

Gastroesophageal Reflux, Esophageal Dysmotility, and Delayed Transition onto Solids: Identification and Management, Part II

Presented by Marjorie Meyer Palmer, M.A.

Speech Pathologist

Neonatal and Pediatric Feeding Specialist

Transition onto Solids:

3-6 months - pureed foods

8-10 months - crispy, crunchy solids that dissolve during oral phase

10-12 months - small cubes of fruits, meats, vegetables

"Incremental Progression" (developed by Marjorie Meyer Palmer, 2009)

" Use of regular, consecutive, and measurable additions and/or changes to aid feeding transitions that occur in a connected series"

liquid>thick liquid

thick liquid>pureed food

pureed food>thick pureed food

thick pureed food>soft solids

soft solids>harder solids

Transition from liquid to pureed food

-establish baseline for liquid

-select material to thicken liquid

-measure amount to thicken

-gradually increase by $\frac{1}{4}$ teaspoon every 3-4 days as tolerated

-if not tolerated do NOT back up. "stay the course"

Transition from pureed food to solids

-establish baseline for amount of pureed food

-select material used to increase consistency

-measure amount added

-always use same material throughout program

-first spoonful of meal should be most challenging

-spoonfuls gradually increase in number

GOAL: Child is able to eat a thick pureed food consistency that does not fall off the spoon when the spoon is turned upside down.

Gastroesophageal Reflux, Esophageal Dysmotility, and Delayed Transition onto Solids: Identification and Management, Part II

Presented by Marjorie Meyer Palmer, M.A.

Speech Pathologist

Neonatal and Pediatric Feeding Specialist

Gastroesophageal Reflux and Esophageal Motility

- not conducive to oral feeding
- causes discomfort associated with feeding
- develops a negative association
- medical solutions may not be effective in preventing feeding problems
- child develops a sensory-based oral feeding aversion

The 4-course meal

1. biting/chewing foods for recreational feeding as meal is being prepared
2. introduce a few spoonfuls of thick pureed at start of meal (therapeutic)
3. continue meal with thin pureed food for improved intake (nutrition)
4. offer liquid at end of meal or as "liquid wash" during meal

As esophageal peristalsis improves, child will be able to take an increased number of spoonfuls of thick pureed food and/or foods that do not dissolve during the oral phase of swallow

Episodes of gagging, regurgitation, and/or vomiting will decrease

Continue all anti-reflux medications until program is completed

Gastroesophageal Reflux, Esophageal Dysmotility, and Delayed Transition onto Solids: Identification and Management, Part II

Presented by Marjorie Meyer Palmer, M.A.

Speech Pathologist

Neonatal and Pediatric Feeding Specialist

Remember!

A feeding problem may not be just behavioral. Sensory-based oral feeding aversions usually have an underlying etiology:

- delayed oral-motor skills
- sensory integration disorder
- esophageal dysmotility
- gastroesophageal reflux
- food allergies with vomiting
- constipation, diarrhea
- delayed gastric emptying

just to name a few!

- The thicker and heavier the food the greater the degree of esophageal peristalsis
- Smaller boluses are easier to swallow than larger ones
- As esophageal motility improves it is likely that the gastroesophageal reflux will diminish
- Esophageal phase dysphagia can be helped by therapeutic intervention
- Crunchy, crispy solids dissolve during the oral phase of swallow and clear the esophagus as liquid
- Children with esophageal dysmotility are less likely to be able to eat meats, fruits, and vegetables
- Hip extension helps to prevent GERD
- Hip flexion increases abdominal pressure, predisposes to GERD

**Gastroesophageal Reflux, Esophageal Dysmotility, and Delayed Transition
onto Solids: Identification and Management, Part II**

Presented by Marjorie Meyer Palmer, M.A.

Speech Pathologist

Neonatal and Pediatric Feeding Specialist

References

1. Hyman, P.E. (1994). Gastroesophageal reflux: One reason why baby won't eat. *The Journal of Pediatrics*, 125, S103-S109.
2. Roberts, S.B., Heyman, M.B. (1999). About allergies, food intolerances, and colic. In: *Feeding Your Child for Lifelong Health*. New York, NY: Bantam Books.
3. Wolf, L.S., Glass, R.P. (1992). Special diagnostic categories. In: *Feeding and Swallowing Disorders in Infancy*. Tucson, AZ: Therapy Skill Builders.
4. Warren, J.R., Marshall, B.J. (1983). Unidentified curved bacilli on gastric epithelium in active chronic gastritis. *Lancet*, 1, 1273-1275.
5. Mascarenhas, M.R., Dadhania, J. (1995). Gastrointestinal problems. In: Rosenthal, S.R., Sheppard, J.J., Lotze, M. eds. *Dysphagia and the Child with Developmental Disabilities*. San Diego, CA: Singular Publishing Group, Inc.
6. Abadie V., Andre A., Zaouche A., Thouvenin B., Baujat G., Schmitz, J. (2001). Early feeding resistance: a possible consequence of neonatal oro-oesophageal dyskinesia. *ACTA Paediatrics*. 90, 738-745.
7. Martinez de Haro, L., Parrilla P., Ortiz, A., Morales, G., Cifuentes, J., Perez, D. (1993). Correlation between esophageal motility and 24-hour pH recording of gastroesophageal reflux. *American Journal of Gastroenterology*, 88, 525-529.
8. Bumm, R., Feussner, H., Holsher, A.H., Jorg, K., Dittler, HJ, Siewert, JR. (1992). Interaction of gastroesophageal reflux and esophageal motility. Evaluation by ambulatory 24-hour manometry and pH-metry. *Dig Dis Science*, 37, 1192-1199.

9. Godoy, J., Tovar, J.A., Vicente, Y., Olivares, P., Molina, M., Prieto, G. (2001). Esophageal motor dysfunction persists in children after surgical cure of reflux. An ambulatory manometric study. *Journal of Pediatric Surgery*, 36, 1405-1411.
10. Vincente, Y., Hernandez-Peredo, G. Molina, M., Prieto, G., Tovar, J.A. (2001). Acute food bolus impaction without stricture in children with gastroesophageal reflux. *Journal of Pediatric Surgery*, 36, 1397-1400.
11. Zarate, N., Mearin, F., Hidalgo, A., Malagelada, J.R. (2001). Prospective evaluation of esophageal motor dysfunction in Down's syndrome. *American Journal of Gastroenterology*, 96, 1718-1724.
12. Fibbe, C., Lager, P., Keller, J., Strate U., Emmermann, A., Zornig, C. (2001). Esophageal motility in reflux disease before and after fundoplication. A prospective, randomized, clinical, and manometric study. *Gastroenterology*, 121 5-14.
13. Parkman, H.P., Maurer, A.H., Caroline, D.F., Miller, D.L., Krevshy, B., Fisher, R.S. (1996). Optimal evaluation of patients with nonobstructive esophageal dysphagia. Manometry, scintigraphy, or videoesophagography? *Dig Dis Science*, 41, 1355-1368.
14. Bumm, R., & Holsher, A.H. (1993). The role of esophageal motility in gastroesophageal reflux disease: technique and clinical results of ambulatory 24- hour mano/pH-metry. *Dysphagia*, 8, 112-117.
15. Mayer, E.A., Gebhart, G.F. (1994) Basic and clinical aspects of visceral hyperalgesia. *Gastroenterology*, 107, 271-293.
16. Shepard, R.W., Wren, J., Evans, S., Lander, M. Ong, T.H. (1987). Gastroesophageal reflux in children: clinical profile, course, and outcome with active therapy in 126 cases. *Clinical Pediatrics*, 26, 55-60.
17. Haiken, M. (1995). Ages and Stages: ready, set, grow. In: *Parenting Magazine*, San Francisco, CA, 123-125.