

Care and Feeding of Enteral Tubes

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What is a Gastrostomy?

- An “ostomy” is a connection between an organ and the skin.
- Therefore a “gastro” meaning stomach and “ostomy” is a connection between the stomach and the skin.
- A Tube is needed to keep the ostomy open.

How do you create a Gastrostomy?

- There are two techniques:
- Surgical



- PEG

Creating a PEG

- General Anesthesia
- Upper Endoscopy
- Placement of Gastrostomy
- Incision
- Delivery of Guide wire or string
- Attachment of the tube
- Pushing or pulling the tube into place

Jejunostomy Tube

- Usually created surgically
- Principally used to by-pass the stomach because of slow gastric emptying or gastroesophageal reflux that is inoperable or has failed operation
- Uses the same devices as a gastrostomy to keep the connection open

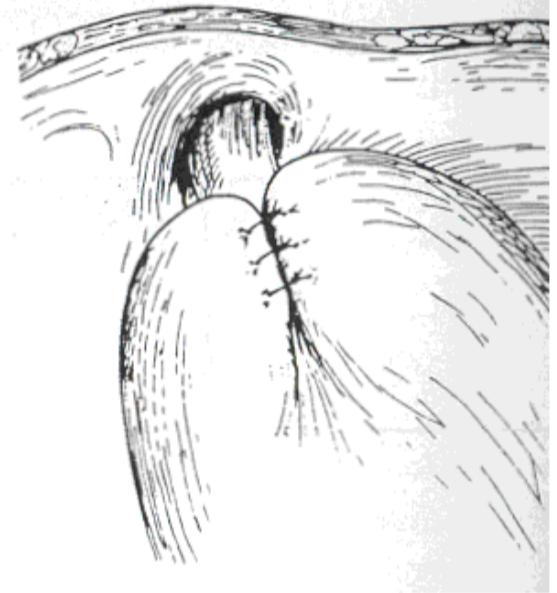
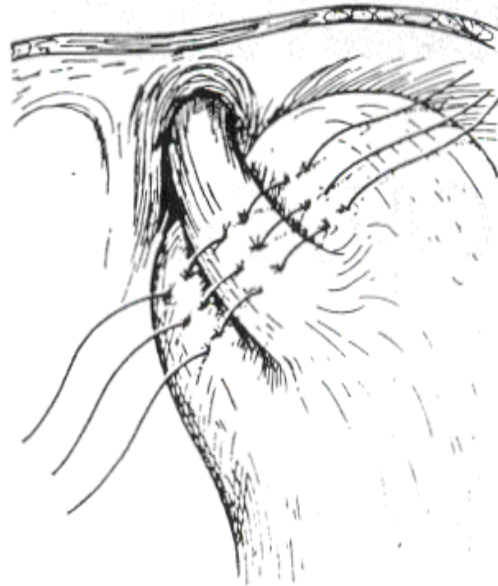
Indications

- Inability to eat
- Aspiration
- Poor oral intake
- Inadequate caloric intake
- May be combined with a fundoplication

Evaluation

- History
 - Growth
 - Cough
 - Emesis
- UGI and/or Swallow Study
- pH probe

Fundoplication



Are Funduplications always the best answer?

- Relatively high failure rate.
- High complication rate.
- Re-doing the surgery is difficult at best.
- Funduplications tend to loosen as the child grows.

Gastrosotomy Devices

- Catheter Devices
- Button Devices

Catheter Devices

- Foley
 - Mallecott
 - MIC Tube
 - PEG Tube
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- Usually the first tube inserted in a new gastrostomy

Button Devices

- MIC-KEY
 - Bard
 - Genie
 - AMT
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- Used for long term management.
 - Converted or inserted in one to three months

Nourishing G-tubes

- Bolus Feeding
- Continuous Feeding

Bolus Feeding

- Simple
- Fast
- Requires minimal equipment
- Useful for feeding children at school

Problems with Bolus Feeding

- Often precipitates vomiting if delivered too fast.
- Night feeds are not possible, unless the parents want to get up.

Continuous Feedings

- Great for delivering feeds while asleep
- Good for getting around slow gastric emptying
- Great for supplementing daily oral intake

Problems with Continuous Feeds

- Requires more equipment
- Difficult to use at school
- Often makes the children too full to eat a morning meal

So what tube does the patient have?

- Check to end of the tube
- Check the skin level device

Caring for a Gtube

- Daily washing with soap and water
- Rotate the tube while cleaning
- Apply dressing if necessary
- Ointment only if it is inflamed.

Do they ever get infected?

- This is a rare phenomenon
- The puss that you see is more likely to be mucus (Please don't culture)
- Infections are not superficial.
- Superficial redness is due to moisture or gastric acid
- There is always swelling and tenderness with infection

Granulomas

- Very common.
- Usually associated with increased tube movement
- Granulomas are gastric tissue which has been pulled to the surface by tube movement
- Treatment is best done with silver nitrate and decreasing the tube movement.

Emergency Techniques

- Primary goal is to keep the ostomy open.
- Push the old tube back in or clamp tube. Then tape in place.
- Or - use any object to keep ostomy open.
- Replace with the proper tube as soon as possible. (most families have spares)
- ERs don't always know what to do.
- When in doubt, put in a Foley catheter!

Summary

- Gtube and PEG are not different in function
- Bolus vs. Continuous Feeds are determined by patient needs
- The type of tube can be determined either by the end of the tube or how it looks at skin level.