Adult Trauma Feeding Access Guideline

**Background:** Enteral feeding access mode (NGT, NDT, PEG, PEG-J, Jejunostomy tube) dependent upon patient characteristics. Enteral feeding management guidelines aim to standardize administration procedures for adult enteral nutrition support.

**Nasogastric Tube Placement**

- Feedings are directly to the stomach.

**Indications**

a. Treatment of ileus or bowel obstruction  
b. Administration of medications  
c. Enteral nutrition  
d. Stomach lavage

**Contraindications**

a. Patients with esophageal stricture  
b. Patients with esophageal varices

**Nasoduodenal Tube Placement**

- Feedings are directly to the duodenum; also known as post-pyloric. Post-pyloric feedings significantly reduces the likelihood of aspiration/vomiting.

**Indications for post-pyloric tube placement**

a. Gastroparesis  
b. Recurrent aspiration/high aspiration risk  
c. Severe pancreatitis  
d. Severe hyperemesis

*Confirmation of Placement should always be obtained prior to administering feeds or medications.*

**Jejunostomy Tube Placement**

- Feedings are into the proximal jejunum; also known as post-pyloric. Jejunostomy is usually indicated as an additional procedure during major surgery of upper digestive tract.

**Techniques**

a. Percutaneous  
b. Open  
c. Laparoscopic
Percutaneous Endoscopic Gastrostomy Tube Placement

**Indications:**

a. Patient with oropharyngeal dysphagia, trauma, cancer or recent surgery of upper GI tract that may require long term nutritional support.
b. Patient with inability to take adequate oral nutrition
c. Decompression of upper gastrointestinal tract in patients with intraabdominal malignancy, gastric outlet obstruction, etc.

**Contraindications:**

<table>
<thead>
<tr>
<th>Absolute</th>
<th>Relative</th>
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<tbody>
<tr>
<td>Uncorrected coagulopathy, sepsis</td>
<td>Presence of esophageal obstruction</td>
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<tr>
<td>Severe ascites</td>
<td>Peritonitis or intraabdominal infection</td>
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<td>Total gastrectomy</td>
<td>Ventral hernia</td>
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<td>Portal hypertension with gastric varices</td>
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<td>Partial gastrectomy</td>
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**Equipment:**

1. Upper endoscope
2. PEG kit
   a. Contents: PEG tube, guidewire, snare, syringe, needle, lidocaine, surgical blade, gauze, lubricant, scissors,

**Peri-Operative Care:**

1. Ensure patient has been fasting at least 6 hours prior to intervention.
2. Administer preoperative antibiotics per protocol. Gastrostomy tube bumper placement on length of tube should be such that one finger may be slipped between base of bumper and skin without undue tension (approximately 1-2cm from abdominal wall)
3. Secure device as appropriate.
4. Length of tube should be documented in operative report
5. Write orders for length of tube
6. Bolster dressing: Place 2 supporting rolls on either side of PEG tube, secure with silk tape, and place patient in abdominal binder

**Post-Operative Care:**

7. Place PEG tube to drainage for 6 hours (placed to foley bag).
8. Routine postoperative check on POD#0, 6 hours after procedure
   a. Check PEG site for bleeding or leakage
   b. Check tube length and confirm with operative report, document in progress note
c. Check integrity of supporting rolls and abdominal binder
d. If there is a question regarding location of PEG, obtain contrast AXR (gastrograffin) or CT

9. Resume tube feeds on previous regimen if postoperative check is OK
   a. Postoperative check on POD#1
   b. Check PEG site for bleeding or leakage
   c. Check tube length and confirm with operative report, document in progress note
   d. Check integrity of supporting rolls and abdominal binder
   e. If there is a question regarding location of PEG, obtain contrast AXR or CT
   f. Check for tolerance of tube feeds

10. Postoperative check on POD#3, and #5 (see steps detailed above)
11. If no issues, sign off
12. If there is persistent leakage, recommend optimizing nutrition, tight glycemic control, use of barrier creams and zinc oxide skin protectants, consider removing PEG for several days to allow tract to partially close, and replace with new PEG through same site, or new PEG through new site

PEG removal (unplanned vs planned)

- If PEG tube is inadvertently removed <7 days, it is a surgical emergency. Notify attending immediately.
- If PEG tube is inadvertently removed <1 month from insertion, consider repeat endoscopy to replace PEG.
- If PEG tube is inadvertently removed >1 month, consider replacing tube immediately and confirm placement with gastrograffin study. If no gastrostomy tube immediately available may use red rubber catheter or foley a catheter placed into tract to avoid tract closure until new gastrostomy tube can be placed.

PEG tubes may be removed > 1 month after placement if: 1) satisfactory swallow study
   2) taking adequate intake meds/nutrition PO

Enteral Feeding Management

Refer to Adult Enteral Nutrition Protocol.

Flushing Guidelines

- Always flush tubes before and after administering medications. Recommend using 30-60cc water.
- Feeding tubes should be flushed every 8 hours to keep patent (even when not in use).
• Small syringes should not be used to flush due to high intraluminal pressure that may damage tube. 30-60ml syringe recommended.

**Medication Administration through Feeding Tubes**

Inappropriate administration of medications through enteral feeding tubes can cause potential toxicity, reduced efficacy, and tube obstruction.

• Feeding tube placement site and tube size must be considered prior to medication administration. Smaller bore tubes often clog more easily than larger bore tubes. Feeding tube placement site affects drug absorption. Most of the absorption of oral medications take place in the small intestine, but for some the stomach is the target for drug action and absorption.

• Solutions or soluble tablets recommended formulations.

• Do not crush enteric coated tablets.

• Do not crush ER tablets.

• If there is a question on the appropriateness of administration via tube, obtain verification from pharmacist on floor.
References


