

# **Improving Feeding and Mealtime for Infants and Toddlers** Kimberly Holt, MS OTR/L

### **Parent-Led Intervention Strategy for Feeding Problems**

### 1. Identify the Problem

- 1. Notice Physical Signs
- 2. Use a Developmental Feeding Chart
- 3. Use a Parent Reported Outcome Measure

### 2. Observe Parent and Child to facilitate Responsive Feeding

- 1. Observe mealtime with parent and child
- 2. Help the parent recognize Child Signals correctly
- 3. Encourage parent to visually attend
  - Limit distractions (pets, tv)
- 4. Encourage a mealtime routine
- 5. Eat as a family (provide modeling cues)
- 6. Promote play during mealtime (touch, taste, lick, smile)

### 3. Apply a Coaching Model to Improve

- 1. Connect with the caregiver.
- 2. Watch Mealtime in the natural environment
- 3. Plan to assist with mealtime at the next visit
- 4. Ask Questions that promote parent thinking.
- 5. Give constructive, meaningful feedback

### 4. Achieve Long Term Goal: Empower the Parent

- 1. Empower Parents
- 2. Improve the value of healthcare services
- 3. Catch Developmental Delays Quick
- 4. Largest impact on infant/ toddler health

## Infant/ Toddler Developmental Feeding Chart

Age	Oral Motor Skills	Nutrition/ Food Types	Positioning Needs	Recommended Tools
1 Month	Suck/ Swallow/ Breath	Stomach is the size of a ping pong ball	Held in Caregiver Arms Eye Con-	Bottle or Breast
	No Biting or Chewing Reflexive	Breast Milk/ Formula	tact Slight Elevation	
3 Months	Suck/ Swallow/ Breath	Breast Milk/ Formula	Held in Caregiver Arms	Bottle or Breast
	No Biting or Chewing		Promote Eye Contact	
	Can sequence up to 20 or more sucks, Tongue can extend and retract		Slight Elevation	
5 Months	Uses longer sequences of suck/swallow/ breath	Breast Milk/ Formula is primary	Held during bottle feeding	Bottle/ breast
		Begins to taste single grain cereals and purees mixed with formula / breastmilk	Sitting in supportive seating during purees and cereals	Highchair
	Tongue can move up and down			Infant spoon
	Primitive biting-release pattern (munching) Biting is not controlled			
6 Months	No loss of liquids when drinking from bottle	Breast Milk/Formula	Held	Bottle/ breast
	Some loss of liquids when drinking from	Continue to eat purees, can be thicker and	Sitting in supportive seating	Highchair- with tray
	cup Beginning diagonal rotary chewing	homemade Thin liquids- juice/ water via straw cup		Infant spoon (for baby and caregiver)
				Mesh Food Feeder
				Straw cup
9-10 Months	No loss of liquid with sippy cup or bottle	Breast Milk/ Formula	Held Sitting in supportive seating With tray table	Bottle/ Breast
	Munches with diagonal movement and lateral movements of food from center to sides of mouth	Thin liquids- water		Highchair -Infant spoon (s)
		Table Food smooth purees		Mesh Food feeder
		Soft mashed table foods		Straw Cup/ open cup
		Meltable Solids (graham crackers)		Nuk Food Masher
		Soft Cubes (10 months)		
12 Months	Controlled, sustained bite	Breast Milk/Formula, Purees	Held	Reduce paci
	Begins rotary chewing	Easily chewed foods, including meats and coarsely chopped foods, meltable crackers, 1 Tablespoon of food per food group, Mixed Textures	Sitting in supportive seating with	Reduce bottle
	Dips spoon in messy foods		tray.	Straw/ Open Cup
			Important to promote self-feed- ing	Toddler spoon
18 Months	Jaw is stable when drinking from sippy cup	Easily chewed foods, including meats and coarsely chopped fruits and cooked vegetables	Sitting in supportive seating- im- portant to promote self-feeding	Eliminate paci
	Scoops with spoon and brings to mouth			Eliminate bottle
				Straw/ Open cup
				Toddler Spoon/ fork
24 Months	Use of fork and spoon	Eats all table foods	Sitting in supportive seating	Straw/ Open cup
	Use of open cup			Toddler Spoon/ fork

### **Infant/ Toddler Feeding Resources**

### **Developmental Feeding Charts**

- 1. Adjusted Age Calculator. Use to look at developmental charts: www.agesandstages.com
- 2. Super Duper Oral Motor Checklist: <u>https://www.imaginepediatrictherapy.com/resources/Oral\_Motor\_Mile-</u> stones.pdf
- 3. SOS Oral Motor Checklist: https://sosapproachtofeeding.com
- 4. Ellen Satter Institute for Feeding: <u>https://www.ellynsatterinstitute.org/how-to-feed/child-feeding-ages-and-stages/</u>
- 5. Feeding/ Swallowing Developmental Checklist: <u>https://www.asha.org/public/developmental-milestones/hand-outs/</u>

### **Parent-Reported Outcome Measures**

- 1. Family Impact Scales, PediEAT- CHOMPs: https://feedingflockteam.org/the-feeding-flock-tools
- 2. Short Screening Tool: <u>www.feedingmatters.com</u>

### **Responsive Feeding Resources**

1. Responsive Feeding: <u>https://www.healthychildren.org/English/ages-stages/baby/feeding-nutrition/Pages/</u> <u>Is-Your-Baby-Hungry-or-Full-Responsive-Feeding-Explained.aspx?\_gl=1\*129tu1r\*\_ga\*MTQ4NTkzMjAyNy4x-</u> <u>NzQwNTE4MzA5\*\_ga\_FD9D3XZVQQ\*MTc0MDUxODMwOS4xLjAuMTc0MDUxODMwOS4wLjAuMA..</u>

#### Nutrition

- 1. USDA Tips for Infants: https://www.myplate.gov/life-stages/infants
- 2. Nutrition recommendations, parent-friendly information on responsive feeding: www.healthychildren.org
- 3. Milestone tracker application: https://www.cdc.gov/ncbddd/actearly/milestones-app.html
- 4. Nutrition Recommendations for all ages: <u>https://www.eatright.org/</u>
- 5. American Academy of Pediatrics Video Responsive Feeding and Picky Eating Videos: <u>www.cdc.gov</u>
- 6. Infant Feeding Quizzes: <u>https://www.fns.usda.gov/tn/quizzes/infant-nutrition</u>
- 7. Parent Guides: www.feedingmatters.com

### **Recommended Positioning Devices and Tools**

- 1. Fisher Price Space Saver High Chair
- 2. Tripp Trapp High Chair
- 3. Mesh Food Feeder
- 4. Nuk Food Masher
- 5. Munchkin Silicon Soft Spoons
- 6. Take and Toss Spoon / Fork
- 7. Nuby Sensory Silicone Tube Teethers
- 8. Sofie the Giraffe Teether
- 9. Munchkin Weighted Straw Cup
- 10. Take and Toss Straw Cup
- 11. Oxo Straw Cup

### References

Black, M. M., & Aboud, F. E. (2011). Responsive feeding is embedded in a theoretical framework of responsive parenting. The Journal of nutrition, 141(3), 490–494. https://doi.org/10.3945/jn.110.129973

Bahorski, J., Romano, M., McDougal, J. M., Kiratzis, E., Pocchio, K., & Paek, I. (2023). **Development of an Individualized Responsive Feeding Intervention-Learning Early Infant Feeding Cues: Protocol for a Nonrandomized Study**. JMIR Res Protoc, 12, e44329. https://doi.org/10.2196/44329

Cohen, S. C., & Dilfer, K. (2022). Pediatric Feeding Disorder in Early Intervention: Expanding Access, Improving Outcomes, and Prioritizing Responsive Feeding. Perspectives of the ASHA Special Interest Groups, 7(3), 829-840. https://doi.org/10.1044/2022\_PERSP-20-00259

Division for Early Childhood. (2014). **DEC recommended practices in early intervention/early childhood special education 2014**. http://www.dec-sped.org/dec-recommended-practices

Estrem, H. H., Pados, B. F., Park, J., Thoyre, S., McComish, C., & Nguyen, T. (2022). **The impact of feeding on the parent and family scales (feeding impact scales): Development and psychometric testing**. Journal of Nursing Measurement, 30(1), 5–20. https://doi.org/10.1891/JNM-D-20-00008

Pérez-Escamilla, R., Segura-Pérez, S., & Lott, M. (2017). Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach. Nutrition today (Annapolis), 52(5), 223-231. https://doi.org/10.1097/NT.00000000000234

Putnick, D. L., Bell, E. M., Ghassabian, A., Robinson, S. L., Sundaram, R., & Yeung, E. (2022). Feeding Problems as an Indicator of Developmental Delay in Early Childhood. The Journal of Pediatrics, 242, 184-191.e185. https://doi.org/10.1016/j.jpeds.2021.11.010

Rush, D. D., & Shelden, M. L. L. (2019). **The Early Childhood Coaching Handbook**. Brookes Publishing. http://eb-ookcentral.proquest.com/lib/musc/detail.action?docID=5942992

Sharp, W. G., Estrem, H. H., Romeo, C., Pederson, J., Proctor, K. B., Gillespie, S., Du, C., Marshall, J., & Raol, N. (2024). Assessing the US treatment landscape for paediatric feeding disorder: A survey of multidisciplinary providers. Child: Care, Health & Development, 50(1), 1-8. https://doi.org/10.1111/cch.13198

Seruya, F. M., Feit, E., Tirado, A., Ottomanelli, D., & Celio, M. (2022). **Caregiver Coaching in Early Intervention: A Scoping Review**. The American Journal of Occupational Therapy, 76(4), 7604205070. https://doi.org/10.5014/ ajot.2022.049143

Ventura, A. K., et al. (2023). **"Associations Between Technology Use, Responsive Feeding, and Child Temperament Among Prior Prenatal Intervention Participants."** Journal of developmental and behavioral pediatrics 44(4): e315-e321



