

A decorative graphic on the left side of the slide consisting of white and light blue lines that resemble a circuit board or a stylized tree. The lines are vertical and horizontal, with small circles at the ends, creating a complex, branching pattern.

TUBE FEEDING NUTS AND BOLTS

AMANDA IHMELS, RDN, CSO, LRD

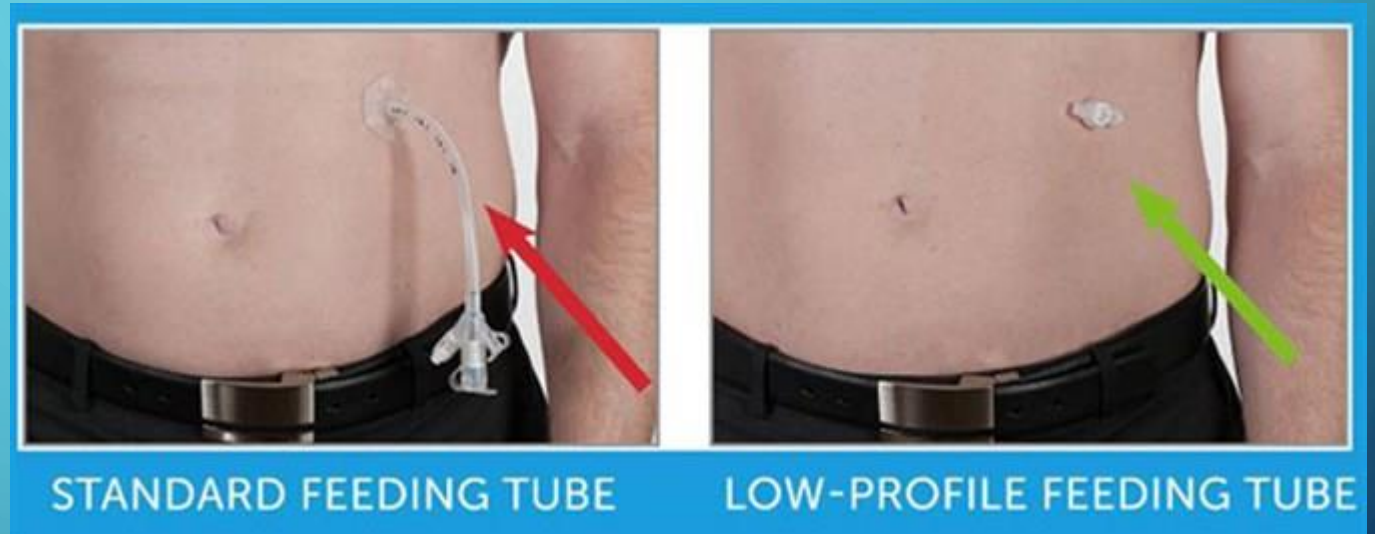
BISMARCK CANCER CENTER

OBJECTIVES

- Identify different feeding methods for out patients
- Describe cleaning methods for tube insertion sites
- Demonstrate a flush of a feeding tube

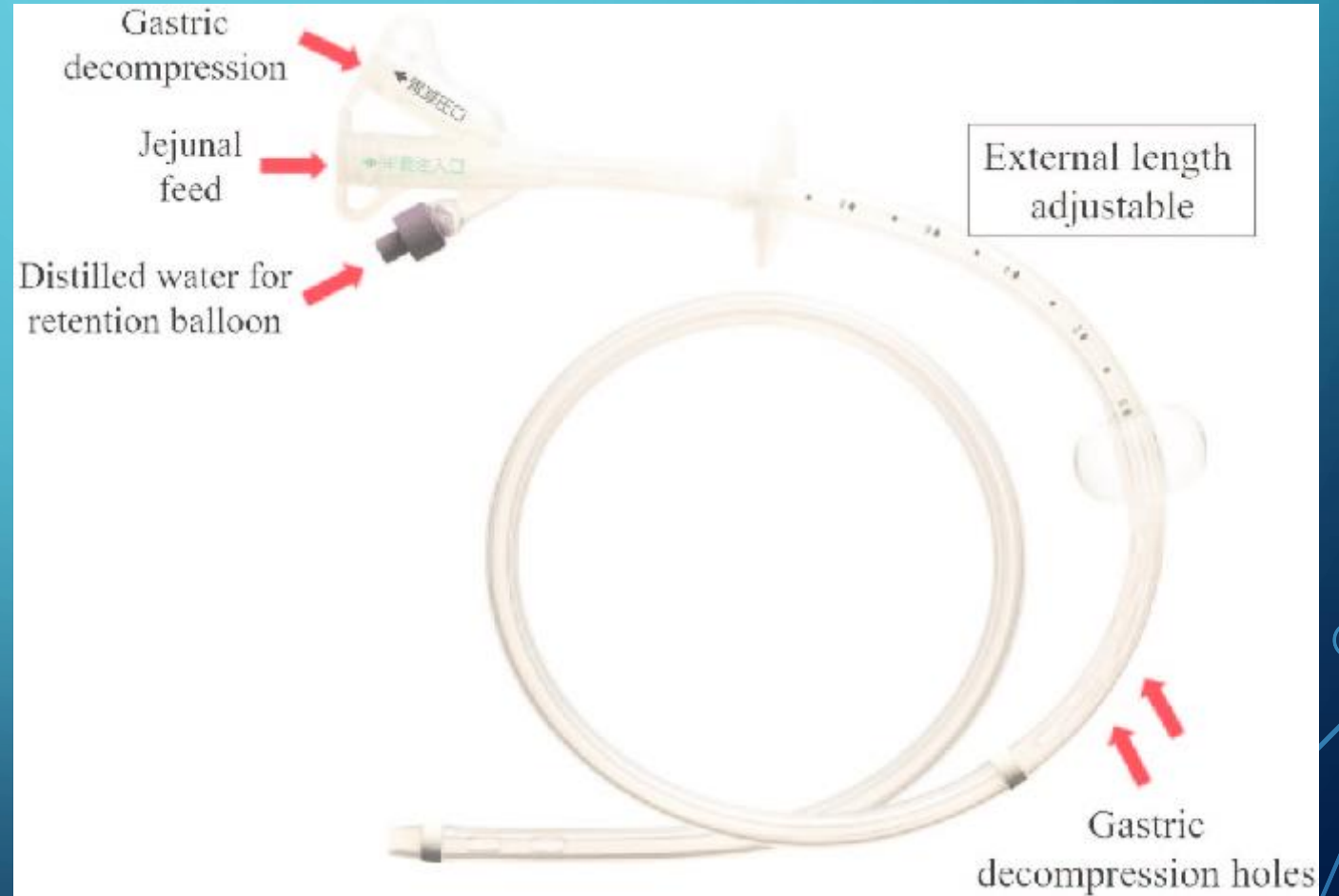
TUBE BASICS

- Gastrostomy tube (G-tube):
 - Low profile, MICKEY
 - Standard
 - Consider:
 - patients dexterity
 - length of time tube is expected to be in place
 - GI history
- Placement is an easy out patient procedure done by: GI, surgery or interventional radiology



TUBE BASICS

- Jejunostomy tub (j tube):
 - Consider insurance reimbursement
 - Tube type
 - GI history
 - Gastro-jejunal tubes (GJ tube)
 - For suction and feeding simultaneously
 - Placement is typically done by surgery either laparoscopically or an open procedure



ASSESSMENT IS KEY

- Conduct a thorough interview of the patient
 - Why did they get the tube?
 - What is their home life like, environment in which the tube feeding will be administered?
 - Do they have support?
 - Do they have insurance coverage?
 - Continued PO intake? Has Speech Therapy been involved?
 - Medical history and current treatment regimens
 - Weight history and conduct accurate calculation of energy needs

ASSESSMENT

- Ask to see the tube
 - Inspect skin
 - T-fasteners – removed in 7-30 days post placement
 - Some may fall off on their own and this is ok
- Ask the patient to tell you what they have done with the tube or what they know how to do
- Ask them to flush the tube



CARING FOR FEEDING TUBES

- Wash with warm water and soap, daily. Prefer non antibacterial soap, do not need to use hydrogen peroxide.
- Rotate tube. The external bumper may be too tight on parts of the skin. Rotating can help prevent skin breakdown and infection
- Flush at a minimum once per day more often for continuous feeds
- Crush medications thoroughly. Involve pharmacy if needed to have medications changed to liquid. Some medications cannot be crushed and should not sit to dissolve.
- Treat tip of tube, syringe and MIC-KEY extension kits the same as a fork or spoon



TUBE FEEDING REGIMEN

- Decide on required energy and fluid needs, pick appropriate formula
- Avoid half cans if possible
- Give the patient detailed instructions
 - Many options for education materials
 - Plan for flexibility: appointments, therapies and travel
- MANY times patients put non-formula liquids in tube. Take this into account during follow up.

Goal: 5 cans of Nutren 2.0, and at least 1060ml/4.5 cups of water daily.

How to bolus formula:

1. Gather supplies: syringe, towel, formula, room temperature water
2. Clean hand
3. Make sure tube is clamped, attach MIC-KEY extension kit.
4. Remove plunger from syringe, attach syringe. Make sure it is adequately attached to the tube.
5. Pour in 60ml of water, open clamp
6. Once water has gone through tube, pour in formula, add formula 60ml mark on syringe and wait for it to empty. Repeat until formula is gone
7. Pour in 60ml of water (this is called a flush)
8. Once water has emptied syringe clamp tube and remove extension tube.
9. Clean syringe

Bolus regimen:

Bolus 60ml of water, 1 can of Nutren 2.0, 60ml of water, repeating 5 times, spacing at least 2-3hrs.

Day 1: Bolus 60ml of water, 1 can of Nutren 2.0, 60ml of water, repeat 1-2 times prior to bed, depending on surgeon's instruction.

Day 2: Bolus 60ml of water, 1 can of Nutren 2.0, 60ml of water, repeat 3 times, spacing at least 2-3hrs

Day 3: Bolus 60ml of water, 1 can of Nutren 2.0, 60ml of water, repeat 4 times, spacing at least 2-3hrs

Day 4 (goal): Bolus 60ml of water, 1 can of Nutren 2.0, 60ml of water, repeat 5 times, spacing at least 2-3hrs, drinking/blousing at least ½ cup of water in addition to the water used to flush your tube before and after formula bolus.

If you are not feeling too full you can increase formula bolus size – for example: 1 ½ cans or 2 cans of Nutren 2.0 at a time. This would decrease the number of bolus's needing to be given. **NOTE:** if you are increasing the amount of formula given at one time, you will need to increase the amount of water drank or bloused separate from the formula bolus.

Important feeding tube tips:

- All liquid for tube feeding is to be room temperature.
- Do not lay flat after bolus. You need to be at least 30 degrees for 1 hour after.
- If tube falls out wash it off and put it back in and go the ER immediately. The hole close very fast.
- Monitor for dehydration. We want your urine to be a light straw color.
- Continue oral intake as able and if allowed.
- Clean around PEG tube site daily with warm soapy water, use a clean washcloth or Q-tip as needed.
- If water or formula is flowing slowly try changing positions or holding syringe up higher.
- If crushing medication and administering through tube make sure you follow pharmacy instruction on what medications can and cannot be crushed. Make sure to crush meds thoroughly and to flush with at least 60ml of water.

Please call with questions or concern: **Amanda Ihmels, RDN, CSO, LRD 222-6154**

COMMON PROBLEMS: FULLNESS/REFLUX

CAUSE

- Giving a bolus too fast
- Too much volume at one time
- Laying down after bolus
- Slow GI track

SOLUTION

- Decrease volume by separating water and formula bolus. Keep in mind typical bolus size is 360ml
- Bolus over 10-30mins or consider gravity feeds
- Consider formula tube requirements and size of tube the patient has
- Stay upright for at least an hour
- Check residuals – only hold if above 250ml
 - If residuals remain high consider spacing bolus more, decrease volume, consider changing formula or add Reglan

COMMON PROBLEMS: DISCHARGE FROM TUBE

CAUSE

- Tube is loose
- Volume too high
- Infection
- Balloon may have popped

SOLUTION

- Make sure external bumper is flush against skin
- Secure tube against skin to reduce pulling
- Assess for infection
- Volume of bolus is too much
- Position after bolus: consider sitting up or walking around
- Pull gently on tube to see how much it moves. If more than ~2inches send back to surgeon or interventional radiology for tube replacement

COMMON PROBLEMS: TUBE CAME OUT

CAUSE

- Pulling on tube
- Tube gets caught on something
- Balloon popped

SOLUTION

- Replace tube asap. Rinse tube and put it back in hole.
- Call surgeon or IR immediately or go to ER

COMMON PROBLEMS: TUBE IS CLOGGED

CAUSE

- Non water/formula through tube
- Not crushing medication thoroughly
- Not flushing enough water after bolus or during continuous feeds
- Not using the tube for a while

SOLUTION

- With warmer water push and pull on the syringe until clog clears
- Baking soda and Rx pancreatic enzymes mixed with water, let it dissolve the clog
- Specific tools to unclog a tube: brush
- Do NOT use Coke. Coke will make the clogging worse as it changes the textures of the inside of the tube making formula stick easier.

TO FLUSH A TUBE

- Gather supplies: room temperature water, syringe, extension kit if needed, towel
- Wash hands
- Clamp tube
- Draw up 60ml water into syringe, attach syringe firmly
- Unclamp tube and slowly push water into tube
- Clamp tube and remove syringe

TO GIVE FORMULA BOLUS



- Gather supplies: Room temperature water and shaken formula, syringe, extension kit if needed and towel
- Wash hands
- Remove plunger from syringe and clamp tube
- Attach syringe and pour 60ml of water
- Pour formula into syringe, repeat until formula container is empty, about 4 - 5 times
- Pour 60ml of water into syringe
- Clamp tube and remove syringe
- Wash all supplies with warm soapy water.

REAL WORLD SITUATION

- 70yo widowed male living alone. Has children who could help, if needed
- Base of tongue cancer, getting chemo and radiation
- Tube placed two weeks ago, nothing has been done with tube since
- Patient is still eating, but problems swallowing are expected with treatment
- Weight loss prior to treatment, current weight 185#/84kg, start weight 200#, loss 7.5% of body weight in 2 months.

REAL WORLD SITUATION

- Nutrition assessment
 - Cooking ability
 - Dexterity
 - Is the tube patent?
 - Is the tube insertion site clean?
 - Bowel movement routine
- Estimating caloric needs: 30-35kcal/day, 1.2-1.5g protein and at least 1ml/kcal of water
- Tube education
 - Make sure family is present for education
 - Clean and flush the tube
 - Provide patient with supplies or Rx for supplies
- Nutrition diagnosis:
 - Predicted suboptimal energy intake
 - Swallowing difficulties
 - Food and nutrition related knowledge deficit

IN CONCLUSION

- Assess how well the patient will use the tube, what are their barriers?
- Ask for details
- Don't be afraid to look at or touch the patients tube
- Ask if you don't follow up on _____ who will?

thank
you