

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



## NEPHROSTOMY / NEPHROURETEROSTOMY TUBE

### What is it?

A **nephrostomy tube** is a thin tube inserted through the skin into the kidney to drain urine into an external bag. It can be temporary or permanent, depending on the condition.

A **nephroureterostomy tube**, similar to a nephrostomy tube, is placed into the ureter (the tube connecting the kidney to the bladder). It's often used after a nephrostomy tube has been in place for 3 months or longer.

Both tubes require routine changes, typically every 3 months.

### Why do I need it?

A **nephrostomy tube** is required when the normal flow of urine from the kidney to the bladder is blocked, usually by a kidney stone, tumor or other obstruction.

A **nephroureterostomy tube** is required when the ureter is blocked or damaged, and urine cannot flow from the kidney to the bladder. The tube allows urine to drain directly from the kidney into the bladder.



## 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.

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### Bloodwork<sup>3</sup>

Bloodwork is required for fresh tube insertions and must be done within **2 weeks** of your appointment (within 72 hours for inpatients). Your doctor may order:

- INR (must be  $\leq 1.8$ )
- PTT
- CBC (platelets must be  $\geq 50 \times 10^9/L$  or greater)

If you take **Warfarin (Coumadin)**, you'll need a new INR drawn the **day before** your procedure.

**Important:** Missing bloodwork may cause delays or your procedure to be rescheduled.

### Blood Thinners / Anticoagulants / Antiplatelets Medications<sup>3</sup>

Stop the listed medications (**new insertions only**, not tube exchanges) as per the below schedule before your procedure unless instructed otherwise. If unsure, then consult your doctor or healthcare provider about which medications to pause, for how long, when to restart them, and any concerns you may have.

Medications	When to Stop	Restart After
Acova ( <b>Argatroban</b> )	2-4 hours	4-6 h
Aggrenox ( <b>ASA/dipyridamole</b> )***	3-5 days	Next day
Angiomax ( <b>Bivalirudin</b> )	2 hours	4 h
Arixtra ( <b>Fondaparinux</b> )	2 days (3 days if eGFR is $<50$ )	24 h
ASA ( <b>Aspirin</b> )	Do not stop	N/A
Brilinta ( <b>Ticagrelor</b> )***	5 days	Next day
Coumadin ( <b>Warfarin</b> )*/**	5 days (recheck INR)	Same day (evening)
Effient ( <b>Prasugrel</b> )***	7 days	Next day
Eliquis ( <b>Apixaban</b> )**	2 days (3 days if eGFR is $<50$ )	Second day
IV Heparin (unfractionated)**	4 hours (check PTT)	6 h
LMWH (prophylactic): enoxaparin ( <b>Lovenox</b> ), dalteparin ( <b>Fragmin</b> )**	12 hours	Next day
LMWH (therapeutic): enoxaparin ( <b>Lovenox</b> ), dalteparin ( <b>Fragmin</b> )**	24 hours	Next day
Plavix ( <b>Clopidogrel</b> )***	5 days	6 h (if 75 mg) 24 h (if 300 mg)
Pradaxa ( <b>Dabigatran</b> )**	2 days (3 days if eGFR is $<50$ )	Next day
Savaysa ( <b>Edoxaban</b> )	2 days	Next day
Subcutaneous Heparin (unfractionated)**	8 hours (check PTT)	Same day (evening)
Xarelto ( <b>Rivaroxaban</b> )**	2 days (3 days if eGFR is $<30$ )	Next day
* Consider bridging with heparin (need admission) for high thrombosis risk cases ** Consider using reversal agent if emergent or STAT *** Consider continuation for arterial procedures including mesenteric, renal, subclavian, and infra-inguinal angioplasty/stent		

### Important Notes

- Patients on Warfarin (**Coumadin®**) need an **INR** test the **day before** the procedure.
- Those with **prosthetic valves, prior clots, or stroke-related atrial fibrillation** may need bridging therapy to prevent thrombosis.
- **Do not** stop blood thinners if you have **coronary or brain stents**—consult your doctor first.
- If anticoagulation is stopped, your doctor must provide instructions.
- Applies only to elective procedures, not emergencies.



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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 or operate machinery 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.

If you had a **nephrostomy** tube inserted then there will be a drain bag attached to your thigh to collect the urine from the kidney. Nephroureterostomy tubes generally do not require a drain bag.



### Diet & Activity<sup>1,2</sup>

- 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.
- Stay hydrated by drinking plenty of fluids.
- Limit caffeine, alcohol, and spicy foods, as they may irritate your bladder.
- Avoid strenuous activity or heavy lifting for a few weeks to allow healing.



### Wound Care<sup>1,2</sup>

- 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.
- It is important to keep the area dry and clean to prevent infection.



### Bathing<sup>1</sup>

- You can shower normally with the tube, but avoid baths or hot tubs to reduce infection risk. If you must have a bath, keep the water at least 2 inches below the insertion site.
- Keep the area around the tube dry to prevent infection.
- 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**.

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#### Medication<sup>1</sup>

- 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 below the level of your kidney 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.

#### How to empty your drainage bag:

- i. Wash your hands with soap and water.
- ii. Record the amount of fluid in the bag prior to drainage.
- iii. Stand beside a toilet (or over a container) and open the drain valve at the bottom of the bag.
- iv. Empty the contents of the bag into the toilet / container.
- v. Clean the drainage port with soap and water, dry it with a tissue, and then close it.
- vi. Wash your hands again with soap and water.

Your bag should be changed every 7 days. The home care nurse will show you how to change your drainage bag.

#### Note:

If your nephrostomy tube or nephroureterostomy tube becomes pulled out (partially or fully) or is cracked, blocked or not draining properly (i.e. leaking around the tube), then contact the **Diagnostic Imaging Department at OSMH by phoning 705-325-2201 ext. 3505** to have your follow up appointment expedited.

Today we inserted a:	<input type="checkbox"/> Nephrostomy Tube <input type="checkbox"/> Nephroureterostomy Tube	
It was inserted on the:	<input type="checkbox"/> Right Side	<input type="checkbox"/> Left Side
The size of your tube is:	<input type="checkbox"/> 8 FR <input type="checkbox"/> 10 FR <input type="checkbox"/> 12 FR	<input type="checkbox"/> 8 FR <input type="checkbox"/> 10 FR <input type="checkbox"/> 12 FR
	<input type="checkbox"/> 14 FR <input type="checkbox"/> Other: _____	<input type="checkbox"/> 14 FR <input type="checkbox"/> Other: _____

#### Follow up:

Routine change in: ☐ 1-month    ☐ 2-months    ☐ 3-months    ☐ OTHER: \_\_\_\_\_

For outpatients, the Diagnostic Imaging Department will contact the patient with a tube change appointment.

If you are currently a patient in the hospital, please advise the doctor looking after you of any upcoming tube changes you have booked.

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## WHEN TO SEEK HELP<sup>2</sup>



### 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)<sup>1</sup>



### Call your doctor, healthcare provider, or Health Connect Ontario immediately if you experience<sup>1</sup>:

- 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 have blood in your urine for more than 48 hours.
- You have new or worse symptoms of a kidney infection. These may include:
  - i. Pain or burning when you urinate.
  - ii. A frequent need to urinate without being able to pass much urine.
  - iii. Pain in the flank, which is just below the rib cage and above the waist on either side of the back.
  - iv. Blood in the urine.
  - v. Fever
- You are vomiting or nauseated.
- Your tube leaks.
- Urine does not collect in the drainage bag.
- Your tube becomes dislodged or pulled out.

**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:

1. Needle Biopsy of the Liver. Accessed April 19, 2023. MyHealth.Alberta.ca Network. <https://myhealth.alberta.ca/health/Pages/conditions.aspx?hwid=hw232128>
2. Percutaneous Liver Biopsy: What to Expect at Home. Accessed June 11, 2024. MyHealth.Alberta.ca Network. <https://myhealth.alberta.ca/Health/aftercareinformation/pages/conditions.aspx?hwid=zc2216>
3. Patel et al. Society of Interventional Radiology Consensus Guidelines for the Periprocedural Management of Thrombotic and Bleeding Risk in Patients Undergoing Percutaneous Image-Guided Interventions—Part II: Recommendations. JVIR 2019; 30:1168–1184.

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