

# Also refer to following sections General Issues, Medicine Administration, Balloon Retained Gastrostomy Tubes. | ISSUE | STATEMENT | EVIDENCE / REFERENCE | | Insertion techniques. | Percutaneous Endoscopic Jejunostomy (This tube is not used in Paediatrics) | | Placed via endoscope + or - mini laparotomy | | Surgical Needle Catheter Jejunostomy (This tube is not used in Paediatrics) | | Placed at laparotomy |

Surgical Jejunostomy (Balloon retained gastrostomy used)

Placed at surgical laparotomy or laproscopically

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Care following initial stoma formation.

Observe the site for swelling or bleeding - if present contact medical staff.

Cottee, S (2002) Jejunal feeding Complete Nutrition 2(2) 32-34.

#### DO NOT ROTATE THE TUBE

Ensure Community Nursing has been informed of the care of a stoma prior to the patient being discharged home from Hospital.

Percutaneous Endoscopic Jejunostomy (This tube is not used in Paediatrics)

- External sutures should be removed 7 days post insertion.
- For first week following placement, employ an aseptic technique when cleaning. Clean around suture site and dry thoroughly. Apply sterile film dressing.
- Immersion bathing should be avoided for the first 14 days post insertion. Showering is permitted.

Surgical Needle Catheter Jejunostomy - Freka Surgical Jejunostomy (This tube is not used in Paediatrics)

#### Should be retained by 2 sutures

- Do NOT remove external sutures or release external fixator.
- Contact medical staff to re-suture as required.
- Employ an aseptic technique when cleaning.
- Clean twice weekly or more frequently if discharge is observed.
- Clean around the Jejunostomy exit site and suture sites and dry thoroughly. Apply a sterile film dressing(e.g. Tegaderm)
- Immersion bathing should be avoided for the first 14 days post insertion. Showering is permitted.

#### Surgical Jejunostomy (Balloon- retained Gastrostomy is used)

Employ an aseptic technique when cleaning for the first 48 hours post-insertion. Immersion bathing should be avoided for the first 14 days post insertion. Showering is permitted.

For care of the Balloon - see Balloon Gastrostomy advice.

Appendix 1: Care of Surgical Jejunostomy - Patient Information Leaflet

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ISSUE	STATEMENT	EVIDENCE / REFERENCE
Daily stoma care	DO NOT ROTATE THE TUBE (This tube is not used in Paediatrics)	NICE (2006) Nutrition support in adults – Oral nutrition support, enteral tube feeding and parenteral nutrition.
	Percutaneous Endoscopic Jejunostomy The site should be cleaned daily with a clean cloth and soapy water, rinsed and dried thoroughly. Avoid the use of dressings unless exudates are present. Reposition the external fixator after cleaning stoma site. Do not rotate tube  Surgical Needle Catheter Jejunostomy (This tube is not used in Paediatrics)	Infection Control Nurses Association (June 2003): Enteral feeding – Infection control guidelines.
	<ul> <li>Do NOT remove external sutures or release external fixator.</li> <li>Contact medical staff to re-suture as required.</li> <li>Check the length of the external tubing daily and record centimetre marking.</li> <li>Ensure the security of the external fixator and sutures.</li> <li>Clean twice a week or more frequently if discharge is observed.</li> <li>Clean around suture site with water and a clean cloth and dry thoroughly. Apply a sterile film dressing</li> </ul>	
	<ul> <li>Surgical Jejunostomy (Balloon- retained Gastrostomy is used)</li> <li>Check the length of external tubing daily and record centimetre marking.</li> <li>Ensure the security of the external fixator and sutures.</li> <li>Site should be cleaned daily with a clean cloth and water and dried thoroughly.</li> <li>Avoid the use of dressings unless exudate present</li> <li>Reposition the external fixator after cleaning stoma site</li> <li>Do not rotate tube</li> </ul>	
Stoma problems – infection	<ul> <li>Observe the site daily for signs of infection (i.e. inflammation, pain, exudates).</li> <li>If infection is suspected, a wound swab should be taken for microbiology and if indicated, the patient treated with the appropriate systemic antibiotic.</li> </ul>	CREST (2004) Guidelines for the management of enteral tube feeding.

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Stoma problems – Overgranulation	Overgranulation may arise from excessive movement of tube.	
	Adults	
	http://intranet.lothian.scot.nhs.uk/NHSLothian/Healthcare/AZ/ TissueViability/Documents/Lothian%20Joint%20Formulary/Dressing%20Selection%20Guide.pd f	
	See Appendix 2: Granuloma flowchart	
	Actisorb treatment is not suitable for use with Jejunostomy tubes which have external dressings.	
	uressings.	



ISSUE	STATEMENT	EVIDENCE / REFERENCE
Removal of Jejunostomy tubes.	Percutaneous Endoscopic Jejunostomy (This tube is not used in Paediatrics)	Stroud, M., Duncan, H., Nightingale, J. (2003) Guidelines for enteral feeding in adult hospital patients Gut 52 (Suppl VIII): vii1-vii2.
	Requires endoscopic removal	_ , , , _ ,
	Surgical Needle Catheter Jejunostomy (This tube is not used in Paediatrics)	
	<ul> <li>Surgical Jejunostomies should be left in situ for at least 4 weeks (even if feeding has been discontinued) to allow establishment of a tract, and the dissolution of the purse-string sutures which anchor the tube.</li> <li>The tube should be removed by a trained practitioner by traction after removal of sutures.</li> </ul>	
	Surgical Jejunostomy (Balloon retained gastrostomy used)  Removed by traction following balloon deflation.	
	Apply a dry dressing and secure with tape over the stoma site. Change as required.	
Tube Displacement	If the tube comes out the stoma will begin to close within an hour, therefore it is essential to alert medical staff immediately.	CREST (2004) Guidelines for the management of enteral tube feeding.
Frequency of changing Jejunostomy tubes	Refer to manufacturer's guidelines.	



# JEJUNOSTOMY TUBE CARE - PAEDIATRICS

Also refer to following sections General Issues, Medicine Administration, Balloon Retained Gastrostomy Tubes.

ISSUE	STATEMENT	EVIDENCE / REFERENCE
Insertion techniques	Endoscopically / Radiological Transgastric Jejunal feeding tube Placed through an established gastric stoma endoscopically initially, then over a guidewire in radiology at subsequent changes where possible.  PEG-J	Michaud L, Coopman S, Guimber D, Sfeir R, Turck D, Gottrand F. (2012) Percutaneous gastrojejunostomy in children: efficacy and safety. Archives of Disease in Childhood. 97(8),733-734.
	Inserted endoscopically under anaesthetic. Subsequent changes of the intestinal tube will be performed endoscopically also.	CE Paxton, V Robb, J Livingstone, DC Wilson. Does jejunal feeding promote growth in children with worsening upper GI dysmotility? Archives of Disease in Childhood 2012; 97 (Suppl. 1): A54.
	Roux-en-Y Jejunostomy  A surgical roux-en-Y Jejunostomy is created via a mini-laparotomy. A Corflo 12Fr PEG tube is inserted as the initial roux-en-Y Jejunostomy tube. This tube is changed to a Low Profile Jejunostomy tube in theatre 12-18months following roux-en-Y Jejunostomy formation.	CE Paxton, PM Gillett, G Wilkinson, FD Munro, S McGurk, K Armstrong, L Bremner, V Robb, JE Livingstone, DA Devadason, DJ Mitchell, DC Wilson. Jejunal tube feeding experience in paediatric nutrition support. Gut 2012; 61 (Suppl. 2): A33.
Daily stoma / tube care	DO NOT ROTATE THE TUBE Check the length of the external tubing daily and record centimetre marking. Ensure the security of the external fixator device. The site should be cleaned daily with a clean cloth and soapy water, rinsed and dried thoroughly. Avoid the use of dressings unless exudate is present Reposition external fixator after cleaning stoma site Seek medical / pharmacological advice on medicine administration.	Godbole, P et al (2002) Limitations and uses of gastrojejunal feeding tubes Archives of disease in childhood 86 p134-137.  Fortunato, J, E et al (2005) The limitations of gastrojejunal feeding tubes in children: A 9 year Paediatric hospital database analysis American Journal of Gastroenterology 100 p186-189.  Freidman, J.N et al (2004) Complications associated with image guided gastrostomy and gastrojejunostomy tube in children Pediatrics 114 (2) p458-461.
Tube migration	If feed is observed draining from the gastric port of the tube, feed(s) should be stopped and medical advice sought.	
Stoma problems - infection	Observe site daily for signs of infection (i.e. inflammation, pain, exudates)	CREST Guidelines for the management of enteral tube feeding in adults (April

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	If infection is suspected, a wound swab should be taken for microbiology and if indicated, the patient treated with the appropriate systemic antibiotic.	2004
Stoma problems - Overgranulation	Overgranulation may arise from excessive movement of tube.  Consider the use of an absorptive dressing such as Allevyn Non-Adhesive, Allevyn Adhesive, Tegaderm foam or Lyofoam. This needs to be used for a minimum of 2 weeks to determine effect.	
	A steroid based, antibiotic or antifungal cream may be prescribed e.g. Maxitrol eye ointment, Fucidin H or Timodene.	



ISSUE	STATEMENT	EVIDENCE / REFERENCE
Feeding regimen	<ul> <li>Feed should always be administered by a feeding pump.</li> <li>Bolus feeding should NOT be used.</li> <li>A suitable drainage bag should be attached to the gastric port or gastrostomy tube to allow gastric decompression during feeds.</li> <li>If feed is observed draining from the gastric port of the tube, feed should be stopped and medical advice sought.</li> <li>Jejunal feeding may cause looser stools – check feed composition, osmolality, osmolarity and feeding rate if symptoms worsen.</li> </ul>	CE Paxton, V Robb, J Livingstone, DC Wilson (2012) Does jejunal feeding promote growth in children with worsening upper Gl dysmotility? Archives of Disease in Childhood 2012; 97 (Suppl. 1): A54.
Frequency of checking balloon-retainer volume	Balloon water volume should be 7-10mls of sterile or cooled boiled water. This should be checked and replaced weekly.	
Removal of Jejunostomy tubes	Gastrojejunostomy tubes can be removed via gentle traction after deflation of balloon. Intestinal tubes can be removed by traction from the PEG tube if no longer required; the PEG will need to be removed endoscopically.	
Tube displacement	If the balloon bursts or the tube starts to come out, attempt to tape the tube in place before the whole tube falls out.  If the intestinal port on the PEG-J tube disconnects, attempt to tape it in before the whole tube falls out.  If the roux-en-Y Jejunostomy tube falls out and you have been trained to reinsert the tube, then attempt to do so.  If you encounter problems reinserting the tube, then you should attend your local A&E.  If you have not been trained to reinsert the tube you should attend your local A&E taking your spare tube with you.  Contact medical staff or a nurse specialist for advice immediately.	
Frequency of changing tubes	Planned changes of Gastrojejunostomy tubes will be performed every 3-4 months in radiology.  Consult manufacturer recommendations for PEG-J tubes.  Low-profile roux-en-Y Jejunostomy tubes require to be changed 3 monthly.	



# Caring for Your Surgical Jejunostomy Tube at Home



# **Hand Hygiene**

Hands should be washed, rinsed and dried before handling feed or enteral feeding systems

#### **Medication**

Administer medicines in liquid form wherever possible

Seek advice from your pharmacist to check that the drug can be given via the jejunal route Never mix medicines with your feed Flush tube with at least 10mls of water between each medicine and before and after each medication

# **Tube Blockage**

NEVER use carbonated cola drinks, cranberry juice or pineapple juice as these are acidic and may contribute to tube blockage by protein denaturation

# **Flushing**

30mls soda water can be used if resistance is felt when flushing tube

Flush jejunostomy tube with 30mls of water prior to hanging feed and immediately after feed stopped DO NOT USE FORCE

Flush jejunostomy tube every 6 hours when there is a break in feeding

# **Feeding**

Use a 60ml catheter tipped syringe to draw up water for flushing

Water should be freshly drawn drinking water into a clean cup/beaker and discarded after use

Administer feed as prescribed by your dietician NEVER put anything other than your prescribed feed, water or prescribed medications down your jejunostomy tube

# **Position**

<u>Do not lie</u> flat during feeding. Best position for feeding is ideally sitting upright. If you are lying down, support your upper body with pillows or cushions.

Do not lie flat for at least 30 minutes after feeding

#### **Maintenance**

Maintain a column of water in tube when not in use by:

- Attaching a 60ml catheter tipped syringe filled with 30ml of water to the tube
- Release tube clamp
- Instil 25ml of water
- Close tube clamp whilst maintaining positive pressure on syringe plunger whilst instilling last 5mls of water. This will prevent backflow and potential blockage of tube
- Close end cap

#### Stoma site

Observe the stoma site for swelling, bleeding, if present contact medical staff

Do not remove sutures (2 sutures) – clean around suture sites and dry thoroughly

Change Tegaderm / Mepore dressing approximately twice a week or more frequently if any leakage present

Slight leakage can occur

Observe for any pus or increase in leakage

For any further information and/or advice on your jejunostomy tube
Please Contact: Nutrition Nurse Specialists
WGH 0131 537 3695
RIE 0131 242 3635



Lothian Enteral Tube Feeding Best Practice Statement - Draft for Consultation May 2013

#### Appendix 2

# **Granuloma Flow Chart (for Adults)**

Definition: A mass of inflamed granulation tissue usually associated with low grade infections

#### **Standard Treatment**

Observe the stoma site. Clean the area with soap and water. Rinse and dry well Ensure the external fixator is positioned correctly – not tight or loose and is 2mm away from skin. Obtain swab for C& S if infection suspected. Treat infection as indicated by microbiology

#### First Line Treatment

Clean as box 1 and apply 1% Hydrocortisone Cream daily for one week

#### **Second Line Treatment**

Clean as box 1. Apply a foam dressing as a key hole dressing secure with tape .Tighten the external fixator snug up to the foam dressing. If no improvement after one week try Third Line Treatment

Change dressing daily

#### **Third Line Treatment**

Clean as box1. Apply prontasan soaks for ten minutes daily. Apply foam dressings as above. Tighten the external fixator snug up to the foam dressing. If no improvement after 1-2 weeks try Fourth Line Treatment

Change dressing daily

#### **Fourth Line Treatment**

Clean as box 1. Apply Honey e.g. Actilite® and foam dressing. Tighten the external fixator snug to the foam dressing. Can remain insitu for up to one week

If, after using a Honey product for 1-2 weeks and no improvement in the wound is seen, then further advice should be sought

#### Clinical indication of infection – bacteria/fungal

Erythema, tenderness, purulent discharge, pain, swelling, malodour, elevated temperature
A combination of the above could indicate infection
Swab the stoma and treat with systemic antibiotics/antifungals

Please contact Nutrition Nurse Specialist via Hospital switchboard for further advice

Further information can be found in the Lothian Joint Formulary (LJF)