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**SLP's Role in Breast/Body
Feeding and Bottle Feeding
Assessment**

Financial Disclosures



- None to disclose
- I'm not receiving any compensation, salary, speaking fees, or honorariums for this presentation
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Owner of Lactation &
Language, LLC



Volunteer with Feeding Matters

Director of Clinical Ed/
Instructor



About Me



- 10 years as an SLP
 - Early Intervention
 - Schools
 - Private Clinic
 - Home health
 - Outpatient Hospital
 - A.T. Still University
- Married with son (Carter, 1.5) and daughter (Vivian, 4.5)
- Lactation & Language, LLC

Objectives



After this course, participants will be able to:

1. Summarize at least three ways that a proper latch can help solve the common causes of breast feeding cessation and reduce infant discomfort when bottle feeding.
2. Identify and analyze three possible causes of parental concern regarding latch on bottle and breast.
3. Develop and implement a minimum of four intervention strategies with the family to improve breast and/or bottle feeding.

ASHA's Guidelines on Feeding



- “SLPs **counsel** by providing **education, guidance, and support**. **Individuals**, their **families** and their **caregivers** are counseled regarding acceptance, adaptation, and decision making about communication, feeding and swallowing and other related disorders.”
- “Feeding: **educate parents of infants** at risk for feeding problems about techniques to **minimize long-term feeding challenges**.”
- “Prenatal care: **Educate parents** to decrease the incidence of speech, hearing, feeding and swallowing, and related disorders due to problems **during pregnancy**.”

Scope of Practice



- We have to wear MANY hats
 - Speech
 - Language
 - Feeding/swallowing
 - Literacy
 - Fluency
 - Pragmatics
 - Executive functioning/cognitive
 - Voice
- Referrals and developmental milestones
- Supervision
- Research and EBP
- Technology and Instrumentation

Feeding Timeline



Breastfeeding/Bottle Feeding
Birth to 12 months



Introduction to Solids
Around 6 months



Solids (main nutrition)
12+ months



Hierarchy of Milk for Infants



1. Breastfeeding
2. Expressed breast milk from own mother
3. Donated breast milk
4. Formula
 - a. milk protein
 - b. soy

FED is FED is FED



Mechanics of Breastfeeding



- Infant suckles
- Signal to brain
- Brain releases hormones
 - Prolactin: tells alveoli to produce milk
 - Oxytocin: contracts muscle around alveoli
- Milk release
- [https://www.youtube.com/watch?v= Y7ViEHx564](https://www.youtube.com/watch?v=Y7ViEHx564)

	Breast milk	Formula	Full-fat milk
Energy, kJ	270–290	280–290	270
Energy, kcal	65–70	67	65
Protein, g	0.9	1.2–1.8	3.4
Carbohydrates, g	6.7	7–8	4.4
Oligosaccharides, g	1.3	0	0
Fat, g	3.5	3.8	3.5
Calcium, mg	20–25	42	116
Phosphorus, mg	12–14	21	93
Sodium, mg	12–25	16	45
Potassium, mg	40–55	55	144
Iron, mg	0.03–0.09	0.4–0.7	0.09
Zinc, mg	0.1–0.3	0.4	0.42
Vitamin A, µg	30–60	50	29
Vitamin C, µg	10	7–9	1.2
Vitamin D, µg	0.03	1.0	0.1
Vitamin K, µg	0.2–0.5	2.8	1.6
Folic acid, µg	80–140	6.5	11

From Michaelsen et al. [2].

Content based on 100mL (which is about 3.3oz)

Water vs. Fat Content



- Human breast milk
 - 87% water and only 3-5% fat
- Deer milk
 - 11% fat
- Mammals and fat content
 - Higher fat → Nesting or Cache mammals
 - Lower fat → Carry mammals
- Humans shouldn't have a set schedule
→ feed on demand



Types of Feeders



Carry

Lower fat/protein content
More water content
Feed more frequently



Nest

Less mature infants
Feed frequently
Mom can leave



Follow

Mature infants
Follow with parent
Feed PRN



Cache

Mom leaves for hours
Higher fat/protein content
Mature infants



So... what are humans?



- We're CARRY MAMMALS!
- So why do we have these:



Supply and Demand



- The more an infant feeds, the more milk is produced
 - Tells parent's body to produce more
- Efficiency is key! 
 - The faster milk is expressed, the more the body produces
- Why is a good latch important?

What else can affect supply?



- Medications
- Stress
- Skin to skin
- Genetics
- Breast surgeries



What causes cessation?



Odom et al., 2012

- Surveys prenatal and postnatal for up to 10 months
 - Breastfeeding (yes vs no)
 - “Did you breastfeed as long as you wanted?”
 - 32 reasons w/ Likert scale
- Findings
 - 60% of mothers stopped earlier than desired
 - Main reasons
 - difficulties with lactation
 - infant weight/nutrition
 - illness/medications
 - effort associated with pumping

Odom et al., 2012 (cont'd)



“Difficulties with lactation”

- infant trouble with sucking/latching
- sore/cracked nipples
- breastfeeding too painful

“Infant weight/nutrition”

- insufficient milk supply
- breast milk alone did not satisfy my baby

How to improve breastfeeding barriers?



- <5% of women are “biologically incapable” of producing sufficient milk for infant weight gain
- Breastfeeding rates improved 9-15% in pediatric practices where lactation consultation was implemented in postpartum care
- Education and consistency → “baby friendly” maternity care practices
- ***Caveat***: even with professional help, sometimes perceived effort trumped desire to continue

Infant Discomfort



Colic

- persistent crying with many causes → one of which can be feeding
- Wessel “rule of three”: 3 hrs per day, 3 days per week for at least 3 weeks
 - Higher levels of parental stress
- Miller-Loncar et al., 2004
 - Infants with colic had more feeding difficulties, disorganized feeding/sucking, less responsiveness, more discomfort

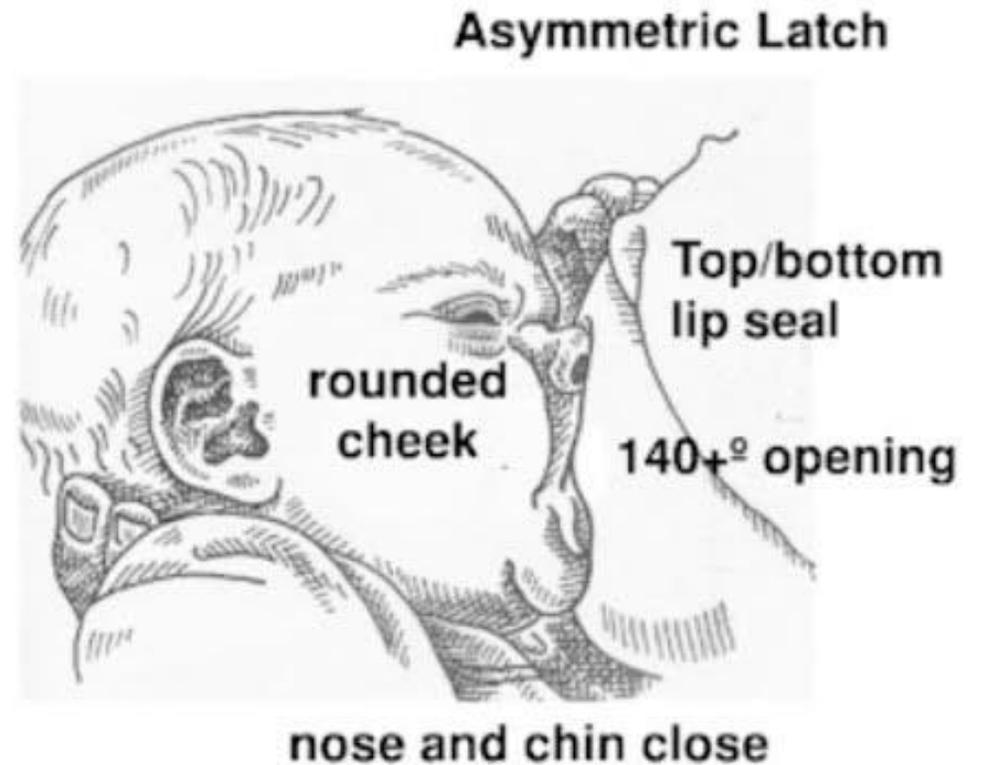
Infant Discomfort (cont'd)



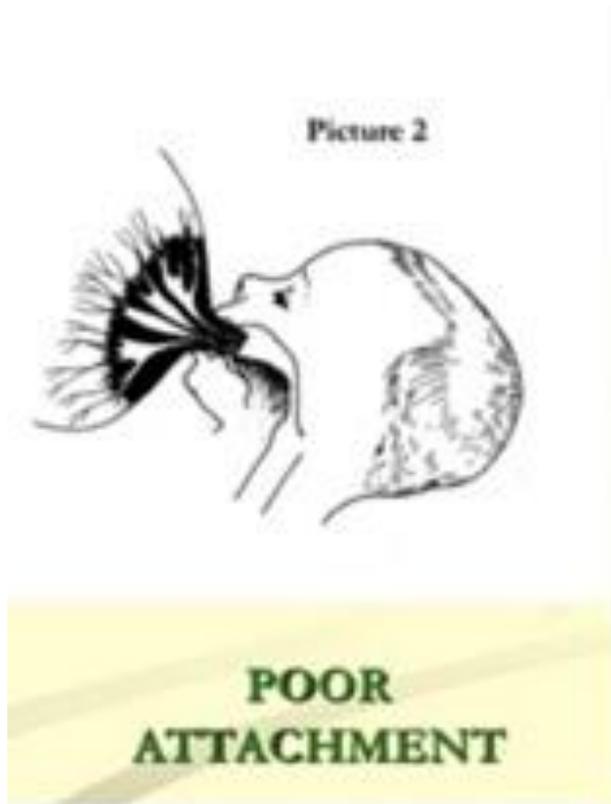
- Other Reasons
 - gas
 - food sensitivities/allergies
 - reflux/GERD
 - type of formula



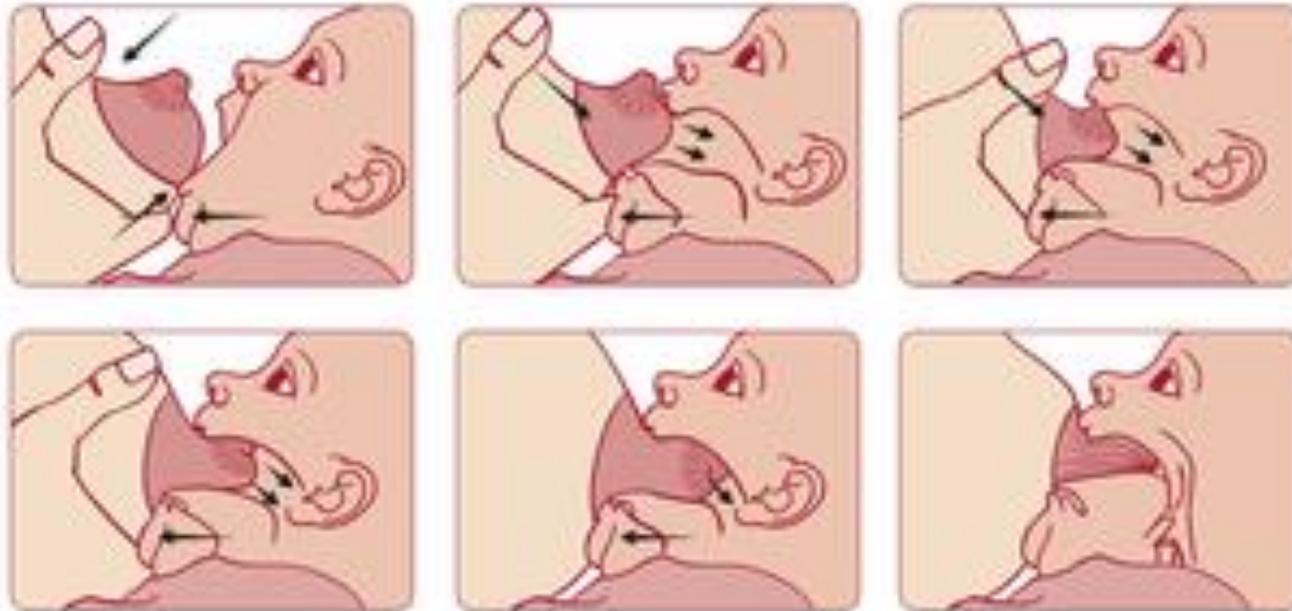
What is a “good” latch?



What is a “poor” latch?



Attachment: The key to successful breastfeeding



Why is it important for an SLP to know this?



- It's within our scope!
- Families do not feel supported when given varied information from professionals (Dykes & Williams, 1999).
- Majority of SLPs surveyed reported they encountered breastfeeding issues in their practice, but didn't feel they had the proper knowledge to eval/treat (Blake, 2014).
- Treatment for nipple pain early on associated with longer duration of breastfeeding and fewer feeding problems (Kent et al., 2015).

Survey Findings



- 86 SLPs surveyed
- 93% of SLPs reported their breastfeeding knowledge was from “personal experience and/or self-directed education”
- Only 4% received grad school instruction
- 87% reported that increased knowledge of breastfeeding management would benefit their practice

(Blake, 2014)

Why is latch important on BREAST?

Production and
supply

Decreasing
nipple pain

Decreased
parental stress

Decreased
gassiness

Decreased
fussiness

Improved
infant weight
gain

Why is latch important on BOTTLE?

Decreased
parental stress

Decreased
gassiness

Decreased
fussiness

Improved
infant weight
gain

Efficient
feeding → less
time

Decreased
fatigue

Why would parents come to us?



- Clicking
- Leaking/spillage
- Significant spit up/vomiting
- Diarrhea/blood in stool
- Constipation
- Bradycardia
- Cleft lip/palate
- Heart defect
- Genetic disorders
- FTT
- Gagging/“choking”
- Tachypnea

... Many of these you'd be referring out to a specialist or have a much larger team

Most Common Complaint:



- Pain when nursing
 - Attributed mostly to latch and positioning
- Concern: when nipple pain continues for entire feed after a week of feeding
- Majority of consultations (24/37) pain ended when latch was improved (Darmangeat, 2011).
 - Shallow latch/not wide enough
 - Symmetric latch
 - Unflanged lips

Common Causes of Nipple Pain



- Latch
- Positioning
- Placement of parent's hands
- Other causes of nipple pain:
 - Flat/inverted nipples
 - infant sucking action causing friction
 - Ankyloglossia
 - Palatal anatomy
 - Strong infant suction
 - Milk blisters
 - Infections, psoriasis, dermatitis, Raynaud's syndrome



What can WE do?



- Educate
 - What qualifies as a “good latch” and how to improve it if necessary
 - Positioning
 - Feeding on cue aka “cue-based feeding”
- Referring out
 - PT, OT, cardiologist, inpatient SLP, dentist, ENT, GI, pulmonologist, etc.

Latch and Positioning



- Nose to nipple
- Tummy to mummy (aka “face your food”)
- Chin and nose on breast/base of bottle nipple
- Caregiver’s hand position on head
- Support: pillows, chair, hold
- Football, cradle, cross-cradle, laid back/reclined, side-lying

Common Breastfeeding Positions



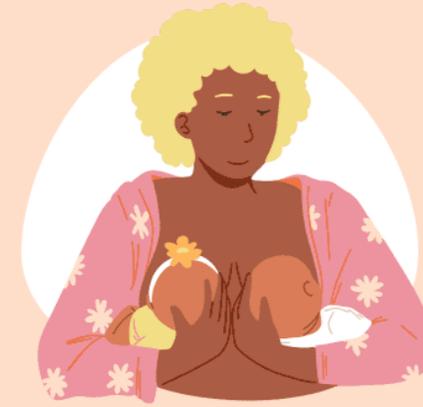
Laid-back nursing position

Used from first breastfeeding and great for anyone



Cross-cradle hold

Helpful for preemies, newborns, or babies with trouble latching on



Football hold

Good for nursing twins, c-section recovery, large breasts, and flat or inverted nipples



Cradle hold

Comfortable once baby latches on



Side-lying position

Great for nighttime feedings and c-section recovery



Koala
hold



Breastfeeding in
carrier



Dangle
feeding

Adjustments on Bottle



- Manually flanging out lips on bottle
- Twisting bottle to flange out lips
- Paced bottle feeding
- Nipple flow
 - Too fast:
 - Gagging, coughing, turning away, munching on the nipple
 - Too slow:
 - Falling asleep, collapsing nipple, frustration
- Nipple shape (especially if transitioning from breast to bottle)

Bottle Nipple Shape



- Sloped, wider base



Bottle Nipple Shape



Scheel et al., 2005

- VLBW infants
- Various feeds throughout day
- Compared 3 commonly used nipples from hospital nursery
- Followed infant's lead → calculated “out” time
- Overall transfer and milk transfer rate for each nipple

Scheel et al. (cont'd)



Findings:

- “Out” time, milk rate transfer, and overall transfer all comparable
- Therefore, nipple shape did not make it any easier or more difficult
- Suction amplitude was significantly different for one nipple that had a larger hole
 - Supports that infants can “fine tune” their sucking skills to regulate milk flow

Takeaway About Nipple Shape



- There is no particular nipple shape that is “better” than the other
- Infants can adjust their suck in order to regulate milk flow
- Most important: caregivers to monitor the SSB pattern and to follow the infant’s lead when feeding
 - to NOT force a prescribed volume within a specific time period

Cue-Based Feeding



- Baby cues: roots, sucks on hands, mouthing, tongue Parent feeds
- Benefits
 - Baby gets what they need (when typically developing)
 - If breastfeeding, baby is telling mom's body how much milk is needed
 - Leads to more natural feeling of satiated or hungry

Cue-Based Feeding (cont.)



- Not able to see how much milk is left in breast
- Must feed completely on cues
- Ventura & Hernandez, 2019
 - Opaque/weighted bottles moms fed based on cues versus clear bottles
- Child learns satiation versus hunger
- Long term studies shows less likelihood of childhood obesity with breastfeeding (Birch et al., 1987; Russell et al., 2018; Yan et al., 2014).

What are your thoughts on these latches?





















Questions & Comments

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