Pediatric Feeding Disorders: Therapy Strategies for Common Problems

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UNC Pediatric Feeding Team

- Core team members: gastroenterology, speech pathology, & nutrition
- Philosophy: A combined medical, motor, and behavioral approach

What is the goal of most parents and caregivers?

Successful oral feeding!

Feeding Problems

- multifactorial
- complicated
- common- 80% of children with developmental delay, 25% of typically developing children

What is a Feeding Problem?

A feeding problem is just the failure to progress with feeding skills.

Developmentally, A feeding problem exists when a child is "stuck" in their feeding pattern and cannot progress. (Manno et al., 2005)

Common places children with feeding problems are getting stuck

- suckle or sucking pattern/midline tongue patterns, poor chewing
- Limited diet, extreme picky eating, food refusal or oral aversion
- g-tube dependence

1. Suckle or Sucking pattern

- suckle: anterior-posterior tongue pattern (0-6 months)
- sucking: up and down tongue pattern (6-8 months)
- consistent with liquid and puree diet

Oral Motor Delay: persistent suckle pattern

The child presents:

- difficulty tolerating textured foods
- gagging or pocketing
- poor chewing
- poor bolus control
- oral spill, “pushes food out”

Persistent Suckle pattern

Reasons for getting stuck in a sucking pattern

- low tone in the jaw
- reduced tongue movement
- poor jaw stabilization
- lack of practice eating

Therapy: Decreasing a persistent suckle pattern

Goal: child will accept bite, with good bolus formation and control, and transfer posteriorly for the swallow

- “spoon technique”

“spoon technique”

- full acceptance of the spoon (small spoon)
- proper tongue placement
- lip closure to clear spoon

spoon technique

Therapy: Decreasing a persistent suckle pattern

- hyoglossal assist and jaw stability (anchor base of tongue, improve BOT strength)
- use pressure with spoon on midline of tongue (encourage better groove and upward tongue movement)
- hold spoon in mouth allowing child to suck off of the spoon (provides barrier to forward thrust of tongue)

Therapy: Decreasing a persistent suckle pattern

- supported seating with postural alignment
- open cup drinking: decrease sucking on bottle or spouted cup if possible
- Oral motor exercises: encourage lateral tongue movement or “dissociation of tongue and jaw”

suckle

2. Chewing

Developmental stages from

7 months- 36 months

- munching: up and down jaw movement with sucking (7-9 months)
- vertical chewing: 9 months- 24 months
- rotary chewing: 24 - 36 months

Poor Chewing

Child presents:

- sucking on solids
- long meal time with low volume intake
- food refusal
- pocketing solids
- choking on solids
- expelling solids

Poor Chewing

Reasons for not progressing to chewing

- low oral tone or low jaw tone
- reduced tongue movement
- oral hypersensitivity, gagging on textures
- GI issues: solid food dysphagia, GERD, Eosinophillic esophagitis
- lack of practice eating

Therapy: poor chewing

goal: (if age appropriate) child will use an open mouth pattern vertical chewing pattern with good bolus formation and timely a-p transfer on meltable and soft solids.

Therapy: poor chewing

- make diet recommendations for easier textures that avoid holding, expelling or swallowing foods whole
- lateral placement of puree with jaw support
- biting on chewy tube for strength and motor planning (jaw rehab protocol)
- lateral biting on dry dissolvable foods

  examples of dissolvable foods:graham crackers, gerber stars, cheetos, crumbs, ritz, melts, etc.

Therapy: lateral placement of puree

goal: child will use lateral tongue movement to retrieve puree

- technique:
  - take a texture the child can handle (puree) but ask the tongue to move in a new pattern
  - use infant spoon with ½ tsp bite
  - go in middle, over to side and out
  - jaw stability

lateral placement

lateral placement

lateral placement

Lateral placement of solids

lateral tongue movement

Therapy: jaw rehab protocol

goal: child will improve muscle strength and develop motor planning for chewing

- caregiver holds chewy tube for child, work on holding up to 60 bites
- follow with meltable solids
- to make more challenging; dip chewy tube in puree or fill with crunchies, now child has to bite and swallow

Therapy: poor chewing

- Do not add crumbs to puree (child will swallow whole, can be used as a textured puree)
- Pay attention to positioning: postural alignment, shoulder girdle, trunk strength, and trunk rotation
- Meals: transition from purees to chewables.

chewing

chewing

Verbal and visual Cueing

3. Food refusal or oral aversion

Child presents with:

- Limited diet
- extreme picky eating
- food refusal or oral aversion
- avoidance of food groups
- eating same foods at each meal
- often preference for crunchy foods

Food refusal or Aversion

Reasons for getting stuck in limited diet or oral aversion:

- medical: GERD, pain with eating, food intolerance, gagging, constipation
- poor chewing
- learned patterns of behavior

Intervention: Food refusal or Aversion

- start with medical management strategies to improve gut comfort
- use structured behavioral reinforcement strategies to get acceptance
- can start with dry or dip spoon to work on "spoon technique"
- may include reward or distraction type program
- caregivers should feed in sessions
- home program for carryover

behavioral reinforcement

Basics of a Structured Behavioral Feeding Program: Progression

Follow developmental stages

- smooth puree
- table food or homemade puree
- mashed foods
- dry meltable solids
- soft solids and chewables

Therapy: expanding variety

goal: child accepts 4-5 foods from all of the food groups to meet caloric, and nutrient needs

- medical: establish gut comfort (treatment may include GERD, motility problems, poor appetite, constipation or intolerance/allergy)
- use behavioral techniques to expand variety and volume
- peer pressure does not typically work

4. G-tube dependence

Question: Why did the child get a feeding tube?

Child presents with:

- need for g-tube feeds for caloric, nutrient, hydration intake
- won't eat or drink enough to come off the tube

G-tube dependence

Reasons for g-tube dependence

- aversive feeding behavior
- food refusal or selectivity
- medical: gagging, GERD, constipation, or food allergy/intolerance
- oral motor delay

Therapy: weaning off g-tube

goal: child accepts food and liquid orally to meet hydration, caloric, and nutrient needs

- needs to meet this goal 4-6 months before tube is removed

Therapy: weaning off g-tube

- medical management: establish gut comfort
- choose formula for tolerance
- manipulate tube feeding to promote comfort
- establish calorie and hydration goals for weight gain and growth

Therapy: weaning off g-tube

Therapy:

- use behavioral strategies to increase acceptance of purees and liquids
- **use high calorie purees and liquids to transition off the tube**

g-tube removal!

In Conclusion

For effective treatment:

- **medical**: improve gut comfort and treat underlying reasons for poor feeding
- **motor**: supported seating for postural alignment for best oral skills
- **oral motor**: progress developmentally
- **behavior**: use behavioral reinforcement techniques to improve acceptance

Thank You!!!!

Resources:

- UNC Feeding Team

  https://ncchildrenshospital.org/ourservices/specialties/gastroenterology/programs-services/feeding-dysphagia

- www.pediatricfeedingnews.com