

**Interventional Radiology:**

## **Percutaneous Gastrostomy**

### *What to expect when you have a “G-tube”*

*This handout explains a percutaneous gastrostomy tube and what to expect when you have one.*

### **What is a percutaneous gastrostomy?**

A *gastrostomy* is a procedure to place a small plastic tube (*catheter*) called a “G-tube” in your body. *Percutaneous* means “through the skin.”

In a percutaneous gastrostomy, the G-tube is inserted through the skin of your upper belly and into your stomach or intestines.

### **Why do I need a G-tube?**

You may need a G-tube if you have trouble swallowing, have problems with your appetite, or you cannot take in enough nutrition by mouth for other reasons.

A G-tube lets us give you nutrition. It also lets us drain your stomach if your intestines are blocked.

Your G-tube will stay in place until you no longer need it. G-tubes are easily removed. While they are in place, they may need to be changed to keep them from getting clogged.



*A regular G-tube*

### **Are all G-tubes the same?**

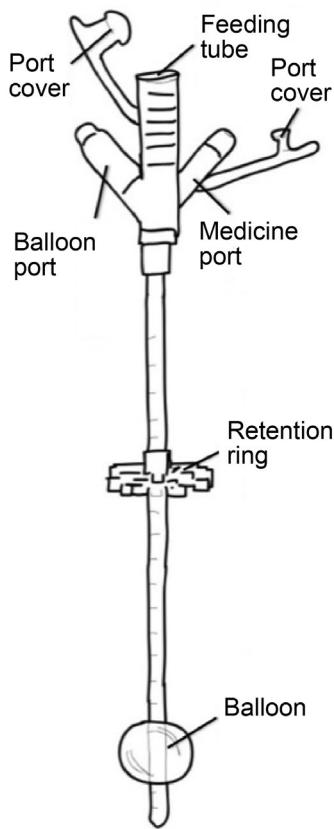
There are 2 types of G-tubes:

- With a regular G-tube, the end of the tube sits in your stomach.
- A *gastrojejunostomy (G-J)* tube is longer than a regular G-tube. It enters your stomach, but the tip is in your small intestine (*jejunum*). A G-J tube has 2 hubs on the end of the catheter for you to infuse fluids. (See drawing on page 2.)

### **How is a G-tube placed?**

There are 3 ways to place a G-tube:

- A surgeon can place the tube in the operating room.



A gastrojejunostomy (G-J) tube

- A doctor who specializes in digestive diseases can place the tube in a clinic. This doctor will use a flexible tube with a light on the end (an *endoscope*) to guide the creation of a small opening through the skin of the upper abdomen and directly into the stomach. This procedure is called a *percutaneous endoscopic gastrostomy* (PEG).
- An *interventional radiologist*, a doctor who specializes in procedures that are guided by X-rays, can place the tube in a clinic.

Your doctor believes having the interventional radiologist place your G-tube is the safest and most effective way for you.

## Are G-tubes safe?

Your doctor will explain the risks of having a G-tube placed. For most patients, G-tubes are very safe. Most times, the benefits outweigh the risks.

## Minor Problems

These minor problems after G-tube placement are fairly common:

- The G-tube may get clogged. Most clogged tubes can be fixed. But sometimes, the tube needs to be replaced.
- The G-tube may come out, either partly or all the way. If it comes partway out, do **not** use it until your doctor tells you it is OK to use.
- An infection may occur where the G-tube enters your skin. Most site infections can be treated with antibiotics. Sometimes, other treatment is needed.

## Serious Risks

The most serious problems from this procedure are:

- **Bleeding:** Major bleeding is rare.
- **Peritonitis:** The *peritoneum* is the membrane that lines the inside of the belly and covers all of the internal organs. *Peritonitis* is an inflammation of this membrane. It is a serious problem and must be treated right away.

Please ask your doctor any questions you have. Make sure all of your concerns are addressed.

## Before Your Procedure

- **Arrival time.** If you are an *outpatient* (not already staying in the hospital), a nurse will call you the afternoon before your procedure. If your procedure is on a Monday, the nurse will call you the Friday before.

The nurse will:

- Tell you when to arrive at the hospital
- Remind you what to do on the morning of your procedure
- Answer any questions you have
- **Interpreter services.** If you do not understand English well enough to understand these instructions or the details of the procedure, tell us **right away**. We will arrange for a hospital interpreter to help you. This service is free. **A family member or friend may not interpret for you.**
- **Allergies.** If you have ever had an allergy or bad reaction to *contrast* (X-ray dye), please call our Interventional Radiology Nurse Coordinator (see numbers on the last page). You may need medicine for this allergy before the procedure.
- **Blood test.** You most likely will need a blood test within the 14 days before your procedure. Sometimes, we can do this when you arrive for your procedure. We will tell you if we need to draw blood before that day.
- **Blood-thinning medicines.** If you take a blood thinner such as Lovenox (enoxaparin), Coumadin (warfarin), or Plavix (clopidogrel), you may need to stop taking it for 1 to 10 days before the procedure. The length of time depends on which medicine you are taking. If you have not been told what to do, talk with your provider or the clinic that prescribes the medicine. Ask when to stop taking this medicine.
  - **IMPORTANT:** If you have ever had a heart stent, a prosthetic heart valve, or a pulmonary embolism, or if you have atrial fibrillation with a history of a stroke, you **must** contact the provider who prescribes your blood-thinning medicine. Tell them that you are having a medical procedure and ask what to do about your dose before your procedure.
- **Diabetes medicines.** If you have diabetes and take insulin or metformin (Glucophage), we will give you instructions about holding or adjusting your dose for the day of your procedure.
- **Liquid contrast:** On the day before your procedure, we will ask you to drink a liquid *contrast* (X-ray dye) called Omnipaque. Contrast will highlight your colon so that we can clearly see it with X-rays. (See “Day Before Your Procedure,” on page 4.) You must pick up the contrast at the UWMC Radiology front desk at least 1 day before your procedure.

## Sedation

Before your procedure, we will give you a *sedative* (medicine to make you relax) through an *intravenous* line (IV) in one of your arm veins. This is called *moderate sedation*. You will stay awake, but feel sleepy. You will still feel sleepy for a while after the procedure.

For some people, using moderate sedation is not safe. If this is true for you, you will need *general anesthesia* (medicine to make you sleep during the procedure).

Let us know **right away** if you:

- Have needed anesthesia for basic procedures in the past
- Have *sleep apnea* or chronic breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of an *opioid* pain medicine
- Have severe heart, lung, or kidney disease
- Have back or breathing problems that make it hard to lie flat for about 1 hour
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

If you have any of these health issues, we may need to give you different medicines. Instead of a sedative, you might receive:

- **Only** a *local anesthetic* (numbing medicine), such as lidocaine.
- A local anesthetic **and** a single pain or anxiety medicine. This is called *minimal sedation*.
- *General anesthesia* (medicine to make you sleep). This medicine is given by an anesthesia provider.

## Day Before Your Procedure

- Drink lots of fluids and eat as usual during the day.
- **At 9 p.m.:** Drink the full bottle of contrast (Omnipaque) that we gave you.
- If you are an *outpatient* (not staying in the hospital), plan ahead:
  - Expect to spend most of the day in the hospital.
  - Ask a responsible adult to drive you home after your procedure. **You may NOT drive yourself home or take a bus, taxi, or shuttle by yourself.** If you need to take a bus, taxi, or shuttle, the responsible adult **must** ride with you.

- Ask a responsible adult to stay with you overnight after the procedure.

**IMPORTANT: If you do not have a responsible adult to drive you home or ride with you on a bus, taxi, or shuttle, we will need to reschedule your procedure.**

## Procedure Day

- Take your usual medicines on the day of the procedure, unless the doctor or a nurse tells you to hold them. (Some patients may need to stop taking their blood-thinning medicines.)
- Do **not** take vitamins or other supplements. They can upset an empty stomach.
- Starting **6 hours** before your procedure, **stop eating solid foods.** You may have only *clear liquids* (liquid you can see through), such as water, broth, cranberry juice, or weak tea.
- Starting **2 hours** before your procedure, take **nothing** at all by mouth.
- If you must take medicines, take them with **only** a sip of water.
- Bring with you a list of all the medicines you take.

## At the Hospital

- You may have been told to go to Outpatient Lab for a blood draw. Do this before you check in. The lab is on the 3rd floor of the hospital, next to Outpatient Pharmacy, near the Cascade elevators.
- Unless you are told otherwise, check in at Admitting on the 2nd floor, next to Radiology. Take the Pacific elevator to the 2nd floor. Admitting is on the right side of Radiology Department.
- After checking in, go to the Radiology Reception Desk.
- If there is a delay in starting your procedure, it is usually because we need to treat other people with unexpected and urgent problems. Thank you for your patience if this occurs.
- When we are ready to start your procedure, a staff member will:
  - Take you to a pre-procedure area
  - Give you a hospital gown to put on
  - Give you a bag for your belongings
- While you are in the pre-procedure area:
  - Your family or a friend can be with you.

- A nurse will ask you some health questions, take your vital signs (such as heart rate), place an *intravenous* (IV) tube in your arm, and go over what to expect. This nurse will also give you the sedative medicine.
- If you are scheduled to have general anesthesia, the anesthesia care provider will meet you and go over your health history.
- A radiologist or physician assistant will talk with you about the risk and benefits of the procedure. They will ask you to sign a consent form, if you have not already signed one.
- You will be able to ask any questions you have.
- A nurse will then take you to the Radiology suite. This nurse will be with you for the entire procedure and will watch you afterward.

### **What happens during the procedure?**

- If you need an interpreter, they will be in the room or will be able to talk with you and hear you through an intercom.
- You will lie flat on your back on an X-ray table.
- We will place wires on your body to monitor your heart rate.
- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- Prongs in your nose will give you oxygen. A probe on one of your fingers will show us how well you are breathing the oxygen.
- Before the procedure begins, we will take an X-ray of your belly. The X-ray will show us:
  - If the contrast you drank the day before has reached your colon. If it has not, we may have to reschedule your procedure for another day.
  - The position of your internal organs. If the X-ray shows that your colon or liver blocks our way into your stomach, the procedure will be cancelled. Your gastrostomy will need to be done a different way.
- For your safety, the entire medical team will ask you to confirm your name again. They will go over your allergies, and explain what we plan to do. We do this for every procedure and every patient.
- A technologist will use a special soap to clean your skin around the puncture site. The technologist may need to shave some hair in the area where the doctor will be working.

- Tell the technologist if you have any allergies.
- We will then fill your stomach with air:
  - We will place a tube through your nose and down to your stomach. This step is uncomfortable but it should not be painful.
  - You may briefly feel that you need to vomit. That feeling will go away after the tube passes through your throat.
  - You may feel bloated when the air is injected.
  - We will remove the nose tube at the end of the procedure.
- We will take X-rays during the procedure to help your doctor see exactly where to place the G-tube.
- The radiologist will inject a local *anesthetic* (numbing medicine) into your skin under your rib cage. It will sting for about 10 to 15 seconds, but then that area will be numb. After that, you should only feel pressure, but no pain.
- Next, the radiologist will insert several metal clips into your stomach to pull it to the surface. The G-tube is then inserted. The tube will be held in place with a plastic disk.
- The procedure takes about 30 minutes.

## What happens after the procedure?

- **If you had general anesthesia:** Nurses will watch you for a short time in the Radiology department or recovery room. If you are:
  - Going home the same day as the procedure, you will then be moved to a room on a short-stay unit in the hospital.
  - Staying overnight in the hospital, you will be moved to a room on an inpatient unit.
- **If you did not have general anesthesia:** You will go directly to the short-stay unit.
- When you are settled into your room:
  - Your family member or friend will be able to be with you.
  - You will need to rest on a stretcher for 2 hours. You may need to stay longer if you need to meet with your Home Infusion Provider or a dietitian.
  - You will be able to eat and drink after about 4 hours.

- We will make sure you can move safely before you get up to walk. A nurse or patient care technician (PCT) will help you get out of bed. Most times, we will place a gait belt around your waist for extra safety.

### **If You Are Going Home the Same Day**

You will be able to go home when:

- You are fully awake
- You can eat, drink, and use the restroom
- Your nausea and pain are under control
- Your vital signs are stable
- You can walk normally
- You have a responsible driver to take you home
- You have a responsible person to stay with you at home overnight

**IMPORTANT: Do NOT use your G-tube at all until your nurse or other provider confirms that your doctors have said that it is safe to use.**

### **Safety and Self-care at Home**

The sedation medicine will stay in your body for several hours. It could affect your judgment. You may also be lightheaded or feel dizzy.

#### **For 24 Hours**

- Do **not** drive a car.
- Do **not** use machinery or power tools.
- Do **not** drink alcohol.
- Do **not** take medicines such as tranquilizers or sleeping pills, unless your doctor prescribed them.
- Do **not** make important decisions or sign legal documents.
- Do **not** be responsible for children, pets, or an adult who needs care.
- Have a responsible adult stay with you overnight.

#### **To Help Speed Your Recovery**

- Do only light activities and get plenty of rest.
- Eat as usual. Drink lots of fluids.



- Resume taking your usual medicines when you get home. Take only the medicines that your doctors prescribed or approved.

### **For 48 to 72 Hours**

- Do **not** lift anything that weighs more than 5 to 10 pounds (a gallon of milk weighs almost 9 pounds).
- Do only moderate activities. This will help your puncture site heal.
- Avoid hard work and any activity that makes you breathe harder or makes your heart beat faster.
- Keep the tube site dry for the first 48 hours after it is placed. After that, you may shower with the tube uncovered.

### **Wound Care**

- If this is your first G-tube:
  - It will be held in place with *sutures* (stitches) or metal clips.
  - The sutures or clips must be cut 10 to 14 days after the procedure. **There is a serious risk of infection if this is not done at the right time.** If you do not yet have an appointment for this, call 206.598.6209 to set up this appointment.
  - After 48 hours, you may shower without covering the tube. Do **not** scrub the tube site. Let warm water and soap **gently** run over the area.
- For 4 weeks, or until your provider says it is OK, do **not** take a bath, sit in a hot tub, go swimming, or allow your G-tube to be covered with water.
- After showering:
  - Gently pat your skin dry.
  - Do **not** apply lotion, ointment, or powder around the tube.
  - Place a gauze dressing around the tube and tape it in place.
- Change the dressing at least every 3 days. Change it more often if it gets wet or dirty.
- Some people like to wear a binder to hold the tube closer to their skin. If you wear a binder, check your skin under the binder every day. (See “When to Call” on page 10.)
- If you have a plastic disc, use a cotton swab (Q-tip) to gently clean under it. Keep the area around the tube and under the disc clean and dry.
- You may have some mild pain and redness where the tube comes out of your skin.

## Gastrostomy Tube Flushing

We will teach you how to flush your tube before you go home.

- After using your tube for medicines or tube feedings, flush it with 60 cc (2 oz.) of water.
- If you do not plan to start using the tube right away, you must flush it at least 3 times a day with 60 cc (2 oz.) of water to keep it from clogging.

## Tube Feedings

- If you are starting tube feedings right away, you will meet with a dietitian before you leave the hospital. The dietitian will decide what formula you will use for your feedings. We will give this information to your home infusion provider.
- Your home infusion dietitian or home nurse provider will teach you how to do the tube feedings. This teaching may start in the hospital or after you go home.

## Medicines

- Resume taking your medicines as soon as you start to eat, or you can use the tube for feedings and medicines. Take only the medicines that your doctors have prescribed or approved.
- If you need to crush medicines to put into your tube, your prescribing provider will need to review them, to make sure it is OK to take them this way. If you are taking extended-release or slow-release pills, they should not be crushed. Your provider may need to prescribe another type of medicine.

## When to Call

Once you start your tube feedings, if you get sudden belly pain while infusing:

- Stop the infusion **right away**.
- Call Interventional Radiology (see “Who to Call” on page 11).

Call one of the numbers under “Who to Call” on page 11 if you have:

- Bleeding around the tube site
- Belly pain with flushing or tube feedings
- Drainage from your incision
- Fever higher than 101°F (38.3°C)
- Chills

- Shortness of breath that is getting worse
- New chest pain
- Dizziness
- Vomiting
- Problems with the tube:
  - Trouble flushing it
  - It seems blocked
  - It comes out more than 1 to 2 inches from its original placement
  - It falls out

**If the tube falls out, bring it to the nearest emergency department**

### Urgent Care

**Call 911 and go to the nearest emergency room right away if you have:**

- Chest pain
- Trouble breathing
- Slurred speech
- Balance problems, or trouble using your arms or legs

### Who to Call

- Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Nurse Coordinator at 206.598.6209.
- After hours and on weekends or holidays, call 206.598.6190 and ask to page the Interventional Radiology Fellow on call.

### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC - Montlake Imaging Services: 206.598.6200

UWMC - Northwest Imaging Services: 206.668.4240