

Diagnostic Imaging - Interventional Radiology

Hours: Mon - Fri, 9:00 am - 4:30 pm

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



**FEEDING TUBE** 

#### What is it?

There are two types of feeding tubes inserted or exchanged in our department:

**Gastrostomy tube:** Inserted through the abdominal wall into the stomach.

Gastrojejunostomy tube: Inserted through the abdominal wall into the stomach, then advanced into the

small intestine (jejunum).

Both types allow direct delivery of nutrition, medication, and fluids to the stomach or small bowel, bypassing the mouth and throat. These tubes improve overall nutrition, enhance quality of life, and help prevent complications from poor nutrition.

# Why do I need it?

Your doctor or healthcare provider may recommend a feeding tube if you're unable to eat or swallow safely due to conditions like cancer, stroke, or neurological disorders. It's also used when you can't meet nutritional needs orally, such as after surgery or with digestive disorders, ensuring you receive the necessary nutrition, fluids, and medications for recovery and health.



# **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>4</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 ≥ 50 × 10<sup>9</sup>/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>4</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 (Argatroban)	2-4 hours	4-6 h
Aggrenox (ASA/dipyridamole)***	3-5 days	Next day
Angiomax (Bivalirudin)	2 hours	4 h
Arixtra (Fondaparinux)	2 days (3 days if eGFR is <50)	24 h
ASA (Aspirin)	Do not stop	N/A
Brilinta (Ticagrelor)***	5 days	Next day
Coumadin (Warfarin)*/**	5 days (recheck INR)	Same day (evening)
Effient (Prasugrel)***	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 (Lovenox), dalteparin (Fragmin)**	12 hours	Next day
LMWH (therapeutic): enoxaparin ( <b>Lovenox</b> ), dalteparin ( <b>Fragmin</b> )**	24 hours	Next day
Plavix (Clopidogrel)***	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 (Edoxaban)	2 days	Next day
Subcutaneous Heparin (unfractionated)**	8 hours (check PTT)	Same day (evening)
Xarelto (Rivaroxaban)**	2 days (3 days if eGFR is <30)	Next day

<sup>\*</sup> Consider bridging with heparin (need admission) for high thrombosis risk cases

# **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.

<sup>\*\*</sup> Consider using reversal agent if emergent or STAT

<sup>\*\*\*</sup> Consider continuation for arterial procedures including mesenteric, renal, subclavian, and infrainguinal angioplasty/stent

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#### **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'll 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 60 minutes – 90 minutes.

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

- and below the waist and put on a hospital gown.
- 2. A Medical Radiation and Imaging Technologist (MRIT) will explain the procedure and answer any questions you have before the procedure.
- 3. You will lie on your back on a fluoroscopy table. You will receive pain medication for new tube insertions.
- 4. Your stomach must be inflated. A radiologist will insert a tube down your nose and into your stomach. This allows them to slowly fill your stomach with air.
- 1. You will be asked to remove your clothing from above 5. This is an aseptic procedure; your abdomen will be cleaned using a hospital-approved cleansing agent, and sterile drapes applied.
  - 6. 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.
  - 7. The radiologist will use x-rays to insert the tube.
  - **8.** A dressing will be applied once the tube is inserted.

(write down any notes or questions you may have for your doctor, healthcare practitioner, or the care team in Diagnostic Imaging on the day of your appointment. You can also use this space to write down a list of your current medications):



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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.



# **Diet & Activity**

- 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.
- The radiologist will advise you when you may start using the feeding tube or when you may resume your regular diet.
- You may resume light activities after 24 hours.



#### **Wound Care**

- 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.

### Care of feeding tube & stoma site<sup>1</sup>:

- After your feeding tube is inserted, a gauze dressing will be placed under the bolster/bumper. Remove the gauze after 4-5 days unless there's fluid or skin irritation.
- If there's no fluid leaking from the site, you don't need gauze under the bolster/bumper. Leave the site open to air unless the bolster/bumper irritates your skin.
- Avoid over-taping the tube or covering the bolster with tape.
- Secure the external portion of the tube to prevent rubbing or friction at the insertion site when you
  move.

# Clean the exit site every day1:

- 1) Wash your hands with soap and water. Dry your hands using a clean towel before you begin.
- 2) Clean around the exit site with normal saline or mild soap.
- 3) Clean under the bolster/bumper with normal saline or mild soap and water.



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■ To clean under the bolster:

Secure the upper half of the bolster/bumper with your thumb and gently lift the bottom of the bolster up so you can clean the skin.

- 4) Clean the skin under the upper half of the bolster with normal saline or mild soap and water.
- 5) Gently pat it dry.

As you clean the site, move the feeding tube gently from side to side to make sure the tube is not too tight or digging into your skin.

**Note:** If your tube does not have a bolster, still clean the skin around the tube using a circle motion. Clean using normal saline or water and mild soap every day.

- Over time you may notice dark pink fleshy tissue that grows around the stoma site. This is known as proud flesh/granulation tissue and is quite common<sup>2</sup>.
- It can be left alone unless it causes pain, bleeds or leaks. If it becomes a problem, talk to your family doctor, Ontario Health atHome nurse, or other healthcare practitioner<sup>2</sup>.



# Bathing<sup>1</sup>

- You should wait until the skin around the feeding tube has healed enough to scab over prior to getting it wet while bathing. Do not take a bath when you have a feeding tube.
- Your feeding tube does not need to be covered when bathing; soap and water may gently run over the feeding tube. Use unscented soap (it does not have to be antibacterial soap).

# While bathing:

- Do not let the water stream directly run against the feeding tube.
- Do not rub the soap onto the feeding tube.
- Make sure you pat dry around the tube and under the bolster once you are done.
- Ontario Health atHome (Home Care) will be able to assist you with bathing techniques to protect your tube.



### 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).

# IMPORTANT: For use of medications with your feeding tube<sup>3</sup>:

Do not mix medications with feeding formula.

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#### FEEDING TUBE PATIENT INFORMATION

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- Medications should be given in liquid form if possible. If only pills are available, crush finely. Mix the powder in water until there are no clumps.
- Give each medication separately. Flush tube with 10 cc of warm water between medications.
- Flush tube with 60 cc warm water before giving any medications and again before the feeding tube is clamped off.



# **Special Instructions**

# Check The Exit Site Of Your Feeding Tube And The Feeding Tube Each Day For The Following:

# 1) Changes to the skin around the tube

• If you notice redness, swelling, leaking, and/or tenderness, then call your family doctor Ontario Health atHome (Home Care) nurse, or other healthcare provider right away.

# 2) Leaking around the site

- Stop your feeds and notify your family doctor, Ontario Health atHome (Home Care) nurse, or other healthcare provider immediately.
- Be mindful that if you increased your feeding rate then your stomach may be too full. Try reducing your feeding rate to the original rate and monitor for leaking.

#### 3) Marking on the tube has changed

- If the exit marking at the bolster has changed then it means the feeding tube has changed positions. Stop the feed and notify your family doctor, Ontario Health atHome (Home Care) nurse, or other healthcare provider immediately.
- There should be approximately 2-5mm between the external bumper and your skin<sup>2</sup>.

# 4) Blocked feeding tube<sup>2</sup>

- Do not put any sharp objects in your feeding tube to clear a blockage.
- Feeding Tubes should be easy to flush NEVER be forceful when flushing.
- Only use water to unblock a feeding tube. Do not use acidic fluids (ex: Coca-Cola or lemonade) to unblock the tube. This may make the situation worse.
- Try the following steps if comfortable doing so:
  - 1) Check that the feeding tube is not kinked.
  - 2) Gently massage the tube with your fingers if the blockage is visible.
  - 3) If still blocked then fill a 60ml syringe with warm water and gently try to flush.
  - 4) If it is still blocked, try pulling back on the plunger of the syringe and hold for 10 seconds, then gently push the plunger forward known as the 'push-pull' method.
  - 5) If you cannot unblock the feeding tube then notify your family doctor, Ontario Health at Home (Home Care) nurse, or other healthcare provider immediately.

# Preventing Feeding Tube Blockages1:

- Flush your tube with 30–60 mL of water after each feed. Use a start/stop flush action to create a turbulent flow<sup>2</sup>.
- Flush your feeding tube with 30–60 mL of water after giving medications.

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- IMPORTANT! crush your medications well and mix them with water before putting it in the feeding tube.
- It is important to follow a consistent flushing schedule<sup>2</sup>:
  - a) Twice daily if not using the tube for nutrition,
  - b) Before and after each bolus feed,
  - c) Every 4 hours if your feeds are delivered with a pump, and
  - d) Before and after each medication.

# Rotating Your Gastrostomy Tube<sup>2</sup> (does not apply to gastrojejunostomy tubes):

- Do not attempt to rotate your feeding tube if it is stitched in place or if you have a gastrojejunostomy tube (GJ tube goes into your small bowel). Rotating a GJ tube may cause it to dislodge from the small bowel.
- If it is not stitched in place and your feeding tube is a **gastrostomy tube** then you should gently rotate the tube 360 degrees each day.
- This is to prevent scar tissue from forming, which can make tube removal and replacement difficult.

# The Feeding Tube Is Not In The Right Place2:

- Check that the bumper level has not changed from the last time you used it.
- Try to rotate the tube 360 degrees (see above, gastrostomy tubes only).
- If the tube cannot rotate or you are worried about it:
  - a) Do not flush the tube
  - b) **Do not** put feed down the tube.
  - c) Contact your family doctor, Home Care nurse, or other healthcare practitioner. If you cannot contact anyone then go to your nearest emergency department.

#### Balloon Feeding Tubes<sup>2</sup>:

Most feeding tubes will have a balloon tip to prevent them from being dislodged. If your feeding tube has a balloon tip, then you should:

- Know how much water is meant to be in your balloon.
- Check the water volume in the balloon routinely or if there is any concern of balloon size. Your Home Care nurse will show you how to do this.

It is acceptable to have 1 or 2 ml of water missing when the balloon is checked. A leak in the balloon may be indicated if 3 ml or more of water is missing for 2 weeks in a row<sup>1</sup>. If the balloon loses too much water it will no longer be secured in your stomach and may come out of your body.

#### Using Your Feeding Tube<sup>2</sup>:

- Formula feeds, water and medications (liquid / crushed appropriately) are the only things permitted to be delivered through your feeding tube.
- Do not apply excessive force or overtighten the connectors when connecting to the feeding tube. Usually just a ¼ turn is enough to connect and hold the ends together.
- Ensure correct body positioning:

Sit upright or elevate the head of the bed to at least 30 degrees during feeding and for 30 minutes after feeding.



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WHEN TO SEEK HELP<sup>1</sup>



#### Call 911:

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

- become very dizzy, weak, or less alert
- You have severe trouble breathing
- You have a fast or uneven pulse
- You have passed out (lose consciousness), or 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:

- 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 belly pain, stomach pain, or cramps
- You have new or worse pain at the procedure site.
- You are vomiting, or have new or worse nausea and/or vomiting
- Your tube leaks.
- Your tube becomes dislodged or pulled out; appears longer, or the bolster/bumper is in a different position than usual.

#### 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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- 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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