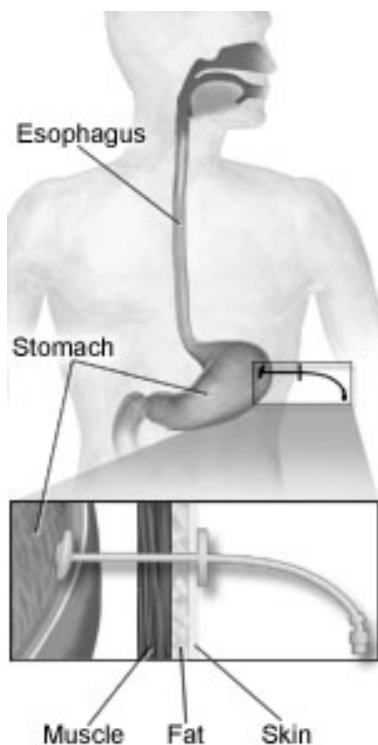


**A CAREGIVER'S GUIDE TO
PERCUTANEOUS
ENDOSCOPIC
GASTROSTOMY
PEG
PLACEMENT**

A Caregiver's Guide to Percutaneous Endoscopic Gastrostomy PEG Placement

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Picture from Micromedex Care Notes PEG General Instruction ©1974-2010 per agreement

PERSONAL INFORMATION

Patient Name: _____

PEG Placement Date: _____

Doctor Name: _____

Doctor Phone: _____

Nutritionist/Dietitian Name: _____

Nutritionist/Dietitian Phone Number: _____

Home Health Nursing Company: _____ Phone: _____

Equipment Company Name: _____ Phone: _____

Contact Person: _____

The supplies I need are: _____

For further questions please call the Pediatric GI office at 434-924-2457.

For urgent matters after hours or on weekends or holidays that cannot wait until the next business day call the UVA Hospital Operator at (434) 924-0000 and ask for the Pediatric GI Doctor on-call.

INTRODUCTION

A percutaneous endoscopic gastrostomy (PEG) is a tube that helps provide calories or fluids for anyone who is unable to get all the nutrition through eating that their body needs. Your child's doctor has recommended a PEG be placed to help provide nutrition, medications and/or fluids for your child. This handout will explain the short procedure and care of the PEG.

Your child will be placed under sedation with medication that will keep your child asleep during the procedure. An endoscope (lighted tube with a camera) will be placed into the mouth, through the esophagus and into the stomach. While viewing the stomach on a television screen your doctor will make a small incision (cut) in the skin of the abdomen that leads into the stomach. The PEG will be placed through the mouth, into the stomach and out through the incision. The skin around the tube will be very snug. There will be a small round piece at the end of the PEG (internal bolster) that will hold the PEG inside the stomach. There will also be another bolster (a small piece of plastic with wings used to keep the PEG in place) just outside the stomach on the skin of the abdomen that needs to remain flush with the skin at all times in order for scar tissue to form properly between the stomach lining and the abdominal wall.

Your child will receive pain medication intravenously during the procedure and locally at the incision site right after the procedure. There will be pain medication ordered on an as needed basis while in the hospital. If at any time you feel your child is in pain and would benefit from pain medication, please let your nurse know this. Your child will remain in the hospital for two days after the PEG procedure. Your child will not have anything to eat or drink by mouth for 24 hours, and then we will start feeds slowly and advance over the next several days. You will be given specific instructions regarding this at the time of discharge so you can advance your child's feeding regimen at home.

CARING FOR YOUR PEG

Stoma Care

- The tunnel from the inside of the stomach to the surface of the skin will heal to form a **tract**. Healing can take 6-8 weeks. If the PEG is accidentally removed or pulled out before healing is complete, please call your doctor right away. Your child will need to have the PEG replaced (sedation is not needed for this) and may require an x-ray contrast study to verify that placement is correct. It is important to replace the PEG quickly because the skin opening, known as the stoma, will begin to shrink.
- In the hospital we will use 1/2 strength hydrogen peroxide solution for the first two days after the PEG is placed, to help prevent infection. This solution is NOT to be used at home as hydrogen peroxide may prevent scar tissue from forming.
- At home clean the site daily with warm water for the first two weeks and rotate the bolster ¼ turn each time. If the bolster stays in one place too long a pressure area may form and you may need to tape the bolster away from that area for a period of time to allow it to heal.
- Keep the stoma site dry and never use gauze dressings around the PEG. Gauze dressings can actually keep stoma sites more moist and can trap bacteria around the stoma, which can cause infection.
- The first two weeks do not allow the PEG to be under water. After two weeks you may submerge your child in a bathtub and clean the PEG site daily with warm water and soap. At this point, you should not need to rotate the bolster four times a day and it should move easily.

GRANULATION TISSUE

Many children with PEGs develop granulation tissue, a red, meaty tissue that looks bubble-like and forms at the stoma. This tissue may bleed or weep and may be tender. If you notice granulation tissue, clean around the PEG more frequently if there is drainage. Call your doctor if symptoms do not improve.

FEEDING YOUR CHILD

Feedings can be administered as a bolus (all at one time) or continuously by a feeding pump. Your child should be sitting up or propped up at least 30 degrees when receiving any tube feeds, to avoid choking. Bolus feedings should be administered over a 20-30 minute period, just as a child would eat if he or she were eating by mouth. Be sure to close the cap on the end of the PEG when not using. Your nurse will assist in training you how to administer tube feedings.

Formula should be administered at room temperature. Cold formulas can cause stomach cramping.

After each feeding, flush the tubing with the correct amount of water. The amount of water varies depending on the child's size and medical condition. Use the minimum amount of water to flush tubes for children who are on fluid restrictions.

Feeding Bags

Feeding bags come in two sizes: 500mL and 1,000mL. The bags should be rinsed out between feedings and replaced daily.

VENTING

Venting the tube will help to reduce and prevent stomach cramping and distension by allowing trapped gas to escape through the tube. To vent the tube, attach a 60mL catheter tipped syringe to the end of the PEG. Hold the syringe lower than the stomach, allowing gas to be expelled. Rolling from side to side may also help to expel gas. Stomach contents may come up into the syringe. Return the stomach contents back into the stomach after venting. If large volumes of stomach contents come out with venting, or if the color of the contents is dark green, notify your doctor.

GIVING MEDICATIONS

There are many different ways to give medications using the PEG. Always use liquid medications to prevent clogging the tube. If the medication is not available in liquid form, talk with your pharmacist or doctor about mixing or crushing tablets with enough warm water to completely dissolve the medications. Enteric coated tablets should never be crushed. Whenever possible, administer medications along with feedings to avoid giving your child an excessive amount of water; especially if your child has fluid restrictions.

Always check with your pharmacist:

- To see if you can mix medications together or if each medication needs to be given separately with a flush between each.
- To be sure capsules can be opened or pills can be crushed.

HOW TO GIVE MEDICATIONS WITH FEEDINGS:

1. Wash hands.
2. Place feeding on hold and pinch the PEG tube while holding upright above the stomach.
3. Attach a medication syringe to the medication port.
4. Let go of the tubing and gently push in medication.
5. Pinch the tubing and disconnect the medication syringe.
6. Attach a water flush syringe to the medication port.
7. Let go of the tubing and gently push in the water.
8. Pinch the tubing and then disconnect the syringe.
9. Let go of the tubing and continue with tube feeding.

LIVING WITH YOUR PEG

Tips for children:

- Include tube-fed children in family meal times. A child might receive food by mouth if allowed by the doctor.
- Offer a pacifier to infants during tube feedings to promote a feeling of fullness with sucking.
- Tube-fed children should brush their teeth at least twice a day whether the child eats by mouth or not in order to prevent bacteria. Gums need to be massaged and teeth should be flossed.
- Dry the stoma site after bathing or swimming.

Securing the Tubing:

Securing the PEG to the abdomen can help to reduce pulling on the tube; especially for children receiving continuous feedings. Pulling on the tubing can cause complications such as stretching of the stoma and tract. You may use one of the following methods to secure tubing to the abdomen during feedings:

- Abdominal binders
- ACE wraps
- Mesh netting
- Commercial tube holders
- Tube tops or one-piece outfits (for infants) may also help to prevent pulling.

CARING FOR YOUR PEG CHART

PROBLEMS/CAUSES	SIGNS/SYMPTOMS	WHAT TO DO
Bolster is too tight against the skin	Bolster does not rotate or spin freely. Redness of skin under the wings.	Call the doctor, this may need to be loosened and your child may need to be seen.
Clogged tube	There will be resistance when you attempt to flush the tube.	Make sure the tube is not kinked. Attempt to flush tubing with water (5mL for children; 10mL- 20mL for adults). If tubing does not come unclogged call your doctor. Be sure you are using liquid or dissolved medications.
Cramps with feedings	You may notice cramps when feedings start or a feeling of nausea.	Make sure formulas are at room temperature and not too cold. Slow down the rate of the feeding. Constipation also may cause cramps. Talk with your doctor about this.
Cramps between feedings	You may notice increased gas or abdominal distention.	Vent the stomach by attaching a catheter tipped syringe to the PEG. Allow trapped gas from the stomach to rise up through the tube.
Crusty stoma site	Dried, brown or formula-colored drainage around the stoma	Clean the site with warm water and mild soap at least once per day. Dry thoroughly. Rotate and dry skin around PEG.
Diarrhea	Frequent loose/liquid bowel movements	May occur if formula is spoiled or delivered too quickly. Consult the doctor if the symptoms do not improve. The rate of formula delivery may need to be changed.
Drainage at the stoma site	Increased drainage; especially with feedings or medications	Try venting the tube. Treat constipation. If leaks continue, call your doctor's office.
Granulation tissue at the stoma Pictured on page 5	Bubble-like, or meaty, red tissue around the tube opening. Granulation tissue may bleed or weep.	Clean around the PEG more frequently if drainage is occurring. Call your doctor to arrange a visit for treatment if symptoms do not improve.
Infection	Redness, increased tenderness, and drainage or fever	Clean the site with warm water and mild soap. Dry thoroughly. If symptoms don't improve or if fever, call the doctor.
Pulling on the PEG	Discomfort, crying	Secure the PEG with tape to a separate part of the abdomen. Abdominal binders, tube tops or one-piece outfits may also help. See page 8 for ideas on securing the tubing
Vomiting	Vomiting with feedings Coughing Choking	Stop the feeding and vent the stomach immediately. Once child is no longer having symptoms of nausea and vomiting, tube feedings may resume. Consider administering formula at a slower rate when first beginning feedings. Call for emergency care (911) if your child is having any difficulty breathing. Notify the doctor.

NUTRITIONAL INFORMATION

Formula Food Safety Instructions

Wash your hands thoroughly before mixing or feeding formula.

- Refrigerate prepared formula immediately and discard prepared formula after 24 hours of being in the refrigerator.
- Unused liquid formula concentrate can be refrigerated overnight and used to make formula the next day. Store liquid concentrate in another container (covered) in the refrigerator once opened.
- Ready-to-feed formula (formula that you don't add any water to) can be refrigerated for 24 hours after opening. Store in another container (covered) in the refrigerator once opened.
- Powdered formula in the can should be discarded one month after opening. Mark the can of powdered formula with the date and when you opened it.
- Only put enough formula in your continuous tube feeding bag to last for 4 hours. It may not be safe for formula to sit out at room temperature longer than this.
- It's normal for your formula to look like it has "separated out." Simply shake well before feeding this formula.
- Sterile water may be recommended for premature babies and for other medical conditions. Check with your doctor to see what kind of water you should be using.

Formula Source

Check the formula source where your child will receive formula from.

- WIC Office
- Call your local WIC office as soon as possible to get an appointment so they can order your special formula or so you can get WIC checks for standard formula.
Local WIC number: _____
- Take your WIC form in to your next appointment
- Your WIC form was faxed to your local WIC office
- No special form needed to get formula from WIC
(If you are denied or do not qualify for WIC services, check with your home equipment supplier to see if they would be able to provide the formula.)
- Grocery store
- Home Health Company: _____
- Formula manufacturer: _____

In order to save money, check with your doctor to see if you can use generic formula instead of brand name formula.

FEEDING AND FLUSH INSTRUCTIONS

Your child's feeding schedule may be "bolus" or "continuous". Your nurse or nutritionist will help you fill in the correct chart that corresponds to your child's feeding needs.

Bolus/Intermittent Feeds

Formula Name: _____

- _____ ml per feed
- _____ feeds per day
- Give a feeding every _____ hours
- Use a syringe to deliver the feeding.
- Use your feeding pump to deliver the feeding over _____ minutes
- Allow your child to attempt to take the feeding volume by mouth for _____ minutes; what isn't taken by mouth should be given in the feeding tube.
- Your child's daily formula goal is _____ ml per day. Allow them to take as much as they want during the day; the rest can be given in their feeding tube overnight.
- _____

Continuous Feeds

Formula Name: _____

- Deliver feedings at a rate of _____ ml per hour for _____ hours:
 - During the day
 - At night
 - From _____ to _____
- Your child's daily formula goal is _____ ml per day.

Subtract what he or she took during the day from this number and give the rest in the feeding tube at night over _____ hours.

Don't go over a rate of _____ ml/hr on the feeding pump.
- _____

Water Flushes

- Flush with _____ ml water after each bolus feeding
- Flush with _____ ml water at the end of the continuous feedings.
- Flush with _____ ml water after each medication delivery.
- Flush with _____ ml water _____ times per day.

NOTES