



Disclaimer:

This document is for informational purposes only and is not intended to take the place of the care and attention of your child's personal doctor or other professional medical services. Talk with your child's doctor if you have questions about individual health concerns or specific treatment options.

List of Contributors:

- Nancy Burke, RD
- Susan Carson, MS, RD
- Joan Daniels, RD
- Elizabeth Hudson, RD, PhD
- Marjorie Hagan, RD
- Debra Kovacevich, MPH, RN
- Sandhya Padiyar, MS, RD, CSP
- Megan Perkowski, MS, RD
- Heather Rowe, RD, CNSC
- Cynthia Simon, MS, RD
- Kathleen Sullivan, RD
- Jennifer Wooley, MS, RD, CNSC

Reviewer:

- Karen Hammelef, MS, RN

Sponsored by:

Kimberly-Clark

Patient Education Awards Committee (PEAC)

Design and Illustration by Lorie Gavulic, MFA

© 2013 The Regents of the University of Michigan
Last Revised: April 2013



Table of Contents

Table of Contents	Page 1
Getting Started • Contacts	Page 2
Know your Body	Page 3
Feeding Tube Placement	Pages 4 - 7
Before Feeding	Page 8
Bag, Syringe & Extension Usage	Page 9
Getting Enough Water	Page 10
Measuring Liquids	Page 11
Formula Hang Time	Page 12
Pump Tube Feeding	Page 13
Gravity Bag Tube Feeding	Page 14
Syringe-Gravity Tube Feeding	Page 15
Syringe-Push Tube Feeding	Page 16
Chimney Feeding	Page 17
Venting the Tube	Page 18
Care of Skin at Tube Entry Sites	Page 19
Care of Tube & Nose	Page 20 -21
Mouth Care	Page 22
Water Safety • Sick Days	Page 23
Taking Medications	Page 24
Problem Solving	Page 25 - 29
Definitions	Page 30 - 31

Getting Started

This manual will provide you with the information you will need to safely give your child’s tube feeding at home. Members of the health care team will teach you how to manage your child’s tube feeding to make sure you are at ease with it at home.

Your **dietitian** has chosen a formula to provide enough calories, protein, vitamins, minerals and fluid based upon what your child needs. Your **clinic or hospital nurse** will teach you how to care for your child’s feeding tube and give medication.

Your **case manager** will order the formula and the tube feeding supplies (bags, syringes, pump) you will need at home. The case manager will also contact a home nursing agency to arrange for a nurse to come to your home if further instructions are needed.

Prepared For: _____ Date: _____

Contacts

Contact the following people if you have any questions or are unclear about any instructions:

Question About:	Agency /Name:	Phone Number:
Home Care Provider (supplies)		
Visiting Nurse		
Dietitian		
Doctor		



Emergency Contact for Tube Issues

Person To Call:	Phone Number:
Emergencies	

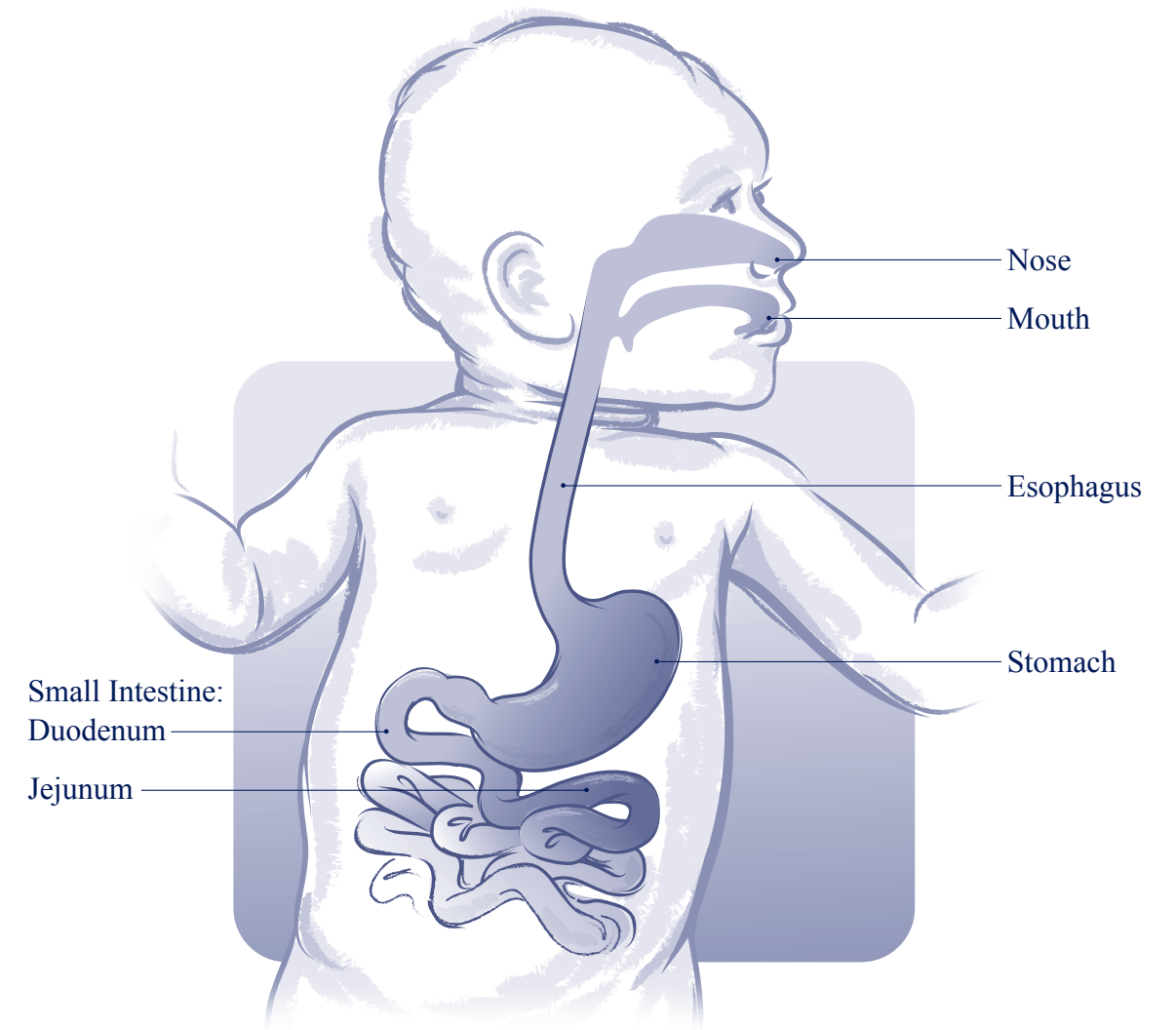
Definitions

- **GI Losses:** Any fluid from the digestive tract that leaves the body (may be from diarrhea, vomiting, G-tube drainage).
- **Granulation Tissue:** The raised, sometimes painful, red tissue which can develop at the feeding tube site.
- **Gravity Drip Method:** A method of feeding in which a feeding bag is used to infuse the formula without a feeding pump (roller clamp controls the flow of formula).
- **I.V. :** Intravenous (through the vein).
- **Jejunostomy Tube (J-tube):** A feeding tube that passes through the skin, with the tip of the tube placed in the small intestine.
- **Nasoduodenal Tube (ND):** A feeding tube that passes through the nose, with the tip of the tube placed in the small intestine (duodenum).
- **Nasogastric Tube (NG):** A feeding tube that passes through the nose, with the tip of the tube placed in the stomach.
- **Nasojejunal Tube (NJ):** A feeding tube that passes through the nose, with the tip of the tube ending in the part of the small intestine called the jejunum.
- **Nausea/Nauseated:** Stomach distress with an urge to vomit.
- **Percutaneous Endoscopic Gastrostomy (PEG-tube):** A procedure for placing a feeding tube into the stomach with the assistance of an endoscope.
- **Prime:** The process of allowing the formula to flow from the feeding bag to the very end of the line prior to connecting the bag to the feeding tube. This pushes the air out of the feeding bag line prior to starting the feeding.
- **Pump Method:** A method of feeding in which a feeding bag and an electrical pump are used to deliver a set amount of formula each hour.
- **Tube Feeding:** The process of administering nutrition to a person through a tube that is placed into their GI tract.

Definitions

- **Aspiration:** When saliva, fluid or food is inhaled into your child's lungs.
- **Bacteria:** A tiny living cell that may grow and spread illness and can only be seen with a microscope. Some bacteria can cause diseases and infections.
- **Button:** (low-profile gastrostomy): A type of G-tube that looks like a "button" on the skin. An extension piece is locked onto the button when formula, water or medication is given.
- **Chimney:** A way to feed a child so that gas can be allowed to escape through the feeding tube while the tube feeding is running.
- **Constipation:** Having no bowel movement in two days or having hard, painful stool.
- **Dehydration:** Can be caused by lack of water intake or large amounts of body fluid losses. Symptoms include thirst, rapid weight loss, weakness, less urine and dark colored urine.
- **Diarrhea:** Frequent watery bowel movements.
- **Enteral:** Using a tube that goes into the stomach or small intestine to administer formula.
- **Feeding Tube:** A small tube made of soft plastic that is positioned in the digestive system. Liquid nutrition is given through this tube.
- **Fever:** Greater than 100.5 degree Fahrenheit orally.
- **Flushing:** The process of pushing water through the feeding tube using a syringe. Flushing is used to prevent the tube from clogging and to prevent dehydration.
- **Formula:** Liquid nutrition designed to provide your child's body with daily calorie, protein, vitamin and mineral requirements.
- **Fundoplication:** A surgical procedure in which the upper portion of the stomach is wrapped around the lower end of the esophagus and sutured in place as a treatment for the reflux of stomach contents into the esophagus.
- **Gastrostomy (G-tube):** A feeding tube that passes through the skin, with the tip of the tube placed in the stomach. G-tubes may be placed using an endoscope, a laparoscope or by open procedure in the operating room.
- **Gastrojejunostomy (GJ-tube):** A feeding tube that passes through the skin and abdomen that enters into the stomach. The tube extends past the stomach into the small intestine. It may have ports (openings) for both the stomach (gastric) and small intestine (jejunal).

Know Your Child's Body



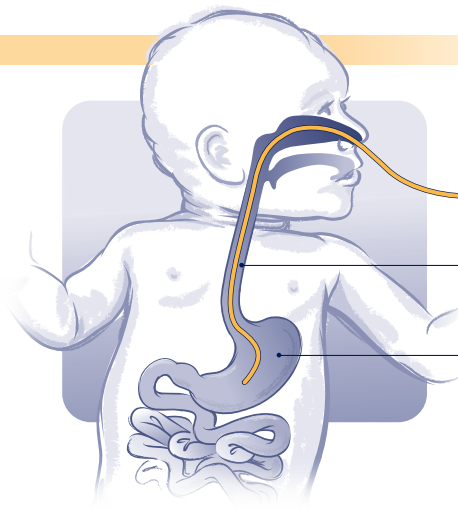
Your child has a _____ tube.

The tip of your child's feeding tube is in their _____.

✓ **IMPORTANT NOTE:** If your child has more than one tube (example: feeding tube and I.V.) always double check to make sure that you are giving his/her formula into the feeding tube and not into the I.V. line.

Feeding Tube Placement

Tubes Placed Through The Nose

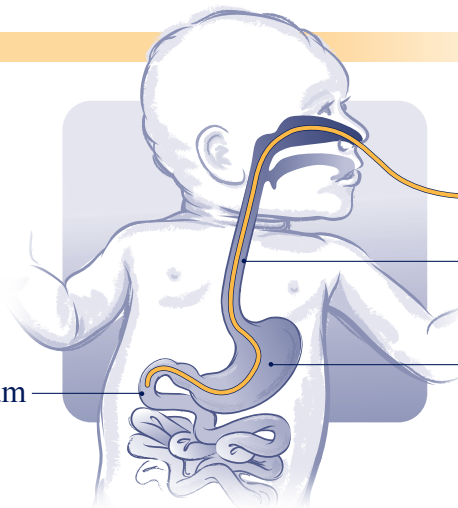


Esophagus

Stomach

Nasogastric (NG)

A feeding tube that passes through the nose, with the tip of the tube placed in the stomach.



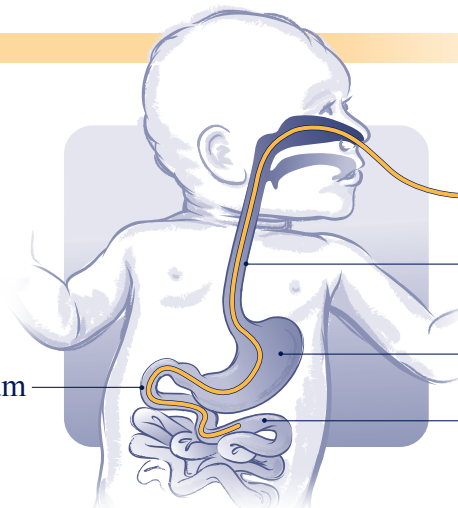
Esophagus

Stomach

Duodenum

Nasoduodenal tube (ND)

A feeding tube that passes through the nose, with the tip of the tube placed in the small intestine (duodenum).



Esophagus

Stomach

Duodenum

Jejunum

Nasojejunal tube (NJ)

A feeding tube that passes through the nose, with the tip of the tube placed in the small intestine (jejunum).

Problem Solving

Fever
(Greater than 100.5 degrees Fahrenheit orally)

Possible Cause	Actions/Solutions
• Possible aspiration	Call your child's doctor.
• Possible infection	Call your child's doctor.

Difficulty Burping

Possible Cause	Actions/Solutions
• Children who have had a fundoplication have a difficult time with gas after gastrostomy tube placement.	You may need to help your child relieve the gas by venting or burping the gastrostomy tube. (See pages 17 and 18)

Missed or Delayed Feeding

Possible Cause	Actions/Solutions
• Away from home or very busy schedule	Start your child's feedings as soon as possible and continue with their normal feeding schedule. Call your child's dietitian if this happens frequently to talk about a change in the feeding plan.

Leakage, Skin Redness or Irritation Around the Tube

- Some drainage around the tube site is normal. If the drainage looks like pus or the skin is red, swollen or very painful, call your child's doctor.
- Granulation tissue may form around the tube site. It is usually raised tissue that is red and can be very painful. If this occurs, check with your child's doctor for treatment options.

Problem Solving

Constipation

(Call your child’s doctor if they have not had a bowel movement in 2 days)

Possible Cause	Actions/Solutions
● Not enough water intake	Increase your child’s water intake as directed by their dietitian or doctor.
● Not enough physical activity	If approved by your child’s doctor, increase his/her physical activity.
● Not enough fiber intake	May need a formula that has fiber or a fiber supplement. Check with your child’s dietitian.
● Possible blockage of the bowel	Call your child’s doctor.
● Side effect of your child’s medication	Discuss medications with your child’s doctor or pharmacist.

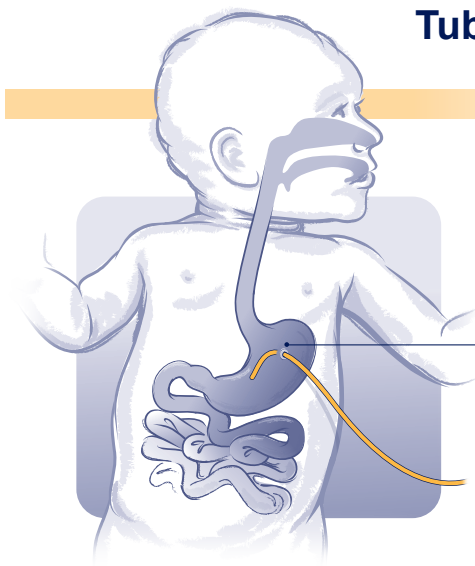
Dehydration

NOTE: Symptoms are weakness, thirst, light headedness, dry skin, less urine output, or dark colored urine, sudden decrease of weight. (see dehydration page 10)

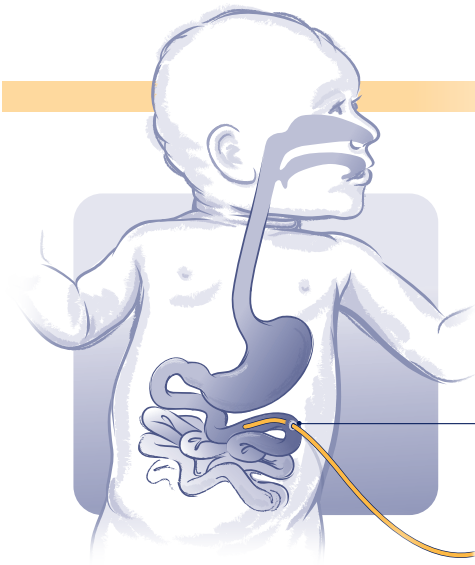
Possible Cause	Actions/Solutions
● Prolonged fever	Call your child’s doctor.
● Persistent diarrhea, large body fluid losses, wound drainage	Call your child’s doctor.
● Not enough fluid intake	Make sure your child is taking the amount of water as instructed by their dietitian. Call your dietitian or doctor to talk about fluid needs.

* If problems persist, contact your doctor, dietitian or nurse.

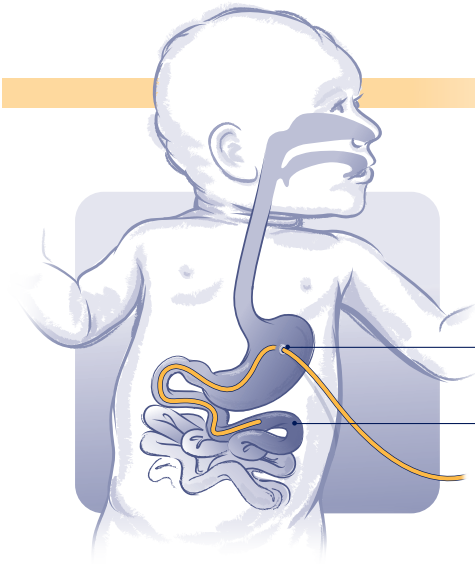
Feeding Tube Placement Tubes Placed Through Skin



Gastrostomy (G-tube)
A feeding tube that passes through the skin and abdominal wall with the tip of the tube directly in the stomach. A PEG tube (percutaneous endoscopic gastrostomy) is one type of G-tube.



Jejunostomy (J-tube)
A feeding tube that passes through the skin, with the tip of the tube directly into the small intestine (jejunum). **Do not use gravity feedings with this tube unless otherwise indicated (reserved for emergency).**



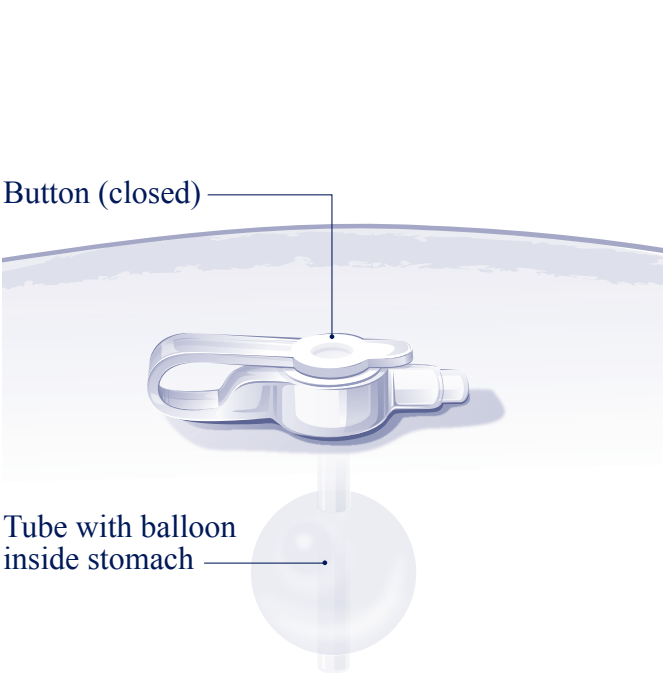
Gastrojejunostomy (GJ-tube)
A feeding tube that passes through the skin and abdominal wall that enters the stomach. The tube extends past the stomach into the small intestine. It may have ports (openings) for both the stomach (gastric) and small intestine (jejunum).

Feeding Tube Placement

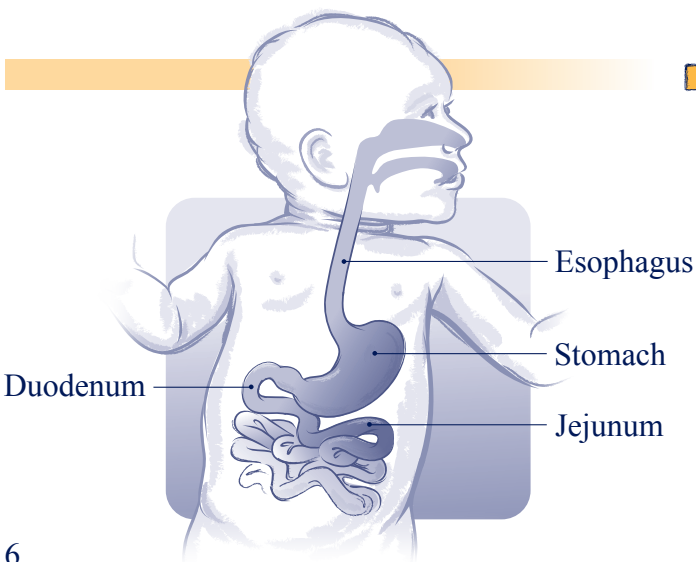
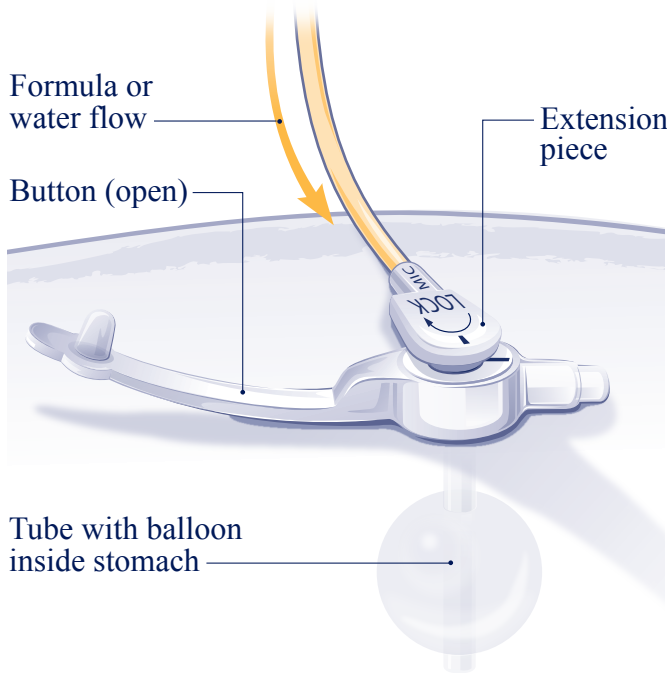
Other Tubes

■ Button (low-profile gastrostomy)
A type of G-tube that looks like a “button” on the skin. An extension piece is locked onto the button when formula, water or medication is given.

A. Closed Gastrostomy Button



B. Open Gastrostomy Button (shown with extension piece in locked position)



■ Special Feeding Tube Placement
Please draw in any special feeding tube placement that applies.

Problem Solving

Nausea

Possible Cause	Actions/Solutions
● Side effect of your child’s medication	Talk to your child’s doctor or pharmacist about your child’s medications
● Stomach emptying too slowly	Discuss the use of different formulas with your child’s dietitian. Ask your child’s doctor about a medication to relieve symptoms.
● Feeding is being given too quickly	Decrease the rate of your child’s feeding by 10 to 20 mL per hour if using a pump. Slow down gravity feeding so that it is given over a longer period of time.

Gas or Bloating (Feeling of fullness)

Possible Cause	Actions/Solutions
● Formula is being given too quickly	Decrease the rate of your child’s feeding by 10 to 20 mL per hour if using a pump. Slow down gravity feeding so that it is given over a longer period of time.
● Stomach emptying too slowly	Call your child’s dietitian or ask your child’s doctor about a medication to relieve symptoms. May be caused by too much fiber.
● Too much fiber	Decrease the amount of fiber-containing formula or supplements. Call your child’s dietitian.
● Lack of physical activity	If approved by your child’s doctor, increase your child’s physical activity.

* If problems persist, contact your doctor, dietitian or nurse.

Problem Solving

Diarrhea and/or Cramping

Possible Cause	Actions/Solutions
● Side effect of your child’s medication	Discuss medications with your child’s doctor or pharmacist.
● Formula is too cold	Make sure formula is at room temperature before using.
● Feeding is being given too quickly	Decrease the rate of your child’s feeding: If using a pump, decrease by 10 to 20 mL per hour If feeding by gravity, slow down your child’s feeding so that it is given over a longer period of time.
● Not enough fiber intake	May need a fiber-containing formula or a fiber supplement. Check with your child’s dietitian.
● Tube out of position	Contact your child’s doctor. Your child may need an x-ray to check the position of the tube.
● Bacteria in the formula	Wash your hands and use clean supplies. Rinse and replace feeding bags as instructed. Do not let the formula hang too long in the bag. Check the expiration date on the formulas. Refrigerate all open bottles, cans or mixed feedings and throw away after 24 hours, unless otherwise directed.
● Incorrect cleaning of tube feeding supplies	Clean feeding bags and syringes only with warm water. Do not use soap.
● Formula intolerance	Contact your child’s doctor or dietitian about possible formula change.

Choking, Coughing, Gagging

Possible Cause	Actions/Solutions
● Feeding tube out of place	STOP the feeding. Call your child’s doctor or home care nurse.
● Possible aspiration	Call your child’s doctor or home care nurse.

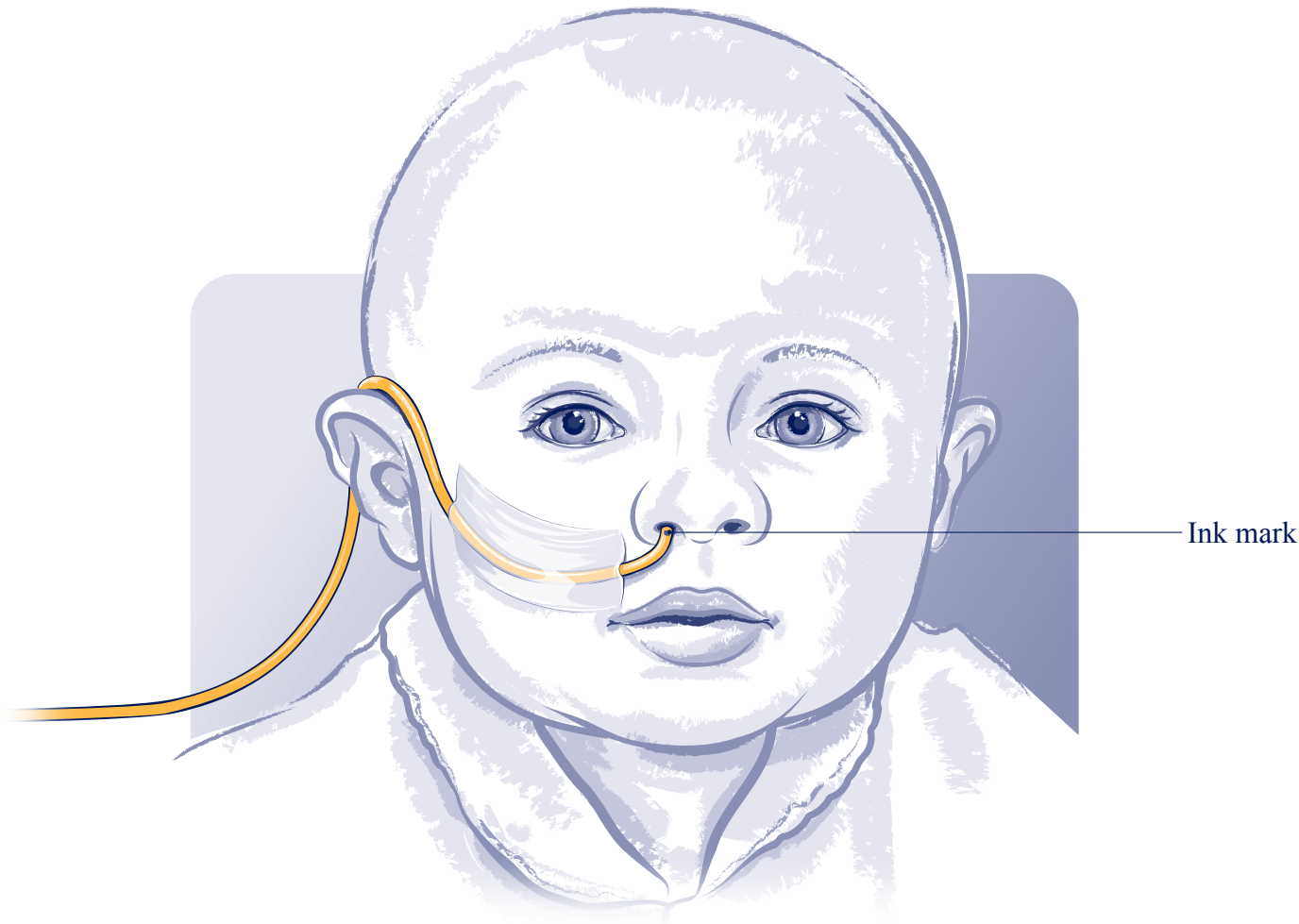
Checking Feeding Tube Placement

Checking the proper placement of your child’s feeding tube should be done before each feeding and before putting any liquids into the tube.

For Tubes Placed Through Nose:

- Use a permanent ink marker to make a mark on the tube where it enters the body.
- Watch to make sure the mark stays at that same point. You do not want the tube to go further inside or outside of the body more than 1 inch.
- If there is any question about the tube being in its correct place, call your child’s doctor before using the tube.
- If your child’s tube has numbered markings on it, note the one that is the closest to your child’s skin.

NOTE: You may have been taught to check the placement of an NG tube by injecting air into the tube. This should only be done if you are properly trained by a nurse to do so.



Before Giving Your Child’s Tube Feeding

Formula Preparation

1. Clean off the top of any canned formula container with dish detergent and a clean cloth, and then rinse off thoroughly with tap water before opening.
2. Wash your hands and your child’s hands with soap and water.
3. Use formula that is at room temperature. **NEVER microwave any formula.**
4. Read your child’s feeding schedule provided in the front pocket of this manual to decide how much formula to pour into the feeding bag at one time.

Formula Storage

- Canned formula may be stored at room temperature as long as it has not been opened.
- Formula should not be stored near heating vents, in direct sunlight or where it may freeze.
- Cover and refrigerate all unused, open cans or prepared formula. Write the date and time on the label that the can was opened or the formula was prepared.
- Dispose of open cans of liquid or prepared formula that have been in the refrigerator longer than 24 hours.
- Opened cans of powdered formula can be stored for up to 30 days.
- Breast milk can be stored in the refrigerator for 2 days before being discarded.
- Dispose of fortified breast milk after 24 hours.

Flushing the Feeding Tube

Flushing is done by filling a syringe with water and pushing the water through the feeding tube. This is important to:

- keep the feeding tube from getting clogged
- provide your child with water so they don’t become dehydrated

You should flush your child’s feeding tube with water before and after you put formula or medications through their feeding tube.

Be sure to review your child’s feeding schedule for specific flushing instructions.

Problem Solving

These problems may happen while your child is receiving their tube feeding. Keep in mind some of the problems may have other causes and may not be related to your child’s tube feeding.

Tube Displacement

- ✓ If your child’s tube is accidentally pulled out, call your child’s doctor immediately or go to your local emergency roomt. The tube must be replaced within 2-3 hours or the opening leading to their stomach or small intestine may close.

Clogged Feeding Tube

NOTE: Do NOT use an object to try to clear a blockage in the feeding tube. This could result in damage to the tube or injury to the GI tract. Do NOT use cranberry juice, meat tenderizer, or carbonated drinks (such as cola) to unclog tube. These products can make the clog worse.

Possible Cause	Actions/Solutions
• Lack of water flushes before and after feedings or taking medications	1. Attempt to flush tube with 10 or 20 mL of warm water using a syringe. 2. If unsuccessful, fill half of syringe with water and connect it to the feeding tube. Move syringe plunger back and forth gently several times until the clog clears. Avoid excessive force when flushing tube. 3. Call your child’s doctor if you need assistance.

* If problems persist, contact your doctor, dietitian or nurse.

Taking Medications

If your child needs to take medications through their feeding tube:

- Check with your child's doctor or pharmacist to see if their current medications interact with their tube feeding formula.
- Ask your child's doctor to prescribe medications in a **liquid** form.
- If any of your child's medications are not in a liquid form, ask a pharmacist or doctor if the pills can be crushed or the capsules opened. **Do not crush pills or open capsules without your child's pharmacist's or doctor's consent. This could be harmful.**
- Do not give any medication (prescription or over-the-counter) without your child's doctor's consent.
- **Do not mix medications** with your child's tube feeding formula or breast milk unless otherwise directed by your doctor.
- **If more than one medication is needed, always flush the feeding tube with water between each medication.**

Supplies Needed:

- ☐ Medications
- ☐ Syringe
- ☐ Pill crusher, if needed
- ☐ A small cup for crushed meds
- ☐ A cup with warm water

Procedure:

1. Wash your hands and your child's hands with soap and water before starting.
2. Check placement of your child's feeding tube (see page 7).
3. Sit your child upright, with their head and chest higher than their stomach.
4. Using the syringe, flush your child's feeding tube with 5-10 mL of water.
5. Prepare your child's medications as follows:
 - **Liquid:** measure the correct amount of medication then dilute it with 5-10 mL of water. Draw the medications into the syringe.
 - **Pills:** crush pills into a fine powder. Then mix the contents with 5-10 mL of warm water and draw the medication into the syringe.
6. Inject one medication into your child's feeding tube.
7. Flush the feeding tube with 5-10 mL of water after each medication (each medication should be given separately).
8. After all the medications are given, flush the feeding tube with water.
9. Re-clamp the feeding tube.
10. Thoroughly wash and dry any syringe(s), cup(s) or pill crusher used for medications.

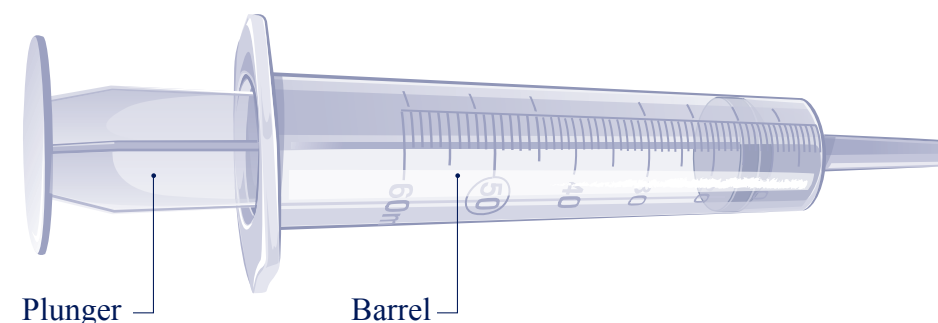
Tube Feeding Bag, Syringe & Extension Usage

Feeding Bags

- Use a new feeding bag **every day** (if you give more than one feeding in a day, use the same bag all day).
- If giving intermittent feeds, rinse out the bag with warm water after each feeding and store in a sealed container in the refrigerator. Do **NOT** rinse out with soap, vinegar or any other cleaning product.
- Never throw away your child's last feeding bag in case you do not receive your next shipment before your child's next scheduled feeding.
- Add **only** formula or water to the bag as directed by your dietitian. Do not add medications or supplements to the bag, unless directed by your doctor.

Syringes

Syringes can be reused for **3 to 4 days**. After each use, clean your child's syringe by pulling the plunger out of the barrel, rinse with warm water and allow to air dry.



Extension Pieces

Feeding tube extension pieces should be changed **once per week** or as directed by your child's dietitian.



Getting Enough Water

Your child's formula alone may not give them enough water to keep them from getting dehydrated. As part of your child's nutrition goal, the dietitian will determine a fluid goal for the day. This goal is the amount of water that your child will need to take in each day **IN ADDITION** to their formula. If your child is able to drink water, you will only need to flush the feeding tube to keep it from clogging. If your child is not able to drink, you will need to put all of the additional water through your child's feeding tube.

Signs of Not Getting Enough Water

If your child's body is not getting enough water each day or they are losing fluid through vomiting, diarrhea, heavy sweating or other body fluid losses, they may get dehydrated. Dehydration can become life-threatening. Some signs to watch for include:

- decrease in urine flow or very dark colored urine
- sudden decrease in weight
- dry mouth
- muscle cramps
- feeling faint
- tired and weak

If you suspect your child is dehydrated, call your child's doctor immediately for medical advice.

✓ Ensure that your child's doctor or home healthcare provider is closely monitoring your child's weight.



Water Safety for Feedings into the Small Intestine

Well water may cause problems for your child when given directly into the small intestine. Well water may contain bacteria that can cause infection in the intestine resulting in diarrhea. If your home has well water, there are two things you can do.

- **Option 1: Use bottled water for any liquid going into your child's feeding tube.** (This includes formula, medications, extra water, flushing your tube and rinsing your feeding set.) This could become costly.
- **Option 2: Boil the well water for ten minutes.** Then let the water cool for one hour, making sure the pot is covered during this time. **Boil the water again for another ten minutes.** Cool and pour it into a container that has a lid. For example, use a large glass jar, or container with a cap. Be sure the container and lid have been washed and rinsed well. The water can be stored at room temperature for three to five days as long as the container is kept closed between uses. Do not put the feeding supplies directly into the clean water (example: pour water into a cup then fill syringe from the cup).

Sick Days

On the days that your child is not feeling well, nutrition is still needed.

- Give your child's normal tube feedings and water as tolerated.
- Hold their tube feeding if they are vomiting.
- Give small amounts of Pedialyte as often as they can tolerate to replace the amount of formula or breast milk normally given.

✓ Call your child's doctor if they are unable to tolerate their feedings for longer than 12 hours.



Mouth Care

It is important to maintain good oral health even if your child is not eating. Your child is still at risk for dental problems such as cavities. If your child is unable to eat or drink anything by mouth, they may experience some mouth dryness, bad taste or bad breath. To prevent this:

- Brush your child's teeth and gums twice a day with a soft toothbrush.
- Discourage your child from licking their lips. This could cause further dryness and chapping of lips. Apply lip balm to their dry lips several times a day.
- If your child is able to spit have them rinse their mouth with a child friendly alcohol-free mouthwash 3 to 5 times a day.

Ask your doctor if it is OK for your child to suck on sugarless hard candy or ice chips.

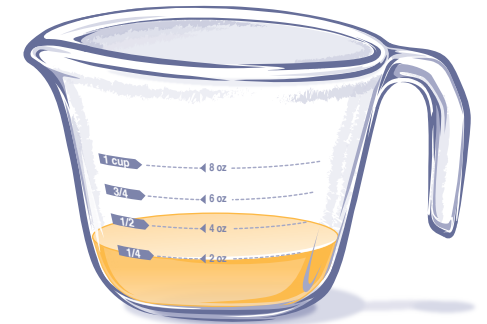


Measuring Liquids

1/4 Cup

2 Ounces (oz)

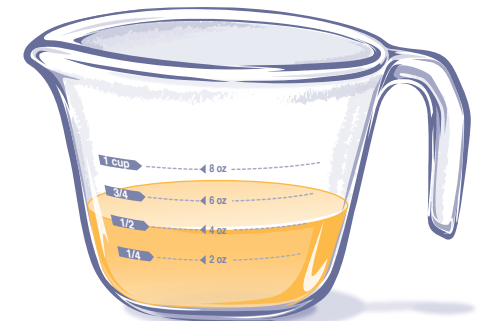
60 Milliliters (mL)



1/2 Cup

4 Ounces (oz)

120 Milliliters (mL)



3/4 Cup

6 Ounces (oz)

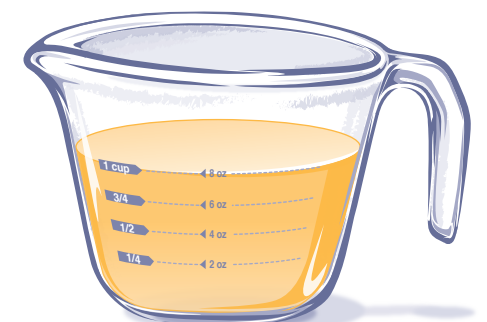
180 Milliliters (mL)



1 Cup

8 Ounces (oz)

240 Milliliters (mL)



1 cc = 1mL

Pump Tube Feeding: Formula Hang Times

- Formula and breast milk may spoil if left at room temperature for too long after being opened.
- Different types of formula or breast milk have different hang times.
- **Only add enough formula or breast milk to the feeding bag so that it does not hang longer than recommended** (see below).
- Gravity feedings are given over a short period of time, therefore you may add the entire amount of formula to the bag for each feeding.
- **Always rinse out the feeding bag and tubing with water before adding more formula so that the “new” formula does not mix with the “old” formula.**

Type of Formula:	Maximum Hang Time:
Formula straight from the container	8 hours
Formula mixed with water, powders or other liquids	4 hours
Breast milk	4 hours

To figure out how much formula you can add to your child’s bag each time you refill, use this simple calculation:

Pump rate x maximum hang time = mL of formula you can add to the bag

Example: Your pump rate is 60 mL/hr and you use formula straight from the container (8 hour hang time).

60 mL/hr x 8 hr = 480 mL

That means that you can add up to 480 mL of formula (2 containers) to the bag each time.

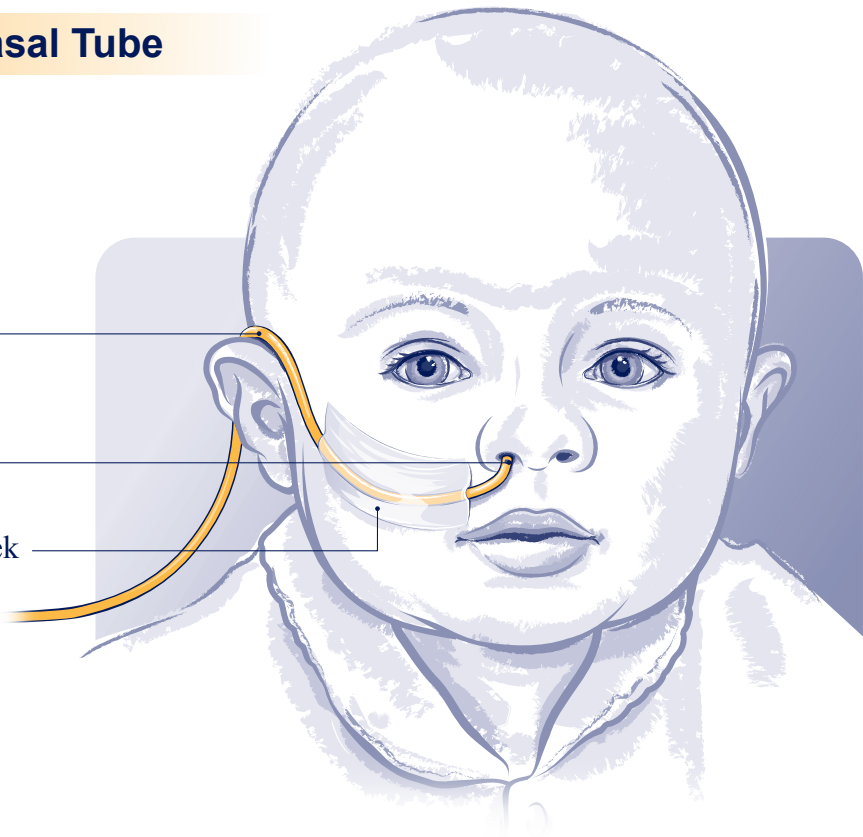
Correct Taping of Nasal Tube

- **Option 1:**
Transparent medical dressing

Loop tube over ear

Ink mark

Transparent medical dressing placed lengthwise across cheek



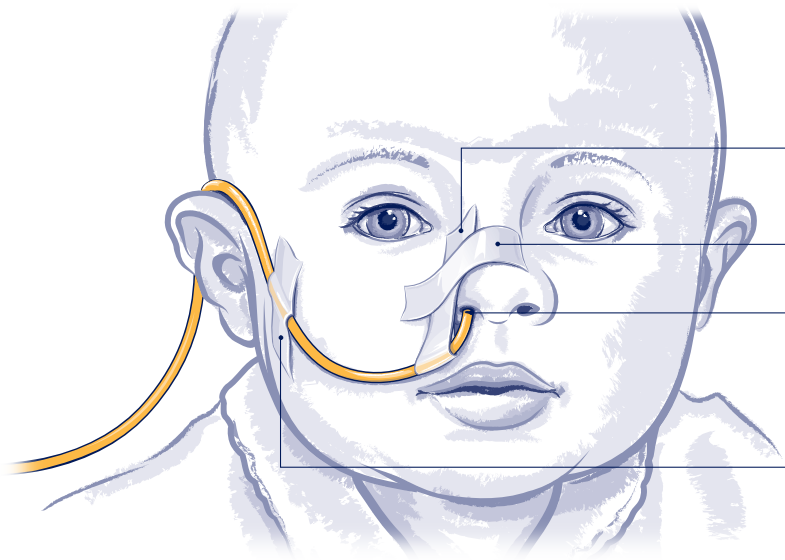
- **Option 2:**
Medical tape

First piece of tape lengthwise down side of the nose and wrapped around tube

Second piece of tape across top of nose

Ink mark

Loop tube over ear and secure to cheek with third piece of tape



Care of the Feeding Tube & Nose

Care of the nose around the tube should be done everyday.

Supplies Needed:

- ☐ Washcloth or gauze
- ☐ Antibacterial soap
- ☐ Permanent marker
- ☐ Transparent medical dressing or tape

Procedure:

1. Wash your hands with soap and water.
2. Use a permanent ink marker to place a dot on the feeding tube where the tube enters the nostril.
3. Remove the old piece of tape using one hand while holding the tube in place with the other.
4. Clean area around the nose with antibacterial soap, making sure you clean well where the tube enters the nose. Allow to air dry.
5. Check the site where the tube enters your child's nose. If there are open sores or redness, contact your child's doctor.
6. For option 1: Position tube across the cheek and over the ear. Place a new piece of transparent medical dressing lengthwise across the cheek and secure over the tube. You may need to cut the transparent medical dressing in half to fit your child's face. Make sure that the tube is not pulling at the nostril as this can cause a sore to form.
7. For option 2: Place the new tape lengthwise down the side of the nose and wrap the bottom end of the tape around the tube. Place another piece of tape across the top of the nose to fully secure the first piece of tape. Do not tape the tube tightly against the front of the nostril or split the tape to wrap around the tube. This can cause a sore to form from the tube pressing on the front of the nostril.
8. To secure the tube or for your child's comfort, loop the tube around your child's ear and tape it to the side of their face.
9. To keep your child from pulling out the tube you may find it helpful to place the tube down the child's back under their clothing.

How to Give a Pump Tube Feeding

Feeding pumps are used to control how fast the tube feeding is running. The brand of feeding pump you receive will depend on your home care company. Each feeding pump is set up a little differently. Therefore, your home care provider or nurse will teach you how to use the pump.

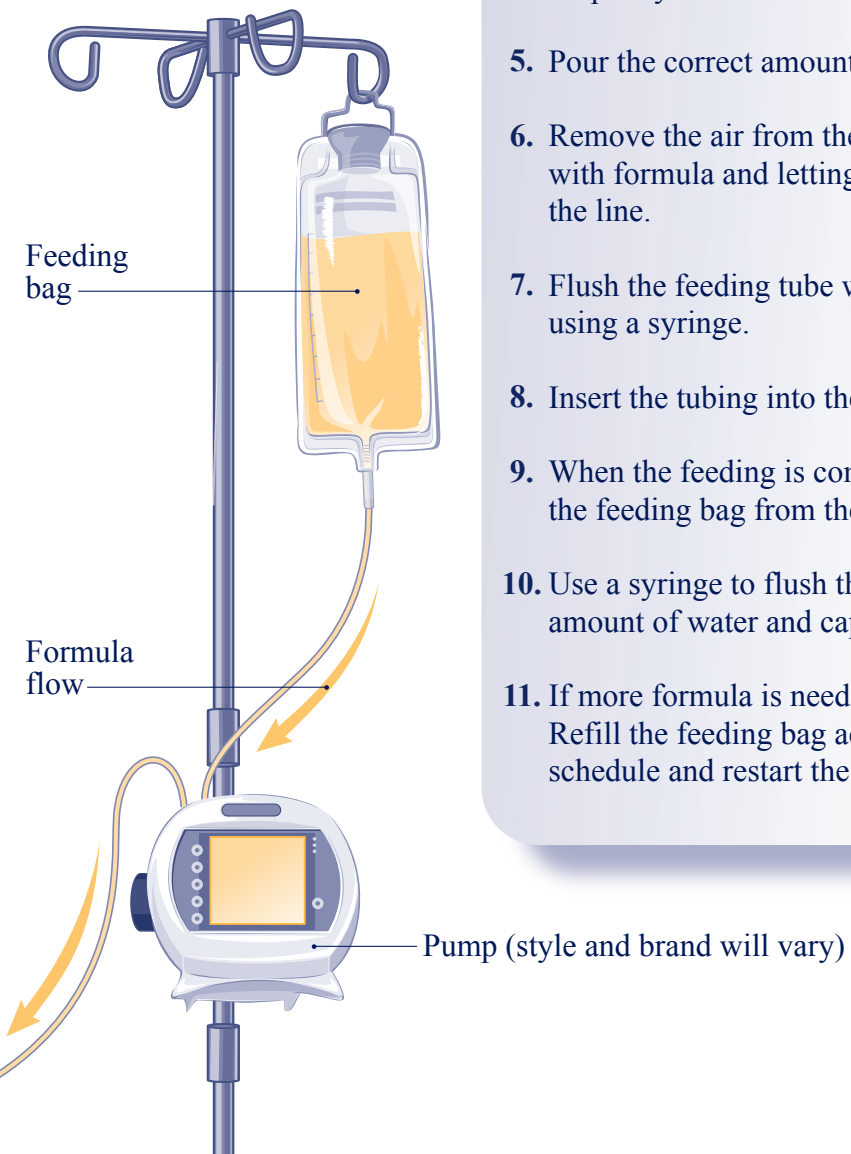
Check box if this feeding method applies to you ☐

Supplies Needed:

- ☐ Feeding pump and I.V. pole
- ☐ Feeding bag with tubing
- ☐ Formula and/or breast milk
- ☐ Room temperature water
- ☐ Syringe for flushing

Feeding Instructions:

1. Wash your hands with soap and water.
2. If your child has a gastrostomy or a nasogastric tube, they should be sitting up during the feeding with their head and chest raised higher than their stomach. Your child should remain upright for 30 minutes to one hour after the feedings are stopped.
3. Check the placement of your child's feeding tube (see page 7).
4. Prepare your child's formula and/or breast milk as directed.
5. Pour the correct amount of formula into the feeding bag.
6. Remove the air from the tubing by slowly filling the tube with formula and letting it flow to end. This is called priming the line.
7. Flush the feeding tube with the prescribed amount of water using a syringe.
8. Insert the tubing into the feeding tube and start the pump.
9. When the feeding is complete, turn the pump off and remove the feeding bag from the feeding tube.
10. Use a syringe to flush the feeding tube with the prescribed amount of water and cap the end.
11. If more formula is needed, rinse the bag out with tap water. Refill the feeding bag according to your child's feeding schedule and restart the feedings.

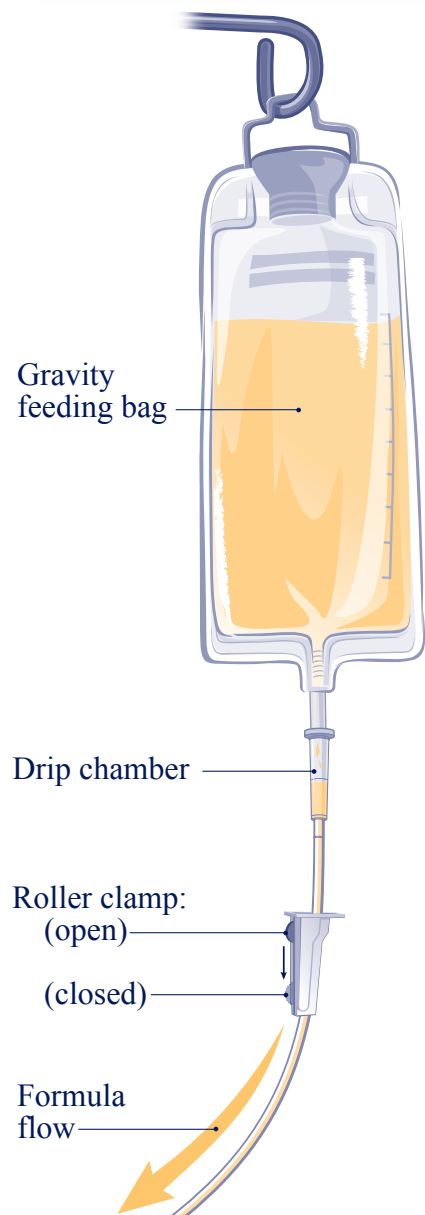


How to Give a Gravity Bag Tube Feeding

Check box if this feeding method applies to you ☐

Supplies Needed:

- ☐ Feeding bag with tubing
- ☐ Formula and/or breast milk
- ☐ I.V. pole or hook
- ☐ Room temperature water
- ☐ Syringe for flushing



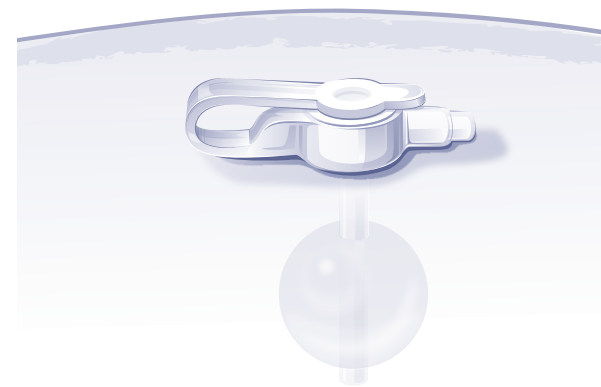
Feeding Instructions:

1. Wash your hands and your child's hands with soap and water.
2. For better tolerance, have your child sit upright or with their head and chest higher than their stomach. Your child should remain in this position during their feeding and 30-60 minutes after the feeding are stopped.
3. Check the placement of the child's feeding tube (see page 7).
4. Prepare your child's formula and/or breast milk as directed.
5. Close the clamp on the tube feeding bag by rolling the wheel down.
6. Pour the formula and/or breast milk into the feeding bag (**see your child's feeding schedule in front pocket**).
7. Place the feeding bag on a pole or hook so that it is above your child's head by at least 12 inches.
8. Fill the drip chamber with formula by squeezing and releasing the drip chamber until the formula meets the fill line. Open the roller clamp and allow the formula to flow to the end of the tubing. Close the roller clamp once you see formula at the end of the line. This is called priming the line.
9. Use a syringe to flush the feeding tube with the recommended amount of water.
10. Insert the end of the feeding bag into the feeding tube, open the roller clamp and allow the formula to flow until the bag is empty, as long as the feeding does not disagree with your child. The flow can be controlled with the roller clamp. Feedings may take between 15 to 90 minutes to complete.
11. When the formula is finished, pour the recommended amount of water into the feeding bag and allow it to flow slow enough to be agreeable to your child's body. This step may be done 1 to 2 hours after the feeding if your child is too full.
12. Remove the feeding bag from the feeding tube.
13. Use a syringe to flush the feeding tube with water as directed and cap the feeding tube.
14. Rinse out the tube feeding bag with water and store in the refrigerator in a sealed container until the next feeding.

Care of Skin Around Gastrostomy, Jejunostomy & Gastrojejunostomy Tube

Supplies Needed:

- ☐ Washcloth or cotton tip applicators
- ☐ Antibacterial soap
- ☐ Water
- ☐ Split gauze (optional)
- ☐ Stretch netting or abdominal binder (optional)



Procedure:

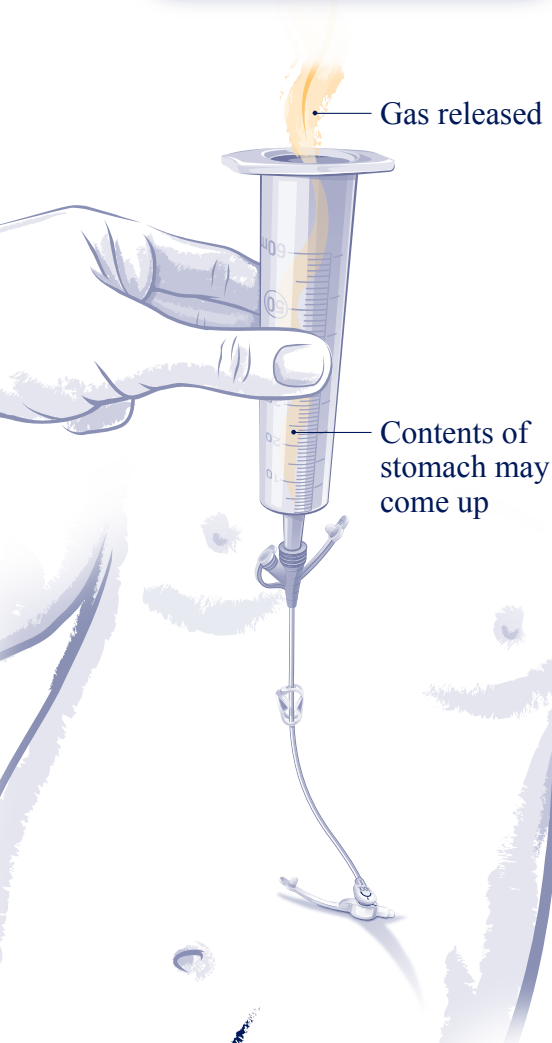
1. Wash your hands with soap and water.
 2. Remove all gauze and tape. (Gauze is left in place for 24 hours after the tube is first placed)
 3. Inspect your child's skin. Contact your child's doctor if there is redness, tenderness, swelling, drainage and/or stomach leakage around the tube.
 4. Gently clean the skin around the tube daily with antibacterial soap and water using a washcloth or cotton tip applicator. If your child's feeding tube has a crossbar or disc that lies against their skin, you will need to clean underneath it.
 5. Rinse the area with water and pat dry. Allow the area to air dry fully.
 6. Place new gauze around the feeding tube if needed.
- Most tubes do not require gauze. Keep skin clean, dry and free of drainage. If gauze is needed due to drainage, be sure it is changed immediately when wet or soiled.
 - Gentle movement of your child's feeding tube is not harmful.
 - It is important to keep your child's skin around the tube clean and dry.
 - Some drainage around the tube site is normal. If the drainage looks like pus or the skin is red, swollen or very painful, call your child's doctor.
 - You may give your child sponge baths 24 hours after tube placement. The feeding tube does not need to be covered during sponge baths.
 - Your child may take a bath and swim 1-2 weeks after the tube is placed. Do not swim if the tube site is infected or irritated. Do not swim in poor quality water (ponds, lakes). Check with your child's doctor if have any questions about swimming.
 - You may secure the tube underneath your child's clothing with stretch netting or an abdominal binder to conceal it and prevent unnecessary movement of the tube.

Venting/Burping the Tube

Some children have a difficult time with gas after gastrostomy tube placement. Children who have a fundoplication may find it very difficult or even impossible to burp. It may be necessary for you to help your child relieve the gas by venting or burping the gastrostomy tube. Your child may need to have this done often, especially during the first few days after surgery.

Supplies Needed:

- ☐ 60 mL syringe
- ☐ Antibacterial soap



Procedure:

1. Wash your hands with soap and water.
2. Remove the plunger from a 60 mL syringe.
3. Place the 60 mL syringe into the end of the gastrostomy tube.
4. If the tube is clamped, open the clamp. **If your child has a drain tube attachment (Hollister) do not open the clamp on it.**
5. Hold the syringe above the child's stomach for a few minutes. If gas is present you should hear the gas bubble up through the tube or sometimes even see stomach contents back up into the tube and syringe. Once the gas is relieved allow the formula (or stomach contents) to flow slowly back into the stomach.
6. Remove the syringe and cap the feeding tube.
7. Wash the syringe with warm water and air dry.

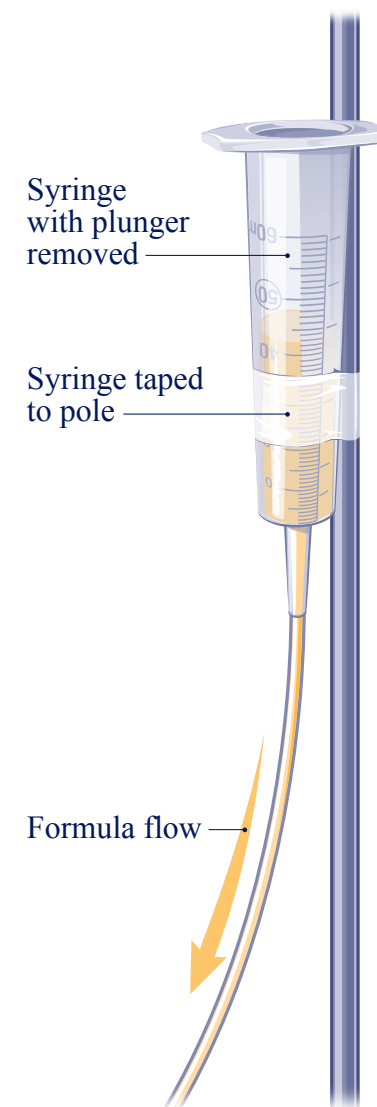
✓ If you are having difficulty getting the gas to come out, you may need to move your child into a different position. Be cautious as sitting up may cause more stomach contents to come out.

How to Give a Syringe Gravity Tube Feeding

Check box if this feeding method applies to you ☐

Supplies Needed:

- ☐ Formula
- ☐ Room temperature water
- ☐ 60 mL syringe
- ☐ Extension set



Feeding Instructions:

1. Wash your hands with soap and water.
2. For better tolerance, have your child sit upright or with their head and chest higher than their stomach. Your child should remain in this position during their feeding and 30-60 minutes after the feeding are stopped.
3. Check placement of your child's feeding tube (see page 7).
4. Prepare formula as directed.
5. Flush the feeding tube with water using the syringe. Remove the syringe from the feeding tube.
6. Remove the plunger from the syringe.
7. Place the tip of the syringe into the feeding tube.
8. Pour formula and/or breast milk into the syringe barrel and allow it to flow in slowly. Continue refilling the syringe until your child's prescribed amount is given.
9. Pour the recommended amount of water into the syringe and allow it to flow in slowly.
10. Remove the syringe from the feeding tube.
11. Remove the syringe. Cap or clamp the feeding tube.
12. Wash the syringe with soap and water after each feeding.
13. Air dry the syringe and store in a clean, dry place.

✓ Caution: If the formula is flowing too fast, then lower the syringe.

How to Give a Syringe Push Tube Feeding

Syringe-push feedings may be too fast for small children. They are not advised for children less than 2 years of age. This type of feeding method should only be used with a gastrostomy or nasogastric tube and only after your child has been given tube feeds for some time. Consult your child's dietitian before using this method.

Check box if this feeding method applies to you ☐

Supplies Needed:

- ☐ Formula
- ☐ Room temperature water
- ☐ 60 mL syringe
- ☐ Cup or bowl



Feeding Instructions:

1. Wash your hands with soap and water.
2. For better tolerance, have your child sit upright or with their head and chest higher than their stomach. Your child should remain in this position during their feeding and 30-60 minutes after the feeding are stopped.
3. Check the placement of your child's feeding tube (see page 7).
4. Prepare formula and/or breast milk as directed.
5. Flush the feeding tube with the prescribed amount of water and remove the syringe from the feeding tube.
6. Pour enough formula for one feeding into a cup or bowl.
7. Using a 60mL syringe, draw the syringe full of formula.
8. Place the tip of the syringe into the feeding tube.
9. Slowly push the formula and/or breast milk into the feeding tube over several minutes as tolerated. You may need to wait between each syringe full. Repeat until all of the formula is given.
10. Flush with the recommended amount of water.
11. Cap or clamp the feeding tube.
12. Wash the syringe with soap and water after each feeding.
13. Air dry the syringe and store in a clean, dry place.

✓ **Caution:** Do not push formula through the syringe faster than the child would drink the formula. Feeding should take about 15-20 minutes.

Pediatric Chimney Feeding

This is one way to release stomach gas during feedings.

