



Pediatric Feeding and Swallowing: An Interactive Workshop

Birth to Three Years of Age

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Speaker Bios

Susan Pattay, Ed.D., CCC-SLP, BCS-S is an Assistant Professor in the Department of Speech-Language Pathology at Monmouth University in West Long Branch, New Jersey.

Prior to her role at Monmouth, Dr. Pattay worked as a medical speech-language pathologist in hospitals, rehabilitation centers and otorhinolaryngology clinics before completing a Doctorate of Education at Vanderbilt University.

Dr. Pattay is very active in the professional organizations for Speech-Language Pathology at both the state and national levels within several committees. As a board-certified specialist in swallowing and swallowing disorders (BCS-S), Dr. Pattay also presents on her specialty area at the state and national levels. She is also an active member of the American Board of Swallowing and Swallowing Disorders as well as the Dysphagia Research Society.

Dr. Pattay teaches courses including swallowing disorders (for both pediatric and adult populations), voice disorders and adult neurological language disorders. She also leads the Monmouth University Swallowing and Endoscopic (MUSE) Lab, which aims to investigate practice patterns for swallowing disorders, including graduate student preparation for the NICU setting.

Dr. Pattay still serves in a clinical capacity through the Robert Wood Johnson Barnabas Health System and the Virtua Health System, specializing in ICU and NICU settings.

Jacki Kemp, MS, CCC-SLP, is a private practice speech pathologist and clinical supervisor at The Speech Tree in Morganville, New Jersey. With over 25 years of experience, she has worked with all age groups and medical diagnoses. Currently, working with pediatrics and treating oral motor, orofacial myofunctional, feeding and swallowing disorders.

In addition to working at The Speech Tree, Jacki also serves as an adjunct professor at Monmouth University- where she currently teaches Pediatric Feeding and Swallowing Disorders

Disclosures

Financial Disclosures

Susan Pattay, Ed.D., CCC-SLP, BCS-S receives a salary from Monmouth University in West Long Branch, NJ- where she is an Assistant Professor in the Department of Speech-Language Pathology.

Dr. Pattay also receives compensation from the Robert Wood Johnson Barnabas Health System and the Virtua Health System, where she works as an SLP.

Jacki Kemp, MS, CCC-SLP receives a salary from The Speech Private Practice. She also receives compensation from Monmouth University where she is an adjunct instructor.

Non-Financial Disclosures

The speakers have no relevant nonfinancial relationships with the products or services described, reviewed, evaluated or compared in this presentation.

Objectives

- Identify major hallmarks of pediatric swallowing anatomy & physiology
- Describe evaluation and treatment options for the NICU setting
- Define normal feeding skills and swallowing development from birth to 36 months of age (skills by months)
- Understand evaluation and treatment of pediatric populations with and without significant medical backgrounds
- Roleplay some of the skills discussed in the didactic portion of the session in a workshop

A Journey to the NICU: Some Assumptions

- Participants have a working knowledge of traditional dysphagia
- A&P of pediatric swallowing was briefly addressed in the traditional dysphagia class, but participants may need to review it briefly in this course
- Participants are interested in NICU and/or pediatric feeding but may have limited exposure to these populations

...and some acknowledgments that all the topics covered today could be discussed in more detail in longer courses



I. A Review of Anatomy and Physiology for Pediatric Swallowing: Overall Development

Evidence from ultrasound imaging indicates that:

- Oral cavity begins to develop after 3 weeks gestation
- Pharyngeal arches begin to develop during week 4 of gestation
- Human fetuses begin swallowing around 12 weeks gestation

* A fetus can distinguish flavors, and the amniotic fluid contains a wide range of nutrients and flavors



Infant Anatomy

When the neonate/infant is born

- Intact oral cavity with functioning articulators
 - orofacial anatomy is one of most developed musculature systems in infant body
 - gives capacity for suckling, sucking and swallowing at birth
 - basicranium (underside of skull) is flat with no angle with is ideal for breathing and feeding (but will change in adulthood as the brain and cranium grow)
 - bones and muscles in the oropharynx also continue to grow, which shape both speech and swallowing (*hard palate)

Differences in Adult and Infant Oral Cavity

- -Infant oral cavity is smaller in size
- -Infant tongue is large, taking up most of the oral cavity space
- -The mandible has slightly more excursion (or movement away) from the oral cavity which is designed for nipple attachment
- -Infants have buccal/sucking pads in the oral cavity that are resorbed with maturation and not present in older children or adults
- -Infants have a larger head relative to their neck space



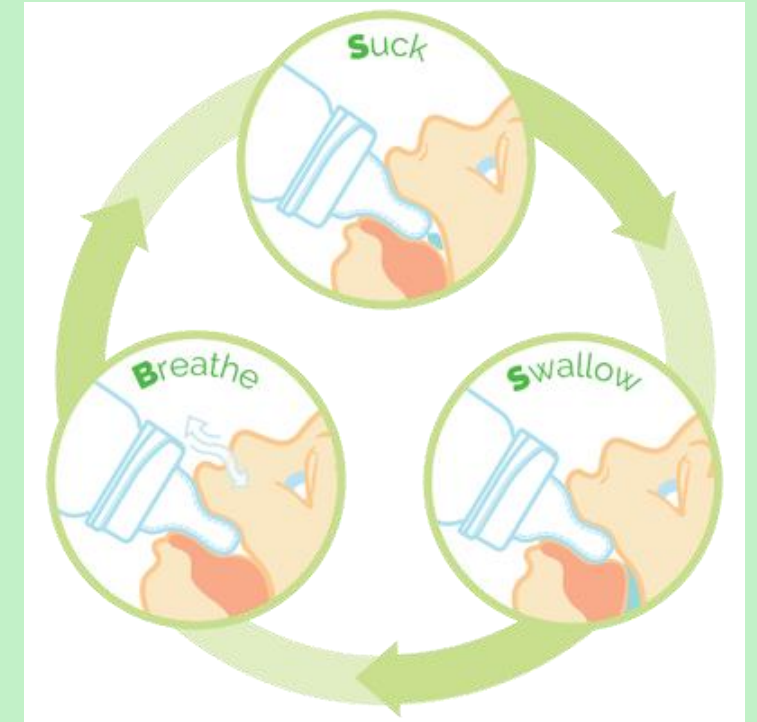
Differences in Adult and Infant Larynx

- Larynx is positioned higher in the pharynx in infants
- The epiglottis may make direct contact with the soft palate
- The epiglottis also has more direct contact with the base of the tongue in infants and children
- The epiglottis might be omega-shaped [like a U], and it is typically softer in infants; epiglottic tilting in children not consistent until 5 years of age
- Infants have some of the same protective mechanisms (sneeze, cough, laryngeal closure) but other reflexes are special (startle, rapid swallowing)



Swallowing Physiology: Suck/Swallow/Breathe

1. Inhalation through the nose (infants are typically nasal breathers)
2. Suckle/suck with simultaneous transition to expiration (of airflow)
3. Swallow (with cessation of expiration due to complete closure of larynx)
4. Finish expiratory phase of respiration
5. Infants briefly experience a period of apnea (not breathing)



Sucking Patterns in Infants

- Mature Sucking Pattern
 - 1:1:1 suck: swallow: breath ratio
- Immature Sucking Pattern
 - 3-5 suck-swallow bursts followed by a pause to breath

S/S/B Development: Typically Present by 37 Weeks



Swallowing and Prematurity



Infants who are born before 37 weeks

- **Breathing problems:** Premature babies may have trouble breathing
- **Feeding difficulties:** Premature babies may have trouble digesting breast milk or formula
- **Anemia:** Premature babies may have low levels of oxygen and glucose in their blood

Swallowing and Prematurity



– Infants who are born before 37 weeks

- **Jaundice:** Premature babies may develop jaundice, which causes their skin and eyes to appear yellow
- **Intestinal damage:** Premature babies may develop necrotizing enterocolitis, a serious condition that damages the intestine
- **Retinopathy of prematurity:** Premature babies may have underdeveloped blood vessels in their eyes

REVIEW

1. Which of these characteristics is a predictive indicator for normal feeding and swallowing in neonates?

- A) Suck/Swallow/Breathe Coordination
- B) Cerebral Palsy
- C) Respiratory Distress
- D) Prematurity

NICU Pre-Feeding and Feeding Assessments

- Infant Driven Feeding Scale

| Scale/ Score | Direct Feeding Readiness Scale (START AT 32 WKS) |
|-----------------|---|
| 1 | Alert or fussy prior to care. Rooting and/or hands to mouth. Good tone. |
| 2 | Alert once handled. Some rooting or takes pacifier. Adequate tone. |
| 3 | Briefly alert with care. No hunger behaviors. No change in tone. |
| 4 | Sleeping throughout care. No hunger cues. No change in tone. |
| 5 | Significant change in HR, RR, O2, or WOB outside safe parameters. |

- Non-nutritive Suck and Suck/Swallow/Breathe



What is Infant Driven Feeding?

- "Infant-driven feeding (IDF) is a structured feeding method that standardizes neonatal cue-based feedings and matches the neurodevelopmental stage of the preterm infant."
- ***No longer feeding by mouth based on a feeling that a caregiver **must** feed by mouth.
- Over 34 weeks GA
- Scores of 1 & 2 in 8 out of 16 care times
- Consistent feeding cues
- Physiologic stability
- 2L HFNC or less
- Types of feeding cues
 - Rooting
 - Mouthing hands
 - NNS on pacifier

Pre-Feeding Assessment and Therapy

Pre-feeding Activities

Non-nutritive breast feeding

- Improves smell and taste development
- Improves state regulation
- Improves cardio-respiratory stability
- (12)

Non-nutritive sucking (NNS) on pacifier

- Reduces transition from gavage to full oral feeding
- Reduces transition from start of oral feeding to full oral feeding
- Reduces length of hospital stay in infants
- (2)

Pacifier dips

- Reduces time to full oral feeds
- Reduces length of stay
- Reduces time to begin full oral feeding
- (5)



Feeding Assessment and Therapy

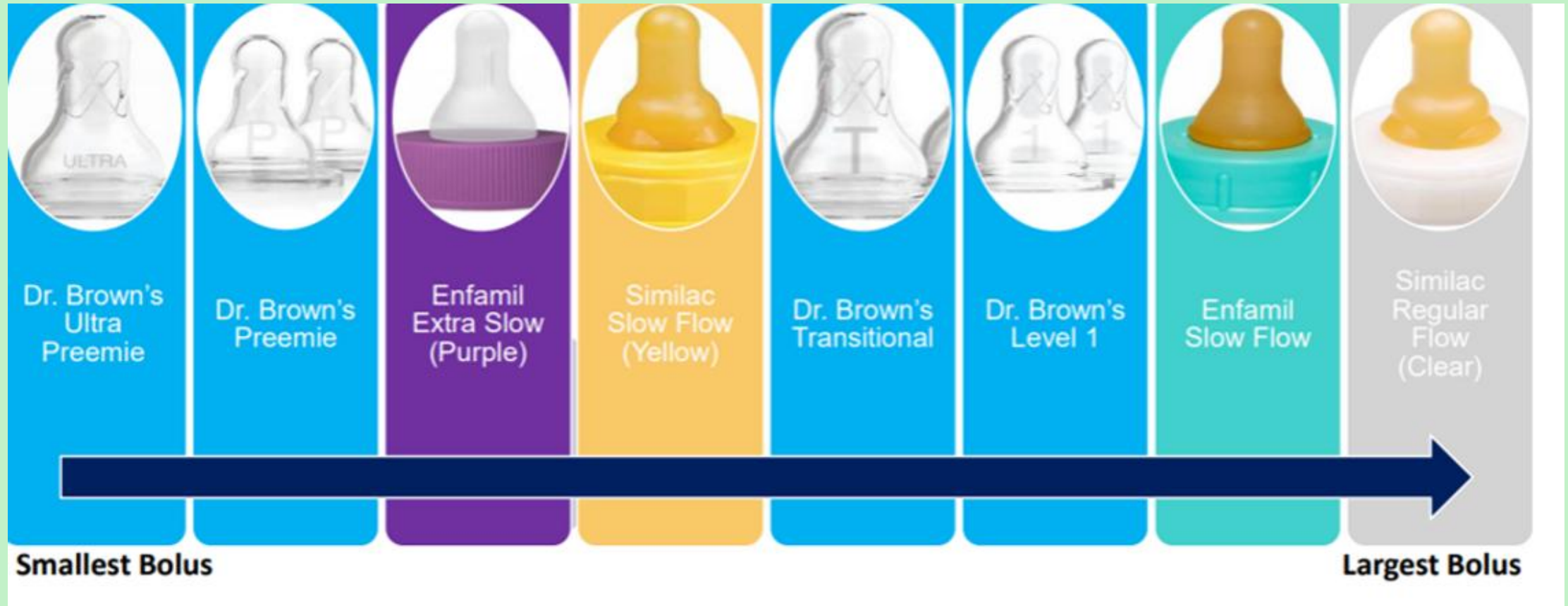
- Side-Lying Positioning
 - Improves oxygen saturations, decreases work of breathing, and decreases heart rate variability
 - Makes easier for head and trunk control
- Swaddling
 - Infants who are swaddled experience decreased physiologic stress, increased motor organization, and increased self-regulatory ability
- External Pacing (Bottle tipping or Bottle Removal)
 - Encourages positive, stress-free feeding development



Nipples and Flow Rates (Pados, 2021)



Nipples and Flow Rates: Another View



Why do SLPs recommend Dr. Brown's Bottle Systems?

- Consistency of flow rates – babies thrive with consistency! They need to know what to expect
- Venting system
- Disposable nipples are inconsistent in terms of flow rates and can be fast at one feed, slower at another
- “...if an infant were fed with a single-use nipple at one feeding and then another single-use nipple at the next feeding, the flow rate delivered between those two nipples (of the same nipple type) could be very different” (Pados et al.)



REVIEW

2. Which of these skills would the speech-language pathologist assess during a neonatal feeding evaluation?

- A) Closing lips around a teaspoon
- B) Drinking serial sips with a cup or straw
- C) Masticating soft solid textures
- D) Non-nutritive suck

Pediatric Instrumental Assessments

- Video Fluoroscopic Swallow Studies
- Fiberoptic Endoscopic Evaluation of Swallowing (FEES)



Video fluoroscopic Swallow Studies

- VFSS for children is different than adults: “children are not mini adults requiring smaller beds and smaller portions of food”
- Although the objectives of the swallow study are the same (assessing the anatomy of the oropharynx and the swallow function) clinicians must be mindful of:
 - Pre-assessing and preparing children for VFSS
 - Preparing and offering the materials for the test
 - Interpreting images
 - Using lowest radiation dose possible



Video fluoroscopic Swallow Studies

- In contrast to adult swallow studies, there was no approved protocol for pediatric swallow studies before BabyVFSImP (2025)
- -Be aware that some families may need extended time in the fluoroscopy suite to familiarize themselves and to become comfortable
- -Child friendly rooms are important: toys, distracters, touch screen devices (smart phones or tablets)



Pediatric Elements to Identify

- The exam should be appropriate for the child's size and developmental level
- -The SLP performing the study should keep in mind anatomical changes as well as developmental abilities
- -Remember to look for certain anatomical abnormalities that are consistent with the pediatric population in dysphagia care:
 - >cleft palate
 - >laryngeal palate
 - >macroglossia
 - >tracheoesophageal fistula
- *VFSS can identify the ability coordinate SSB sequence for nipple feeding
- *VFSS can identify aspiration



The Procedure

- #1 Presentation of Foods
- Children should arrive moderately hungry to the VFSS so they will accept items offered (ideally even with a modified taste from Varibar)
- Infants accept bottles with variance in liquid thickness and nipple size
- For older children, research varies about the correct order to present different foods and liquids (recall that adults use a specific protocol with MBSImP)
- nipples
- cups/straws
- utensils



The Procedure

- #2 The Effect of Fatigue on Swallowing Function
- It is common for no abnormalities to be observed under VFSS in the first several swallows, but gradual deterioration is evident as the child continues to feed
- SLP can introduce the technique interval X-ray screening:
 - child continues to feed for period of time without X-Ray
 - child returns to X-ray after an interval or rest break
- – can be used for cardiorespiratory & neuromuscular conditions



The Procedure

- #3 Radiographic Considerations
- The radiologist will work on positioning equipment for:
 - best images possible
 - lowest dosage possible
- Fluoroscopy will be delivered at rate of at least 15 pulses per second, which is not the same as frames per second
- 15 pulses = moderate RAD dose, but will show microaspiration
- The SLP guides the radiologist on when to:
 - start video sequence
 - stop video sequences
- The radiologist checks for unexpected anatomical abnormalities which the SLP can not diagnose without a physician present



Outcomes

- Recommendations can include non-oral feeding (PEG or NGT)
- Other recommendations include increasing thickness of liquids, changing child's head and neck position, slowing down flow of nipple, modifying solid or soft foods into puree)
- Sometimes recommendations include plans to repeat a VFSS
- Remember that therapeutic intervention should be occurring during the interim for positive change to occur in the pediatric patient's swallowing performance



Fiberoptic Endoscopic Evaluation of Swallowing

- A pediatric FEES enables the examiner to :
- directly visualize anatomical abnormalities that have an impact on airway protection
- directly visualize physiological abnormalities that have an impact on airway protection
- complete the exam in a portable manner in NICUs, or at the bedside of patients who are too medically fragile to be transported to Radiology



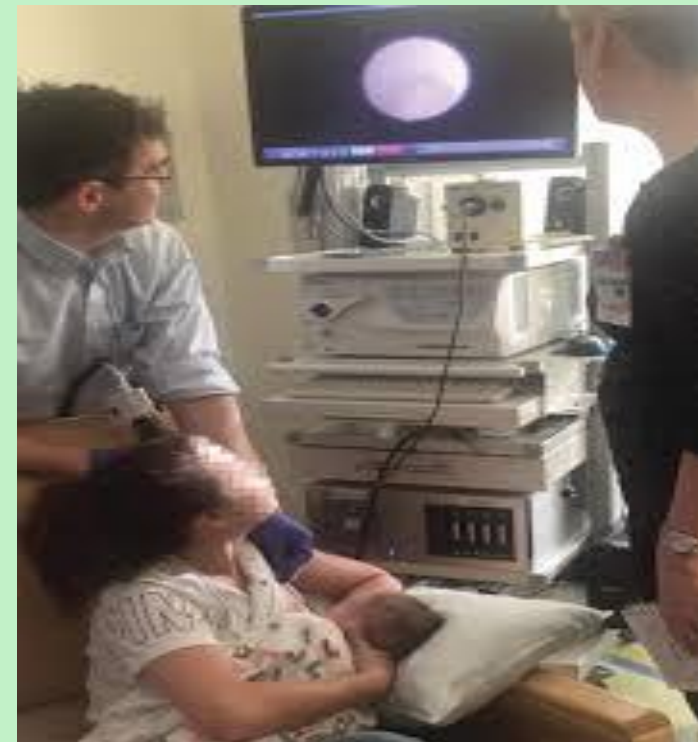
Indications for FEES

- FEES is useful to assess infants and children with presentation of:
 - coughing
 - choking
 - color changes
 - gagging during secretion management
 - gagging during nutritive intake



Fiberoptic Endoscopic Evaluation of Swallowing

- Conducted by the SLP, using liquids/solids/special cups/utensils that are typical with the patient's oral motor skills
- Breastmilk and formula will be included in neonatal studies
- Green or blue food coloring will be added to the materials
- *A major advantage to pediatric FEES is that babies who are breastfeeding can be evaluated during this activity, which they can not typically do with VFSS



Fiberoptic Endoscopic Evaluation of Swallowing

- **Interpretation of Swallowing Parameters**

- Oral control and transfer
- Swallowing onset time
- Residue
- Laryngeal penetration
- Aspiration

- **Compensatory Strategies**

- Positioning and Postural Changes
- Practicing pacing intervals
- Modification of liquid flow
- Traditional swallowing strategies for older children, as learned in previous dysphagia course



Fiberoptic Endoscopic Evaluation of Swallowing

- **Interpretation of FEES**

- After withdrawing scope and study is ended, SLP and ENT review results to reach a consensus about:

- safety of oral feeding

- appropriate types of liquids/nipples/bottle systems

- options for compensatory strategies

- plan for therapy or referral

- *Always helpful to review the (key) images from the FEES study with the caregiver



REVIEW

3. _____ is routinely added to the test material (like breast milk, formula or baby cereal) during pediatric FEES.

A) Varibar

B)Thickener

C)Blue or Green Dye

D) Red Dye

Birth to Age Three Agenda

- **Clinical Importance of Early Emerging Feeding Skills**
- **Understanding Feeding Milestones**
- **Areas of Concern for the SLP (Red flags, Dysphagia v PFD)**
- **Assessment**
- **Intervention**



I. Clinical Importance of Early Emerging Feeding Skills

Feeding is the term we use to incorporate all aspects of eating or drinking to include gathering and preparing, liquid intake, sucking, chewing and swallowing . Feeding may also be achieved by non – oral means when medically appropriate (ASHA.org)

A child's early emerging feeding skills are key for development, nutrition and socialization

Approximately 25-40% of typically developing and 40-80% of children with developmental disabilities have Pediatric Feeding Disorders

(1 in 37 children under the age of 5 are diagnosed with PFD)

(ASHA.org)

II. Understanding Feeding Milestones

- **Birth to Age Three – Feeding Milestones**

- A child's progression for feeding during their first 3 years involves transitions from liquids to purees to tolerating solids.
- Developmentally, children are able to move from liquid to solids through exposure and consistency.
- Children's feeding skills also involve trunk control, sitting posture to allow for finger feeding and learning to use utensils, as well as cup use.



Feeding Milestones

Birth to 6 Months:

- Newborns: Feed on demand (8-12 times/day), turning head to nipple, rooting (primitive newborn that helps them find food by turning their heads toward where they are being touched), sucking rhythmically, swallowing milk/formula.
- 4 to 6 Months: May bring hands to breast/bottle, start exploring with hands; readiness for first tastes of purees

6 to 12 Months (Introducing Solids)

- 6 to 9 Months: Begin to sit with support, lean forward for food, use tongue to move food to back, start picking up small finger foods (pincer grasp emerging), bring food to mouth. Oral sensory motor growth
- 9 to 12 Months: Develops a stronger pincer grasp, starts bite/chewing with gums/teeth, eats a variety of textures, holds cup/bottle with both hands, may begin using spoon with help.

12 to 18 Months :

- Diet: Eating a variety of textures, drinking from a cup (with spills), less frequent milk feeds.
- Skills: Using fingers to self-feed, trying utensils, developing jaw/tongue coordination for chewing, biting through soft foods.

18 to 24 Months (Independence growing):

- Diet: Eating most table foods without support, learning to chew with mouth closed.
- Skills: Self-feeds with spoon/fork with less mess, drinks from cup with more control, refines chewing patterns.

2 to 3 Years of age:

- Diet: Consumes most foods, including tougher textures, without choking.
- Skills: Greater mastery of utensils, minimal liquid loss from cups, shows independence in feeding.

SPEECH THERAPY

FEEDING MILESTONES HANDOUT

Feeding Developmental Milestones

| 0-6 mos | 6-12 mos | 12-18 mos | 18-24 mos | 2-3 years |
|--|---|--|---|--|
| <p>Oral Motor Skills: 0 to 3 months Latches to nipple Sucks and swallows</p> <p>Safe Foods: Human milk and/or formula</p> <p>4 to 6 months Opens mouth for spoon</p> <p>Uses tongue to move food to back of mouth for swallowing</p> <p>Safe Foods: Human milk and/or formula, infant cereal mixed with breast milk or formula*, smooth baby foods (purees) with no lumps or chunks</p> | <p>Oral Motor Skills: 6 to 9 months Starts to drink from a cup Drools less Moves food around mouth using tongue Munches</p> <p>Safe Foods: Human milk and/or formula, water, smooth baby foods w/ lumps, soft, chewable solid foods</p> <p>9 to 12 months Takes a small bite from a larger piece of food Begins chewing food on both sides of mouth (called "rotary chewing") Closes lips during swallow</p> <p>Safe Foods: Human milk and/or formula, water, soft bite-sized foods</p> | <p>Oral Motor Skills: Uses tongue to move food from side to side in mouth Drinks from straw without help and without spilling</p> <p>Safe Foods: Foods made of mixed consistencies Human milk, pasteurized whole milk, water</p> | <p>Oral Motor Skills: Consistently chews food on both sides of mouth Moves food around mouth, chews, and swallows without spilling</p> <p>Safe Foods: Foods that require a lot of chewing, like chicken breast Child still requires adult to cut more challenging foods into smaller pieces to prevent choking Human milk, pasteurized whole milk, water</p> | <p>Oral Motor Skills: Drinks from an open cup without spilling Chews all foods, including those with tougher textures, without gagging or choking</p> <p>Safe Foods: Most crunchy, hard, or mixed food textures, but parents should avoid offering foods that carry a choking risk Child still requires adult to cut more challenging foods into smaller pieces to prevent choking</p> |

www.asha.org

GREAT PRINTABLE & DIGITAL RESOURCE!

III. Areas of Concern for the SLP

Determine feeding Issue/s through case history and evaluation

Medical issues: Impaired structure and function of GI, cardiac, respiratory, and or neurological (congenital or post-delivery) ;

Illnesses: pneumonia, aspiration, dehydration

Conditions: oral ties, cleft lip/palate; genetic disorders

Issues: Gi issues, reflux, constipation

Oral Motor and Swallow Skills (Dysphagia): sucking/swallow patterns, latching, coughing; choking; vomiting

Sensory Concerns: being touched, touching foods, looking at or smell of foods, food textures, food temperatures

Behavioral: food refusal; picky eater; ARFID

Key Definitions for Assessment and Treatment

Let's Define:

- **Pediatric Feeding Disorder (PFD) ICD-10 R63.32:**

Impaired oral intake that is not age appropriate and that is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction (ASHA...)

- **Dysphagia (ICD-10: R13.11,12,13):**

A swallowing disorder involving difficulty processing and/or moving liquid and/or food boluses through the oral cavity, pharynx, esophagus, or gastroesophageal cavity.

Pediatric Feeding Disorder (PFD)



Avoidant/Restrictive Food Intake Disorder (ARFID):

ARFID is a serious eating disorder, where individuals severely limit their food intake due to low appetite, sensory issues, fear or aversive consequences (vomit/choke).

ARFID is a mental health diagnosis. Unlike typical picky eating, ARFID results in severe nutritional, physical or social limitations.

In accordance with ASHA guidelines, the SLP play a crucial role in the interdisciplinary team to treat those diagnosed with ARFID. The SLP will target sensory- motor, swallowing and oral intake.

SEE FACT SHEET/ Handout

Orofacial Myofunctional Disorders (OMD) :

Refers to abnormal oral resting posture, atypical chewing and swallowing patterns, dental malocclusions, obstructions in the nasal passage, and speech problems.

OMDs are considered a contributing cause of pediatric feeding disorders.

OMD represent underlying oral motor and structural issues (tongue thrust, oral ties, mouth breathing, poor muscle tone) that can directly cause feeding difficulties such as picky eating, difficulty chewing and gagging or choking episodes.

Swallowing Disorders

Dysphagia is a swallowing disorder involving difficulty processing and/or moving liquid and/or food boluses through the oral cavity, pharynx, esophagus, or gastroesophageal junction. SLPs also recognize causes and signs/symptoms of esophageal dysphagia and make appropriate referrals for its diagnosis and management.

The consequences and associated symptoms of feeding and swallowing disorders may include :

Aspiration pneumonia and/or

Compromised pulmonary status

Dehydration

Feeding and swallowing problems

Food aversion

Gastrointestinal issues (e.g., motility disorders, constipation, diarrhea)

Ongoing need for enteral (gastrointestinal) or parenteral (intravenous) nutrition

Oral aversion;

Poor weight gain and/or undernutrition;

Psychosocial effects on the child and their family;

Undernutrition or malnutrition.

Prevalence of Feeding or Swallowing difficulty with co-existing disorders:

PFD affects over 1 in 37 children under the age of 5 years annually in the US, with general prevalence of 25-35% in young children and rising to 80% in children with disabilities.

- **Cerebral palsy (ages 0–18 years)**—The prevalence of swallowing problems was 50.4%. There was a trend toward increased swallowing difficulty with more severely impaired functioning, but this did not reach the level of significance (Speyer et al., 2019).
- **Craniofacial microsomia**—The prevalence of swallowing difficulties was estimated to be 13.5% (van de Lande et al., 2018).
- **Laryngeal cleft, type 1**—The prevalence of swallowing difficulties was 86%, which decreased by up to 26% postsurgical intervention (Liao & Ulualp, 2022).
- **Laryngomalacia**—The prevalence of swallowing disorders was 72%, which was reduced by 59% postsurgery (Rossoni et al., 2024).
- **Unilateral vocal fold paralysis (partial or complete)**—The prevalence of dysphagia was 92.9%, while 53.6% exhibited silent aspiration (Irace et al., 2019).
- **Congenital heart disease**—The overall pooled prevalence of dysphagia was 42.9%, with the pooled mean prevalence of aspiration in this population estimated to be 32.9% (Norman et al., 2022).
- **Neuromuscular diseases (ages 2–18 years)**—The prevalence of dysphagia was 47.2% (Kooi-van Es et al., 2020).
- **Acute stroke**
 - **Newborns**—The frequency of feeding and swallowing impairment was 39%. At the time of discharge, feeding and swallowing disorders persisted for 19% of newborns (Sherman et al., 2021).
 - **Children**—The frequency of feeding and swallowing impairment was 41%. At the time of discharge, feeding and swallowing disorders persisted for 17% of children (Sherman et al., 2021).
 - **The overall annual prevalence of pediatric feeding disorders in the United States is estimated to be between 2.7% and 4.4%** (Kovacic et al., 2021). Estimates varied across a variety of co-occurring conditions:
- **Preterm**
 - **Infants (ages 6–12 months) who were born preterm**—The prevalence of feeding problems was 43%.
 - **Children (ages 1–7 years) who were born preterm**—The prevalence of feeding problems was 25% (Walton et al., 2022).
- **Cleft palate**
 - **With Pierre Robin sequence**—The prevalence of feeding difficulties was estimated to be 91%.
 - **With isolated cleft palate only**—The prevalence of feeding difficulties was estimated to be 72% (Paes et al., 2017).
- **Autism**—The prevalence of food selectivity was 69.1% in children and adolescents, with 48.8% displaying food selectivity several times per week or even daily. The prevalence of mealtime behaviors was 64.3% (Babinska et al., 2020).

REVIEW

Is ARFID considered a Pediatric Feeding Disorder, even though it is classified as a mental health diagnosis??

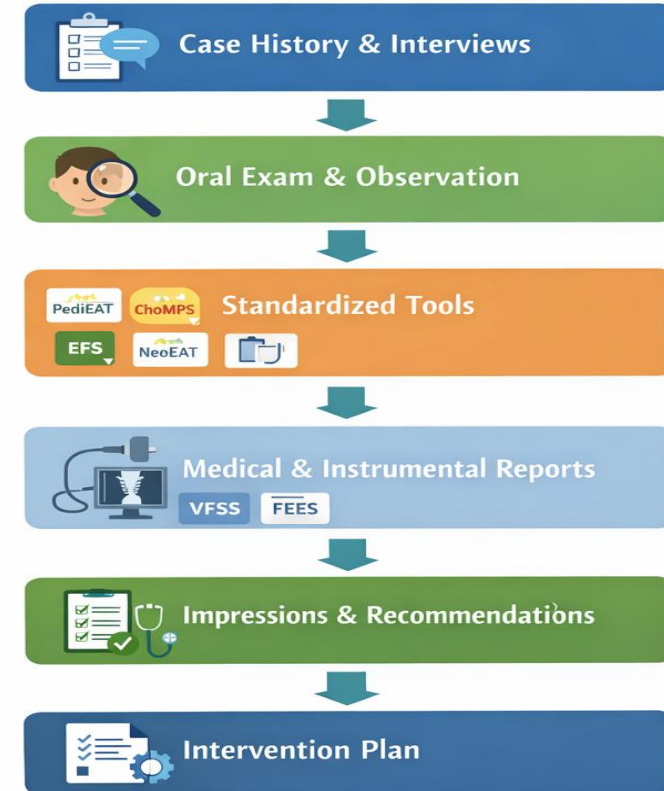
True or False

IV. ASSESSMENT



References :
Feeding Flock and Feeding Matters

Assessment: Birth to Age Three



V. Intervention



Key Components to Successful Feeding Therapy (Birth –3 Years)

Feeding therapy for children ages birth to three is multifaceted and targets including: oral motor, sensory, swallowing safety, behavioral, and functional feeding development.

Oral motor: licking, sucking, chewing, biting, and tongue movement. Interventions may include the use of teethers and sensory-based tools to support graded oral exploration and skill building.

Sensory integration: exposure to a variety of food textures, temperatures, and smells

- play-based or messy play experiences with food

Safe swallowing :

- coordinated suck-swallow-breathe patterns; address concerns such as reflux or gagging, choking, vomiting

Positioning:

- seated alignment, such as 90-90-90 positioning at the hips, knees, and ankles, to promote postural stability and support safe swallowing.

Self-feeding skills and developmental transitions:

- includes progression from breast or bottle to cup/ straw drinking, as well as advancement from liquids to purees and soft solids.

Nutrition: meal planning; appropriate caloric intake as well as dietary variety.

Behavioral strategies: support consistency, mealtime routine and maintain motivation within a positive feeding environment.

Parent education

Key Components to Successful Feeding Therapy (Birth to 3 Years)

Oral motor

**Sensory
integration**

**Safe
Swallow**

Positioning

**Adequate
Nutritional
intake**

**Family
Training /
Education**

**Behavior
Strategies**

**Self-feeding
skills**

**Developmental
transitions of food
consistencies**

REVIEW

During the assessment of feeding disorders, the speech pathologist will only observe a child's chewing and swallowing skills with liquids and solids ?

True or False

Intervention for PFD

Training and Certification Programs

SOFFI - training program for preterm and EI stages
Feeding FUNdamentals



SOS Approach to Feeding by Dr. Kay Toomey
(Sequential Oral Sensory)



Melanie Potock - Author and Coach - **Mymunchbug.com**

Books: *Responsive Feeding*; *Adventures in Veggieland*; *Raising a Healthier, Happy Eater*
-work has been with picky eaters



AEIOU Feeding – An Integrated Approach to Pediatric Feeding

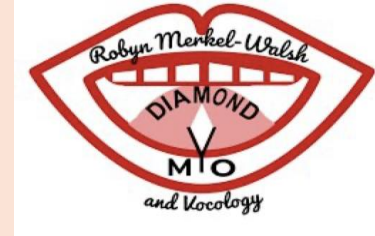
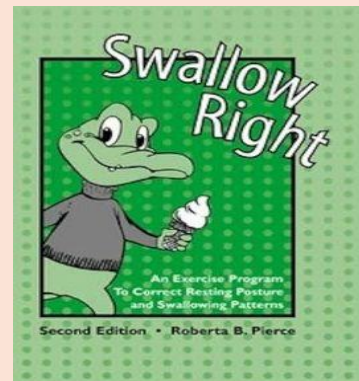
(Stands for: Acceptance, Exposure, Independence, Observation, Understanding)

By Nina Ayd Johanson at Food Smart Kids

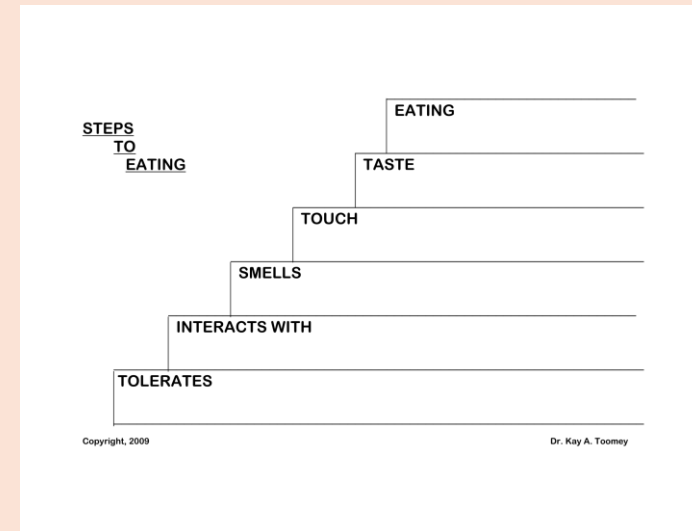


PFD INTERVENTION... CONT

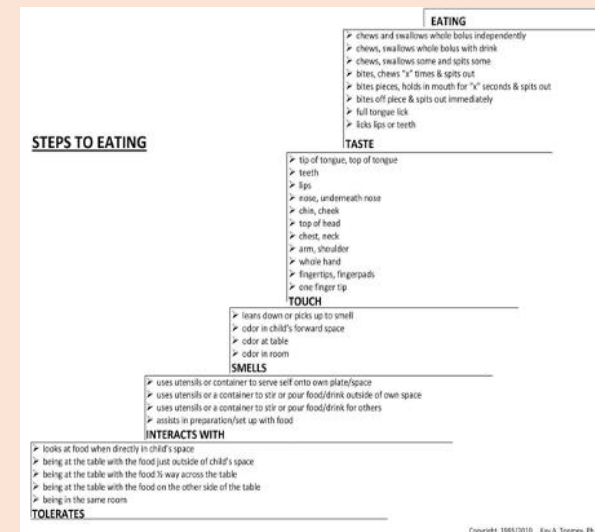
- **TalkTools.com**
 - - Tools, techniques and trainings
- OMD and TOTS by Robyn Merkel Walsh/ MyoSolutions
- Oral motor/Sensory by Lori Overland
- Oral Placement Therapy by Sara Rosenfeld-Johnson
- **Feed the Peds** by Haley Bulkin
 - Provides training, assessment skills, and mentorship
- **Beckman Oral Motor Approach: by Debra Beckman:** therapeutic, noninvasive program designed to improve the functional strength, coordination and ROM of the mouth; uses assisted movements and stretches to help children with sensory issues and feeding.
- **Swallow Right (2nd Ed)** by Roberta Pierce
 - An Exercise Program to correct resting posture and swallow pattern
- **Simon Says Speech-** by Jennifer Simon Triandafilou
 - Myofunctional certification courses
- **Feeding Matters** – provides resources, programs conferences

The logo for TalkTools, featuring the word "TALK" in green and "TOOLS" in purple, with a registered trademark symbol.The logo for Feed the Peds, featuring the text "FEED THE PEDS" in a blue, sans-serif font, enclosed in a blue rectangular border.The logo for Simon Says, featuring the word "simon" in blue and "says" in orange, with a stylized orange and yellow wave above the "i" in "simon".The logo for Feeding Matters, featuring a stylized orange and white flower-like icon to the left of the text "feeding matters" in a lowercase, orange, sans-serif font.

- SOS Approach to Feeding By K. Toomey



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FEEDING TOOLS





Impacts of feeding therapy on our toddlers:

2-year old with limited diet

Began on bottles and gagging on solids

Currently– diagnosed with oral ties, is learning to chew, eat more variety and increase her intake

Bottles weaned, no gagging now that she has learned to chew and wants to self- feed



REVIEW

Using the SOS Approach to feeding by Kay Toomey is the only evidenced-based therapy approach for the picky eater?

True or False

Workshop Demonstrations:
Please wait to receive instructions for transitioning to
hands-on activities

- NICU Pre-Feeding Assessment and Feeding Assessments
- NICU Fiberoptic Endoscopic Evaluation of Swallowing (FEES)
- Pediatric Feeding: SOS
- Pediatric Therapy: Oral Motor Tools

Thank you for attending!

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