

Reference (include title, author, journal title, year of publication, volume and issue, pages)	Evidence level (I-VII)	Key findings, outcomes or recommendations
Jabbar, A & McClave, S A. Pre-Pyloric versus post-pyloric feeding. Clinical Nutrition (2005) 24, 719-726	VII	<ul style="list-style-type: none"> <li>- Review both the benefits and risks of pre-pyloric and post-pyloric feeding</li> <li>- Early enteral feeding favourably impacts patient outcome by reducing infectious morbidity and shortening hospital length of stay</li> <li>- Controversy exists over the true risks and benefit of pre-pyloric versus post-pyloric feeding</li> <li>- Post-pyloric feeding associated with fewer interruptions once EN has been started, may reach goal calorie provision sooner, and may reduce the risk of gastroesophageal reflux and aspiration</li> <li>- Minimal overall differences between the two methods of feeding</li> </ul>
Ferrie S., et al (2015). Nutrition Support Interest group. Enteral nutrition manual for adults in health care facilities. Dietitians Association of Australia	VII	<p>Indications for jejunal feeding tube: Patients who have impaired gastric emptying or who are at risk of oesophageal reflux, patients post upper GI surgery (jejunal feeding bypasses the surgical site)</p> <p>Advantages: Can be used for early enteral feeding, eg: 4-6 hours after trauma Reduces risk of oesophageal reflux and/or pulmonary aspiration</p> <p>Disadvantages: Potential gastrointestinal intolerance (bloating, cramping, diarrhoea) due to lack of reservoir capacity in jejunum; likely to need pump to control feed rate; unable to use tube aspirates to indicate feeding tolerance; no gastric acid barrier against bacteria</p> <p>Placement: Placement of tubes into the small bowel for nasoduodenal/nasojejunal feeding can be difficult, sometimes requiring endoscopic or radiologically-guided placement.</p>
ASPEN Safe Practices for Enteral Nutrition Therapy. Boullata J I. et al. Journal of Parenteral and Enteral Nutrition. Volume 41 Number 1. January 2017 15–103	VII	Jejunostomy and gastrojejunal tubes should not be rotated

<p>ASPEN Clinical guidelines: Nutrition Support of the Critically Ill child. Mehta N. et al. Journal of Parenteral and Enteral Nutrition. Volume 33: 260. 2009</p>	<p>V</p>	<p>Limited evidence to support post pyloric feeding. 1 study showed no difference in feed intolerance between gastric + post pyloric feeding, however more patients met their EER with post pyloric feeding. 1 study showed better tolerance when early post pyloric feeding vs late post pyloric feeding – used abdominal distension as marker. Biggest barrier to enteral feeds vs PN is interruptions to feeds e.g. procedures.</p>
<p>Gastric vs Post-pyloric feeding: Relationship to Tolerance, pneumonia risk, and Successful Delivery of Enteral Nutrition. Ukleja A and Sanchez-Fermin P, Current Gastroenterology Reports, 2007, 9:309-316</p>	<p>VI</p>	<p>Post pyloric feeding should be considered in pts with gastric intolerance, high risk of aspiration and severe GER, following gastric surgery. Also beneficial if gastric motility is compromised and prokinetics are not successful. Limited evidence.</p> <p>Advantages: Less interruption in nutrient delivery if GRVs not measured. Can achieve EER earlier. Good for pts with acute pancreatitis.</p> <p>Disadvantages: Access is the biggest issue – e.g. passing the tube past the stomach can be difficult if there is dysmotility. Radiologically placed tubes can be time consuming and experienced staff might not be available.</p>
<p>Enteral Feeding in patients with major burn injury: the use of nasojejunal feeding after the failure of nasogastric feeding. Sefton et al, 2002, Burns, 28:386-390</p>	<p>IV</p>	<p>Large percentage of patients with burns are unable to tolerate NGT feeds.</p> <p>Protocol developed to put all pts failing NGT feeds onto NJT feeds prior to PN. NJT attempted in 10pts and deemed successful for meeting requirements and more successful than NGT feeds.</p> <p>No adverse affect on length of feeding when NJT inserted NJT reported to be safer than PN due to increased risk of infection. Difficulties with securing tubes to the face. Siting of NJT can be difficult.</p>

<p>Post Pyloric Feeding, Niv E, Fireman Z and Viasman N, World Journal of Gastroenterology, 2009, March 21, 15(11): 1281-1288</p>	<p>VII</p>	<p>Indication is that post pyloric feeding is preferred to TPN which increases the risk of infection especially in critically ill patients.  Post pyloric feeding reduces the likelihood of aspiration and GORD.  PPF is Indicated for use in gastroparesis and pancreatitis as does not stimulate pancreatic secretions.  NJT feeding is more cost effective than TPN  Can use polymeric formulas  NJT should be confirmed in place radiologically.  Should not use air via the tube to check placement as is used in nasogastric tube placement as it is difficult to distinguish where the tube is placed.  Describes placement of jejunostomies.  Complications: NJT tend to be blocked as they are longer and of a finer bore.  Susceptible to blockage by crushed medications, viscous feeds and inadequate flushing.  Recommend flushing every 4-6 hours, before and after feeds.  Dense feeds should be avoided.  Recommends warm water, coca-cola or pancreatic enzymes to unblock  No evidence to support elemental or semi-elemental feeds.</p>
<p>Shaw V (2015) Clinical Paediatric Dietetics, 4th Edition. Oxford, Wiley Blackwell</p>	<p>VII</p>	<p>Indications for feeding into jejunum:</p> <ul style="list-style-type: none"> <li>● congenital gastrointestinal anomalies</li> <li>● Gastric dysmotility</li> <li>● Severe vomiting resulting in faltering growth</li> <li>● Children at risk of aspiration</li> </ul> <p>Feeds delivered into the jejunum should be given slowly via continuous infusion.  Jejunal tubes require regular flushing to maintain patency and it is recommended that sterile water always be used</p>

<p>Beckwith et al. A Guide to Drug Therapy in Patients with Enteral Feeding Tubes: Dosage Form Selection and Administration Methods. Hospital Pharmacy, 2004, 39 (3): 225-237</p>	<p>VII</p>	<p>Administering oral medications through the enteral feeding tube can lead to complications like tube clogging or decreased drug activity. Medications may be given via feeding tube if necessary however, clinicians must first evaluate tube type, tube location in the GI tract, site of drug action and absorption, and the effects of food on drug absorption.</p>
<p>Dandeleo LM and Lodolce AE. Efficacy of Agents to Prevent and Treat Enteral Feeding Tube Clogs. The Annals of Pharmacotherapy, 2011 ;45:676-80.</p>	<p>IV</p>	<p>Water flushes have been shown to be the most effective method in preventing enteral feeding tube clogging. If an occlusion does occur, sterile water should be used first. Further trials are required to establish the role, dosage and formulation of pancreatic enzymes in treating such clogs.</p>
<p>Scott, R. and Elwood, T. GOSH guideline: Nasojejunal (NJ) and orojejunal (OJ) management. 2015.</p>	<p>V</p>	<p>Indications for jejunal feeding – absent gag reflex, severe GOR, delayed gastric emptying, persistent vomiting. Do not aspirate the NJT as it can cause collapse and recoil of the tube. The tube should be flushed with 3-5ml of sterile water (1-2mls for neonates) using a turbulent flush: pre/post feeds, pre/post medications, 4 hourly if the tube is not in use. When feeding directly into the small bowel, feeds must be delivered continuously via a feeding pump. The small bowel cannot hold large volumes of feed.</p>
<p>ASPEN Clinical guidelines: Enteral Nutrition Practice Recommendations. Bankhead R. et al. Journal of Parenteral and Enteral Nutrition. 2009, 33(2): 143-146</p>	<p>VII</p>	