Balloon gastrostomy- low profile – feeding tube inserted directly through the abdomen into the stomach and held in place by an inflatable balloon. Uses include providing nourishment, fluids and medication and releasing excess air or gastric contents from the stomach.

Balloon gastrostomy tube - long shaft (balloon - retained gastrostomy) – feeding tube inserted directly through the abdomen into the stomach and held in place by an inflatable balloon. It has a long shaft with graduated centimeter markings and has an external plate or ring. Uses include providing nourishment, fluids and medication and releasing excess air or gastric contents from the stomach.

Client - for the purpose of this policy, client will be used when referring to clients, patients, and residents.

Established stoma - stoma at least 8 weeks post-tube insertion or as determined by physician.

**ROLES:**

Grad Nurse (GN) identified by their manager in targeted practice settings will be certified in this RN Specialty Practice; RN Procedure of Gastrostomy Tube (Balloon Type) Adult and Pediatric: Replacement and Removal and performed under direct supervision by a certified RN.

Grad LPN (GLPN) Graduate Licensed Practical Nurses (GLPNs) certification for this Additional Competency is under review by the SHR Nursing Practice Committee. As assigned, GLPN may use balloon gastrostomy tubes to administer feeds and medications and provide routine gastrostomy site care.

Licensed Practical Nurses (LPN) LPN certification for this Additional Competency is under review by the SHR Nursing Practice Committee. As assigned, currently certified LPNs may continue to replace balloon gastrostomy tubes. LPNs requiring initial certification will not be certified until the review is completed.
**Registered Nurse (RN)** identified by their manager in targeted practice settings will be certified in this RN Specialty Practice; RN Procedure of Gastrostomy Tube (Balloon Type) Adult and Pediatric: Replacement and Removal.

Unlicensed Care Providers may use balloon gastrostomy tubes to administer feeds and provide routine gastrostomy site care as directed by licensed care providers.

1. **PURPOSE:**

   1.1 To provide care of Gastrostomy Tube - balloon type and proper use of the device to administer client with nutrition, medications or gastric decompression.

   1.2 To safely perform a routine change of a Gastrostomy Tube - balloon type (low profile or long shaft)

   1.3 To safely replace a Gastrostomy Tube - balloon type (low profile or long shaft) if accidental dislodgement occurs in hospital, Long Term Care or community setting.

   1.4 To safely remove a Gastrostomy Tube - balloon type (low profile or long shaft) when it is no longer required in hospital, Long Term Care or community setting.

2. **POLICY:**

   2.1 The certified nurse performing this RNSP will have first completed the following learning modules/activities prior to replacing or removing gastrostomy tubes independently.

   - Attended an educational session on Balloon Gastrostomy Tubes
   - Completed the learning package and quiz and returned it to the CNE
   - Complete a competency checklist with a certified nurse during the first Balloon Gastrostomy replacement on a client.

   2.2 Certified nurses may replace balloon gastrostomy low profile or long shaft tubes that have been in situ for a minimum of 8 weeks.

   2.3 Certified nurses may remove balloon gastrostomy low profile or long shaft tubes permanently with a physician order.

   2.4 Balloon gastrostomy low profile or long shaft tubes will be replaced as soon as possible - stoma will begin to close quickly.

   2.5 Physicians will replace balloon gastrostomy low profile or long shaft tubes if accidentally dislodged within 8 weeks of initial insertion.

   2.6 Replacement balloon gastrostomy low-profile or long shaft tube is kept either at the bedside or obtained within 1-2 hours through SHR Supply Chain Management.

   2.7 Manufacturer recommended balloon gastrostomy tube change is routinely every 6 months or more often if balloon gastrostomy tube is damaged, leaking through valve, or balloon is broken.
3. PROCEDURE:

3.1 Care and maintenance: Care providers do not require certification

3.1.1 Perform appropriate Hand Hygiene procedures.

3.1.2 Rotate the balloon gastrostomy tube 360° q 24 hours starting 2 weeks after initial insertion to ensure the tube can move freely.

3.1.3 Balloon gastrostomy tube- long shaft: ensure the feeding tube is in the correct position by confirming the cm marks on the external part of the tube are the same as when initially placed (document in care plan).

Note: Retention disk should sit comfortably on the skin without causing pressure

3.1.4 Cleaning:
3.1.4.1 Sterile water and cotton tipped applicator to clean stoma and surrounding skin for 2 weeks after insertion
3.1.4.2 Soap and water to clean stoma and surrounding skin when healed (after 2 weeks)

3.1.5 Assess skin condition daily
3.1.5.1 Apply dressing as needed if there is drainage
3.1.5.2 Apply protective cream to skin around G-tube if there is a Physician order
3.1.5.3 Notify Physician if granulation tissue is present – Silver nitrate treatment may be done by nursing with a physician order (See Appendix A).

3.1.6 Clean the feeding port daily using soap and water and cotton tipped applicator

3.1.7 Assess volume of sterile water in balloon on admission, weekly and prn.
3.1.7.1 Insert a Luer slip syringe into the balloon valve (Figure 2 & Figure 3) and withdraw the fluid while holding the gastrostomy tube in place.
3.1.7.2 Compare the amount of water in the syringe to recommended volume for the device and specific patient orders.

Note: Low profile balloon gastrostomy tubes - 5 mL
Long shaft balloon gastrostomy tubes – 7-10 mL

3.1.7.3 If the amount is less than recommended, refill the balloon with the water initially removed, then add the amount needed to bring the balloon volume up to recommended amount.

3.1.8 Connect the feeding tube extension (SKU # 44234) to the feeding port, lining up the black marks and rotating ¼ turn clockwise. Provide medication, feed or fluids or attach to suction if used for gastric decompression.
3.1.9 Disconnect the feeding tube extension when no longer needed for medication, feed or fluids by rotating until black marks line up and gently pulling upward. Close feeding port plug.

3.1.9.1 Disconnect between intermittent feeds to prevent enlarging of the stoma, skin irritation, leakage and granulation tissue development.

3.1.9.2 Gastric decompression - leave feeding tube extension attached to gastrostomy tube and attach to gravity or suction drainage according to physician orders.

3.1.10 Flush the gastrostomy tube with sterile water every 4 hours during continuous feeds, after intermittent feeds or medication administration, or every 8 hours if the tube is not being used.

3.1.10.1 Volumes of sterile water as below or per specific physician order:
- Infants: 3 mL
- Children: 3-5 mL
- Adolescents: 5-10 mL
- Adults: 10 – 20 mL

3.1.10.2 Types of water to be used:
- Use sterile water in Acute Care for all patients of all age groups for all purposes (drug preparation/administration, reconstituting formula and water flushes).
- Use sterile water (or boiled tap water NOT from the bathroom) in the community setting or LTC for drug preparation and before and after medication administration for all patients of all age groups.
- Use sterile water (or boiled tap water NOT from the bathroom) in the community setting or LTC for reconstituting formula or for water flushes in high risk groups of all ages (including immunocompromised, those critically ill and All neonates/infants).
- Use tap water (NOT from the bathroom) or bottled water for reconstituting formula or for water flushes in the home or clinic or LTC if municipal water is safe for all ages, EXCEPT immunocompromised, those critically ill, and ALL neonates/infants who will still need sterile water (or boiled tap water NOT from the bathroom) in the community setting or LTC.

3.1.10.3 Rinse feeding tube extension with water after each feed or q4h with a continuous feed. Wash in warm soapy water and rinse with clear water daily. Discard and obtain a new extension tube weekly and prn.
3.2 Replacement of Dislodged Balloon Gastrostomy Low Profile or Long Shaft Tube - Certified Nurses

**Note:** If tube is accidentally dislodged less than 8 weeks after initial insertion, notify physician to replace the tube as tract is not fully established.

### Low Profile Gastrostomy Tube

![Figure 2](image)

- Balloon port
- Feeding port
- Balloon

### Long Shaft Gastrostomy Tube

![Figure 3](image)

- Medication Port
- Feeding Port
- Balloon Port
- Retention disk/flange
- Balloon

#### 3.2.1 Supplies:
- Non-sterile gloves
- Normal Saline
- Watersoluble gel
- Luer slip syringe - 6 mL (SKU # 50690)
- Catheter tip syringe - 60 mL
- Sterile water
- Sterile cotton tipped applicator & normal saline
- Absorbent dressing

#### 3.2.2 Perform Hand Hygiene. Apply clean gloves.

#### 3.2.3 Explain procedure to client and family as appropriate.

#### 3.2.4 Use pain management strategies appropriate for age of client.
3.2.5 Clean external surface of balloon gastrostomy tube with Normal Saline prior to replacing in stoma.

3.2.6 Confirm integrity of balloon in gastrostomy tube that has become dislodged.
   3.2.6.1 Use a 6 ml luer slip syringe and attach to balloon valve of the device.
   3.2.6.2 Remove all of the water from the balloon and discard
   3.2.6.3 Draw 5 ml sterile water into luer slip syringe
   3.2.6.4 Re-inflate the balloon on existing tube, remove syringe and observe the balloon for symmetry and leaks.
   3.2.6.5 Remove the water from balloon. If the balloon is intact, the existing device may be replaced and used for feeds.
   3.2.6.6 If balloon is not intact – see section 3.3.

3.2.7 Position patient in supine or side-lying position. An assistant may be needed to hold client.

3.2.8 Apply lubricating gel to tip of balloon gastrostomy low profile or long shaft tube.

3.2.9 Gently guide the tube into stoma following the course of the stoma tract. The tube can be gently rotated to assist in tube placement. Minimal resistance should be felt.
   3.2.9.1 Balloon gastrostomy low profile tube:
      • Insert the balloon low profile gastrostomy tube into the stoma until the external base is flush with the skin. Hold the tube in place.
      • Fill the balloon with 5 mL sterile water or amount specific to that client.
      • Confirm correct placement by attaching an extension set into the feeding port and aspirating stomach contents.

   3.2.9.2 Balloon gastrostomy long shaft tube:
      • Prior to insertion, slide the external retention disk to the top of the tube. This releases the hold the retention disk has on the tubing.
      • Insert the balloon gastrostomy long shaft tube approximately 2 cm past the cm number recorded from previous insertion
      • Fill the balloon with 5 mL sterile water or amount specific to that client or device.
      • Pull tube gently upwards so balloon rests against stomach wall
      • Wipe off any residual lubricant
      • Secure the tube by sliding external retention disk along the length of the tube until it is approximately 1 cm above the stoma.
      • Confirm correct placement by attaching catheter tip syringe to the feeding port of the long shaft gastrostomy tube and aspirating stomach contents
      • Gently wipe away fluid or lubricant from the tube and stoma

Note: (see appendix D)

3.2.10 If stomach contents cannot be aspirated and correct placement of gastrostomy tube is not confirmed, discuss with physician/practitioner prior to commencing feeds or administering medication.

3.2.11 Observe for abdominal discomfort and distension at next feeding
3.3 **Scheduled replacement with a new balloon gastrostomy tube - low-profile or long shaft - Certified Nurses**

3.3.1 Scheduled replacement should be done prior to a bolus feed or after a continuous feed has been stopped for 2-4 hours.

3.3.2 Replace with a new balloon gastrostomy tube of the same Fr. size and length into the established stoma following steps outlined in section 3.2

3.3.3 If a new balloon gastrostomy tube - low profile tube is not available, replace with a balloon gastrostomy tube - long shaft. See Appendix C for product SKU #.

**Note:** Practitioner may consider insertion of a Foley catheter to maintain a tract for a short period of time. An individualized care plan for the patient must be developed and all other options considered prior to use of a Foley Catheter. Foley Catheter is not intended for feeding client.

**Note:** See Appendix B for considerations/cautions

3.4 **Resistance when attempting to replace balloon gastrostomy tube:**

3.4.1 Do not force tube into stoma

3.4.2 Attempt to insert a smaller size balloon gastrostomy tube (if available).

3.4.3 Insert a Foley catheter into stoma if smaller size gastrostomy tube is not available – see section 3.3.2

3.4.4 Notify physician. Institute other gastric decompression measures as ordered (ex: nasogastric tube)

3.5 **Inability to replace balloon gastrostomy tube**

3.5.1 Cover site with appropriate dressing

3.5.2 Contact physician as soon as possible. Institute other gastric decompression measures as ordered (ex: oral gastric tube)

3.6 **Removal of balloon gastrostomy tube:**

3.6.1 **Supplies:**
- Non-sterile gloves
- Luer slip syringe
- Absorbent dressing
- Water soluble lubricant

3.6.2 Perform hand hygiene

3.6.3 Deflate balloon using slip tip syringe

3.6.4 Apply water soluble lubricant to gastrostomy stoma

3.6.5 Remove gastrostomy tube using gentle traction and applying counter-pressure to abdomen.
3.6.5.1 Report to physician if tube is unable to be removed.

3.6.6 Meticulous skin care is necessary until gastric leakage stops
   3.6.6.1 Cleanse gently with mild soap and water
   3.6.6.2 Apply No Sting protective spray or wipe to area around the stoma
   3.6.6.3 Generous application of zinc based cream
   3.6.6.4 Frequent dressing changes - gauze or other absorbent dressing

3.6.7 Apply dressing to site prn. Stoma will close spontaneously usually within 2 weeks. If it does not close, report to physician.

3.7 Report to the physician:
   - Vomiting with feeds
   - Leakage around stoma
   - Abdominal distension, swelling at site
   - Pain
   - Development of granulation tissue
   - Skin irritation at the insertion site
   - Inability to rotate button 360 degrees (external migration)
   - Pain with feeds or flushing
   - Stoma red and raised
   - Decreased flow of feeds

3.8 Documentation:
   - Date and time of re-insertion/removal
   - Bleeding or drainage at site and intervention
   - Size of tube/button placed
   - Any difficulty inserting the tube
   - Amount of water in the balloon
   - Patient’s tolerance of procedure
4. REFERENCES


Appendix A

**Topical Silver Nitrate Application for Treatment of Hyper-granulation Tissue at G-tube Site**

1. Hyper-granulation tissue occurs as an immune response by the body to a foreign object (feeding tube). Contributing factors include:
   - Friction from excessive tube movement
   - Moisture at gastrostomy tube site
   - Pressure from tube or bolster
2. Assessment of skin integrity prior to use of silver nitrate required
3. Physician order for topical silver nitrate application required
4. Application of silver nitrate – hyper-granulation tissue **ONLY**
   a. Clean area around stoma with mild soap and water and dry well
   b. Apply a layer of Vaseline to skin surrounding hyper-granulation tissue
   c. Application may sting – use pain management strategies/medications as needed
   d. Touch the silver nitrate applicator tip to the hyper-granulation tissue (turns gray-white in color). Applicator may be dipped in sterile water to activate prior to use.
   e. Apply a dressing to the stoma as needed
5. Maintain skin around stoma as clean and dry as possible
6. Repeat application once daily for up to 5 days per physician order

Appendix B

**Considerations/cautions if using a Foley Catheter for a purpose other than the labelled use**

1. Can feeding tube be replaced within 1-2 hours? If reinsertion of a feeding tube can be done then it may not be necessary to maintain the tract with an alternate tube.

2. Potential complications when a Foley is used off label:
   a. Enteral misconnection – an inadvertent connection between an enteral feeding system and a non-ental system, such as an intravenous line, peritoneal dialysis catheter that can result in life-threatening events in the clinical area
   b. Risk of misplacement due to wide variation in length of tube required, due to individual anatomy
   c. Inward migration of the Foley that can cause a pyloric or small bowel obstruction
   d. Pancreatitis due to migration of the Foley catheter into the duodenum resulting in obstruction of the pancreatic and biliary tract.
   e. Peritonitis due to gastric content and enteral formula leaking into peritoneum when temporary tube is not the correct length or Fr. Size.

3. Feeding the patient through the Foley catheter is risky because verification of placement may be difficult

4. As soon as possible arrangements should be made for the appropriate feeding tube to be placed.

    **Note:** For clients with frequent dislodgements, consideration should be given to replacement of tube with one that can be safely replaced by certified nurses at the bedside
### Ordering Information for Supplies

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<tr>
<td></td>
<td>#44234 secur-lok extension set</td>
</tr>
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</table>
Halyard (formerly Kimberly-Clark Healthcare)
G-Tube Bedside Tube Exchange Guide

Replacement Tube: PREP (wash/dry hands – don gloves)
1. Remove tube from package.
2. Cap both “FEED” and “MED” ports.
   (Rationale: to prevent gastric contents from spilling out once tube is in place)
3. Slide “retention ring/disk” to the top of the tube.
   This releases the super grip hold the retention ring/disk has on the tubing.
   (Rationale: so lubricant used for insertion doesn’t get trapped under the retention
   ring/disk and reduces gripping properties)
4. Check balloon integrity. Fill balloon with appropriate volume of sterile/distilled water.
   (Rationale: make sure there are no balloon leaks and the shape is round/symmetrical. To
   extract any residual air remaining in balloon after sterilization process - helps with
   insertion).
5. Remove balloon water, lubricate the tip of the tube with water based lubricant by
   inserting entire tube tip into lubricant package (for ease of insertion) and set aside for
   the upcoming tube exchange.

TUBE EXCHANGE:
Prior to removing the patients existing g-tube, make note of the number/markings on the outside
of the tube located above the retention ring. Use that number as a reference for the patients
stoma tract length. This number will act as a guide for how far you’ll need to advance the new
replacement tube in order to clear the tract before inflating the balloon. Once you’ve made
note of the number on the old tube, it’ll make it easy for tube replacement and knowing how far
to advance the new tube in order to clear the tract and ensure the retention balloon will be
inflated IN the stomach and not IN the tract.
1. Using a syringe, remove water in the balloon port from the resident’s current tube.
   Lubricate the external tube and insert and rotate tube around the stoma site in order to
   release tube from any possible skin adhesions, if necessary.
   Remove tube from stoma site.
2. Discard
3. Insert new tube, inflate balloon, and pull up on tube until it meets resistance, CLEAN OFF
   ANY RESIDUALS including LUBRICANT LEFT ON TUBE, slide retention ring/disk down so it sits
   comfortably on patient’s skin. Disk should not ‘dimple’ into the skin – too tight a fit.
4. Flush tube with water using barrel syringe.
5. Attach any necessary tubing (ie extension set/feed tube adapters...)
6. Resume feeds.