Gastrostomy Tubes 101

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Reasons to consider placing a gastrostomy tube

INDICATIONS
Inability to orally consume caloric needs
Prolonged feeding time
Inadequate weight gain
Weight loss
Significant Medication Requirements

Types of tubes...

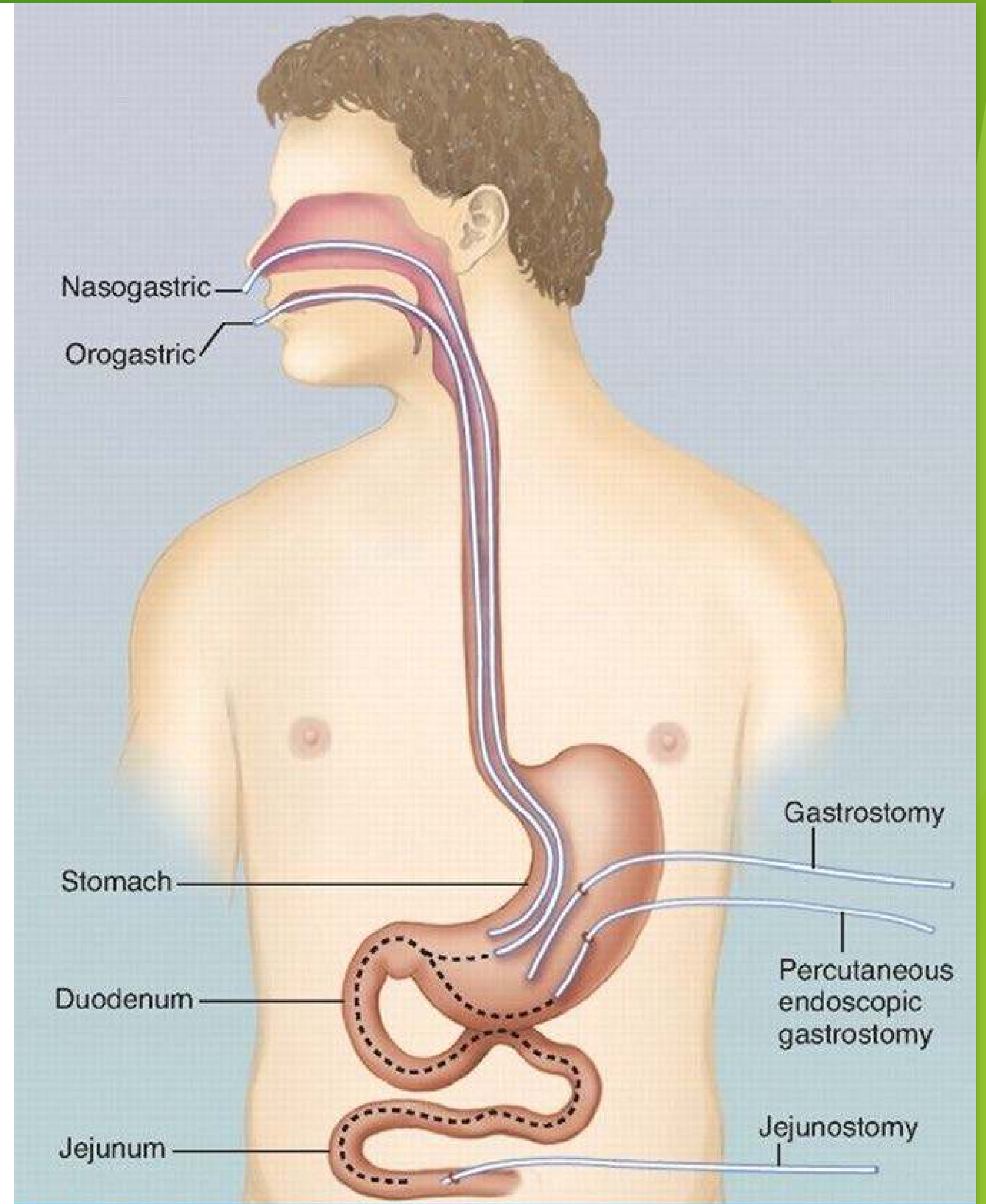
- Orogastric Tube (OGT)
- Nasogastric Tube (NGT)
- Nasojejunal Tube (NJT)
- Gastric Tube (GT) – PEG or Surgical
- Gastrojejunal Tube (GJT)
- Jejunal Tube (JT)

SHORT TERM TUBES: (Recommend for </= 12 weeks)

- Orogastric Tube (OGT)
- Nasogastric Tube (NGT)
- Nasojejunal Tube (NJT)

LONGTERM TUBES:

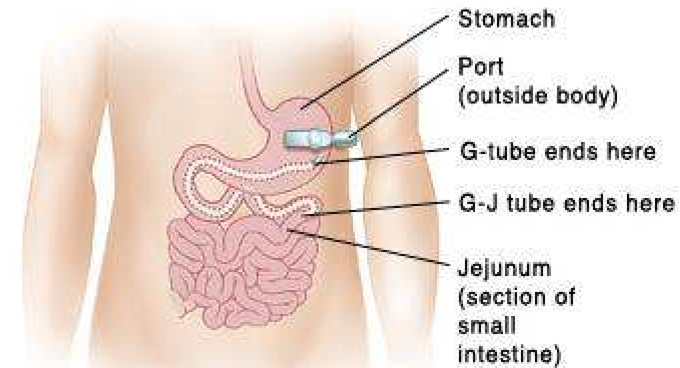
- Gastric Tube (GT)
- Gastrojejunal Tube (GJT)
- Jejunal Tube (JT)



G tubes

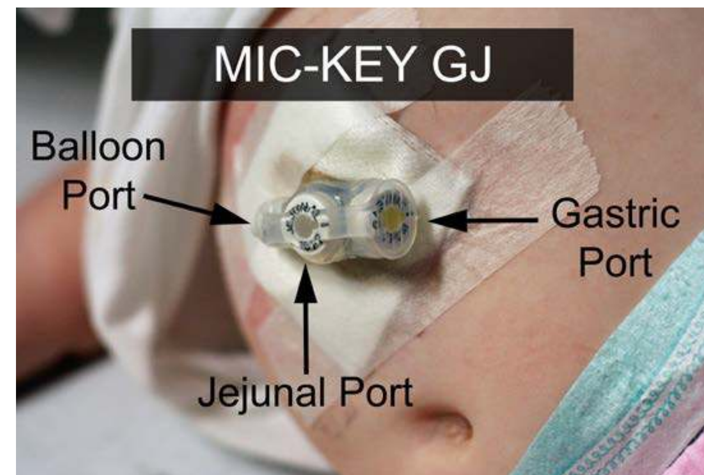
- Advantages
  - More closely mimics oral feeding
  - Ability to vent stomach
  - May be placed surgically or endoscopically (PEG)
- Disadvantages
  - PEG – increased risk of peritoneal infection if dislodged early after placement
  - Need to wait 2-3 months to replace with a skin-level device (button)

GJ and J Tubes

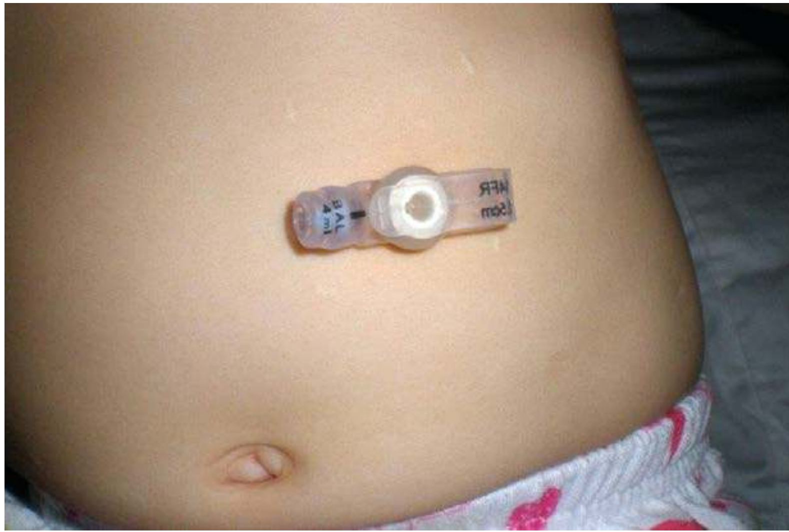


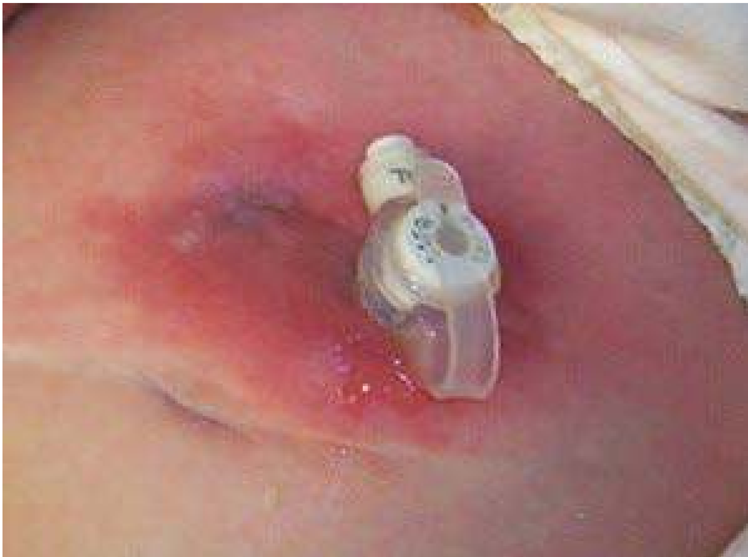
The G-tube or G-J tube is placed so that liquid food or medication is delivered directly into your child's stomach or small intestine.

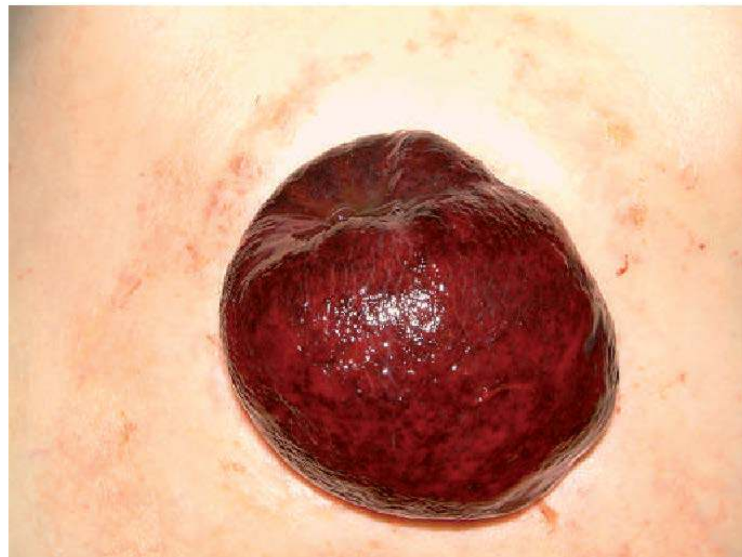
- Uses
  - Severe vomiting/ inability to tolerate gastric feeds
  - Decrease risk of aspiration
- Limitations
  - Only use for continuous feeds (no bolus)
  - Dislodge or flip out of intestine (GJ)
  - Risk of leading to intestinal blockage (Rare)



The Good, the Bad and the Ugly…







Recognizing Granulation Tissue

Granulation tissue generally appears as follows:

- Usually pink to dark red tissue, but it does not spread like an infection
- Can appear open, wet looking or shiny
- Bleeds easily
- Appears bubbly and puffy
- Can be painful

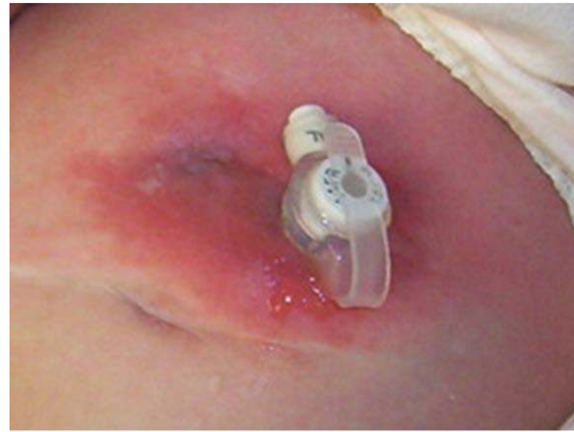
Treatment

- Clean daily and keep DRY
- Triamcinolone cream
- Silver Nitrate

Prevention of Granulation Tissue

- Always secure the feeding tube well to avoid friction against the skin.
- Make sure your child's low profile balloon-type G tube fits properly. If you think G tube is too loose or too tight, contact your G tube team to re-measure the size of the tube. Check the volume of the water in the balloon weekly.
- Do not put dressings on the stoma unless your medical team advises to do so.
- Keep the stoma open and dry. Do not apply ointments or creams unless your medical team advises to do so.
- Manage leakage around the tube.
- Prevent infection

Infection or Cellulitis



- Skin breakdown at tube site permits bacterial invasion into tissue and may lead to infection
- Signs of infection:
  - Increased and/or spreading redness of the skin around the feeding tube (it may look "angry")
  - A change in the color and the thickness of the drainage leaking around the feeding tube
  - Foul smelling discharge from the stoma
  - Swelling and/or a feeling of warmth around your child's feeding tube
  - Abscess formation (collection of pus under the skin)
  - Pinpoint rash (may be due to a fungus)
  - Pain
  - Fever

Treatment and Prevention of Infection

- TREATMENT
  - Mild infections may respond to topical antibiotic
  - Spreading redness, pain, fever – antibiotics (g-tube or IV in severe cases
  - Ultrasound may be needed if abscess suspected
- PREVENTION
  - Always wash your hands before handling the tube and stoma.
  - Clean the G/GJ-tube site with soap and water daily.
  - Keep the G/GJ-tube site dry and open to the air.
  - Do not apply any dressing unless needed to absorb leakage or excessive discharge.
  - Prevent skin irritation from excessive gastric content leaking from the stoma.

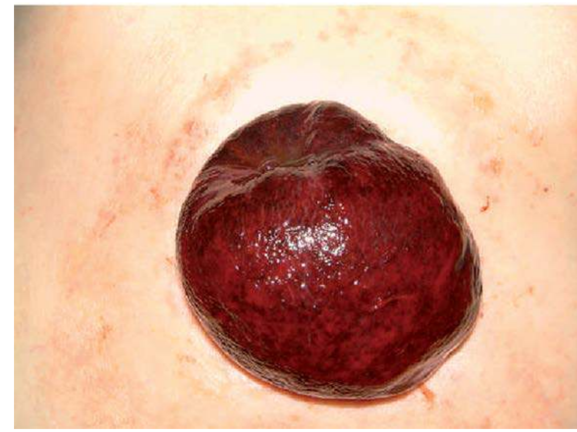
Leakage at the Stoma

- It is normal for the stoma to produce small amounts of thin, yellow-green discharge
- Too much leakage can cause skin irritation, breakdown and enlargement of the stoma.
- Leakage may be caused by poor tube fit, tube movement, granulation tissue, a cracked tube, infection, and conditions that increase pressure in the stomach.

Management of Leakage

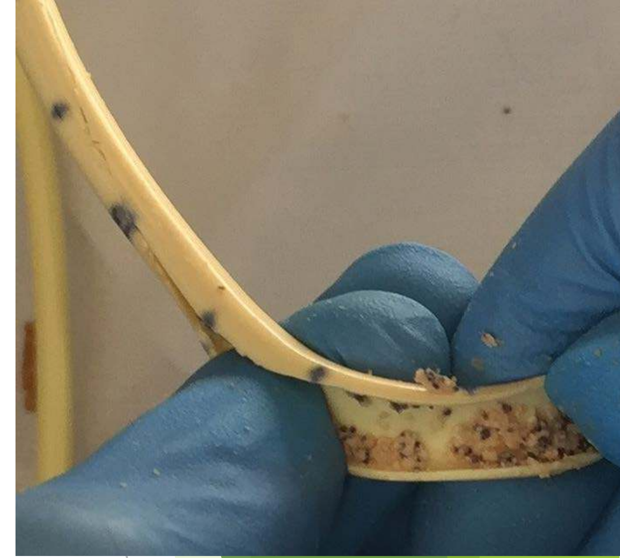
- If your child has a G tube that has a balloon on the end, make sure that the balloon is filled properly and that the tube does not move too much in and out of the stoma.
- If your child's tube has an adjustable device at the stoma, make sure it is fitting well at the stoma (not too loose or tight).
- If the liquid leaking from your child's G or GJ tube makes the skin burn or feel itchy, protect the skin with a barrier cream. Creams that are zinc-based work best, and are available at your local pharmacy. Apply the barrier cream around the stoma to protect the skin.
- Use dressings that absorb moisture.
- Do not insert a larger tube. This will make the stoma bigger and cause more leakage
- Talk to your child's doctor about anti-acid medication and dosing
- See you GI Team if leakage persist

Gastric Prolapse



- Gastric prolapse is when stomach lining pushes through the g-tube opening
- Gastric prolapse through a PEG site is serious, but rare (1% or less)
- Risk factors proposed include frequent gastrostomy tube dislodgement, excessive leakage, upsizing catheter diameter, ventilator dependency, increased intra-abdominal pressure, neurological disorders and malnutrition
- Strangulation of gastric prolapse requires emergent intervention
- Management includes the assessment of gastric mucosa viability, prompt resection of non-viable tissue and closure of the gastrotomy defect.

Clogged Tubes



PREVENTION

- Always flush the tube immediately before and after feeding with at least 30 mL (1 ounce) of water.
  - Never mix medicine with tube feeding unless advised to do so by your healthcare practitioner.
  - Flush tube with at least 30 mL of water before and after all medications.
  - Flush tube with at least 5 mL water between each medication if more than one is given.
- Request liquid medications if available
- Crush medicine to a fine powder and disperse in 5 mL of warm water.
- Always check with your pharmacist first to be sure it is okay to crush a particular medicine.
- Never crush an enteric-coated, time-released, or sustained-release tablet or capsule.
- Never mix fiber supplement with tube feeding formula unless instructed.

What to try with a clogged tube?

Warm water is often effective and should be front line treatment.

- 60 mL syringe filled with lukewarm water
- Do not try to force the water in, gently and firmly push and pull the plunger back and forth.
- Clamp the tube for 20 minutes allowing the water to "soak"
- Repeat if necessary

Do NOT use meat tenderizer, juice, acidic soda or hot water

For bad clogs – see GI Team - who may try pancreatic enzymes to unclog tube

G tubes can be life altering and life saving when placed and used correctly

Picture obtained from: https://beyondbasicplay.wordpress.com/2013/08/15/tips-and-tricks-keep-that-g-tube-button-in-place/