

PEG, PIG, RIG, D-PEJ, button
What are they???

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Start with where the placement procedure happened

- Endoscopy 'E'
- Radiology 'R'
- Surgery
- Bedside

Where is the tip?

Gastric	'G'
Jejunal	'J'
Gastro and Jejunal	'GJ'

pH of aspirate

- 1-5 indicative of gastric
- 6-8 indicative of small bowel placement

Gastrostomies

- PEG

- Percutaneous
Endoscopic
Gastrostomy

RPG

Radiologically
Placed
Gastrostomy

- PIG

- Percutaneous
Inserted
Gastrostomy

RIG

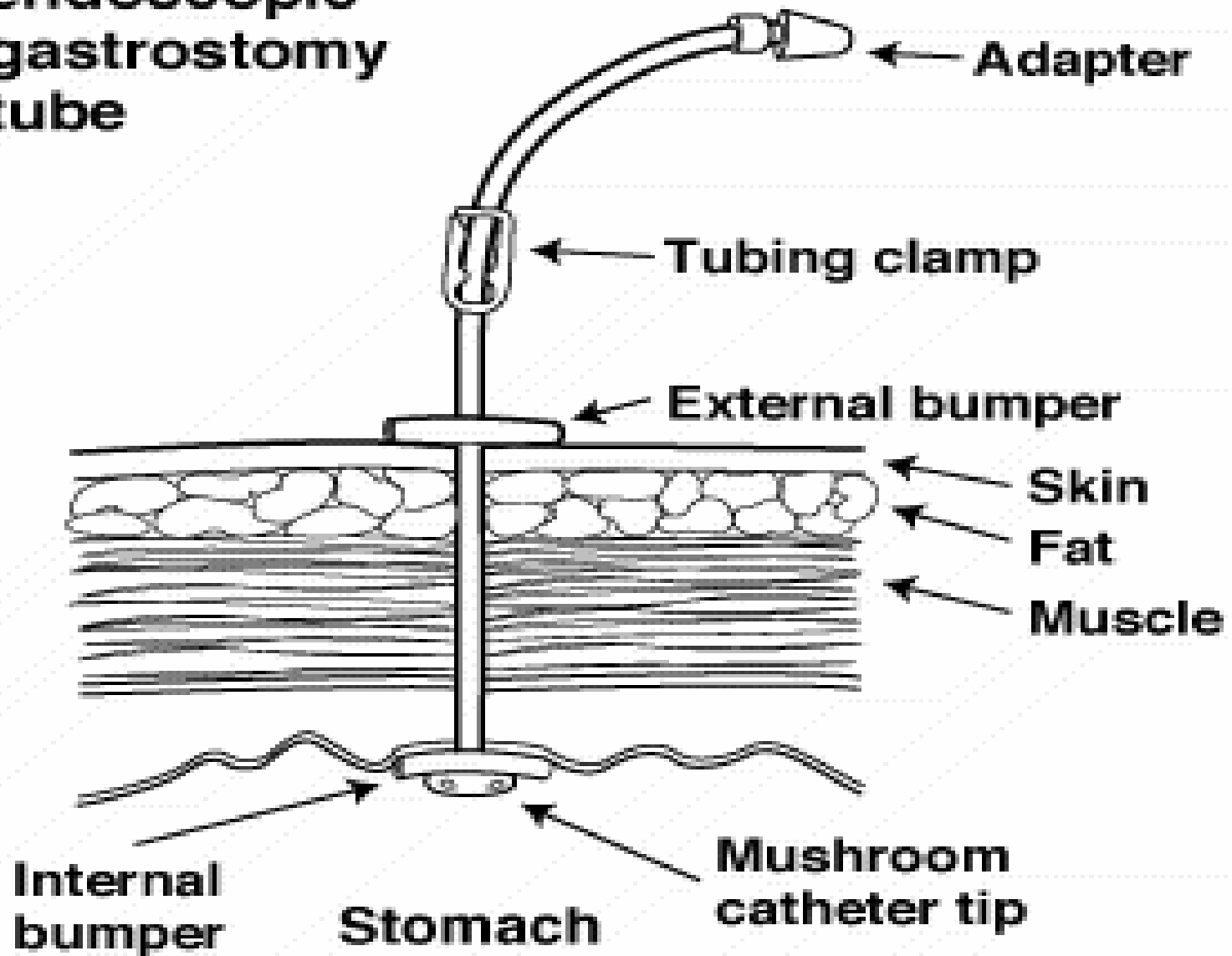
Radiologically Inserted
Gastrostomy

- Balloon Gastrostomy

LPGD

Low profile gastrostomy
device

Percutaneous endoscopic gastrostomy tube



PEG placement

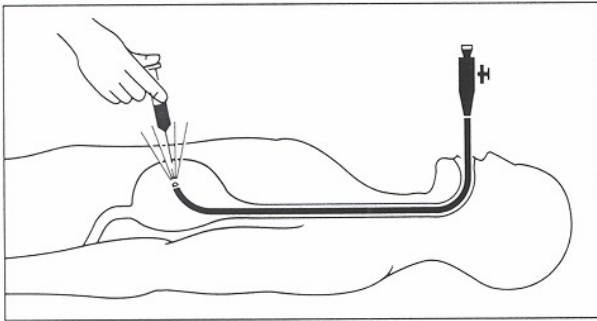


Abb. 2 / Fig. 2

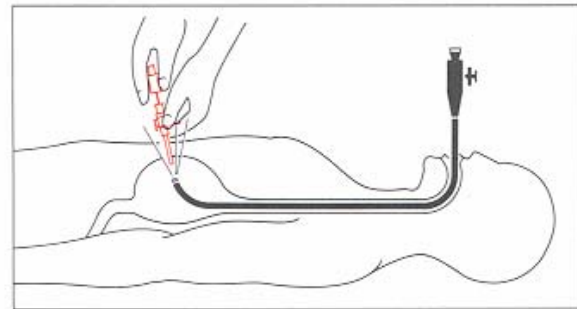


Abb. 3 / Fig. 3

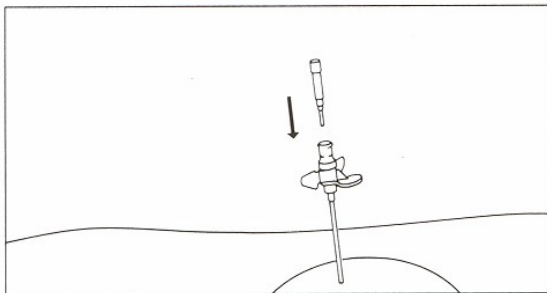


Abb. 4 / Fig. 4

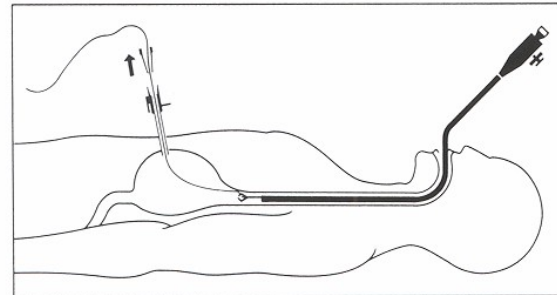


Abb. 5 / Fig. 5

PEG placement cont.

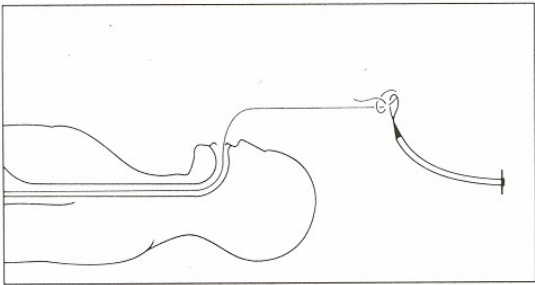


Abb. 6 / Fig. 6

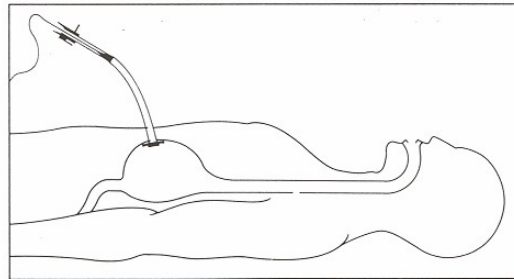


Abb. 7 / Fig. 7

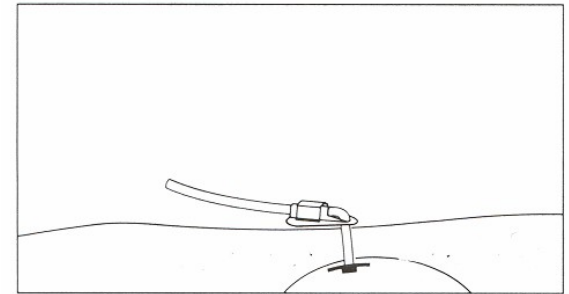


Abb. 8 / Fig. 8

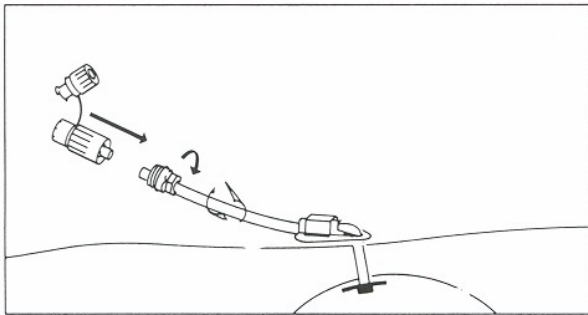


Abb. 9 / Fig. 9

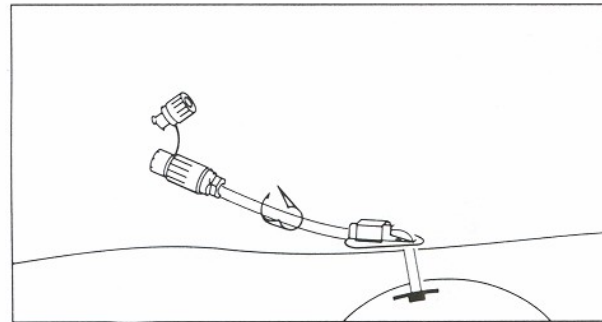
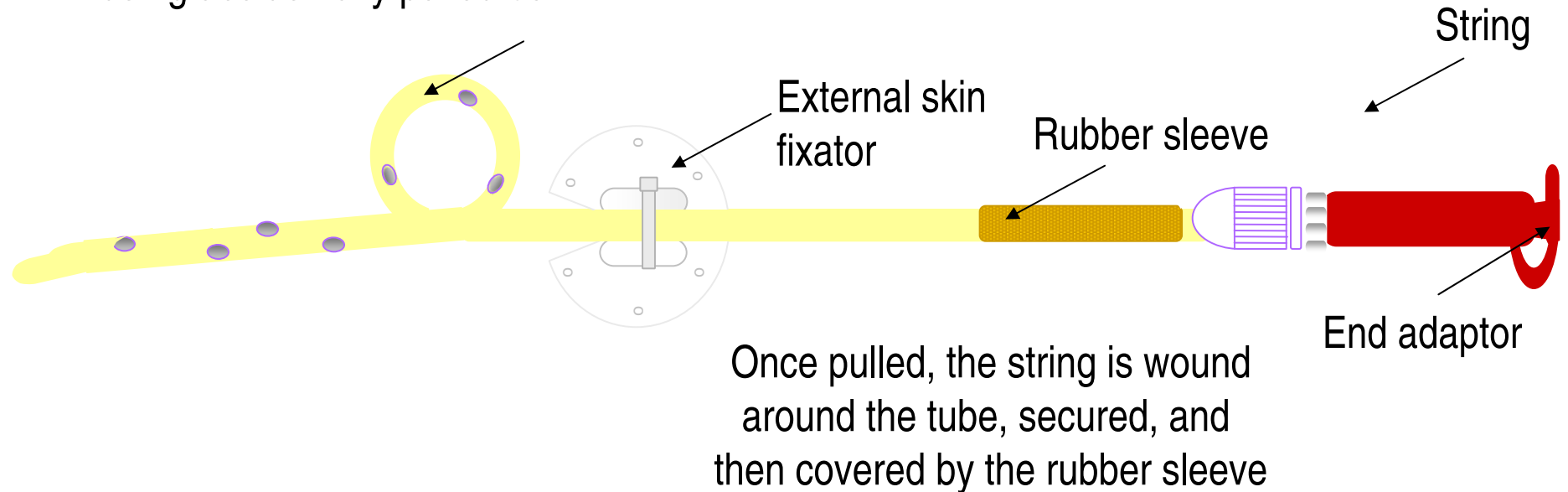


Abb. 10 / Fig. 10

RIG - pigtail

The end of the tube has a permanent flexible loop or “pigtail” which forms the internal retention device. When the string is pulled the pigtail is “set” preventing the tube from being accidentally pulled out



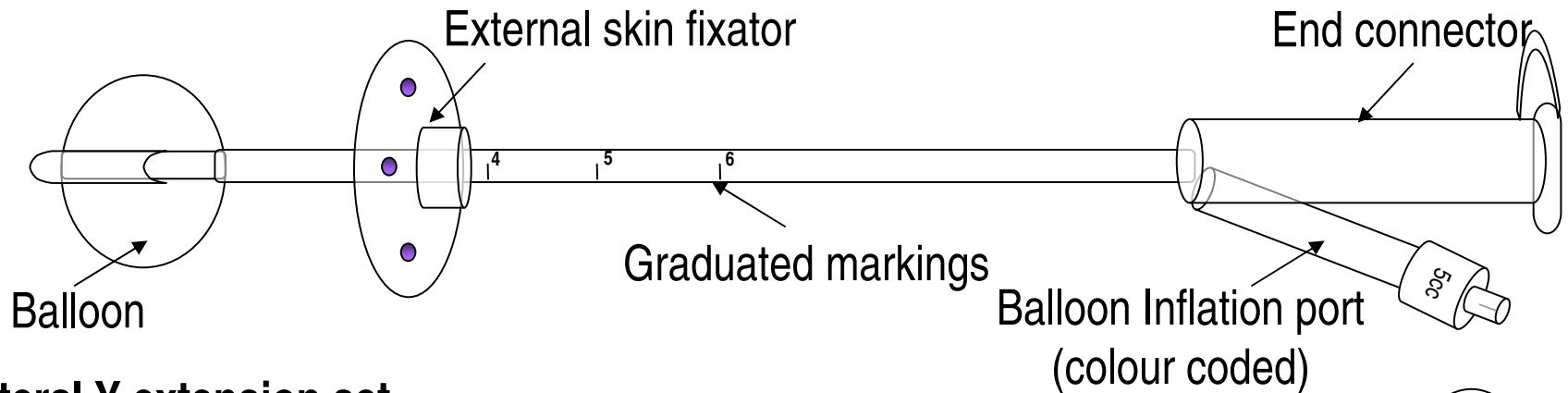
NB This tube does not have a clamp

Method of Removal: Traction

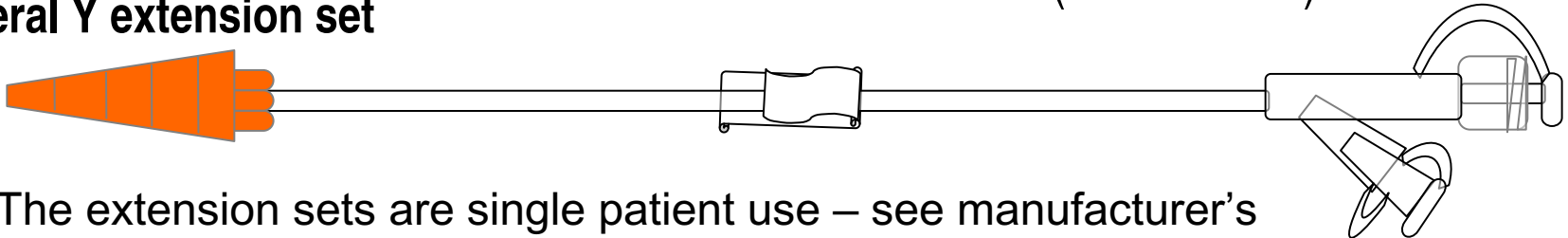
Slide the rubber sleeve back, cut the string to help relax the pigtail, and then pull the tube out

RIG / Balloon Gastrostomy

This tube is designed for use with an detachable enteral Y extension set which has an integral clamp, but it can be used without

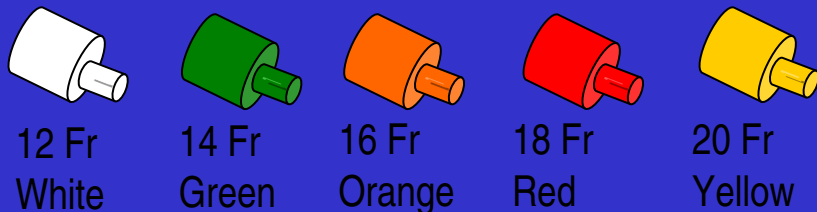


Enteral Y extension set



The extension sets are single patient use – see manufacturer's information for care guidelines and frequency of change

Balloon Inflation Port Colour Code

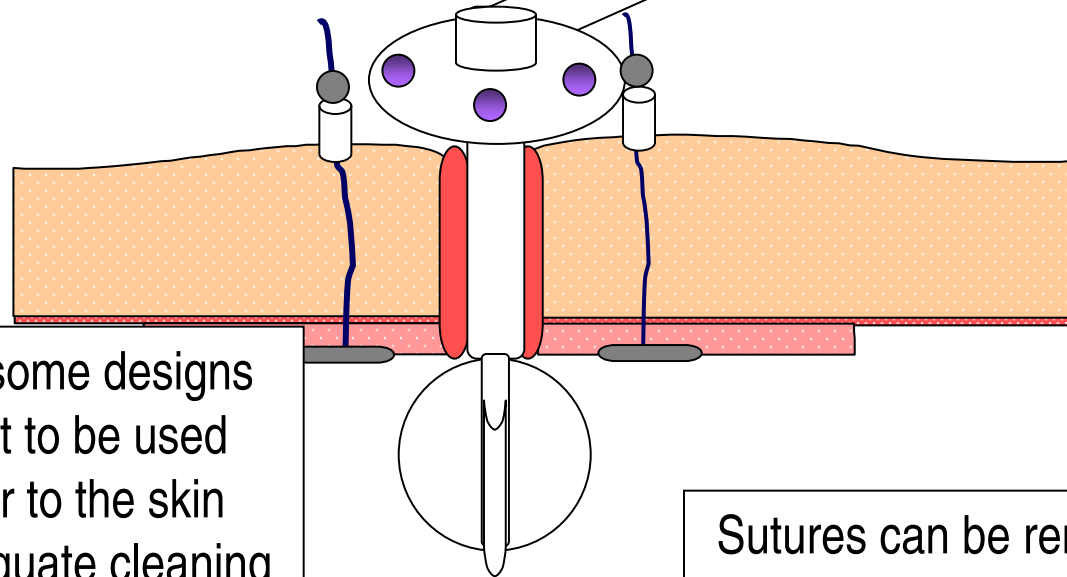


Note: The water in the balloon needs to be checked and replaced every 7-10 days. The tube needs to be replaced every 2-3 months although may remain in situ as long as it remains functional

Gastropexy Sutures

The gastric and abdominal walls are held in close proximity with the means of anchoring sutures (“T-fasteners”, or “Cope” sutures) to prevent accidental separation before the fistula tract is established

Gastropexy is usually only performed for radiologically inserted tubes that are placed percutaneously and do not have a permanent internal bumper ie, balloon gastrostomy



The air vent holes on some designs of tube are **not** meant to be used for suturing the fixator to the skin as this will prevent adequate cleaning of the stoma site

Sutures can be removed after 2-3 weeks, they usually fall off

Trouble Shooting

- Patient presents with leaking “PEG”
- “PEG” in situ and intact, peristomal leaking, patient reports abdo pain, worse when using the tube

When was the tube inserted?

Patient isn't sure – but yes less than 3 weeks ago

Where was the tube put in?

In X ray dept

What type of tube is it?

Has an external fixator

Has a side port (with '5cc balloon' on port)

No external fixator, a rubber sleeve on the length of tube

How is the tube retained?

The 'PEG' has the external fixator loose / away from the skin surface

The tube with the balloon port when aspirated for the 5ml of water is empty

“The district nurse cut the stitches and it was fine”

Stoma tract separation

- Usually < 3 wks post insertion
- Gastric wall fallen away from the anterior abdo wall with no visible external evidence other than leakage, allowing gastric contents into peritoneum

Stoma tract separation cont.

Cause

- Inadequate tension on internal device and external fixator, failure of internal retaining device, gastropexy sutures removed before tract matured

Tx

- conservatively, NGT to decompress stomach (not PEG as may force gastric contents into peritoneum), antibiotics, may need laparotomy

Buttons

- LPGD

- Low

- Profile

- Gastrostomy

- Device

- LPJD

- Low

- Profile

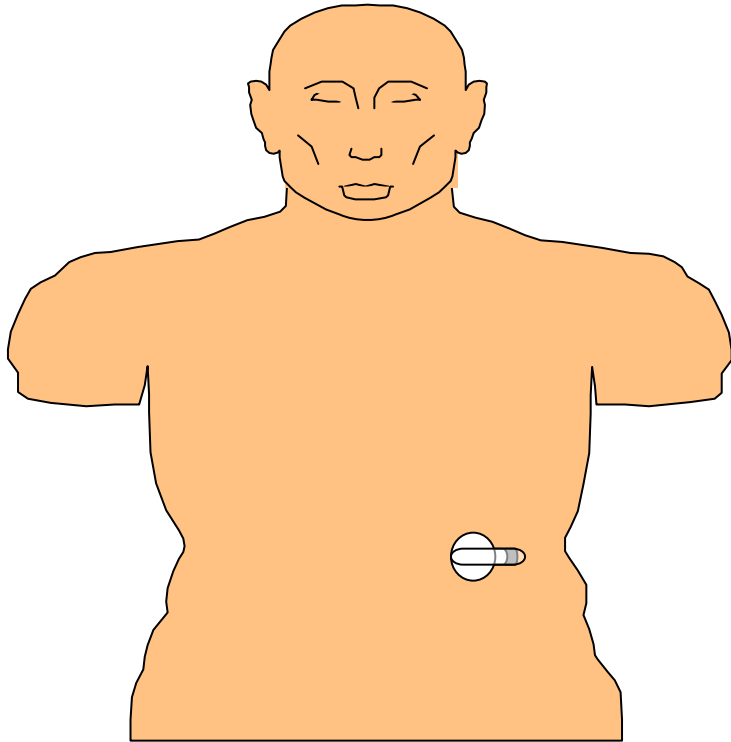
- Jejunostomy

- Device

Buttons

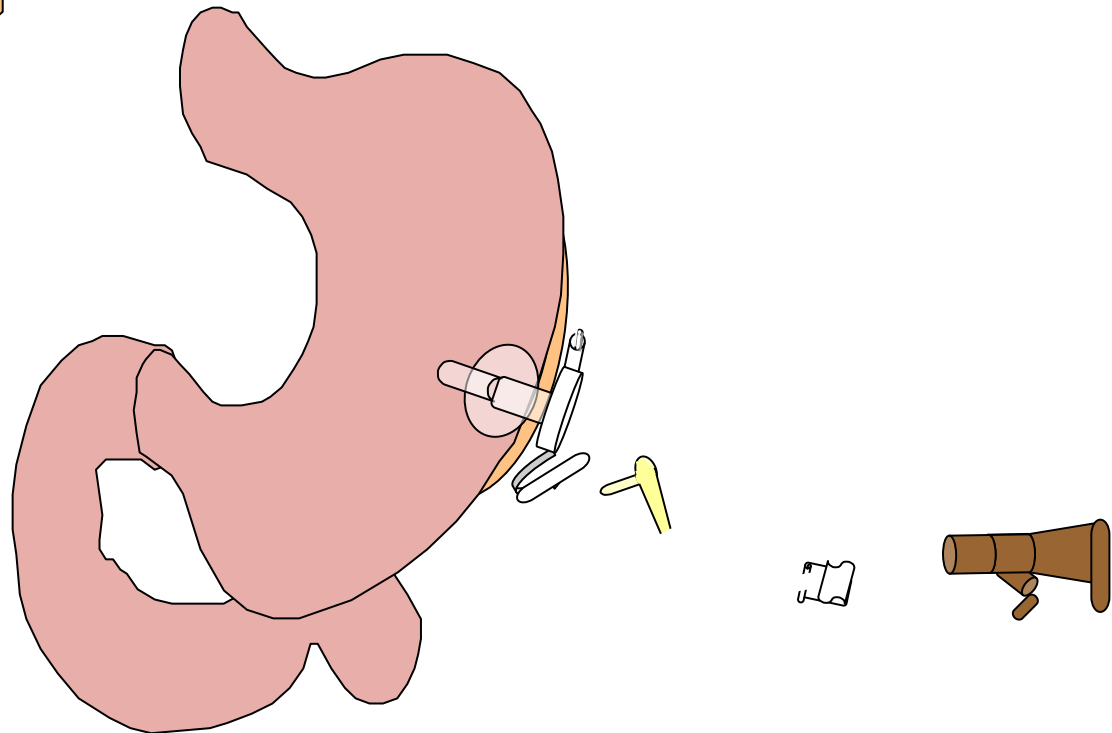
- Skin level device
- Discreet
- Less likely to be pulled
- More expensive (per tube and number of changes required)
- Detachable tubing

Buttons



The device is accessed by means of a detachable extension set

Please follow individual manufacturer's guidelines regarding how often the detachable extension sets may be used, and how they should be cared for when not in use



Buttons cont.

- Original endoscopic or radiologically placed gastrostomy to create the stoma tract
- A mature tract at least 3 weeks (adults)
- Need to remove original tube to measure tract (length and diameter)
- A temporary balloon gastrostomy tube whilst correct size button is ordered
- Good discharge arrangements

Button - long term care

- Check water in balloon weekly
- Arrangements to replace tube 3 monthly
- Emergency arrangements if becomes dislodged out of hours
- Ensure community team order and supply spare tube and detachable extension sets. (Dependant on PCT may be GP or DN service)

Jejunostomies

- PEJ

- Percutaneous Endoscopic Jejunostomy

RIJ

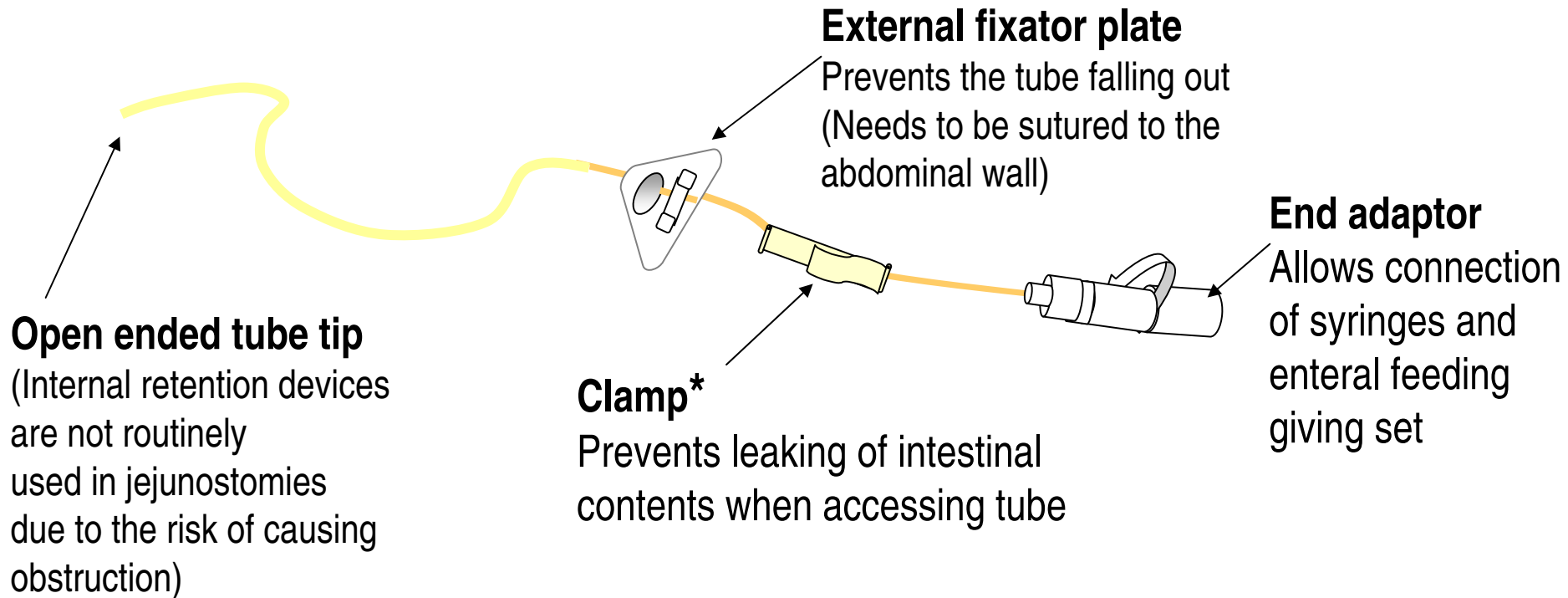
Radiologically Inserted Jejunostomy

Surgical jejunostomy

- D-PEJ

- Double Balloon Percutaneous Endoscopic Jejunostomy

Surgical jejunostomy



* Not present on all makes of tube

Some manufacturers gastrostomy tubes are also licensed for use as jejunostomy tubes

Gastro-jejunostomies

- PEGJ

- Percutaneous
Endoscopic
Gastro
Jejunostomy

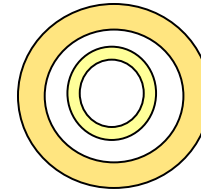
RPGJ

Radiologically
Placed
Gastro
Jejunostomy

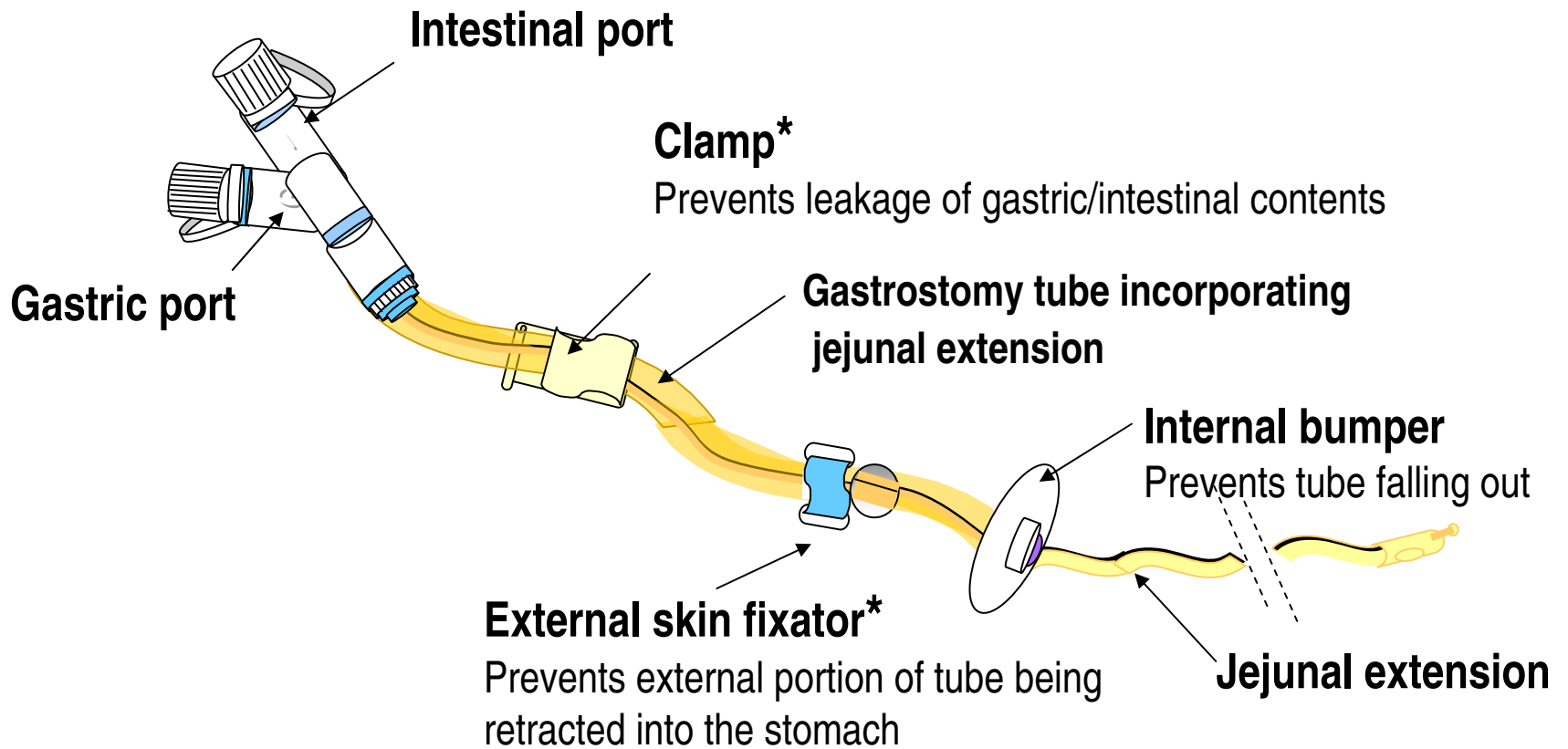
RIGJ

Radiologically
Inserted
Gastro
Jejunostomy

PEGJ



Cross section of tube showing position of the intestinal tube



* Not present on all makes of tube

PEGJ



Trouble Shooting

- Friday 4pm A&E
- Patient presents with bloating when feeding via PEGJ
- Dx of gastric dysmotility indicating jejunal feeding for this patient
 - Feeds via the jejunal port
 - discomfort is worse the longer they feed, like the symptoms they have when eating orally

When was the tube inserted?

9 months ago

Where was the tube put in?

Endoscopy

What type of tube is it?

A PEGJ

How is the tube retained?

Internal bumper, external fixator

Both port flush

The external fixator is snug to skin

Tube advanced and pulled back no problem

Jejunal tube has fall out of PEG

To confirm problem

- Look at the tube can you see the jejunal tube inside the gastric?
- Try feeling for the jejunal tube inside the gastric
- Clamp the tube open the gastric port flush the jejunal port gently, water should come out of gastric port. Proving the jejunal tube is not connected
- If the above tests are difficult to confirm aspirate both lumens, if both acidic this would indicate gastric placement

Tx replace jejunal tube via PEG in endoscopy

General pointers

Position of the external fixator

- The internal bumper and external fixator should be at a distance to ensure the abdominal and gastric / jejunal walls are held together to allow the tract to mature (~2-3 weeks)
- Position the external fixator snug on surface of skin
 - Not too tight to cause pressure damage
 - Risks: pressure necrosis, buried bumper, leakage
 - Not too loose to prevent the tract forming, and allow movement / friction
 - Risks: leakage, peritonitis, peristomal infection, over granulation

Replacement tubes

- Once the tract (fistula) from outside the body to the internal organ is made the tube replacement process is less complex
- Most tubes are replace-able either by repeating the original procedure or at the bedside

When tubes fall out...

- If the tube has been in situ > 3 weeks and no sign of trauma to the tract re-intubate the stoma tract
 - with replacement device if the patient has one
 - or use a standard G tube

NOTE the tract can close within hours

If a replacement tube is not available, use a Foley™ catheter of equivalent tract size

- May be hard to place as softer than G tube
- Use equivalent mls to inflate the balloon as previous G tube (usually 5mls) **NOT** balloon size indicated for urinary catheterisation
- The Foley catheter is only to maintain the tract until tube replacement **NOT** to be used for feeding
- Spigot the end to prevent leaking of gastric contents
- No external fixator - secure firmly to skin, risk of internal migration and obstruction from the balloon



Any questions?