PHIL SMITH NEUROSCIENCE INSTITUTE
At Holy Cross Hospital
ALS CLINIC AND CLINICAL RESEARCH CENTER

Feeding Tube Placement and Considerations
Feeding Tube (PEG) Placement Resource Guide

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i. Introduction to feeding tubes

Feeding tubes, or *percutaneous endoscopic gastronomy* (PEG) tubes provide nutrition (food and liquids) and/or medication directly into the stomach through a flexible tube.

Feeding tubes are recommended for many reasons. In individuals with ALS, they are indicated due to:

- Significant weight loss
- Difficulty swallowing
- Reduced appetite
- Dehydration
- Exhaustion and fatigue related to maintaining oral intake
- When respiratory function (FVC) is less than 50%
ii. Why are PEG tubes helpful?

1. **Supplemental nutrition**: You can continue to eat by mouth, but the PEG helps to meet daily nutrition goals and avoid weight loss.

2. **Hydration**: 2-3L of water per day is a baseline goal. Taking water through the PEG can help meet this daily intake.

3. **Medications**: Many medications can be crushed or ordered in liquid form to put through the PEG if taking pills by mouth is difficult.

4. **Appetite**: In the event that you don’t feel like eating, or are too tired to consume enough calories, the feeding tube can act as your “safety net” to avoid excessive weight loss.

5. **Quality of life**: If swallowing becomes very difficult, taking nutrition through the PEG can help to minimize burden related to eating by mouth, conserve energy and reduce the risk of respiratory infections.
iii. Description of feeding tubes

Feeding tubes are very small, flexible tubes about 1/4 inch in diameter.

**Cook Tube**

- Longer tubing, can be secured with tape/gauze
- Typically requires replacements less often
- Easier to feed/use if you have impairments in dexterity/hand function

**MIC Tube**

- Low-profile
- Replaced every ~6 months
- Requires extension tubing
- Not appropriate for everyone
- Should have back-up extension tube for emergency

**Mic-Key Button**

- Feeding Tube Port
- Removable Extension Tube
iv. Timing of PEG tube placement

If you make the decision to get a feeding tube, ALS treatment guidelines recommend early PEG tube placement to avoid malnutrition, weight loss, and to ensure the procedure is well-tolerated. This means placing the tube:

- *Prior* to significant weight loss
- *Before* swallowing becomes burdensome or too fatiguing
- *Before* significant dehydration
- *Before* respiratory function (“FVC” or “SVC”) measures are less than 50%

This time point varies from patient to patient. Your neurologist, speech pathologist and dietician will work together to guide you in this process.
v. Placing the PEG: Procedures

Feeding tubes are typically placed under local anesthesia and the procedure takes about 1 hour. The feeding tube is placed with the help of a small, flexible camera that is inserted through the mouth into the stomach. The tube is held in place by a small balloon inside the stomach and an external disc around the tubing, to hold the tube in place. The area where the tube enters the stomach is called the stoma site. Stitches are placed to help keep the tube in place. Once the tube is placed, the procedure is complete. Feeding tube placement is a reversible procedure.
vi. I have my feeding tube. Now what?

**General Care Guidelines:**

1. If you are still eating/drinking by mouth, you can resume your oral diet, as tolerated. Continue to use any meal time modifications or compensations you were previously recommended.

2. You may experience a discharge at the stoma site for the first few days (seven to ten days) until the stoma heals.

3. After initial insertion there will be external stitches to help keep the gastrostomy tube in place. Stitches can be removed after 7 to 10 days if they are bothersome.

4. You may have one or more sutures with a small “button” on the end. The suture (string) may fall off on its own. It does not need to be replaced.

5. Always ensure that you wash your hands before and after caring for your gastrostomy tube.

6. You can remove the dressing and shower after 24 hours. Wash the area with soap and warm water and pat dry.

7. After 24 hours, avoid covering the g-tube site with a dressing. Dressings may promote skin breakdown and infection. If a dressing is used, change immediately if it becomes wet.

8. You can swim after the site is fully healed (approximately 4 weeks). The ocean or swimming pool is an acceptable place to swim. Avoid lakes, ponds, hot tubs or other bodies or water likely to be contaminated.

9. If you notice that the skin is becoming inflamed (red) or there is discharge, pus, or bleeding from the site you should contact your doctor.
**Tube Feeding:**
After your PEG tube placement procedure, a nurse will come to your home to train you and your caregivers/family members on how to use the feeding tube. Your dietician will recommend a feeding tube "formula" designed specifically for the tube (ex: Jevity 1.5, Glucerna, Liquid Hope) based on your nutrition needs. There are 3 ways to feed through the tube:

1. **Bolus:** a set amount of formula is given in a short period of time using a syringe (as seen in the picture below).

2. **Gravity Drip:** a set amount of formula is placed in a hanging tube feeding bag and delivered with the assistance of gravity.

3. **Pump:** Formula is placed in a tube feeding bag and the feeding tube tubing is connected to the feeding pump. The pump is set to deliver a specific amount of formula over a specific time frame.
Flushing (to prevent blockage of the tube):

1. Unless otherwise specified by your dietician, a minimum of 20 mL of water should be used for flushes after feeds.
2. Flush tube every 8 hours and as needed after giving medications and feedings.
3. When giving medications, it is important to flush between each medicine and after them to prevent blockage in the tubing.

Problem Solving for Tube Blockage

1. Ensure all clamps are open and the tube is not kinked.
2. Try to flush, using a pumping action, with the plunger on the syringe. Connect a 50ml syringe to the end of the tube and try to draw back (‘aspirate’).
3. Massage the tube around the area of blockage if it is obviously visible.
4. Mix half a teaspoon of sodium bicarbonate (baking soda) with 30mls of boiling water. Leave this to cool to a warm temperature then use a syringe to flush this solution down the tube. Leave the solution in the tubing for at least two hours (can be left overnight) then flush it through with 20mL of water (If you do not have any sodium bicarbonate, try soda water or pineapple juice.)

Leaks from Stoma Site (around the tube): Problem Solving

1. The water in the balloon should be changed. There may be leakage if the balloon is not adequately inflated (It is important that this is performed by a trained nurse in the initial 6 weeks after the tube’s placement as there is a risk of the tube displacing).
2. Leakage from the stoma site can occur because the stomach is too full or contains gas.
3. If you notice formula leaking out around the stoma site you should contact your dietician to discuss changing feeding regimes. A slower feeding rate or different formula may be necessary.
4. Gas can be released by decompressing the stomach via the gastrostomy tube. To decompress (let air out, bloating) the stomach attach the barrel of a syringe to the gastrostomy tube. Hold the syringe 10cms above the height of the abdomen and unclamp. If necessary, draw back on the syringe to let out gas from the feed/medication port using a syringe.
If the tube falls out before its planned removal date

If the tube becomes dislodged (falls out), a new tube must be inserted as soon as possible as the stoma will start to heal and may completely close.

If you have any questions or are unable to solve a problem following these instructions, let your ALS Clinic team know ASAP. You can also call Interventional Radiology during regular business hours (7am - 4pm) at 954-229-7977. In an emergency, please go to the nearest emergency department. After hours (nights and weekends), you may leave a message for the on-call interventional radiologist by calling 954-229-8962 or 954-771-8000 ext 5159.