Percutaneous Gastrostomy / Gastrojejunostomy Tube

"G-tube" or "GJ tube"

This handout explains a "G-tube" and what to expect when you have one.

What is a gastrostomy tube?

A gastrostomy is a *catheter* (small plastic tube) that enters the stomach through the skin of the upper abdomen. The end of the tube sits in the stomach. Another type of tube enters the stomach first and then goes into the small intestine (*gastrojejunostomy*).

A gastrojejunostomy has 2 separate hubs on the end of the catheter for you to infuse fluids. These catheters provide a way to deliver nutrition or drain the stomach if your intestines are blocked.

Gastrostomy tubes are kept in place until they are no longer needed. They are easily removed. But, while they are in place, they may need to be changed to avoid clogging.

How are gastrostomy tubes placed?

There are 3 ways to place the catheter:

- A surgeon can place the tube in the operating room.
- A doctor who specializes in digestive diseases can place the tube using a scope that goes from the mouth down into the stomach (*percutaneous endoscopic gastrostomy, PEG tube*).
- An *interventional radiologist*, a doctor or advanced practice provider who specializes in procedures done with X-ray guidance, places the tube. This is the method that your doctor believes is the safest and most effective way for you.

Are gastrostomy tubes safe?

Overall, gastrostomy tubes are very safe devices. The potential benefits far outweigh the risks.

Minor problems after gastrostomy tube placement are common. They include:

- The catheter may get clogged, or it may partly or completely come out. Most clogged catheters can be fixed. Sometimes, the tube needs to be replaced. If the catheter comes partway out, call your provider and do not use it until your provider tells you it is OK to use.
- An infection may occur where the catheter goes in the skin. Most catheter site infections can be treated with antibiotics. Sometimes, further treatment is needed.
- G-tubes and GJ-tubes can break over time. We recommend replacing them every 6 to 12 months.



The most serious problems from this procedure are:

- Bleeding: Major bleeding is rare (less than 1% of patients, or 1 out of 100).
- **Peritonitis:** Peritonitis is an inflammation of the membrane that lines the inside of the abdomen and internal organs. It occurs in about 1 to 2% of patients (1 or 2 out of 100). It is a life-threatening condition that needs surgical treatment right away. Due to the risk of peritonitis, your tube will need to remain in place for at least 6 weeks prior to removal.

Your doctor or advanced practice provider will talk with you about your risks of having a gastrostomy tube placed. Please make sure all your questions and concerns are addressed.

Before Your Procedure

A nurse will call you within 5 days of your procedure. The nurse will give you important instructions and answer any questions you have.

- If you do not understand English well enough to understand the instructions from the nurse or the details of the procedure, **tell us right away**. We will arrange for a hospital interpreter to help you. A family member or friend cannot interpret for you.
- Most patients need blood tests done before this procedure. Sometimes, we do this when you arrive for your procedure. We will let you know if we need a blood sample before that day.
- The colon often lies in front of the stomach. To make sure we do not damage your colon, on the day before your procedure, you must drink a liquid that fills your colon so that we can see it with X-rays. Follow the instructions under "Day Before Your Procedure" below.
- If you take any blood-thinning medicines (such as Coumadin, Lovenox, Fragmin, or Plavix), you may need to stop taking the medicine for 3 to 9 days before the procedure. You will receive instructions about this. **Do NOT stop taking your medicine unless you are told to do so.**
- If you have diabetes and take insulin or metformin (Glucophage), you will receive instructions about holding or adjusting your dose.
- You must arrange for a responsible adult to drive you home after your procedure and stay with you the rest of the day. You cannot drive yourself home or take a bus, taxi, or shuttle alone.

Sedation

Before your procedure, you will be given a *sedative* (medicine to make you relax) through an *intravenous line* (IV) in one of your arm veins. You will stay awake but feel sleepy. This is called *moderate sedation*. 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, a member of the anesthesia team will evaluate your health and decide the appropriate level of sedation for your 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

- Cannot lie flat for about 1 hour because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

Day Before Your Procedure

At 6:00 pm: Drink 1 bottle of contrast (a non-toxic fluid that contains iodine). If you have an allergy to iodine, notify the Interventional Radiology department or alert the pre-procedure phone call nurse.

The Day of Your Procedure

To prepare for sedation, follow these instructions exactly:

Starting at midnight, the night before your procedure

- Do not eat or drink anything.
- Do not take any of the medicines that you were told to stop before this procedure.
- If you must take medicines, take them with only a sip of water. Do not skip them unless your doctor or nurse tells you to.
- Do not take vitamins or other supplements. They can upset an empty stomach.

When you go to the hospital, bring a list of all the medicines you take.

Please plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people who have unexpected and urgent health issues. Thank you for your patience if this occurs.

At the Hospital

A staff member will give you a hospital gown to put on and a bag to put your belongings in. You may use the restroom at that time.

A staff member will take you to a pre-procedure area. There, a nurse will do a pre-procedure assessment. A family member or friend can be with you in the pre-procedure area.

An IV line will be started. You will be given fluids and medicines through the IV.

Your interventional radiology doctor or advanced practice provider will talk with you about the procedure, answer any questions you have, and ask you to sign a consent form, if you have not already done this.

Your Procedure

- The nurse will take you to the radiology suite. This nurse will be with you for the entire procedure.
- If needed, an interpreter will be in the room or will be able to talk with you and hear you through an intercom.
- You will lie on a flat table that allows the doctor to see into your body with X-rays.
- Wires will be placed on your body to help us monitor your heart rate.

- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- A radiology technologist will clean your skin around your neck and chest with a special soap. The technologist may need to shave some hair in the area where the doctor will be working, Tell this person if you have any allergies.
- To do this procedure, we need to fill your stomach with air. A tube will be placed through your nose down into your stomach. This step is uncomfortable but should not be painful. You may briefly feel that you need to vomit, but that feeling will go away after the tube passes through your throat. You may feel bloated when the air is injected.
- If the contrast you drank the day before has not reached your colon, we may have to delay your procedure.
- If we find that your colon or liver completely blocks our way into your stomach, the procedure will be cancelled. The gastrostomy will have to be done in some other way.
- The entire medical team will ask you to confirm your name and will tell you what we plan to do. This is for your safety.
- Then, your nurse will give you medicine to make you feel drowsy and relaxed before we begin.
- After we know that it is safe to place the tube through your skin and into your stomach, we will inject a local *anesthetic* (numbing medicine) into your skin under your ribcage. The anesthetic will burn for about 5 seconds but then the area will be numb. After that, you should only feel pressure, but no pain.
- The interventional radiologist will insert several metal clips into your stomach to close off the area. This is done to lower your risk of infection.
- The gastrostomy tube is then inserted. It will be held in place with a small internal balloon and a plastic disk.
- The procedure takes about 30 minutes to 1 hour.

After Your Procedure

We will watch you closely for a short time in the Radiology department. When you are ready to leave Radiology:

- If you are an outpatient, you will go to another unit in the hospital. A nurse on that unit will monitor you.
- If you are an inpatient, you will return to the unit you were on before the procedure.
- If you are an outpatient, you will be able to leave the hospital when we know your tube is working well, and when you are fully awake and can eat and walk. We will examine your abdomen 4 hours after the gastrostomy tube is placed. The tube may be used after that exam.
- Problems after this procedure are rare. But if they occur, you may need to stay in the hospital so that we can keep watching you or treat you.
- Before you leave the hospital, your nurse will tell you what activities you can do, how to take care of your gastrostomy tube, and other important instructions. It is a good idea to have a family member or friend with you when your nurse gives you these instructions. This person can help you remember the instructions later.

When You Get Home

- You may not eat or drink for 4 hours after the procedure. Anything that passes through your stomach could increase the risk of abdominal inflammation (*peritonitis*), which can be life-threatening.
- Keep the tube site dry for 48 hours. After that, you may shower. Avoid sitting in a bath or hot tub and do not go swimming while you have the tube.
- Use a Q-tip to gently clean under the plastic disc. Keep the area clean and dry. You may cover it with a soft bandage if it is still oozing.
- When the area has healed, you no longer need to cover it with a bandage. This should take about 4 to 6 weeks.
- You may have some mild pain and redness where the catheter comes out through your skin. If the pain, tenderness, or redness gets worse or pus comes out, call the IR department. See the phone numbers on the last page of this handout.
- Resume taking your medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.
- If the *T*-fasteners (these look like buttons) haven't fallen off within 14 days, please call interventional radiology for T-fastener removal.

When to Call

Call the number below right away if:

- There is bleeding from or around the tube
- You have a fever higher than 101°F (38.3°C) or chills
- You have abdominal pain that is worse when food is given through the tube
- Your tube falls out or seems to be partway out
- You are vomiting

Who to Call

University of Washington Medical Center and Northwest Hospital

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department:

- Montlake: 206.598.6209, option 2
- Northwest: 206.598.6209, option 3

Harborview Medical Center

Weekdays from 8 a.m. to 4:30 p.m., call the Interventional Radiology Department at 206.744.2857.

Questions?

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

UWMC – Montlake: 206.598.6209, option 2

UWMC – Northwest: 206.598.6209, option 3

Harborview Medical Center: 206.744.2857

After hours and on weekends and holidays: Call 206.598.6190 and ask to page the Interventional Radiology resident on call.