure**.
- You may have clear fluids up to **four hours** before the procedure. Continue taking your morning medications, **except for blood thinners** (see next page), with a small sip of water.

Tube Exchanges (i.e. you already have a tube):

- Arrange for someone to drive you home after the procedure.
- You can eat and drink normally and take your usual medications before the procedure. You do not need to stop taking blood thinners for tube exchanges.

One support person (spouse, friend, caregiver, family member) may accompany you on the day of your appointment, but not into the procedure room.

Please phone the Diagnostic Imaging booking line at **705-325-2201 ext. 3505** for cancellations or rebooking if you are unable to attend your appointment.

Bloodwork:

Your doctor or healthcare provider will order bloodwork and it must be **within 1 week before** your scheduled procedure to ensure we receive your results before your appointment. Unavailable bloodwork results may cause a delay or rebooking of your procedure. **This applies to new tube insertions, only.**



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Before (Continued)

Medication:

Your doctor or healthcare provider will also ask you to stop any blood thinners you take (also known as anticoagulation or antiplatelet medications). Talk to your doctor or healthcare provider about which medications need to be stopped prior to the procedure, for how long, and when you can safely start them again. **This applies to new tube insertions, only.**

The following medications must be stopped prior to the procedure as per the listed times. Discuss this with your doctor or healthcare provider if you have concerns about stopping any of the below medications:

Medication		Number of Days to Hold
Enoxaparin	(Lovenox)	Withhold 1 dose before procedure
Dalteparin	(Fragmin)	Withhold 1 dose before procedure
Apixaban	(Eliquis)	Withhold 3 days before procedure
Rivaroxaban	(Xarelto)	Withhold 3 days before procedure
Dabigatran	(Pradaxa)	Withhold 4 days before procedure
Warfarin*	(Coumadin)	Withhold 5 days before procedure until target INR ≤ 1.8
Clopidogrel	(Plavix)	Withhold 5 days before procedure
ASA	(Aspirin™)	Withhold 5 days before procedure

*Patients on **Warfarin (Coumadin)** require a new INR drawn 1 day before the procedure.

Coming To The Hospital

You must first sign-in with **Centralized Patient Scheduling & Registration (CPSR)**, which is located immediately to your left when you enter the hospital from the main entrance (off Dunlop Street, across from the gift shop). You will receive a wristband and, for new tube insertions, be directed to **Day Surgery**. They'll prepare you and take you to **Diagnostic Imaging** at your scheduled time. For tube exchanges, **CPSR** will send you directly to **Diagnostic Imaging**.

Please bring to the hospital your OHIP card and a list of current medications you are taking.

You may also bring a book, water, phone/tablet with earphones, and a snack in a small bag for when you are recovering from the procedure.

During

This procedure is performed in the Interventional Radiology Department of Diagnostic Imaging.

The duration of your appointment time will vary from 30 minutes – 60 minutes.

You will recover in the Post Anesthesia Care Unit (PACU) for another 1 – 2 hours (new insertion, only)

1. You will change into a hospital gown.
2. A medical radiation and imaging technologist (MRIT) will explain the procedure and answer any questions you have.
3. You will lie on your back on a fluoroscopy table and will be awake for the procedure. You may receive pain medication during the procedure.
4. This is an aseptic procedure; your abdomen will be cleaned using a hospital-approved cleansing agent, and sterile drapes applied.
5. A radiologist will inject a numbing agent, called Lidocaine, at the insertion site. This numbs the area. This should be the only pain or discomfort during the procedure.
6. The radiologist will use ultrasound and x-rays to insert the drain.
7. A securement device and dressing will be applied once the drain is inserted.
8. The drain will be attached to a leg bag for continued drainage after the procedure.



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WHAT TO EXPECT AFTER



Recovery & Going Home

New Tube Insertion (i.e. never had a tube before):

You will be sent to the **Post Anesthesia Care Unit (PACU)** to recover from the procedure. Before being discharged, bloodwork may be taken to determine if you have met recovery standards.

You will need someone to drive you home after the procedure. Don't drive for the next 24 hours or while you're taking strong pain medicine. If you were given medication to help you relax or manage pain during the procedure, then you cannot drive for the next 24 hours.

Tube Exchanges (i.e. you already have a tube):

Recovery is generally not required and you are able to leave directly from the Diagnostic Imaging department. We advise you have someone else drive you home.

A drain bag attached to your thigh to collect the bile from your gallbladder.



Diet & Activity^{1,2}

- Rest for the day and take it easy for 1–3 days (for new insertions).
- Have an adult family member, caregiver, or friend stay with you the night after the procedure in case you need help.
- Resume your normal diet, but if you feel nauseous, try bland, low-fat foods like rice, chicken, toast, or yogurt.
- Drink plenty of fluids to avoid becoming dehydrated.
- You may resume light activities after 24 hours.
- Avoid lifting anything heavier than 4.5 kilograms (10 pounds) for 3 days.
- Do not participate in sports or strenuous activity.



Wound Care^{1,2}

- You will need to take care of the area around the tube to prevent infection and ensure proper healing.
- We will contact Ontario Health atHome (Home Care) on your behalf to arrange for general wound care and dressing changes. However, you may wish to learn how to change the dressing on your own.

How to change the cholecystostomy dressing:

- i. Wash your hands with soap and water
 - ii. Carefully remove the bandage around the drain (avoid hard tugging)
 - iii. Use gauze or a cotton swab to clean the drain site and the surrounding skin with soap and water
 - iv. Allow the skin and tube to dry
 - v. Using clean scissors, cut a slit in the bandage or gauze and then fit it around the drain site. Ensure good adhesion to your skin. You may need to use extra tape.
- It is important to keep the area dry and clean to prevent infection.



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Bathing¹

- You can shower normally with the tube in place. However, you should avoid soaking in a bathtub or hot tub as it can increase the risk of infection. If you must take a bath then the water level must be kept at least 2 inches below the insertion site.
- It is important to avoid getting the area around the tube wet, as this can also increase the risk of infection.
- **Home and Community Care Support Services (Home Care) will be able to assist you with bathing techniques that protect your tube.**
- Before showering, cover the dressing with a waterproof material, such as plastic wrap or a purchased product (such as *AquaGuard*, *Leukomed T Plus*, *Sealtight Shield Dressing Protector*, *Shower Shield*, etc.) to prevent it from getting wet.
- You should discuss best practice options with your Ontario Health atHome (Home Care) nurse. These types of covers are available online through sites such as **Amazon Canada** or at home healthcare stores, such as **WellWise by Shoppers Drugmart**.



Medication¹

- **If your doctor or healthcare provider advised you to stop any medications for this procedure then consult with them first about the safety of when you can start your medications again;**
- Otherwise, resume your normal medication schedule.
- If you **normally** take acetylsalicylic acid (Aspirin™) or another blood thinner medication, ask your doctor or healthcare provider when to start taking it again. Make sure that you understand exactly what they want you to do;
- Otherwise, **do not** take (Aspirin™) or anti-inflammatory medicines (such as ibuprofen) for one **week** after the procedure (for new insertions, only).



Special Instructions

- **Keep your drainage bag at waist level or lower at all times.** Take care not to lie on the tubing or allow the tubing to kink.
- The drainage bag should be attached to your **thigh**. **DO NOT** attached below your knee as this may cause your tube to become dislodged.
- The drainage bag should be emptied when it is half full. This will reduce the chances of your tube being dislodged from the weight of the bag.
- You should monitor and record the amount of drainage daily.

How to empty your drainage bag:

- Wash your hands with soap and water.
 - Record the amount of fluid in the bag prior to drainage.
 - Stand beside a toilet (or over a container) and open the drainage valve at the bottom of the bag.
 - Empty the contents of the bag into the toilet / container.
 - Clean the drainage port with soap and water, dry it with a tissue, and then close it.
 - Wash your hands again with soap and water.
- Your bag should be changed every 7 days.
 - You may require regular drain changes if this drain is to stay in long-term.
 - The radiologist who inserts the drain or your primary care giver may request regular flushing of the drain.

These tasks will be performed by a Home and Community Care Support Services (Home Care) nurse.

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WHEN TO SEEK HELP²



Call 911:

If you believe you require emergency care – **call 911**. Reasons to call 911 include:

- You have passed out (lose consciousness), or become very dizzy, weak, or less alert
- You have severe trouble breathing
- You have a fast or uneven pulse
- You experience sudden chest pain and shortness of breath; and/or
- Significant bleeding from the procedure site (i.e. bright red blood that won't stop)



Call your doctor, healthcare provider, or Health Connect Ontario immediately if you experience¹⁻⁴:

- Increased pain, swelling, warmth, or redness at the procedure site
- Redness or warmth around the procedure site or pus or blood draining from the procedure site
- A fever (more than 100°F / 38°C)
- Chills, with or without fever
- Bright red blood has soaked through the bandage / dressing over the procedure site.
- You have new or worse pain at the procedure site.
- You are vomiting, or have new or worse nausea and/or vomiting
- New or increasing yellow tint to your skin or the whites of your eyes
- The tube is coming loose, is partially pulled out, or completely pulled out
- You cannot pass stools or gas
- Drainage stops coming out of the tube or leaks around it
- You do not get better as expected.

Health Connect Ontario may be reached 24-hours a day, including weekends, by:

- Calling 8-1-1
- Calling 1-866-797-0007 (TTY – teletypewriter service)
- Visiting <https://healthconnectontario.health.gov.on.ca/> and selecting “Chat with us”

BRING THIS INFORMATION PACKAGE WITH YOU SHOULD YOU URGENTLY NEED TO SEE YOUR DOCTOR OR GO TO THE EMERGENCY DEPARTMENT OF YOUR NEAREST HOSPITAL.

Use this material for your information only. It does not replace advice from your doctor or other health care professionals. Do not use this information for diagnosis or treatment. Consult with your health care provider about a specific medical condition.

References:

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2. Needle Biopsy of the Liver. Accessed May 10th, 2023. MyHealth.Alberta.ca Network. [https://myhealth.alberta.ca/Health/Pages/conditions.aspx?hwid=hw232128#:~:text=A%20liver%20biopsy%20can%20find,alanine%20aminotransferase%20\(ALT\)%20tests.](https://myhealth.alberta.ca/Health/Pages/conditions.aspx?hwid=hw232128#:~:text=A%20liver%20biopsy%20can%20find,alanine%20aminotransferase%20(ALT)%20tests.)
3. Saad WE, Wallace MJ, Wojak JC, Kundu S, Cardella JF. Quality improvement guidelines for percutaneous transhepatic cholangiography, biliary drainage, and percutaneous cholecystostomy. J Vasc Interv Radiol. 2010 Jun;21(6):789-95. doi: 10.1016/j.jvir.2010.01.012. Epub 2010 Mar 21. PMID: 20307987.
4. Gulaya K, Desai SS, Sato K. Percutaneous Cholecystostomy: Evidence-Based Current Clinical Practice. Semin Intervent Radiol. 2016 Dec;33(4):291-296. doi: 10.1055/s-0036-1592326. PMID: 27904248; PMCID: PMC5088094.

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