

# Acute Training Solutions

## Enteral Feeding - Balloon Gastrostomy (BG) Tube

When being fed through a BG tube it is positioned directly into the stomach. The stoma site (the area of skin around the tube) and the tube need to be cared for to reduce the possibilities of soreness and infections.

### Post Insertion Advice

Please seek the advice of your Consultant (if the BG tube has been placed as a first gastrostomy placement), for care of the stoma up to first 14 days.

### Immediate Action Required

It is important that you are aware of the signs and symptoms which may occur up to 72 hours following the insertion of your BG tube.

The following signs require IMMEDIATE urgent medical attention:

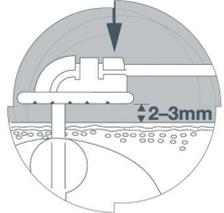
1. Pain during feeding (including medication delivery)
2. Any pain or distress after procedure
3. New bleeding from the stoma site
4. Leakage of fluid around the tube.

In the event of any one of these symptoms, the following actions MUST be taken:

1. Stop feeding/medication delivery immediately.
2. Seek immediate medical advice in order that you are examined and your symptoms assessed immediately

### Daily Care BG Tube

It is advised to care for the skin and tube as follows:

1	Wash hands before and after caring for your tube.
2	Open the external retention device and loosen it.
3	Clean the skin around the stoma site and under the external retention device with mild soap solution and water and rinse thoroughly. Make sure the skin and retention device are thoroughly dried – do this at least once per day.
4	On a weekly basis remove the external retention device away from the skin surface and insert the tube 4cm into the stoma tract; rotate the tube 360° to prevent the tube adhering to the stoma tract.
5	Replace the external retention device so it lies approximately 2–3 mm from the skin surface (the retention device may need to be loosened or tightened as you gain or lose weight).
	
6	Flush the tube with 30ml of water (type and volume as recommended by your managing healthcare professional) before and after the administration of feed or medication and 4–6 hourly if feeding is not in progress (except during the night) to prevent tube blockage.
7	Check the position of your tube before starting tube feeding.

**Notes:**

Avoid using creams or powder as they can damage the tube material and may lead to irritation of the skin and give rise to infection. Creams can also reduce the effectiveness of the external retention device and affect the tube material itself. If the skin around the gastrostomy site becomes red and sore, or there is oozing from the site, contact your Nurse or GP for advice. Only apply a dressing if you are advised to do so by your Nurse or GP.

You can shower, swim and have deep baths as normal if the stoma tract has been fully formed, this will be at least 6 weeks or longer from initial insertion (check with your managing healthcare professional). Always ensure the tube end is closed and any clamp on the tube is applied during these activities. Always dry the site and tube thoroughly after bathing or swimming.

## How to check the water in the balloon gastrostomy

The fluid in the balloon ensures the tube is held in place. You should check the balloon inflation volume weekly to ensure that there is sufficient fluid in the balloon to hold your tube securely in place.

**Equipment:**

- > 2 x 10ml syringes
- > Water, type and volume as recommended by the manufacturer of the tube or the managing healthcare professional.

**Instructions:**

<b>1</b>	Wash your hands before and after caring for your BG tube.
<b>2</b>	Pre fill a new syringe with fresh fluid with recommended volume of water.
<b>3</b>	Hold the tube in place during the procedure, ensuring that it remains in the stomach, alternatively, loosely tape it to the skin (as long as no known allergies to tape)
<b>4</b>	Attach an empty syringe (in line with manufacturer guidelines) onto the inflation valve of the BG tube.
<b>5</b>	Gently draw back the plunger on the syringe until no more fluid comes out of the internal balloon.
<b>6</b>	<p>Check the volume of fluid withdrawn. Compare with the recommended volume advised for inflation by the manufacturer.</p> <ul style="list-style-type: none"> <li>a. If the volume of water withdrawn equals the recommended volume, re-inflate the balloon with a new syringe and the correct volume of recommended water</li> <li>b. If the volume of fluid in the balloon is 1ml more or less than your manufacturer's recommendation tape the tube down and contact the nurse or managing healthcare professional for immediate advice.</li> </ul>

**Note:**

If you cannot obtain any fluid when pulling on the syringe plunger, remove the syringe and contact your Nurse or managing healthcare professional.

## How do you check the BG Tube is in the right place?

You can check the position of your BG tube by measuring the pH value of aspirated gastric content. This is to ensure the tube has been correctly placed in the stomach.

## Checking the Position of my BG Tube by pH Measurement

It is important to check the position of your tube when it has been changed, after checking balloon inflation volume or as recommended. You can check the position of your tube by measuring the pH value of gastric aspirate.

1	Wash hands before and after checking your tube position.
2	Remove end cap from the BG tube and ensure clamp is closed (if present).
3	Attach a 60ml enteral syringe to the BG tube and open the clamp (if present).
4	Very slowly and carefully pull back on the plunger of the syringe until a small amount of fluid (at least 0.5-1 ml) appears in the syringe
5	Close clamp if one present, remembering to replace the end cap of the tube.
6	Place a little fluid onto pH indicator paper.
7	If the pH value is 5.5 or less, your tube is in the correct position (in the stomach).
8	If the pH value is more than 5.5, do not administer anything via the tube. Check the pH value again in 30-60 minutes. If the pH value remains above 5.5 contact your nurse or managing healthcare professional.

## Troubleshooting BG Tube

<b>The BG tube has become blocked</b>	
If you experience resistance when flushing the BG tube, do not force water into the tube.	
1	Gently flush the tube using lukewarm water or soda water, using a 60ml enteral syringe. Do not use acidic solutions such as fruit juices or cola as they can curdle the tube feed
2	If a blockage still exists, gently squeeze the tube between your fingers along the length of the tube as far as possible.
3	If you still cannot clear the blockage, very gently draw back on the syringe and then attempt to flush as before. It can take 30 minutes or more to unblock a tube.
4	If you are still unable to clear the blockage, contact your Nurse or managing healthcare professional.
<b>The BG tube has come out</b>	
Important: If the tube has been removed with the balloon completely intact or there is any signs of trauma to the stoma tract (such as bleeding) or if there are any signs of pain or distress, please seek urgent medical review before attempting tube replacement.	
<ul style="list-style-type: none"> <li>&gt; A new BG tube will need to be inserted as soon as possible otherwise the stoma tract will start to heal and may completely close soon after the tube has come out</li> <li>&gt; If the stoma heals over further surgery will be required to create a new stoma</li> <li>&gt; Individual may become hungry or become dehydrated</li> </ul>	
A	If you have been trained on how to place a BG tube, assemble the equipment as you have been taught and proceed to replace the replacement BG tube, following the training advice you have been given.
B	If you have not been trained on how to place a BG tube do not attempt to place a new BG tube yourself. Follow the steps below.
B1	Remain calm

<b>B2</b>	Place a clean gauze dressing over the stoma (hole) to prevent stomach contents leaking onto skin or clothes.
<b>B3</b>	If in pain and it is safe to have oral medication take prescribed pain relief.
<b>B4</b>	Contact your Nurse or managing healthcare professional. Explain that your BG tube has come out.
<b>B5</b>	If your Nurse or managing healthcare professional is unavailable you will need to attend the hospital emergency department
<b>B6</b>	Telephone the hospital before leaving to let them know you are coming in and that you will need to have a BG tube replaced. This will give the department time to find relevant medical notes and ensure that a member of staff is available to insert your BG tube. Tell the emergency department what type of BG tube needs replacing and emphasise that the tube will need to be replaced as soon as you arrive so that the stoma does not heal over.

## (Re)placement of a BG Tube

Only perform placement if you have been trained how to place a BG tube. It is important that you always follow the training and infection control advice given to you so that your tube is placed safely and correctly.

Please seek immediate medical advice if any of the following signs and symptoms occur once the new tube is in place:

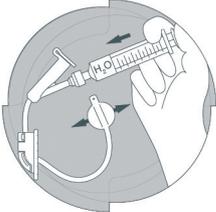
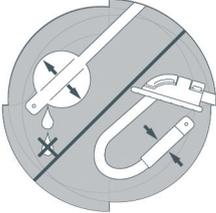
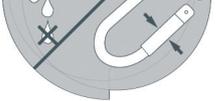
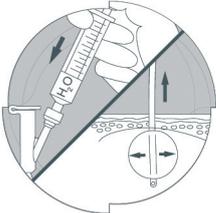
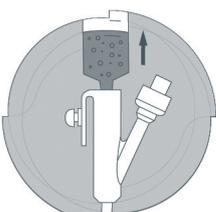
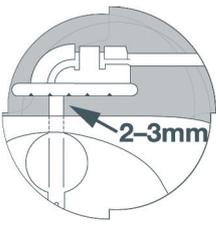
- > Pain
- > Pain during feeding/medication administration/water flushes
- > New bleeding from the stoma
- > Leakage of fluid from the stoma.

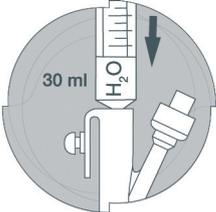
### Equipment:

- > New BG tube (same size as your old BG tube)
- > Water for balloon inflation fluid
- > 60ml enteral syringe
- > Water for flushing
- > 2 x 10ml syringes
- > pH paper
- > Lubricating jelly
- > Gauze
- > Sterile dressing pack
- > Sterile gloves.

### Instructions:

<b>1</b>	Wash and dry your hands thoroughly with a clean towel.	
<b>2</b>	Assemble the equipment on a clean dry tray. Open the dressing pack and check the packaging of the BG tube and syringes that they are within the expiry date and correct size.	

3	Explain that you are going to change the BG tube then lie the patient flat supported by pillows.	
4	Check the balloon of the new BG tube by attaching a 10ml syringe and inserting the manufacturers recommended volume of water (or type and volume as recommended by your managing healthcare professional) into the inflation valve. This is to ensure that there are no leaks in the balloon and that it is formed symmetrical. Once you are sure the balloon is intact, deflate the balloon using an empty 10ml syringe	
5	Slide the external retention device away from the balloon.	
6	If the old tube is still in place, deflate the balloon by inserting an empty 10ml syringe into the inflation port and gently drawing back the plunger on the syringe until no more fluid comes out of the balloon	
7	Place a gauze swab under the old tube and gently pull out the old tube. Do not be alarmed if there is a small amount of blood as this can sometimes happen	
8	Clean skin around stoma to remove excess fluid or blood, and dry thoroughly	
9	Lubricate the end of the new BG tube with a small amount of lubricating jelly and insert the tube into the stoma tract as far as it will go. Do not push if resistance is felt. If patient experiences unexpected pain, withdraw tube, stop procedure and seek immediate medical advice	
10	Inflate the balloon with water (type and volume as recommended by the manufacturer or your managing healthcare professional)	
11	Using a 60ml enteral syringe, test the position of the BG tube by aspirating gastric fluid and test with pH paper. If the pH value is 5.5 or less, the tube is in the correct position (in the stomach)	
12	Gently pull the BG tube back until there is a slight resistance from the balloon touching the stomach wall	
13	Wipe the skin and the BG tube to remove excess lubricating jelly	
14	Slide the external retention device so that it is approximately 2-3 mm from the skin surface	

15	Flush the tube with 30ml of water (type and volume as recommended by your managing healthcare professional)	
16	Wash your hands	
17	Order a replacement BG tube and dispose of the old tube as per local clinical waste disposal policy.	

**Note:**

Never administer anything down your BG tube until you are certain the tube is in the correct place. If you experience unexpected pain during the procedure, seek medical advice.

**References:** National Patient Safety Agency, 2010. Rapid response report. Early detection of complications after gastrostomy. Supporting Information. NICE, 2006. Nutrition support in adults. Oral nutrition support, enteral tube feeding and parenteral nutrition. Clinical Guideline 32. National Patient Safety Agency, 2012. Signal Alert. Patient safety issues related to gastrostomy.