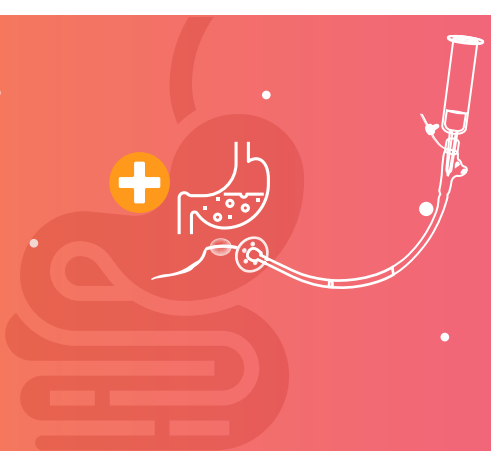
AVANOS

CHALLENGES OF GASTROSTOMY TUBE DISLODGEMENT



Gastrostomy tube placement has become an indispensable and routine procedure for providing enteral nutrition in ill patients.[1,2] However, the frequency of minor complications ranges from 13% - 40%, and major complications ranges from 0.4% - 4.4%.[2]

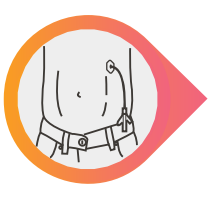
A common complication is the accidental dislodgement of PEG tube.[3]

- Gastrostomy tube dislodgement within 14 days of tube placement occurs in about 5.3% patients, and can cause major harm to the patient including death
- Tube dislodgement after 14 days of placement occurs in about 12.8% of patients, and is likely to result in minor harm

Common causes of tube dislodgement include[4-6]

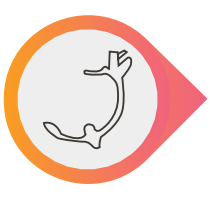
Patient pulling on the tube

More common in stroke patients, or combative or confused patients who lack the capacity to understand the procedure[4-6]



Tube getting caught on something[4]

Movement of the tube during patient repositioning or transfer[4]



An under-inflated retention balloon[4]

Buried bumper syndrome (BBS)

It is a type of gastrostomy tube dislodgement that occurs in tubes with an internal bumper as early as 3 weeks after PEG tube insertion.[7]

- Is a chronic and serious complication where the internal bumper migrates into (incomplete BBS) or completely through the gastric wall and into the peritoneum (complete BBS)[2]
- Excessive tension between the internal and external bumpers causes the internal bumper to erode the gastric lining or abdominal wall, with subsequent migration of the tube towards the abdominal wall (Figure)[3,7]

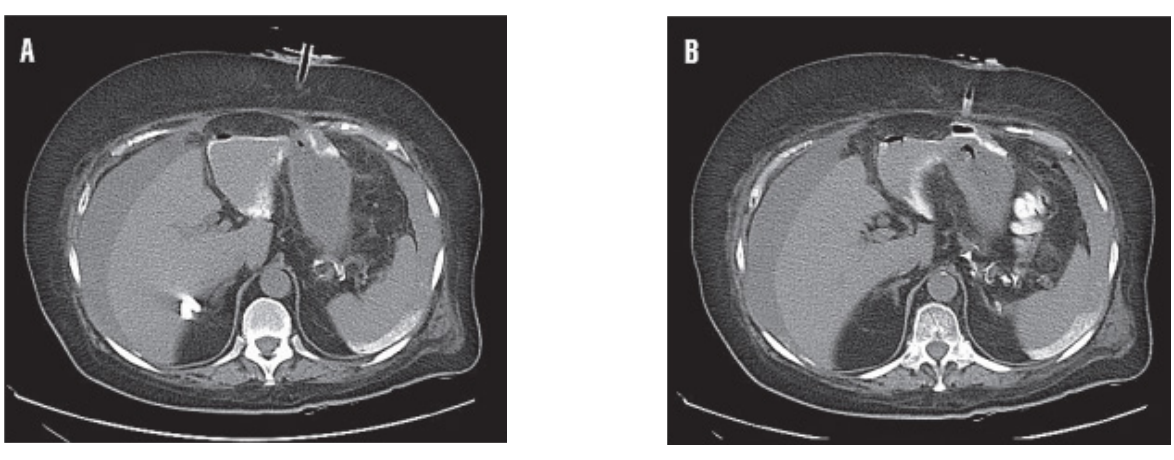


Figure: An example of partial PEG tube dislodgement with free contrast extravasation as seen on CT[6]

(A) PEG tube is seen traversing the skin and subcutaneous tissues, with free fluid in the peritoneal cavity; (B) PEG tube bumper is seen adjacent to the gastric wall, with some contrast seen intraluminally. CT, computed tomography

Complications of gastrostomy tube dislodgement

- Stoma closure (in most cases) within 1-2 hours, if the tube does not occupy the tract[1]
- Need for urgent nasogastric tube insertion for administering feedings and medications[1]
- Local skin infection, necrotizing fasciitis, bleeding, and abscess formation[2]
- Peristomal leakage, or pain and swelling at the tube insertion site[7]
- Peritonitis, stomach perforation, sepsis and death[3,8]

DID YOU KNOW ?

If the PEG tube displacement occurs within one month after placement, repeat endoscopy should be performed to replace the tube. Blindly reinserting a new PEG tube in this case may lead to its placement inside the peritoneal cavity.[6]

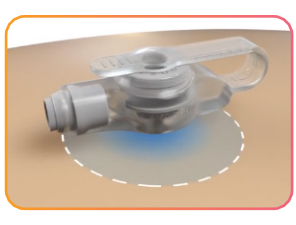
However, when a PEG tube becomes dislodged more than one month after placement, the PEG tract may have matured and the replacement tube can be placed without endoscopy.[6]

A water-soluble contrast study should be done prior to refeeding to ensure proper location of the new PEG tube.[6]

Preventing Gastrostomy tube dislodgement

Use of gastrostomy tubes with centimeter markings to document marking at the skin level.[3]

Use of gastrostomy tube with a balloon as the filled balloon would not pass as effortlessly through the gastrostomy tract and become dislodged.[1]



Use of low-profile, skin-level, or button-type tubes as they are less bulky to pull on.[8]

Use of techniques such as gastropexy using temporary sutures or T-fasteners to secure the stomach to the abdominal wall can help reduce potential for leakage into the peritoneum.[8]

Ensuring proper tube placement by use the **MARK**[8] acronym guide

- **M**ark the tube at the exit site using an indelible marker, and record the external length at the time of tube placement.[3]
- **A**nchor the tube using the proper securement device and technique, which varies by tube and anatomical location.[1,3]
- **R**eassess tube placement, especially in patients at risk for dislodgement or during activity that increases risk of dislodgement, such as patient transfer and repositioning.[3]
- **K**eep pressure off the skin at the insertion site, and ensure staff has the required knowledge to ensure safe practice in policy, procedure, and clinical practice.[3]

OUR SOLUTION

MIC* PEG tubes

- Unique tube design for simple traction removability that requires more force to remove and may result in fewer accidental dislodgements[9]
- Cm markings along the length of the tube[10]
- Traction removable with collapsible internal retention bumper[10]
- External SECUR-LOK* retention ring[10]

MIC-KEY* gastrostomy feeding tubes

- MIC-KEY* feeding tube sits at skin level, is unobtrusive, easy to conceal and offers greater device discretion[11]
- Using the Measuring Device allows for proper measurement to ensure a secure fit of the low profile MIC-KEY*,[11]
- Inflatable silicone internal retention balloon[12]

MIC* gastrostomy feeding tubes

- MIC* gastrostomy feeding tubes contain inflatable silicone internal retention balloon[12]
- Cm markings along the length of the tube[12]
- External SECUR-LOK* retention ring[12]

PEG, percutaneous endoscopic gastrostomy

References:

1. Shah J, Shahidullah A, Richards S. Reducing the unintended dislodgement of gastrostomy tubes in a long-term acute care hospital: A QA/QI pilot study. Gastroenterol Res. 2018;11(5):369-373. **2.** Sealock RJ, Munot K. Common gastrostomy feeding tube complications and troubleshooting. Clinical Gastroenterology and Hepatology. 2018;16(12):1864-9. **3.** Feil M. Dislodged gastrostomy tubes: preventing a potentially fatal complication. Reviews Analyses. 2017;14(1):9-16. **4.** Tips To Avoid G-Tube Dislodgement. https://tubefed.com/newsletter/tips-to-avoid-g-tube-dislodgement/. Accessed on 27.08.2021. **5.** Rowat A. Enteral tube feeding for dysphagic stroke patients. British Journal of Nursing. 2015 Feb 12;24(3):138-45. **6.** Schrag SP, Sharma R, Jaik NP, Seamon MJ, Lukaszczyk JJ, Martin ND, Hoey BA, Stawicki SP. Complications related to percutaneous endoscopic gastrostomy (PEG) tubes. A comprehensive clinical review. Journal of Gastrointestinal and Liver Diseases. 2007 Dec 1;16(4):407. **7.** Rahnemai-Azar AA, Rahnemaiazar AA, Naghshizadian R, Kurtz A, Farkas DT. Percutaneous endoscopic gastrostomy: indications, technique, complications and management. World J Gastroenterol. 2014;20(24):7739-7751. **8.** Boullata JI, Carrera AL, Harvey L, Escuro AA, Hudson L, Mays A, McGinnis C, Wessel JJ, Bajpai S, Beebe ML, Kinn TJ. ASPEN safe practices for enteral nutrition therapy. Journal of Parenteral and Enteral Nutrition. 2017 Jan;41(1):15-103. **9.** MIC* PEG sell sheet copy-04844. **10.** AVANOS catalogue 2020 ANZ-DH-New. **11.** MIC-KEY* G Feeding Tubes.Product data sheet. HC205-01_DH Legacy_MIC-KEY_threefold_UK_LR. **12.** Product data sheet, MIC* and MIC-KEY* enteral feeding product catalogue 2020.

*Registered Trademark or Trademark of Avanos Medical, Inc., or its affiliates. © 2018 AVNS. All rights reserved.
COPY-05621