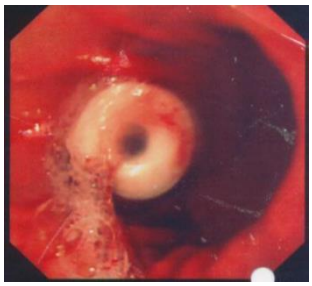
BURIED BUMPER SYNDROME (BBS)

Percutaneous Endoscopic Gastrostomy (PEG) or PEG with a jejunal extension (PEG-J) are used to deliver enteral feed. An internal bumper holds the tube securely in the stomach and the external fixator device secures the tube externally against the abdominal wall, this limits unnecessary movement and gastric leakage.

WHAT IS BURIED BUMPER SYNDROME?



Buried Bumper Syndrome is uncommon, but if left untreated further complications can result in serious outcomes, including gastrointestinal bleeding, perforation, abscess and peritonitis. It occurs when the internal bumper of the gastrostomy tube migrates through the gastric wall. This is more common with internal disc bumpers than with balloon retention devices but even these can migrate outwards if the balloon partially deflates and traction is applied. The displaced internal bumper can end up anywhere between the stomach mucosa and the surface of the skin. The stoma channel can evolve into an abscess cavity with infiltrate around the migrating internal bumper.

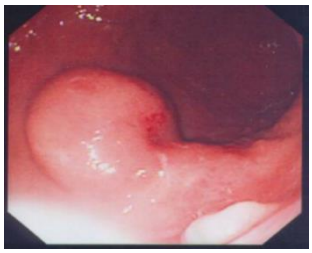
SYMPTOMS and SIGNS

- Unable to advance the tube into the stomach **– this is the cardinal sign,** but the Nutricia Homeward Nurse will visit the patient to confirm the tube cannot be advanced**. Note - rotation is not prevented in BBS.**

Additional symptoms or signs are:

- Gastric contents leakage
- Pain or tenderness at the stoma site
- Pain on administering anything via the tube
- Peristomal infection/chronic site infection not responding well to antibiotics
- Breakdown at the stoma site
- Pump occlusions or tube blockages – ***Note - felt to be a late complication and maintaining tube patency does not rule out buried bumper, particularly with a PEG-J**
- Unable to rotate. ***Caution – If the internal bumper is in the tract and feed has been administered, the feed can stretch the tract and allow the tube to rotate. Do not rotate a PEG-J.**

PREVENTION



To try and reduce the risk of a buried bumper developing as a result of pressure necrosis of the gastric wall, the patient and carers are educated to:

- Advance the tube into the stomach a minimum of 3cms and rotate the tube 360° at least once a week, but no more than once a day. However, some manufacturers advice daily advance and rotation and the patient will be advised to follow manufacturers advice or as directed by the discharging hospital
- Ensure the external fixation plate is not too tight and is positioned 5mms from the skin
- Take measures to prevent the tube being forcibly pulled

- Periodic assessments of the track length should be undertaken by the Nutricia Homeward Nurse if the patient has gained weight, as the track will become longer, and position of the external fixator should take account of this to avoid undue pressure on the internal bumper.

DIAGNOSIS

The cardinal sign of a buried bumper is the inability to advance the tube into the stomach for at least 3cm. Defining the exact position of the bumper may require either endoscopic or imaging studies to help identify the exact location of the bumper. **Note that an aspirate pH of <5.5 does not confirm intragastric placement as acid may be found in the track or peritoneum.**

NEXT STEPS if the tube cannot be advanced and/or rotated:

If a patient is NOT experiencing any additional symptoms (as per the list above),

- The tube can continue to be used if feed flow is unimpaired with none of the additional symptoms above
- The Nutricia Homeward Nurse is required to make a same day referral to the GP, due to concerns that a buried bumper might be the reason the tube is unable to be moved
- It is important that the GP makes a referral to the hospital for an urgent review of the tube. If a partially buried bumper is not identified and treated, it could lead to a complete buried bumper, increasing the likelihood for hospital intervention either endoscopically or surgically.

But if a patient IS experiencing any of the additional symptoms (as per the list above), the Nutricia Homeward Nurse will advise the patient to **STOP** using the tube until the patient has been medically reviewed, due to the potential risk of further complications, such as peritonitis.

- The Nutricia Homeward Nurse will contact the GP for an urgent review
- The GP will be informed that the patient has been advised not to use the tube, therefore the patient might be unable to administer essential nutrition or medication
- It is the responsibility of the GP to review the patient and decide whether the patient can continue to use the tube until a hospital review has been arranged, or if they require an immediate hospital admission
- ***DO NOT*** *attempt to reposition the tube and bumper in the community as this may result in trauma, bleeding, peritonitis and sepsis.*

https://www.videogie.org/article/S2468-4481(19)30337-6/fulltext#appsec1

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