ENTERAL TUBES: REVIEW EXPRESS

Continuum *of* Care Training

March 6, 2015

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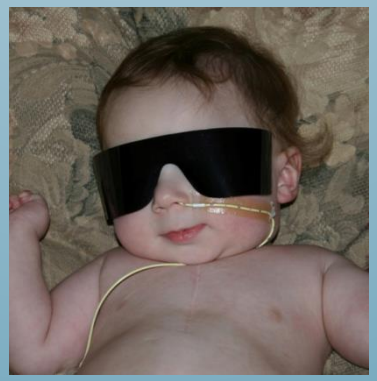
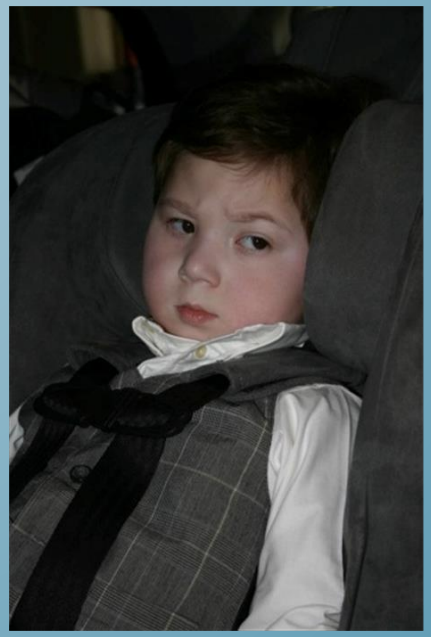
DISCLOSURES

- *NO ONE pays me for my biased opinions*
- *I am NOT: GI, General Surgeon, RN, SLP, PT etc.*
- *Mother of a child who is medically fragile*
- *Sebastian has had an enteral tube for 7.5 years*
  - *NGT for 4 months prior to g-tube*





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¡¡MIL GRACIAS!!

- *Jeffery Fahl, MD, Pediatric Gastroenterologist*
- *Analisa Drummond, CNP, Pediatric Gastroenterologist*
- *Mary Gallegos, RN, Pediatric Gastroenterology & Nutrition*
- *Lourie Pohl, CCC-SLP, DOH CSB Clinical Consultant*
- *Fran Dorman, PT, MHS, DOH CSB Consultant*

- *Videos & Full PowerPoint Presentations (PDF):*
  - *coc.unm.edu/training/videos.html*
  - *coc.unm.edu/training/presentations.html*

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OBJECTIVES

1) *Discuss the indications for a gastrostomy tube*
2) *Describe 2 types of gastrostomy devices*
3) *List 2 things the nurse should assess immediately following placement of an enteral tube*
4) *List 4 complications that can occur following placement of an enteral tube*

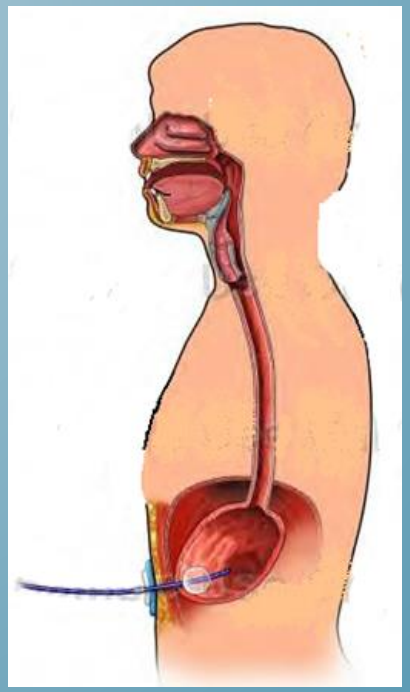
OBJECTIVES CONT.

5) *Explain how to use "Feeding Tube Questions & Considerations for Healthcare Decision Makers" in the decision making process*
6) *Describe 2 considerations that may require modifications of tube feeding positioning*
7) *Identify 2 positioning considerations for individuals who have feeding tubes but also receive comfort meals or liquids orally*
8) *List 2 resources in NM that can help a team member better support an individual with an enteral tube*

WHAT IS A GASTROSTOMY TUBE?

- *"Gastro": prefix meaning stomach*
- *An "ostomy": opening/connection between an organ and the skin*
- *Therefore: "Gastrostomy"*
  - *Connection between the stomach and the skin*

- *Tube:*
  - *Needed to keep the ostomy/stoma open*
  - *Provides alternative to P.O. (Per Os)*
    - *Nutrition, Medication, Decompression*



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INDICATIONS

- *Inability to eat (unable to swallow normally)*
- *Aspiration*
- *Poor oral intake*
- *Inadequate caloric intake*
- *Feeding time > 1 hour*
- *Nutritional support needed >4-12 wks*
- *May be combined with a fundoplication*

- *May be Temporary or Permanent*

CLINICAL CONSIDERATIONS

- ***Gastrointestinal Disease***
  - *GERD*
  - *GI motility*
- ***Pulmonary Status***
  - *Chronic micro-aspiration over lifetime*
  - *Recurrent pneumonia*
  - *Chronic lung disease*

CLINICAL CONSIDERATIONS

- ***Neurologic***
  - *Seizures*
  - *Spasticity*
  - *Gastroparesis*
  - *Dependent feeders*
- ***Saliva Management***
  - *Can individual manage own secretions?*

CLINICAL CONSIDERATIONS CONT.

- ***Positioning***
  - *Scoliosis*
  - *Postural tone*
  - *Sleep*
- ***Behavioral challenges***
  - *Pulling out tube*
  - *Rumination*
  - *Food seeking*
  - *Pica*

CLINICAL CONSIDERATIONS CONT.

- ***Oral Hygiene***
  - *Plan in place*
    - *Brush twice daily*
    - *Keep mouth moist (swabs)*
    - *Mouthwash*
    - *Lip balm*
  - *"Nil per os" (NPO) status: changes in oral flora*

- *Communication*
- *Oral Motor Skills*

EVALUATION

- *History & Physical exam*
  - *Growth*
  - *Cough*
  - *Emesis*
  - *Fatigue from eating*
  - *Medical conditions*
  - *Surgical history (esp. abdominal)*

EVALUATION CONT.

- *Video Fluoroscopic Swallow Study (VFSS):*
  - *Competence of airway protection: current diet/liquid*
  - *Therapeutic strategies to improve competence of airway protection*

- *Upper GI follow through:*
  - *Presence of GERD during or after eating/drinking*

- *pH probe:*
  - *Records pH in esophagus: GERD*
  - *Determine effectiveness of medication or surgical treatment*

***Role of SLP –throughout process*

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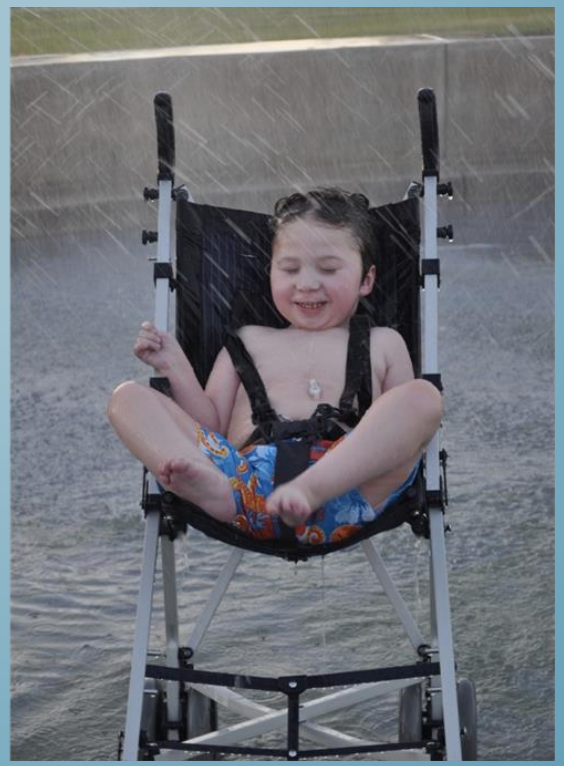
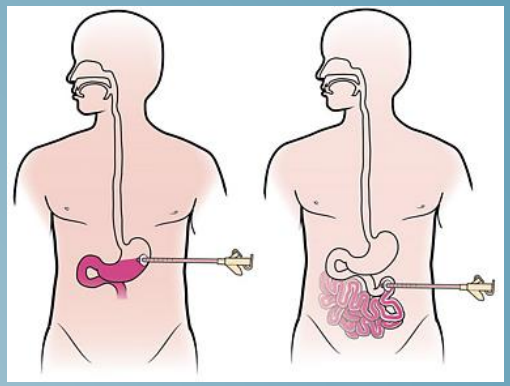
HOW DO YOU CREATE A GASTROSTOMY?

1) *Surgical*
2) *Percutaneous Endoscopic Gastrostomy (PEG)*
   a) *Current standard*
   b) *1-3 months*
3) *Interventional Radiology*

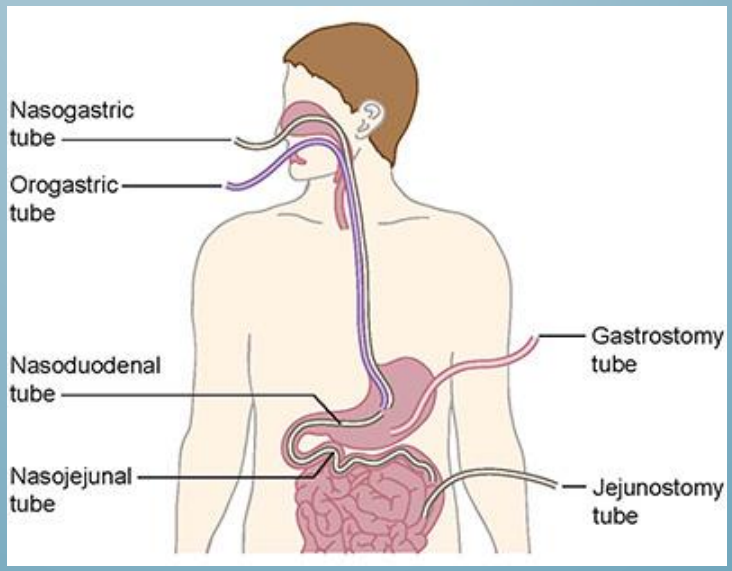
- *Manual: NGT*
  - *Temporary*
  - *Not secure access*



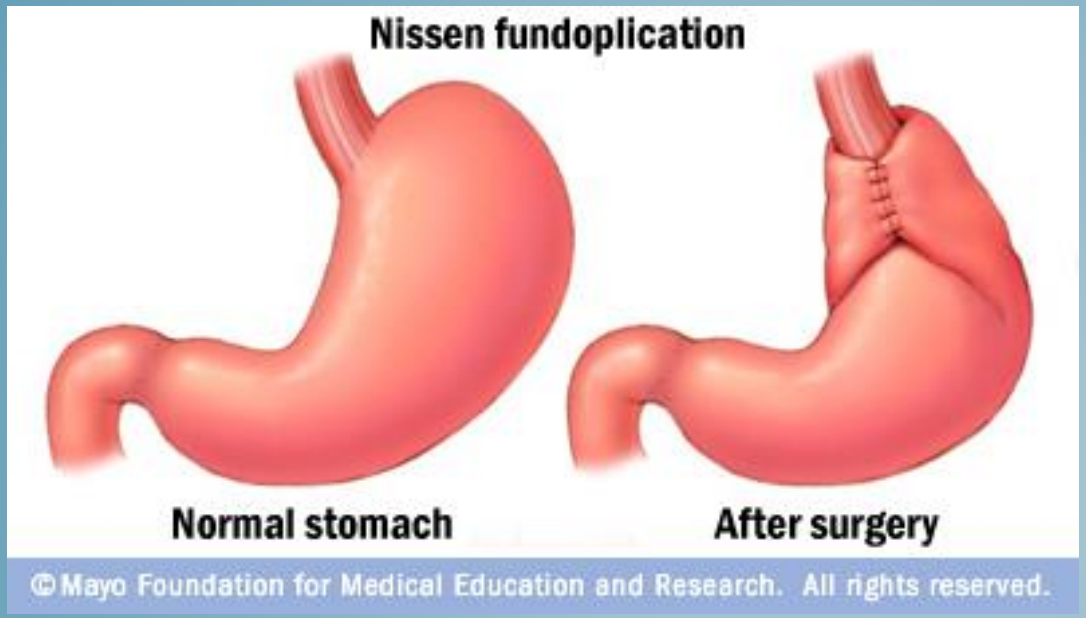
JEJUNOSTOMY TUBE "J-TUBE"



- *Usually created surgically*
- *Used to by-pass the stomach*
  - *Due to slow gastric emptying*
  - *GERD: inoperable or has failed operation*
- *Uses same devices as gastrostomy to keep to connection open*



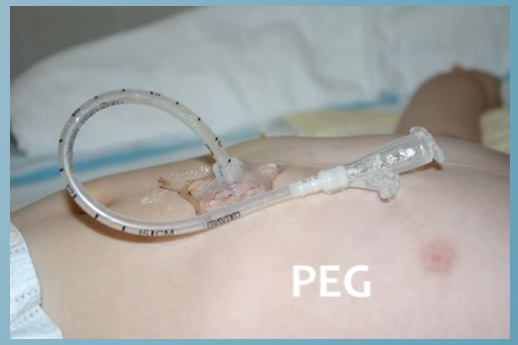
FUNDOPLICATION (NISSEN)



- Relative high failure rate
- High complication rate
- Re-doing surgery: difficult at best
- Tend to loosen as child grows

GASTROSTOMY DEVICES

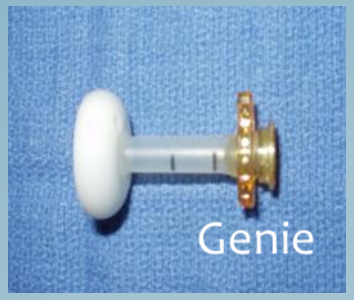
- ***Catheter devices:***
  - *Foley*
  - *Malecott*
  - *MIC Tube*
  - *PEG Tube*



**usually first tube to be inserted (new gastrostomy)*

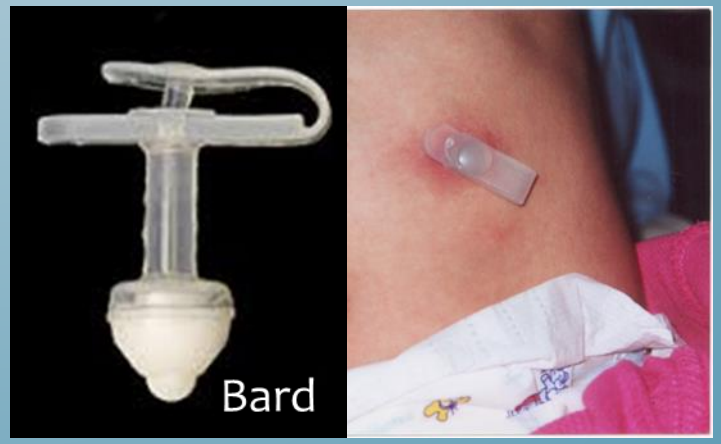
GASTROSTOMY DEVICES CONT.

- ***Button devices:***
  - *MIC-KEY*
  - *Bard*
  - *Genie*
  - *American Medical Technology (AMT)*
  - *Mini*



*used for long-term mgmt

*converted/inserted in 1-3 mo



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NOURISHING G-TUBES: GOALS

- *Provide nutrients: normal organ function*
- *Proper growth & development*
- *Protection from disease*
- *Part of daily routine*

- *Nutrition, Hydration, Medication Administration, Decompression*

NOURISHING G-TUBES: FEEDINGS

- *Bolus*
- *Continuous*
- *Gravity*
- *Pump*

NOURISHING G-TUBES: FEEDINGS CONT.

- ***Bolus:***
  - *Simple*
  - *Fast*
  - *Minimal equipment*
  - *Useful: school*

- *Problems:*
  - *Precipitate vomiting*
  - *Not great: nighttime*

NOURISHING G-TUBES: FEEDINGS CONT.

- ***Continuous:***
  - *Overnight*
  - *Slow gastric emptying*
  - *Supplementing daily oral intake*

- *Problems:*
  - *More equipment*
  - *Difficult: school*
  - *"Too full" ->breakfast*

NOURISHING G-TUBES: FEEDINGS CONT.

- *Gravity: "via gravity"*
- *Pump: "via pump" (@ rate)*

- *Prescriptions should be obtained*
  - *Equipment, Supplies, Formula*
  - *Instructions:*
    - *Total amount/day, rate setting, etc.*
    - *Bolus vs. continuous; combination*
    - *Gravity vs. pump*
    - *Oral feedings: Pleasure, NPO*

NOURISHING G-TUBES: FEEDINGS CONT.

- *Initial Feeding(s) -> usually started in hospital*

- *Need to know:*
  - *Feeding Procedure*
  - *Cleaning the extension set (tubing)*
  - *Administrating medications*

- *Other Nursing/SLP/staff considerations:*
  - *Oral Hygiene –still very important!*
  - *Oral motor skills/speech development*

NOURISHING G-TUBES: FEEDINGS CONT.

- *Restoration of "Mealtime":*
  - *Physical & emotional connections with others*
  - *Primary contexts:*
    - *Communication & socialization*
  - *Bolus feedings, faster pump rates:*
    - *Shorter periods*
    - *More similar to typical mealtimes*

CARING FOR A G-TUBE

- *Immediate assessment following placement of tube:*
  - *Vitals signs (includes 5th VS=Pain)*
  - *Normal surgical assessment*
    - *Head to toe*
    - *Hydration status*
    - *Accurate Intake & Output (I&Os)*
  - *Pain management*

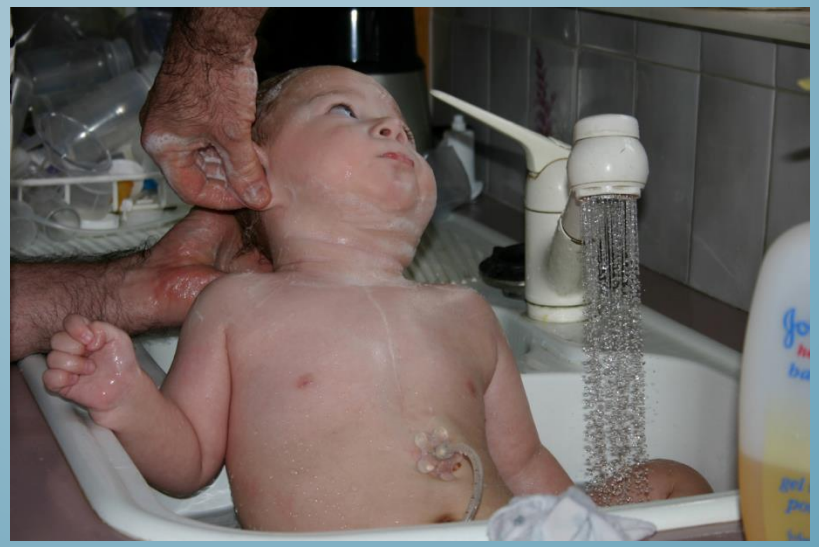
CARING FOR A G-TUBE CONT.

- *Assess daily: signs/symptoms of infection*
- *Small amounts of serosanguinous drainage and redness is normal*

- *First week: clean twice daily with saline then*
  - *Daily washing with soap and water*
- *Rotate the tube with each cleaning*
- *Apply dressing (split non-adherent) if necessary*
- *Ointment only if it is inflamed/swollen*

CARING FOR A G-TUBE CONT.

- *Tub baths/swimming: after 1 week*
- *Protect tube & site*
- *Prevent excessive movement of tube*
- *Prevent tube from being pulled out/becoming tangled*
- *Stabilize tube*



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COMPLICATIONS

- *Surgical:*
  - *Bleeding, Infection, Pain*
  - *Organ damage*
  - *Peritonitis*
  - *Wound separation*
  - *Tube migration*
  - *Aspiration*
  - *Necrotizing fasciitis*
  - *Bowel obstruction*
  - *Death*

COMPLICATIONS CONT.

- *Non-Surgical:*
  - *Infection*
  - *Tube migration*
  - *Leakage*
  - *Ulcerations*
  - *GERD*
  - *Tube clogged*
  - *Etc.*

COMPLICATIONS CONT.

- ***Associated with G-tube***
  - *Constipation, Diarrhea*
  - *Nausea*
  - *Dehydration, Fluid overload*
  - *Aspiration:* ***G-tube do NOT prevent it!***
  - *Clogged tube*
  - *At site:*
    - *Leaking:* ***ALL tubes leak!***
    - *Itching/red/rash, granulomas*
  - *Tube accidently removed*
  - *Etc.*

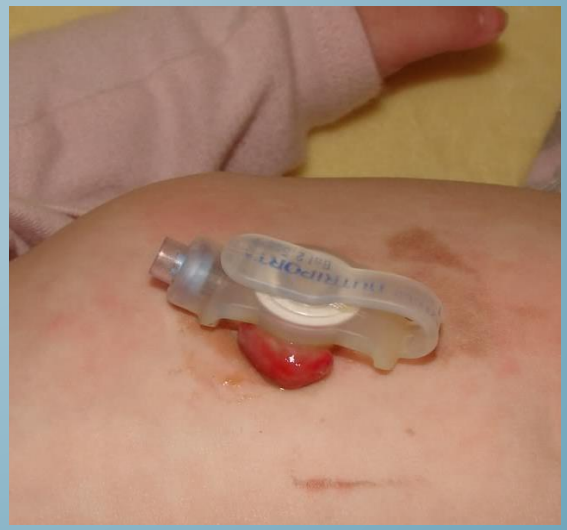
COMPLICATIONS CONT.:

- ***Infections:***
  - *Rare*
  - *"Puss" more likely mucus*
  - *Not superficial*
  - *Swelling, tenderness*

  - *Superficial redness is due to moisture or gastric acid*

COMPLICATIONS CONT.:

- ***Granulomas***: *"granulation tissue"*
  - *Gastric tissue pulled to surface by tube movement*
  - *Very common*
  - *Usually: increased tube movement*
  - *Treatment:*
    - *Silver nitrate*
    - *Decrease movement*
    - *Keep clean*



COMPLICATIONS CONT.:

- ***Clogged Tube:***
  - *Prevention: flush before/after*
  - *Flush: 60 mL syringe w/ warm water*
- *Leaking:*

EMERGENCIES

- *Primary goal: keep ostomy open*
- *If the tube comes out:*
  - *Push old tube back in, then tape in place (w/in 30-60 min)*
  - *Use any object to keep ostomy open*
  - *Replace with proper tube ASAP (spares?)*
  - *DO NOT FORCE IT!!*

  - *ERs: DON'T always know what to do*
  - *PCPs: DON'T always know what to do*

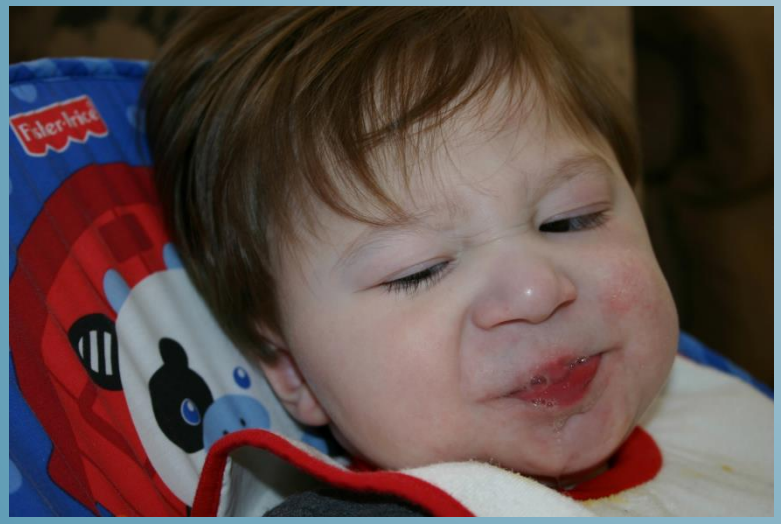
  - *When in doubt: put in a Foley catheter*

EMERGENCIES CONT.

- *If tube comes out prior to 4 weeks after placement:*
  - *Do not replace "blindly at bedside"*
    - *Not mature: gastric wall & abdominal wall may have separated*
  - *Call GI specialist!*
  - *Allow gastrostomy tract to heal*
  - *New gastrostomy can be placed at new site*

BREAK

15 MINUTES



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DECISION MAKING

- *Family acceptance*
  - *"Feeding my child"*
  - *Loss of normalcy*

- *Feeding/eating: Social & Cultural Influences*
  - *Integral part of Human life*
  - *More important than sex*
  - *Profound social urge*
    - *Shared*
    - *Celebrations/Ceremonies/Symbolic*
    - *Symbol/Reality: LOVE & SECURITY*
  - *All Cultures ->considerable lengths to obtain preferred foods*

DECISION MAKING CONT.

- *Risk vs. Benefit*
- *What are the alternatives?*
- *Quality of life –always at the forefront*

- *Cultural implications*

DECISION MAKING CONT.

- *Individual/Family/Guardian*
  - *Final decision*
- *Team/SLP/Nurse's role*
  - *Supports decision maker -> informed decision*

- *Tools for your Toolbox:*
  - *"Feeding Tube –Questions & Considerations for Healthcare Decision Makers"*
  - *"On Tube Feedings"*

DECISION MAKING CONT.

- *"Feeding Tube –Questions & Considerations for Healthcare Decision Makers"*
  - *2 page document*
  - *30 questions*
    - *"If I can't eat by mouth, how can I eat?"*
    - *"What are feeding tubes?"*
  - *Stimulate dialogue w/in the team*
  - *Individualized*
  - *No universally correct answers*

DECISION MAKING CONT.

- *"On Tube Feedings"*
  - *5 page document*
  - *Overview:*
    - *Dysphagia*
    - *Feeding tubes*
    - *Immediate & Long-term Risks & complications*
    - *Bolus vs. continuous feedings*
    - *Tube care*
    - *Oral care & hygiene*
    - *Long-term implications*

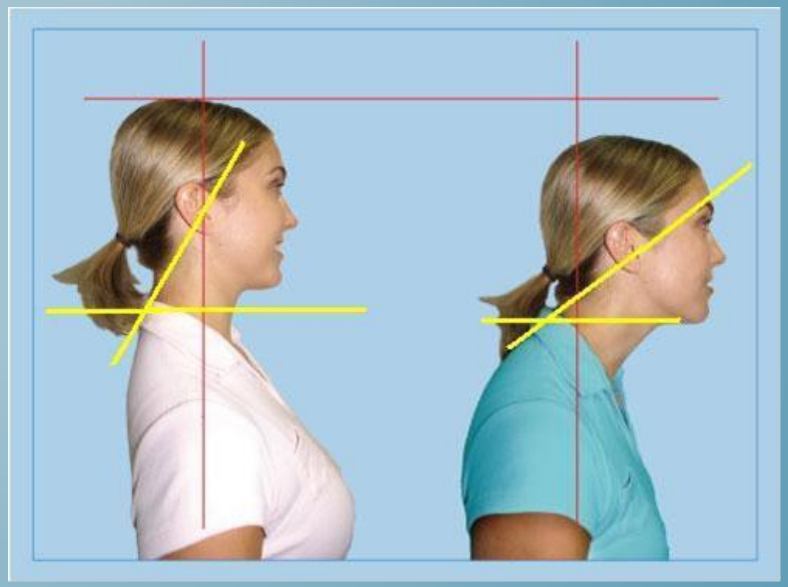
POSITIONING: MODIFICATIONS

- *GERD*
- *Aspiration*
- *Fixed deformities: scoliosis, kyphosis, hips*
- *Abnormal muscle tone*
- *Skin Integrity*
- *Behavioral considerations*
- *Some oral intake*

POSITIONING: MODIFICATIONS CONT.

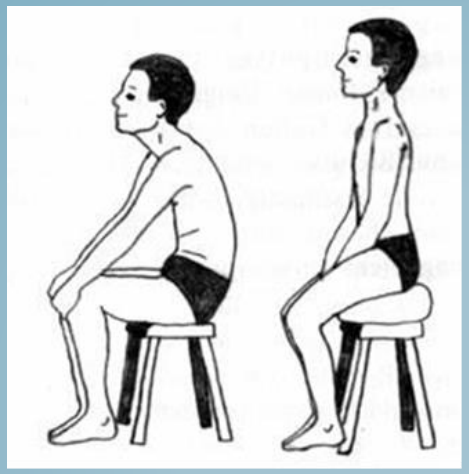
- *Head elevation:*
  - *30° to 45°*
  - *Maintain/continue for 30-60 minutes after feeding*

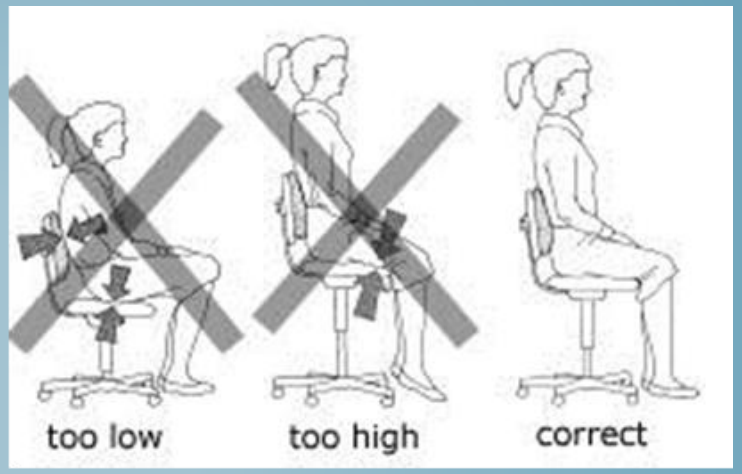
- *Head position:*
  - *Sit upright*
  - *Tuck chin*
  - *Avoid chin elevation*



POSITIONING: MODIFICATIONS CONT.

- *Pelvis:*





- *Tilt-in-space:*

POSITIONING: MODIFICATIONS CONT.

- *Trunk Rotation:*
  - *Back to seat angle*
  - *Midline positioning &*
    - *Fixed hip*
    - *Abduction or*
    - *Adduction*

RESOURCES

- *"Guide" included in kit:*
  - *Care*
  - *Use*
  - *Feeding*
    - *Bolus*
    - *Continuous*
    - *Medications*
  - *Replacement*
  - *Problem solving*

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RESOURCES CONT.

- *Supports & Assessment for Feeding & Eating (SAFE) (505) 272-0285*
- *Feeding Clinic (<22yo) @ CTH: (505) 272-4311*
- *Continuum of Care: (505) 925-2350*
- *DOH DDSD Clinical Services Bureau: (505) 841-2907*
- *DDSD Regional Office Nurses:*
  - *Metro: 800-283-5548 - SE: 866-895-9138*
  - *NE: 866-315-7123 - SW: 866-742-5226*
  - *NW: 866-862-0048*

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RESOURCES CONT.

- *http://archive.nmhealth.org/ddsd/ClinicalSvcsBur/Resources/AspirationResources.htm*
  - *Aspiration Risk Screening Tool (ARST)*
  - *Comprehensive Aspiration Risk Management Plan (CARMP) Template & Instructions*
  - *Nursing Collaboration Aspiration Risk Assessment Tool*
  - *Decision Consultation Form (Medical)*
- *Team Justification Form (Non-medical)*

RESOURCES CONT.

- *Manual: "Coping well with Home Enteral Nutrition"*
  - *http://www.copingwell.com*

"CHECKING RESIDUALS"

- *"Guides" provided by g-tube companies:*
  - *Mentioned, but not specifics or standards given*
- *Literature Review:*
  - *Lack of data: less in this patient population*
  - *Cleveland Clinic*
  - *Nebraska Feeding Clinic*
  - *UWA "Protocol"*
  - *Practical Gastroenterology: Oct 2008*
  - *Up To Date*

"CHECKING RESIDUALS" CONT.

- *Falls under the "Art of Medicine"*
- *NOT ROUTINELY!*

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POP QUIZ

Will a G-tube prevent aspiration?

Will a J-tube prevent aspiration?

Q&A

Mil Gracias!!

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