## Speech-Language Pathology



change the outcome

## Feeding the Infant with Cleft Lip and/or Palate Ann W. Kummer, PhD

In early infancy, feeding is accomplished entirely by sucking. Feeding provides nourishment for growth and development and helps the infant to maintain normal health. Feeding also provides satisfaction from hunger and has a calming effect on the infant.

Some infants with clefts have difficulty with sucking. However, they are able to feed and obtain adequate nourishment with certain modifications in the feeding method.

**Cleft Lip:** Infants with a cleft of the lip only do not have problems with sucking. They may have some difficulty learning to latch onto the nipple, especially with breast feeding.

**Cleft Palate:** Infants with a cleft of the soft palate, or a cleft of both the hard and soft palate, are unable to suck due to the open cavity. In addition, if the nipple goes into the cleft rather than against the hard surface of the palate, it is impossible to compress (squeeze) the nipple. Infants with a very small cleft of the soft palate may be able to suck, but only if the tongue moves back to close the cleft during feeding.

Feeding problems can result in poor intake and a lack of adequate nutrition; lengthy feeding times; the additional use of calories for feeding and fatigue; nasal regurgitation; choking and gagging; and excessive air intake. To avoid these problems, the following are some modifications that can be used to help feed the baby with a cleft:

- **Modified Nipples:** The appropriate nipple should be chosen to help the infant to maximize sucking efforts. Nipples vary by shape, length, pliability (flexibility) and hole size.
  - Shape: Shapes basically fall into two categories: straight shaped nipples and broad, flat nipples. The nipple needs to provide adequate contact between the tongue and the palate for compression. In general, the broad nipples, often called "Nuk" nipples, can provide the best contact.
  - Length: Nipple length can vary greatly in regard to the distance from the tip to the base. The nipple should be long enough to provide enough contact against the tongue for effective tongue movements.
  - Pliability: A soft nipple will have a faster flow rate than a firmer nipple. Therefore, it
    will require less suction. If a softer nipple is needed, the caregiver can use either a
    "preemie" nipple or standard nipple that has been softened through boiling.
  - Hole Size: The size of the nipple hole can determine flow rate. If faster flow is needed, a cross-cut (in the shape of an "X") can be made over the hole with a singleedged razor blade.

- Modified Bottles: The feeder can assist the infant by using a soft, squeeze bottle, such as the Mead-Johnson Cleft Palate Nurser, or by squeezing milk from a plastic bottle liner. The pressure applied to a squeeze bottle or plastic liner must be in rhythm with the infant's suck and swallow.
- **Positioning the Infant:** The infant should be fed in an upright position (at least 60 degrees) so that gravity can assist with swallowing.
- **Positioning the Nipple:** In order to achieve compression, the nipple must be placed under a shelf of the hard palate.
- **Pacing Intake:** The flow rate of the liquid should be pace with the rhythm of the infant's movements and reactions.
- **Oral Facilitation:** The feeder should help to stabilize the jaw and cheeks during feeding with his/her hand and fingers.
- Preventing Excessive Air Intake: Because the cleft causes more air to be swallowed during feeding, the infant with a cleft needs to be burped frequently. Burping should be done after every ounce or two.
- Managing Nasal Regurgitation (Liquid in the Nose): If liquid comes through the nose, feeding should be stopped for a few seconds. This allows the infant time to cough or sneeze to clear the nasal passages. Keeping the infant in an upright position helps to prevent nasal regurgitation.
- **Consistency of Feeding Method:** The baby should be fed in the same position, with the same nipple and bottle, and with the same method each time.
- **Oral Hygiene:** After each feeding, areas around the cleft should be cleaned using a washcloth moistened with water, or a weak solution of hydrogen peroxide and water.
- **Breast Milk:** Breast milk is best for the newborn infant because it contains the mother's antibodies and can prevent early food allergies. If the baby cannot breast feed due to the cleft, breast milk can be expressed with a breast pump and then given to the infant through a bottle.
- Cup Feeding: Most surgeons recommend weaning from the bottle to the cup before the
  palate repair (at 9 or 10 months). This is because sucking can cause a breakdown of the
  repair. During cup training, it is helpful to use slightly thickened liquid to slow the liquid
  flow.
- Solid Foods: Solid foods can be introduced to the baby with cleft palate at about the same time as with any infant.

Although feeding a child with a cleft can challenging at first, the child should be able to feed well with some minor changes. This will result in good nutrition for the infant and satisfying feeding experiences for both infant and caregiver.