GASTROSTOMY (G-TUBE) FEEDING TUBE CARE

This book belongs to:

_____

Blank Children's Hospital
UnityPoint Health

Table of Contents

General Information

Feeding Tube Type: ☐ G-Tube ☐ G/J-Tube

Feeding Tube _____

Tube Size _____ Extension Size _____

Medical Equipment/Supply Company (DME) _____

Phone Number _____

Reminder: Order supplies monthly on the _____ day of the month. Order replacement feeding tube every three months.

Home Health Contact Person _____ Phone Number _____

Pediatrician (Family Doctor) _____ Phone Number _____

Gastroenterologist (Stomach Doctor) _____

Phone Number _____

Pediatric Surgeon _____ Phone Number _____

Dietitian _____

Fire/Ambulance Service _____

Nearest Hospital _____

Other information _____

_____

_____

INTRODUCTION

Proper nutrition is essential to maintaining our bodies' health, growth, and ability to heal. Sometimes, an illness and/or surgery may interfere with a person's ability to eat. In these situations, nutrition must be supplied differently. One option is enteral nutrition, also known as tube feeding. An understanding of the digestive system will help you better understand why tube feedings are important.

The digestive system, also known as the gastrointestinal (GI) system, extends from the mouth to the anus. It includes the mouth, throat, esophagus, stomach, small intestine, large intestine, rectum, and anus. As food passes through the digestive system, it is broken down into nutrients your body can absorb.

Digestion begins in the mouth, where food is chewed and broken down into small pieces. Swallowing allows the small pieces of food to travel down the esophagus and into the stomach. Once in the stomach, food is broken down into its main nutrients. The partially-digested food then moves into the small intestine where it is broken down even further. Most nutrients are absorbed in the small intestine. The remaining material passes into the large intestine where excess liquid is absorbed. Solid waste is expelled through the anus.

If a person cannot eat by mouth, but his/her stomach or small intestine is still working, one potential way to deliver nutrients is tube feeding (enteral nutrition). Tube feeding allows a person to bypass the mouth and esophagus and deliver nutrition directly to the stomach or small intestine. The feeding tube can be placed in the nose, the stomach, or the small intestine.

TUBE FEEDING BASICS

Tube feeding uses a special medical device, sometimes called a "feeding tube", to create a direct pathway to deliver nutrition into either the stomach or the small intestine.

Feeding tubes can be used to deliver formula, real food blends, medication, and water.

Feeding tubes are named based on where they enter the body and where the nutrition is being delivered. For example, a tube that passes through the abdomen and into the stomach is called a gastrostomy tube, or G-Tube.

For some children, tube feeding may be their only source of food; for other children, tube feeding may be added to their daily food routine as a supplement.

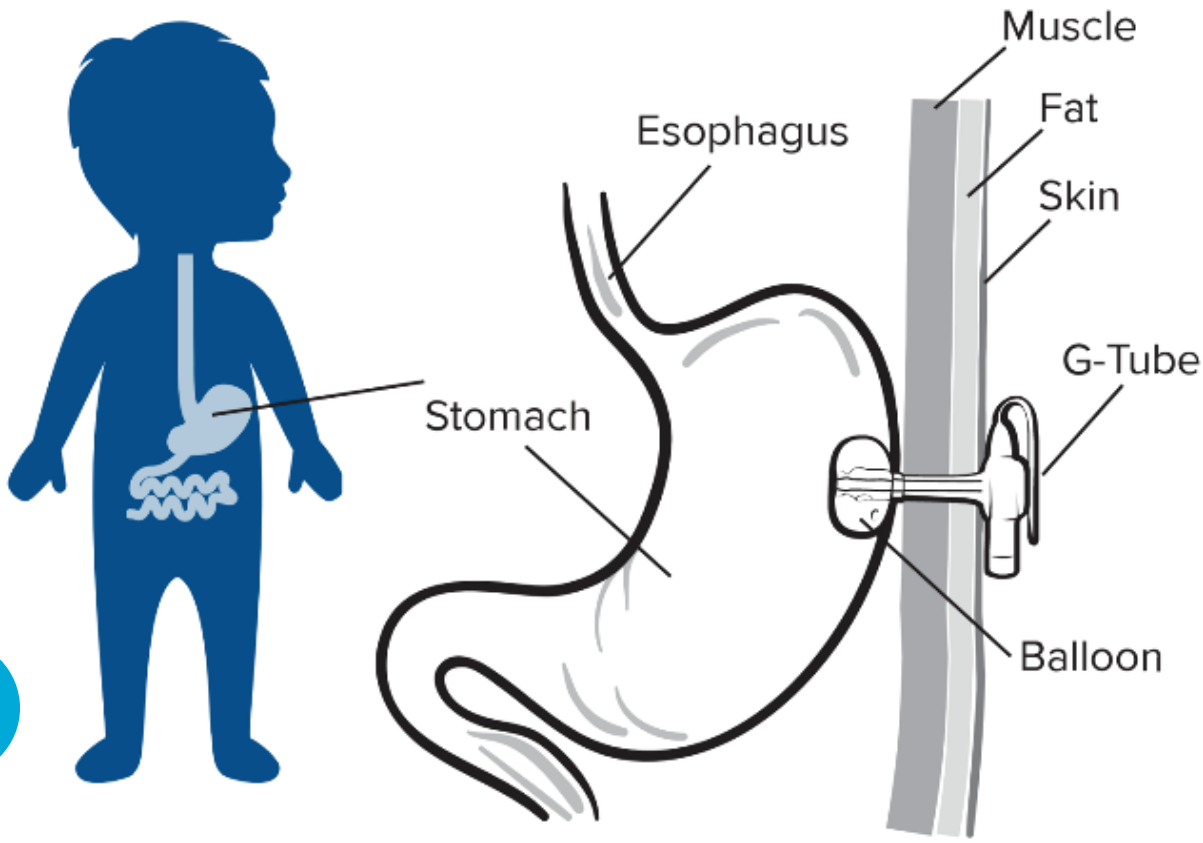
A feeding tube may be temporary or permanent.

ABOUT GASTROSTOMY SURGERY

A pediatric surgeon will place your child's G-tube in the operating room. The G-tube is placed by making a small surgical opening in the abdomen and into the stomach.

The part of the G-tube that is placed in the stomach has a balloon on the end. The balloon is filled with a small amount of water after it is in placed in the stomach. The balloon helps to keep the G-tube in place and helps to prevent leaking.

Regular, planned changes do not need to be done in the operating room. It can be done in the Pediatric Surgery Clinic or at home by a family member who has been shown how to change the tube.



General Care Information

SITE CARE:

- Clean the G-tube site with gentle soap and water 2 times a day, and as needed to keep the site from crusting
  - Gently soak or clean off all crusted areas on the tube and surrounding skin
  - After cleaning, rinse the area with warm water and pat dry
  - May use 2x2 gauze between feeding tube and skin for comfort.
- Do not use any creams or ointments around the G-tube site unless told differently by the Pediatric Surgeon or Pediatric Surgery Clinic
- Turn the g-tube several times a day to keep it from staying in the same spot
  - This helps prevent skin breakdown

*You may see thick yellow drainage for the first 4 weeks after surgery. Please call the Pediatric Surgery center if this amount increases or you notice any granulation tissue.

BATHING:

- First 2 weeks after surgery = sponge baths only (older children may shower)
  - Your child's G-tube may be submerged underwater after 4 weeks
- When your child is able to take a bath/shower, remember to:
  - Clamp the G-tube or close the valve on the button G-tube before bathing
  - Use only mild soaps and soft washcloths

POSITIONING AFTER SURGERY (BABIES UNDER 6 MONTHS):

- Before your baby can enjoy tummy time, you must stop and disconnect the feeding and the extension set.
  - After 4 days: baby may sit up or lay against your chest
  - For weeks 2-3: baby may lay on tummy with a roll under their chest for support
  - At 4 weeks: baby may lay on tummy without a roll

ACTIVITY:

- Wait until you are given the OK at your first follow-up appointment before your child takes part in activities such as crawling, jumping, and swimming
- For all activities, make sure the G-tube is carefully secured under their clothing
- A G-tube does not prevent your child from laying on their stomach or having tummy time.
  - If they say it hurts or show discomfort, you can put a foam ring or soft cloth around the G-tube to take pressure off that area

CLOTHING:

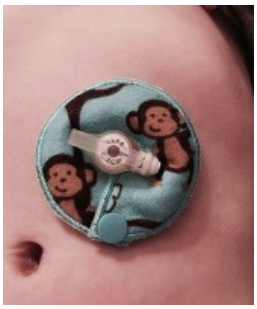
- One-piece clothing (overalls, sleepers, onesies) are helpful for younger children that may try to pull on the tube
- Older children do not need any special kind of clothing

SCHOOL:

- Tell your child's teacher and school that your child has a G-tube
- Let them know what to do and who to call in case of emergency

LEAVING HOME:

- Your child can travel with a G-tube.
- Always make sure to bring extra supplies in case of emergency (including a replacement G-tube)
    - Suggestions for your feeding tube travel kit:
        - Extra feeding tube kit
        - All connection tubing and syringes
        - Feeding pump if feedings are given by pump
        - Formula
        - Medications
        - Water for flushing after feedings/medications
        - 2x2 split gauze or other padded barrier if needed
        - Site cleaning items



GENERAL CARE TIPS:

- Always flush the G-tube with 5mL water before and after every use (whether it is a feed or medication)
- If not using the G-tube daily, flush at least once per day with 5-10mL of water to prevent it from being clogged
- Remove the extension tubing set when it is not in use to keep your child from pulling and tugging at the G-tube
- Secure the G-tube under clothing if needed
- Useful products for G-tubes can be purchased through websites like Etsy or Amazon
- How often should I change the G-tube?
    - Your first G-tube change will be done in the Pediatric Surgery Clinic approximately 6 weeks after the initial surgery. **DO NOT change the feeding tube on your own prior to this 6-week visit. Attempting to do so may result in complications.**
    - The Pediatric Surgery Clinic nurses or your Pediatric Surgeon will teach you how to change the G-tube
    - The G-tube should be changed every 3 months as needed. The maximum time a tube should remain in place is 6 months.
    - You can change your feeding tube extension tube once a month
        - If the balloon stops holding water or gets a slow leak before this time, it will need to be changed. A leaking balloon will not harm your child, but as the balloon deflates, you may see more leaking from around the G-tube, or the G-tube may come out

REASONS TO CHANGE YOUR FEEDING TUBE

- Tube is too tight against the skin
- Tube is broken
- The balloon no longer holds water
- The balloon is broken

HOW TO CHECK THE BALLOON WATER?

1. Start by preparing a clean workspace
2. Wash your hands and lay out your supplies
   - Two 5mL syringes
   - Small cup of tap water
3. Fill one 5mL syringe with the amount of water your child must have in their G-tube (this is usually 3-5mL)
4. Attach the other empty 5mL syringe to the balloon port of the G-tube
5. Hold the G-tube in place and:
   - Withdraw all of the water from the balloon by pulling back on the syringe plunger
   - Disconnect the syringe and see how much water is in it
   - Make sure you are always holding the G-tube in place to prevent it from accidentally coming out
6. If the amount of water is LESS than the amount that needs to be in the balloon:
   - Connect the pre-filled syringe and push the water into the balloon

HOW TO CHANGE A BALLOON G-TUBE?

DO NOT change the feeding tube on your own prior to your 6-week visit. Attempting to do so may result in complications.

1. Start by preparing a clean workspace
2. Wash your hands and lay out your supplies
   a. 5mL syringes
   b. G-tube replacement kit
   c. Small cup of tap water
   d. Water-based lubricant
   e. Gauze, washcloth, or paper towel to clean the site
3. Open the G-tube kit
4. Draw up 3mL of tap water into a 5mL syringe (this amount may change with each child)
5. Check the balloon of the new G-tube before using
   a. Insert syringe with 3mL water into the balloon port
   b. Push water into the port to inflate the balloon
   c. Check the balloon for leak
   d. Deflate the balloon by pulling water back into the syringe
   e. Disconnect the syringe
6. Open lubricant package and insert the balloon end of the new G-tube into the packet to lubricate it

7. Attach empty 5mL syringe into the balloon port of your child's G-tube
    a. Withdraw all of the water from the balloon by pulling back on the syringe plunger
    b. Lift the G-tube straight up and out
    c. Be prepared for leakage from the G-tube site when the balloon is deflated
    d. Clean skin around the G-tube with warm water and pat dry
8. Insert new G-tube into opening and hold in place
    a. Make sure it is in all the way before inflating the balloon
    b. Attach syringe with the desired amount of water to the balloon port
    c. Push the water into the balloon port to fill the balloon inside the stomach
9. Check G-tube placement
    a. Attach the G-tube extension set
    b. Look for stomach contents to back up into the tubing
    c. Remove extension set once completed

Tube Feeding

Tube feedings may be given in a variety of ways including, gravity, with a pump, continuously, or intermittently (bolus). The way a feeding is given to your child will be determined with your medical team.

Your tube feeding formula is _____

Your formula recipe is _____

BOLUS (INTERMITTENT FEEDING)

Give your feedings _____ times each day

Each of your feedings will be _____ fluid ounces or _____ ml of formula

CONTINUOUS (ALL THE TIME)

Your child's feeding will run from _____am/pm to _____am/pm. As you become more familiar with your child's feedings, you may want to vary the feeding times. Check with your healthcare professional.

Set the pump flow rate at _____ml per hour

To assure adequate fluid intake, a total of _____fluid ounces or _____ml of room temperature water should be taken each day in addition to the formula

Flush your tube with _____fluid ounces or _____ml of water _____times per day, using a 60ml or larger syringe to gently push the water through the tube

FEEDING INSTRUCTIONS

- Gather all G-tube feeding items
  - Large catheter tip syringe
  - Feeding tube extension
  - Formula
- Check the formula amount and how often to give it
- Wash your hands before starting the feeding

Tube Feeding

Tube feedings may be given in a variety of ways including, gravity, with a pump, continuously, or intermittently (bolus). The way a feeding is given to your child will be determined with your medical team.

Your tube feeding formula is _____

Your formula recipe is _____

BOLUS (INTERMITTENT FEEDING)

Give your feedings _____ times each day

Each of your feedings will be _____ fluid ounces or _____ ml of formula

CONTINUOUS (ALL THE TIME)

Your child's feeding will run from _____am/pm to _____am/pm. As you become more familiar with your child's feedings, you may want to vary the feeding times. Check with your healthcare professional.

Set the pump flow rate at _____ml per hour

To assure adequate fluid intake, a total of _____fluid ounces or _____ml of room temperature water should be taken each day in addition to the formula

Flush your tube with _____fluid ounces or _____ml of water _____times per day, using a 60ml or larger syringe to gently push the water through the tube

FEEDING INSTRUCTIONS

- Gather all G-tube feeding items
  - Large catheter tip syringe
  - Feeding tube extension
  - Formula
- Check the formula amount and how often to give it
- Wash your hands before starting the feeding

Tube Feeding

Tube feedings may be given in a variety of ways including, gravity, with a pump, continuously, or intermittently (bolus). The way a feeding is given to your child will be determined with your medical team.

Your tube feeding formula is _____

Your formula recipe is _____

BOLUS (INTERMITTENT FEEDING)

Give your feedings _____ times each day

Each of your feedings will be _____ fluid ounces or _____ ml of formula

CONTINUOUS (ALL THE TIME)

Your child's feeding will run from _____am/pm to _____am/pm. As you become more familiar with your child's feedings, you may want to vary the feeding times. Check with your healthcare professional.

Set the pump flow rate at _____ml per hour

To assure adequate fluid intake, a total of _____fluid ounces or _____ml of room temperature water should be taken each day in addition to the formula

Flush your tube with _____fluid ounces or _____ml of water _____times per day, using a 60ml or larger syringe to gently push the water through the tube

FEEDING INSTRUCTIONS

- Gather all G-tube feeding items
  - Large catheter tip syringe
  - Feeding tube extension
  - Formula
- Check the formula amount and how often to give it
- Wash your hands before starting the feeding

Gravity Feeding

A gravity feeding may be done with either a syringe or a gravity bag.

SYRINGE FEEDING:

- Clamp the feeding tube
- Remove the plunger from the large syringe
- Attach the syringe to the feeding tube
- Slowly pour 10-15mls of formula into the syringe
- Unclamp the feeding tube
- Allow the formula to flow slowly through the feeding tube, adding more each time the amount in the syringe reached 5mls until all feeding has been given
- Flush with prescribed amount of water
- Clamp feeding tube
- Disconnect syringe

GRAVITY BAG FEEDING:

- Clamp the feeding tube
- Pour the prescribed amount of formula into the bag
- Hang bag in a secure location, such as on an IV pole
- Prime the bag tubing by unclamping the bag clamp and allowing formula to flow until it reaches the end of the bag tubing. Close clamp.
- Attach the gravity bag to the feeding tube
- Unclamp the feeding tube
- Allow the formula to flow slowly through the feeding tube
- Flush with prescribed amount of water
- Clamp feeding tube
- Disconnect gravity bag

Pump Feeding

- Clamp the feeding tube
- Pour the prescribed amount of formula into the pump bag
- Hang bag and pump in a secure location, such as on an IV pole
- Prime the bag tubing by unclamping the bag clamp and allowing formula to flow until it reaches the end of the bag tubing. Close bag clamp.
- Following manufacturer directions, put pump feeding bag tubing into pump
- Set pump rate as prescribed
- Attach the pump bag tubing to the feeding tube
- Unclamp the feeding tube
- Start the pump to allow the formula to flow through the feeding tube at prescribed rate
- When feeding is complete, stop pump
- Disconnect pump bag from feeding tube
- Flush with prescribed amount of water
- Clamp feeding tube
- Turn off pump

Following All Tube Feedings

- Wash the feeding tube supplies with soap and water.
- Rinse well with water and air dry.
- DO NOT wash the feeding tube supplies in the dishwasher.
- Most feeding bags will be replaced every 24 hours. This may vary depending on your supply company. Please work with them to make this determination.
- Remove your extension tubing follow each feed.
- Close the feeding tube after removing the extension tube

GIVING MEDICATIONS IN THE FEEDING TUBE

You may use the feeding tube to give your child medications as prescribed. The medications given to your child will be determined with your medical team.

- Flush the G-tube with _____ fluid ounces or _____ ml of water after each medication.

Special Considerations

WHAT TO DO IF YOUR G-TUBE FALLS OUT?

- This is a problem that needs urgent medical care as the G-tube opening can close very quickly.
  - Within the first 6 weeks after surgery = go to the emergency room
  - After 6 weeks from surgery = replace with your extra g-tube or the very small foley catheter you were sent home with (if comfortable)
    - If it will not go in easily, please call the Pediatric Surgery Clinic or go to the emergency room
- If this occurs during the day Monday to Friday – you may call the Pediatric Surgery Clinic and our nurses will assist you.

WHEN TO CONTACT YOUR DOCTOR?

- You can contact your doctor by phone or via MyChart.
- If your child is not tolerating their tube feeding. Signs may include increased fussiness or agitation, gagging, vomiting, diarrhea, or if your child's stomach looks larger than normal.
- Fever over 101.5°F (38.5°C)
- Bad smelling odor from G-tube
- Skin at the incision site is very warm, red or bleeding
- Increased leakage from the G-tube
- Leaking formula/food from around the G-tube
- Large amount of tissue buildup (i.e. granulation tissue)
- G-tube appears too loose or tight against the skin
  - Look for either a distinct indentation at the stoma site or a distinct gap between the device and skin
- If the feeding tube sticks out at an angle that is different than it has been
- If you experience pain with a tube feeding
- If your feeding tube can not be easily turned

TROUBLESHOOTING COMMON G-TUBE PROBLEMS

BALLOON FAILURE

a. The balloon may develop a leak and no longer keep the tube secure
b. Signs of this include the feeding tube sticks out more than normal, water volume always low, and the feeding tube does not turn freely
c. These are signs that the G-tube needs to be replaced

DRAINAGE AROUND THE G-TUBE

a. Some drainage around the G-tube is normal, especially in the first few weeks after it is put in
b. Clean the skin around the G-tube with mild soap and water 2-3times a day
c. Make sure to remove all crusted areas from the tube/surrounding skin
d. If leakage or drainage continues, is excessive (a large amount) or if the site becomes red/painful, please call your MD/contact the Pediatric Surgery Clinic

GRANULATION TISSUE

a. Granulation tissue is beefy red, friable, inflamed tissue around the G-tube
b. This is the body's way of trying to repair the surgical incision
c. If the area bleeds or there is a large amount of overgrown tissue, please contact the Pediatric Surgery Clinic

VOMITING

a. There are many possible causes for vomiting, including formula intolerance, excess gas, overfeeding, other medical conditions, viral infections (e.g. the flu), etc
b. Contact your doctor

DIARRHEA

a. There are many possible causes of diarrhea, such as the type of formula, medicines, how fast the liquid food is given and other medical conditions
b. Contact your doctor

BLOCKED G-TUBE

a. Food or medicine may build up in the tube or body fluids may crust around the opening – both of these may block the flow of your child's feeding
b. To prevent blockage, always flush the G-tube with 5mL of water before and after each feeding/medication

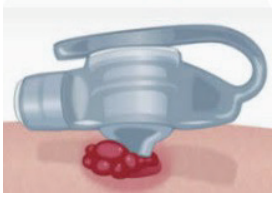


Figure 1. Granulation tissue at feeding tube insertion site

BREAKDOWN OF THE G-TUBE

a. Over time, the G-tube may break down and get harder to use
b. Sometimes the end used for feeding will break off or split or the connection becomes less secure
c. These are signs that the G-tube needs to be replaced

Blank Children's Hospital
UnityPoint Health

A department of UnityPoint Health – Des Moines – Iowa Methodist Medical Center

1200 Pleasant Street | Des Moines, IA 50309
(515) 241-5437
unitypoint.org

004713e-1 10/23