Feeding Infants with Cleft Lip and Palate: Tools and Techniques

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Soft palate can not seal nasopharynx or oral cavity

Surgical Management in Infancy

- Goals of surgery:
 Good functional result
 - Good cosmetic result
- Surgery must be timed with growth to achieve this balance
- Lip Repair: 3-6 months
- Palate Repair: 9-12 months
- Timing can vary between centers
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Pre-surgical Strategies





- Improved function and aesthetics
- Taping
- Nasoalveolar molding devices
- Generally for more complicated CLP with premaxillary tissue
- Can impact feeding



by bottle or breast.



The feeding problem in cleft lip &/or palate

- Inability to have a sealed oral cavity • Unable to create suction force
 - Affects ability to transfer milk from a "container"
- Importance of suction:
- Bottle:
- Required for efficient/effective flow
- Compression creates minimal flow
- Breast:
 - Draws breast into mouth and maintains position
 - Compression stimulates let down, but won't produce adequate milk transfer

Poor Suction = Poor Milk Flow

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Cleft Lip/Palate & Swallowing

- With cleft palate, there will be food in the nasal cavity
 - Liquids may come out the nose
 - \circ Increased risk for ear infections
- Bolus control may not be optimal, which can lead to poor timing of swallow/ breathe control
- With isolated clefts of lip and/or palate swallowing function typically intake
- Risk of swallowing dysfunction increases
 with concurrent genetic syndrome
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VFSS Cleft Palate

Effect of Anatomy on Feeding

- There is wide variation in the presentation of clefts of the lip and/or palate
- For all types of clefts, the main problem underlying infant feeding difficulties is the inability to produce suction
- Secondary feeding issues relate to fluid management
 - Food into the nasal cavity
 - Timing of bolus movement with sucking and swallowing
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Goals for Infant Feeding

- Must be effective and efficient
 Baby gets as much feed as possible (and
 - Baby gets as much food as possible (and know how much)
 - Does not take too much time
- Must be comfortable for baby (not stressed)
- Must be safe
- Must nourish the baby adequately

 Fortification and/or tube feeding may be needed

Feeding Techniques and Tools

- Feeding Position
- Elevated, so gravity helps food go down, less into nasopharynx
 - Upright cradle
 - $_{\circ}$ Elevated sidelying
- Interplay of baby's anatomy and feeding position need to be considered









Assisted Milk Delivery: Bottles / Nipples Makes compression more effective - Feeder does not assist with flow - 2 nipple sizes/flow rates, both have tricut - Even lower flow nipple can be too much for some young babies



Feeding Strategies: Breastfeeding

- Prognosis for full breast feeding is dependent on type and size of cleft
- Cleft lip breastfeeding can work well

 Breast tissue fills in "gap" to create adequate seal
- Cleft palate (with or without cleft lip) rarely is baby fully nourished at breast

 Lack of suction limits latch and milk transfer
- Breastfeeding options:
- Nurse through let down
- Hand express into baby's mouth
- Assisted flow at breast



Use of Breastmilk

- Despite poor chances for successful breastfeeding, breastmilk feeding is recommended
 - o Generally the best food for infants
 - Particularly important for cleft palate, since high risk of ear infections
- Mom's will need to pump to build/maintain milk supply
 - Begin immediately after birth (even if trying to do some breastfeeding)
- Support as needed with milk building strategies

Successfully Feeding the Baby with CLP

- The baby has adequate nutrition for growth
- The feeding system is efficient
 - Balances time spent in feeding
 Mom must also have time to pump
 Baby needs time for adequate rest
 - Baby's not expending too much energy or calories in feeding
- The feeding system is safe
- There is not just one answer tools must be matched to baby's specific anatomy and feeding characteristics