


## Cleft Newborn Feeding Strategies

Children's Mercy Cleft and Craniofacial Team

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## Cleft Lip and Palate



- One of the most common birth defects
- 1:500 to 1:1000 live births worldwide
- More common in certain ethnic groups
- 10-20% associated with a syndrome
- No single cause has been identified
- Combination of inherited and environmental factors
- Often cannot be explained



## Experts in Cleft Care

- Interdisciplinary Cleft and Craniofacial Team
- Follow more than 1,500 children born with cleft lip/palate, jaw, and craniofacial disorders
- Birth through adulthood




## Cleft Team Care

Optimum care occurs when children born with cleft or other craniofacial anomalies are cared for by a team of coordinated specialists

- Lactation
- Occupational Therapy
- Nutrition
- Speech
- Audiology
- ENT
- Nursing
- Social Work
- Genetics
- Psychology
- Plastic Surgery
- Dentistry
- Orthodontics
- Oral Surgery





## Why Is This Important?

- Feeding
- Hearing
- Speech
- Cosmesis
- Social Integration




## Why Is This Important?



- Infrequent problem for most bedside caregivers
- Misinformation is common
- Understandable anxiety for everyone
- Risk for poor weight gain and feeding challenges is real
- Early education and appropriate follow-up can mitigate many of these problems



## Impact on Feeding & Swallowing



### Isolated cleft lip +/- alveolus

- Typically does not impact feeding skills
- Able to breast and bottle feed with minimal accommodations
- Use breast or bottle nipple to "obturate" the cleft
- May still have nasal loss of liquids & solids depending on nasal floor

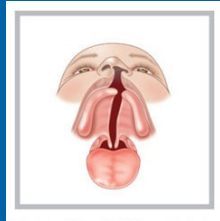


## Cleft Lip with Cleft Palate



## Impact on Feeding & Swallowing

- Cleft palate creates an "open system"
- Difficulty generating sufficient pressure differentials for a typical sucking pattern
- Must then rely on tongue and jaw to "mash" the nipple and extract milk
- Extraoral loss of milk through cleft
- Most likely to require feedings away from the breast



## Impact on Feeding & Swallowing

- Cleft feeding is messy
- Feeding takes training and practice
- Newborns may have slowed return to birth weight
- Can generally start cereal and other baby foods on regular timeline
- Baby will benefit from free-flow cup training prior to surgery



## Impact on Feeding & Swallowing



### Palatal Obturator

- Prosthetic aid designed to cover cleft and artificially separate mouth and nose
- Requires dental impression to create and replacement as infant grows
- Creates a rigid platform to suck against, but does not reestablish missing negative pressure
- Will not solve breastfeeding challenges



## Breastfeeding and Cleft Palate

- Unable to independently extract an adequate amount of breastmilk
- Difficulty creating the necessary negative pressure
- Difficulty pulling the nipple into the mouth for effective latch
- Videos of infants with unrepaired clefts being breastfed involve hand expression while the infant is at the breast
- Human still very important and we encourage mothers to pump and provide expressed milk whenever possible



## Milk Supply

- Encourage early and frequent milk expression
- Encourage skin to skin/kangaroo care
- Successful pumping techniques
  - High quality double electric pump best
  - Increased stimulation – feedings or pumping
  - Self care/relaxation
  - Encourage use of “hands free” pumping bra
  - Suggest fitting 120 minutes of pumping into a day



## General Guidelines for All

### Teach the Basics



- Signs of effective feeding
- Expected frequency and duration
- Expected weight gain
- Importance of breast milk
- Pumping strategies
- How to build/maintain supply
- Use of alternative feeding devices if needed



## General Guidelines for All

- Infant driven/cue-based feeding
  - Respect cues
  - Quality of the feeding over quantity
  - Non-oral feedings can be a great tool
  - No force feeding at any age
- Goal is a happy, well nourished child



## Bottling – General Guidelines



- Many different cleft bottle options available
- Cutting standard nipples is not recommended
- Keep the baby upright when feeding
- Do not direct nipple into cleft
- Frequent burping
- Feedings should last no more than 30 minutes



## Helpful Techniques

- Feedings should be enjoyable for both baby and caregivers
- Consider non-oral supplemental feedings if weight gain is an ongoing concern
- Squeezing the bottle or nipple
  - Nearly all of the “cleft bottles” have a squeezing option
  - Use with caution
  - Only squeeze when the baby is actively bottling



## Helpful Techniques

- Respiratory pacing to improve suck-swallow-breathe coordination
  - After the baby takes 2-3 sucks, tip the bottle down with the nipple still in the mouth to remove the milk from the nipple
  - After the baby swallows and takes a breath, tip the bottle up to fill the nipple
  - Repeat this cycle as needed throughout the feeding
- Monitor closely for signs of aspiration especially if the baby has an associated syndrome



## Helpful Techniques

- Jaw/chin support
  - Helpful for inefficient bottling due to excessive jaw movement
  - Some jaw movement is normal – do not restrict all movement
- Lip Taping
  - Passively helps to narrow cleft over time
  - Supports orbicularis function for latch and compression of nipple



## Important Points

- Establishment of feeding and growth are key issues
- Exclusive breastfeeding is not recommended when baby has a cleft palate
- Remember that syndromes/concomitant issues are common
- For children with multisystem issues, appropriate prioritization of cleft-related care
- Encourage picture taking and normalization of bonding



## How You Can Help

- Give realistic 24 hour feeding goals
- Observe parents using specialized bottles
- Call and refer to Cleft Team prior to discharge
- Provide written resources
- Exclusive pumping resources if infant has cleft palate
- **Call us with any questions**



## Resources



Cleft Palate Foundation

[www.Cleftline.org](http://www.Cleftline.org)

1-800-24-CLEFT

Children's Mercy Hospital

Cleft and Craniofacial Clinic

816-760-5829

Links to:

- [ABM protocol #17](#)
- [KellyMom.com Cleft Lip/Palate Resources](#)

