Gastrostomy Tube - Home Management and Site Care - Discharge Care - SCH

Gastrostomy Tube (GT) Handout for Home

I. Your child’s GTube Fact Sheet

• Your child’s tube was placed on: (date)
• Your child’s tube is a
  • [ ] MIC-GT Fr ml
  • [ ] PEG Fr
• Your child’s tube was placed by:

<table>
<thead>
<tr>
<th>[ ] Pediatric Gastroenterology (GI) Service</th>
<th>[ ] Pediatric Surgery Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office: (650) 723-5070</td>
<td>Office: (650) 723-6439</td>
</tr>
<tr>
<td>Fax: (650) 498-5608</td>
<td>Fax: (650) 725-5577</td>
</tr>
<tr>
<td>Clinic location: 730 Welch Road, 2nd Floor</td>
<td>Clinic location: 730 Welch Road, 2nd Floor</td>
</tr>
<tr>
<td>Medicine Specialties</td>
<td>Surgical Specialties</td>
</tr>
<tr>
<td>Appointments: (650) 736-7642</td>
<td>Appointments: (650) 724-4270</td>
</tr>
<tr>
<td>Page Operator for on-call MD: (650) 723-6661</td>
<td>Page Operator for on-call MD: (650) 723-6661</td>
</tr>
</tbody>
</table>

** Call this service if you have problems/emergencies before the follow-up visit, such as tube dislodgement, infection, nutrition questions

• Follow-up appointments:
  1. Set up follow up visit 2 wks after discharge with GI clinic or whoever manages your child’s nutrition (i.e. pediatrician, CF clinic or genetics service).
  2. If the tube was placed by the Surgery service, set up follow up visit 3 months after discharge with Surgery clinic for a tube change.

• Feedings/Supplies for Home:
  1. Meet with a nutritionist for recommendations on the type of formula to use and how much to give before you go home. Your primary service may change these recommendations as needed.
  2. Meet with a case manager to set up home care feeding supplies
     • Home care company (name):
     • Phone number:
II. What do you need to do before going home?

| 1. Back-up GT of correct type and size | If MIC-Key GT button:  
| | • MIC-Key button boxed kit (same size as the current button).  
| | If MIC-GT or PEG:  
| | • 14 Fr, 5mL MIC-GThigh profile tube as back-up.  
| | • 5 mL slip-tip syringe to inflate retention balloon.  
| 2. Home feeding Supplies | • Know who your home care company is; it will send supplies and formula to your home.  
| | • You must contact your home care company at least 1-2 weeks before supplies run out to re-order.  
| 3. Follow up appointments set up with appropriate services | At 2 weeks:  
| | • Follow-up with GI clinic or primary service to assure appropriate nutrition & supplies.  
| | At 3 months:  
| | • If surgical GT, clinic follow-up with Pedi Surgery for a first tube change.  
| 4. Reference material | Copy of this Gastrostomy Tube (GT) Handout for Home  
| | Websites:  
| | - (English) www.mic-key.com  
| | - (Spanish) www.gastrostomia.cl  

IIla. What to you need to do if the tube falls out?

| MIC-Key buttons or MIC-GTs placed by Pediatric Surgery | What to do  
| In place for less than 6 weeks | • Go to the Emergency Department with your back-up GT.  
| | • May put the back-up tube into opening and tape in place to keep opening patent if ER far away.  
| | • Do not infuse anything until the correct placement confirmed by x-ray dye study.  
| In place for greater than 6 weeks | • May replace tube following instructions below.  
| | • If tube is at all difficult to replace, do not use until placement confirmed with dye study.  

### PEG Tubes placed by Pediatric Gastroenterology

<table>
<thead>
<tr>
<th>What to do</th>
</tr>
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</table>
| • Go to the Emergency Department with your back-up GT.  
  • May put the back-up tube into opening and tape in place to keep opening patent if ER far away.  
  • Do not infuse anything until the correct placement confirmed by x-ray dye study. |

<table>
<thead>
<tr>
<th>What to do</th>
</tr>
</thead>
</table>
| • May replace tube following instructions below.  
  • If tube is at all difficult to replace, do not use until placement confirmed with dye study. |

### IIIb. What to do if tube falls out

You must confirm correct placement of G-tube with every single G-tube change, no matter how long tube has been in place!

- Usually, you would confirm placement of new tube by withdrawing gastric secretions (may need to change child’s position to be able to do this).
- However, it is important to check placement of new tube using X-ray dye study before it is used if:
  - the dislodged tube was pulled out with force to cause bleeding, inflammation pain and/or  
  - the tube had been out of the stoma for an extended period of time and/or  
  - the stoma opening has considerably narrowed or closed and/or  
  - the new tube did not slide in easily and you had to manipulate or dilate the stoma opening and/or  
  - the child “complains” or acts like he/she in pain when you infuse formula or fluids

- **If any of the above occurs, STOP!!!!!**
  - The tube might be in the peritoneal space (sterile space between stomach and abdominal wall).  
  - Do not infuse anything else through the tube until placement is confirmed by X-ray dye study.

**GT OPENING CAN CLOSE WITHIN 1 HOUR, SO YOU MUST SEEK CARE IMMEDIATELY!!!**
IV. Special considerations for new G-tubes

<table>
<thead>
<tr>
<th>Activity</th>
<th>MIC-GTs, PEGs &amp; Malecots</th>
<th>MIC-Key Button</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not place on stomach for 6 weeks.</td>
<td>Okay to place on stomach after 1 week.</td>
<td></td>
</tr>
</tbody>
</table>

Showering

- Sponge bath only for first 48 hours.
- After 48 hours, may shower or splash.
- Sponge bath only for first 48 hours.
- After 48 hours, may shower or splash.

Bathing and swimming (Soaking)

- Okay after 6 weeks and any time after switching to MIC-Key button.
- Okay after 1 week.

First change of the tube

- MIC-GT or Malecot: After 6 weeks.
- PEG: after 12 weeks.
- After 3 months.

Venting

See the notes and instructions below.

Medications

See the notes and instructions below.

Feedings

See the notes and instructions below.

V. Instructions on how to vent, give medications and give feeds through the GT

A. Venting: Venting is allowing air to escape out of the stomach through the gastrostomy opening. Usually, there is no need to vent the GT unless ordered by the provider. For example, if your child had a Nissen Fundoplication along with the GT, it may be necessary to vent the tube as a way to “burp” your child since he/she will not be able to do so with the fundoplication in place. To vent:

1. Pinch the GT tubing while you connect the 60 mL catheter tip syringe (with the plunger removed) to the extension tube.
2. Hold the syringe upright and allow air and stomach contents to escape up the tube into the syringe.
3. Once the air in the stomach comes out, allow stomach contents to flow back down into the stomach. Do not throw away the stomach contents as it has electrolytes that your child needs.
4. Once the tubing is empty, pinch it, disconnect the syringe and close the tubing.
5. Call you MD/Nurse Practitioner (NP) if you need further instruction.

B. Medications: Any medication that can be given by mouth can be given through the G-tube if is in liquid form. If the medication is a pill or capsule, it will need to be ground up or taken apart and diluted with a small amount of juice, formula or water before putting through GT. Before crushing or taking apart any pill or capsule, please check with the prescribing provider because some medications may become inactive when crushed or can clog a tube.

1. Flush the tube with 5-10 mL of water before putting medications through.
2. Infuse the medication through the tube
3. If more than one medication is given at a time, flush with 5 mL of water between each medication.
4. Do not mix medications with the feedings because if the feed has to be stopped for whatever reason, your child will not get all of his/her dose.
5. Always flush with 10-20 mL of water after giving the medications to completely clear the tube.
6. Disconnect the tube and flush with warm soapy water, rinse with clean water, then allow to dry.

**Note:** The above volume of water used for flushing is recommended; however, if the child is fluid restricted, refer to your MD/NP.

**C. Feedings:** Your child’s GT feeds will usually begin 24 hours after the tube is placed. An order by the provider is needed for this. The type of feeds will be decided by your primary team with input from you. A nutritionist may see your child in the hospital and make recommendations on the amount and/or type of formula and fluids. Depending on your child’s ability to eat, he/she may receive all his/her foods and fluids by tube or some of it by mouth as well. Your child may receive feedings of a certain amount several times a day (called bolus feedings) or by using a machine that pumps the feeds slowly throughout part of or all day or night (called continuous feedings or pump feedings). If your child is able to continue to eat by mouth, your doctor or nurse practitioner will make recommendations on how to do that safely. See Fact Sheet (page 2) for specific feeding recommendations for your child.
VI. Routine care of the gastrostomy tube and site
<table>
<thead>
<tr>
<th>Daily</th>
<th>Instructions</th>
<th>How often</th>
<th>Rationale</th>
<th>Materials</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure the GT</td>
<td>For NEW GTs less than 2 weeks and as needed.</td>
<td>• Keep the GT device in good position. • Decrease pull or tension on the GT device, which can cause skin irritation or increase growth of granulation tissue.</td>
<td>1. 2x2 gauze 2. Tape 3. Skin barrier (hydrocolloid) - optional</td>
<td>• Apply the split gauze between the GT device and skin. • Apply one strip of tape on each side of GT device • Tape the tubing to the abdomen. Avoid pulling or applying too much tension on the GT device. • Change gauze twice a day or when wet.</td>
<td></td>
</tr>
<tr>
<td>Rotate button or crossbar on PEG</td>
<td>Once a day.</td>
<td>Prevent adhesion of the tube to the skin.</td>
<td>No need to apply antibiotic cream unless ordered by MD/NP.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean site</td>
<td>2 times/day and as needed.</td>
<td>• Prevent infection. • Keep the site clean.</td>
<td>1. Mild soap 2. Water or normal saline 3. Clean cotton swabs, gauze or cotton</td>
<td>• Do not use hydrogen peroxide unless MD/NP order. • Dry skin well with gauze or cool hair dryer after rinse.</td>
<td></td>
</tr>
<tr>
<td>Check site for signs of infection</td>
<td>2 times/day with cleaning.</td>
<td>Check for signs of possible infection: redness, pain, swelling, blood, pus, and/or bad odor.</td>
<td>Do each time you clean or start/stop feed.</td>
<td>Notify MD/NP if there are problems.</td>
<td></td>
</tr>
<tr>
<td>Clean MIC-Key extension tubing</td>
<td>After every feeding.</td>
<td>• Prevent build-up inside extension tube. • Extend the life of extension tube.</td>
<td>1. 60 mL syringe with plunger 2. Warm soapy water 3. Warm, clean water to rinse</td>
<td>• Disconnect extension tubing from child. • Fill syringe with warm soapy water &amp; flush through tubing several times to clean. • Fill syringe with warm clean water and flush through several time to rinse.</td>
<td></td>
</tr>
<tr>
<td>If GT falls out</td>
<td>This is why your child should always have a back-up tube with him/her.</td>
<td>• Depends on how the tube was placed and how long it has been in place.</td>
<td>Back-up GT.</td>
<td>Opening can close within 1-2 hours, so you must seek care immediately! See instructions in Section III.</td>
<td></td>
</tr>
</tbody>
</table>
Every 2 Weeks

<table>
<thead>
<tr>
<th>Instructions</th>
<th>How often</th>
<th>Rationale</th>
<th>Materials</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change out MIC-Key extension tubes</td>
<td>Replace every 2-3 weeks or sooner if cracked</td>
<td>Over time, tubing can get stiff and crack more easily</td>
<td>Extension tubing</td>
<td>● After each feed, disconnect extension tubing from child, ● Flush tubing with warm, soapy water ● Flush again with clean water ● Allow to dry</td>
</tr>
</tbody>
</table>

Once a Month

<table>
<thead>
<tr>
<th>Instructions</th>
<th>How often</th>
<th>Rationale</th>
<th>Materials</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check the fluid in the retention balloon.</td>
<td>Once a month. Start 6 weeks after initial GT placement.</td>
<td>Maintain balloon volume at 3-5 mL, up to a maximum of 8-10 mL as instructed by your MD/NP.</td>
<td>1. 6 ml syringe 2. Water or normal saline</td>
<td>See more specific instructions below.</td>
</tr>
</tbody>
</table>

Once Every 3 Months

<table>
<thead>
<tr>
<th>Instructions</th>
<th>How often</th>
<th>Rationale</th>
<th>Materials</th>
<th>Special Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change out GT button</td>
<td>Once every 3 months or when needed.</td>
<td>After a while, the secure lock loosen and could leak. With time, balloon has higher risk of breaking.</td>
<td>1. 6 ml syringe. 2. Water or normal saline 3. KY Jelly or other water soluble lubricant</td>
<td>See more specific instructions below.</td>
</tr>
</tbody>
</table>

VII. How to change a MIC-Key button or MIC-GT (PEGs should always be replace by a physician)

A. Equipment

1. Gastrostomy tube of appropriate type and size
2. Gloves
3. Water-soluble lubricant
4. Two 6 mL syringes
5. 60 mL catheter tip syringe
6. Normal saline or water (tap, distilled or sterile)
7. Gauze 4x4

B. PROCEDURE FOR REPLACING DISLODGED TUBE

1. Gather supplies and wash hands.
2. If applicable, remove the old GT:
   1. attach a slip-tip syringe to the balloon port
   2. withdraw the water from the retention balloon
   3. gently pull the tube out of the stoma
   4. cover the opening with gauze using light pressure to prevent excessive leakage of stomach contents.
3. Remove the new GT from the package and inflate the balloon with 5 mL normal saline or water. Check for leaks. Deflate the balloon.
4. Lubricate the tip of the new GT with water-soluble lubricant.
5. Gently slide the new tube into the stoma.

6-1 MIC-Key GT button (low-profile):

1. Insert the tube all the way until the bottom of the button is flush against the skin.
2. Hold the tube in place and inflate the balloon with 3-5 mL of clean water or normal saline. Do not use air.
3. A dime should be able to slide in between the bottom of the button and top of the skin.

6-2. MIC-GT (high-profile)

1. Insert tube about one inch into the tract.
2. Hold tube in place and inflate balloon with 3-5 mL of clean water or normal saline. Do not use air.
3. Pull the tube upward very gently until it stops. This positions the balloon against the wall of the stomach.
4. Slide the disc down until it is flush with the skin. May apply a small piece of tape around the tubing just above the disc to prevent the disc from sliding up the tubing.
5. This will secure the GT and maintain the tubing at about 90° angle.

7. Check the tube for correct placement

(For a MIC-Key button, make sure to attach the extension tubing before withdrawing stomach contents)

1. Connect a 60 mL syringe to tubing and pull on the plunger to withdraw 5 mL of fluid from the stomach. Replace the stomach contents (it has chemicals that your child needs).
2. Draw 5 ml of air into empty syringe. Place stethoscope over left side of the abdomen and listen for low gurgling noise as you inject the air into the GT.

8. Note the date you changed the tube and how much water you put into the balloon.
VIII. What’s normal and not normal
<table>
<thead>
<tr>
<th>Issue</th>
<th>Normal</th>
<th>NOT normal</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site drainage</td>
<td>• A little clear or light yellow/green mucous drainage.</td>
<td>• Drainage is thick pus or foul-smelling.</td>
<td>• Notify the MD/NP for evaluation.</td>
</tr>
<tr>
<td></td>
<td>• When this dries, it becomes a light brown crust which should be</td>
<td>• Any of above could mean infection.</td>
<td>• May use split 2x2 gauze to collect small amounts of drainage as needed.</td>
</tr>
<tr>
<td></td>
<td>cleaned with a moist cotton swab or cloth as needed.</td>
<td></td>
<td>Recommend changing the gauze 4 times a day or when wet.</td>
</tr>
<tr>
<td>Leakage of stomach</td>
<td>Scant amounts infrequently.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>contents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Redness</td>
<td>Mild pinkness may be a sign of rubbing of the tube or irritation from</td>
<td></td>
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<tr>
<td></td>
<td>the acidic drainage from the stomach.</td>
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<tr>
<td>Swelling/ Hardness</td>
<td>Not normal.</td>
<td>May be a sign of an infection, especially if with fever or pain.</td>
<td>Notify MD/NP.</td>
</tr>
<tr>
<td>around site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bleeding</td>
<td>Small amount of bleeding is not uncommon with a tube change. It</td>
<td>May be a sign of local irritation from the tube or a sign of irritation</td>
<td>If not sure or bleeding persists, notify the MD/NP.</td>
</tr>
<tr>
<td></td>
<td>should stop quickly with pressure on the site.</td>
<td>inside the stomach.</td>
<td></td>
</tr>
<tr>
<td>Granulation tissue</td>
<td>The tube prevents the stoma tract from closing and excess tissue</td>
<td>Tissue build up can also occur due to improper fit of the GT or repeated</td>
<td>Notify the MD/NP. Medications such as silver nitrate or steroid cream may be prescribed to</td>
</tr>
<tr>
<td>(build-up of wet, soft,</td>
<td>begins to build up and out from the stoma tract.</td>
<td>tugging or rotation of device.</td>
<td>remove or keep the tissue build up under control.</td>
</tr>
<tr>
<td>shiny, pink or red</td>
<td>Tissue can bleed a small amount.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tissue around stoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>site; aka scar tissue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clogged Tube</td>
<td>Best prevented by flushing the tube with water before and after each</td>
<td></td>
<td>Notify your MD/NP for further advice</td>
</tr>
<tr>
<td></td>
<td>feed or medication.</td>
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</tbody>
</table>
### IX. Summary of when to call MD/NP

**Important to call your doctor or nurse practitioner if:**

- Tube site is red and painful.
- Redness around tube site is greater than 2.5 cm in diameter.
- Hardness or swelling around the tube.
- Bad odor from the tube site.
- Lots of green/yellow drainage around site.
- Fever (> 101.5°Fahrenheit) with any of the above.
- Drainage continues even after you add more water to the balloon to tighten the fit.
- Bleeding at the GT site that won’t stop.
- Vomiting, abdominal pain, constipation or diarrhea.
- Tube has been in place for less than 6 weeks and it falls out.
- Tube is blocked and blockage continues even after flushing with warm water.
- Difficulty replacing dislodged Gtube.
- Significant skin breakdown around Gtube.

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<table>
<thead>
<tr>
<th>Skin breakdown at G-tube site</th>
<th>Not normal.</th>
<th>Can indicate infection, ill-fitting tube, etc.</th>
<th>Notify MD/NP. May apply split 2x2 gauze to protect site, change twice a day and as needed. MD/NP may contact LPCH Peds Wound Ostomy Care Nursing Service.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloating and retching</td>
<td>Not Normal.</td>
<td>• May be a sign of increased gas in the stomach. Child may need to “burp.” • May vent tube to help burp child.</td>
<td>• High profile, PEG GTs: Attach a 60 mL catheter tip syringe (plunger removed) to the feeding port and unclamp the tube to allow air to escape. • Mic-Key button: Attach the large bore to make it easier for air to escape. • Call MD/NP if venting does not reduce bloating or gas.</td>
</tr>
<tr>
<td>Constipation, vomiting, diarrhea or dehydration</td>
<td>May occur due to a variety of factors.</td>
<td>• Not normal, especially if it persists. • May vent GT to help decrease discomfort.</td>
<td>Notify MD/NP for evaluation.</td>
</tr>
</tbody>
</table>
X. Glossary of Terms

**Aspiration**: Accidentally inhaling liquid into the windpipe and/or lungs. Can also mean withdrawal of liquid contents using a syringe.

**Bolus**: Large amount of formula delivered through the tube periodically.

**Case Manager**: Nurse who coordinates home care and discharge needs.

**Central Supply**: Department with LCPH that distributes medical supplies to patients on the units.

**Connector tube**: Also known as "extension tube" - connects with GT button to open and unlock the valve so that feeds and medications can be given or stomach can be vented.

**Continuous feeds**: Small amounts of formula or breastmilk given uninterruptted throughout the day or night or an extended pre-determined amount of time, usually via a pump.

**Crossbar**: Usually comes with the PEG to bolster the tube and prevent it from slipping into the stomach.

**Enteral**: Of or related to feeding through the mouth, stomach or intestines. (Versus parenteral which refers to feeding through the veins).

**Extension tube**: See "connector tube".

**Gastrostomy**: A surgical opening (stoma) through the skin into the stomach.

**Gastrostomy tube**: (Also known as a feeding tube, GT, G button) a tube that passes through the skin into the stomach.

**Granulation tissue**: Fleshy, wet-appearing tissue formed on the surface of the stoma that will later form scar tissue.

**Hydrocolloid dressing**: Examples are Comfeel, PlusUlcer, Duoderm) type of dressing that is absorbent, self-adhesive, waterproof wafer to protect the skin.

**Micromedex**: On-line information system at LPCH.

**PEG**: Percutaneous endoscopic gastrostomy tube.

**Retention balloon**: The balloon on most Gtubes that can be inflated with water to hold the balloon in place (aka Gtube balloon, balloon).

**Split gauze**: Absorbent gauze with a cut in the middle, used to put around a tube to collect drainage or protect the skin from abrasion.

**Stoma**: Surgical opening through which the feeding tube can enter the body.

**Syringe bolus**: Large amount of formula delivered by syringe (ie 60 ml catheter tip syringe without piston) through the tube periodically via gravity flow.

**Venting**: Allowing air or fluid to escape from the stomach through the Gtube.

XI. References


Original Date: 5/04
Revision Date: 9/08
Names of Authors: Claire Abrajano, PNP & Kaylie Nguyen, PNP

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