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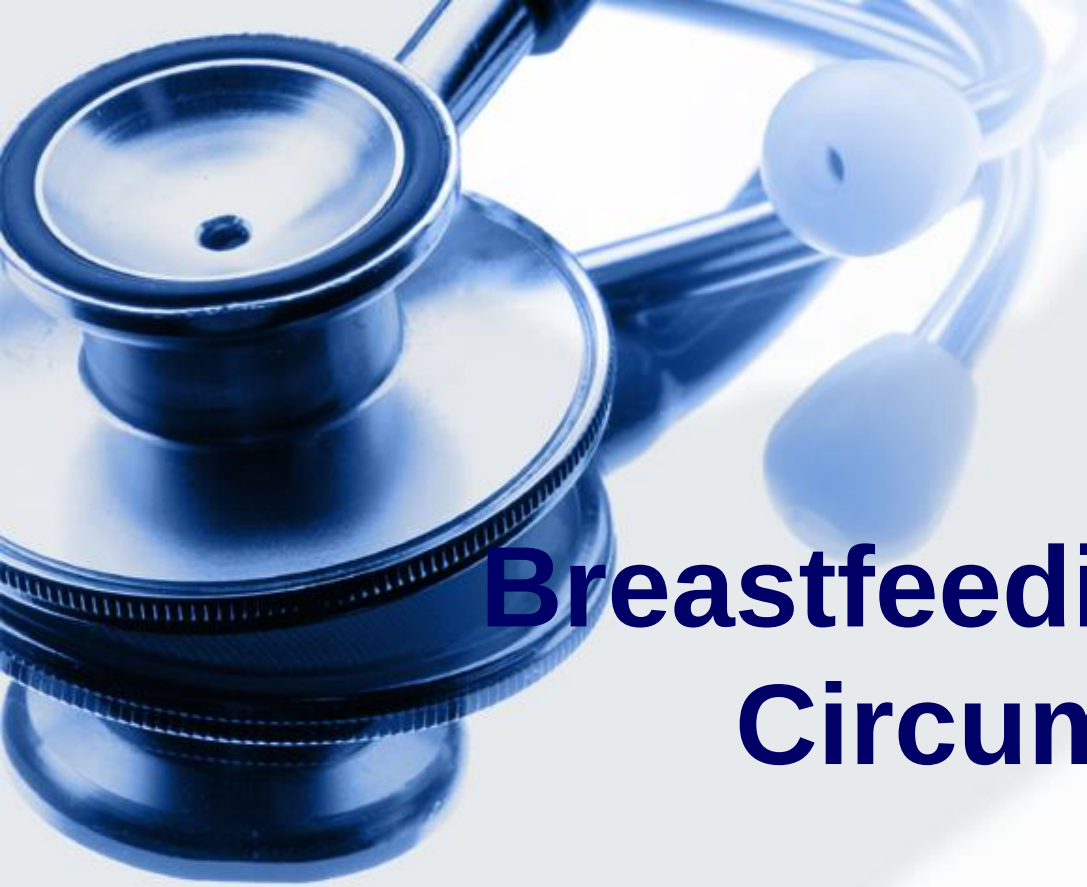

Breastfeeding in Special Circumstances

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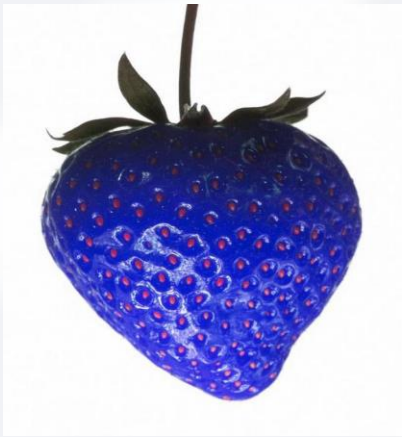
Cleft Lip and Cleft Palate

- Oral feeding is a major problem for infants with common congenital oral malformations.
- Mothers of infants ineffective at the breast should be instructed in milk expression techniques so that milk is still available

Why Breast feeding



Benefits of Breastfeeding

- Promotion of oral and facial muscular development
- Allowance for a better seal at the lip defect because of the pliability of the breast
- Reduced otitis media
- Provision of comfort and pleasure by non-nutritive sucking for the infant who cannot accomplish nutritive sucking.

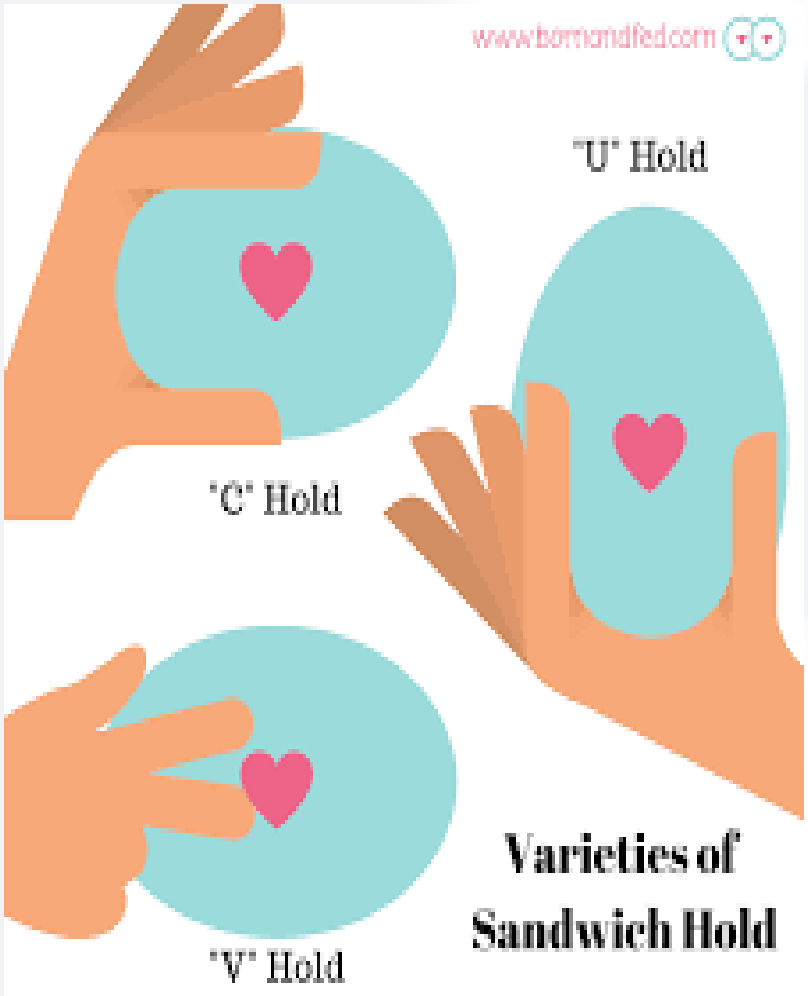
Cleft Hard Palate

- The cleft malformations prevent an effective seal around the nipple,
- These infants are unable to generate negative sucking pressure in the oral cavity, resulting in an excessive intake of air
- They commonly have nasal regurgitation of milk
- If some negative pressure can be generated, breastfeeding may succeed

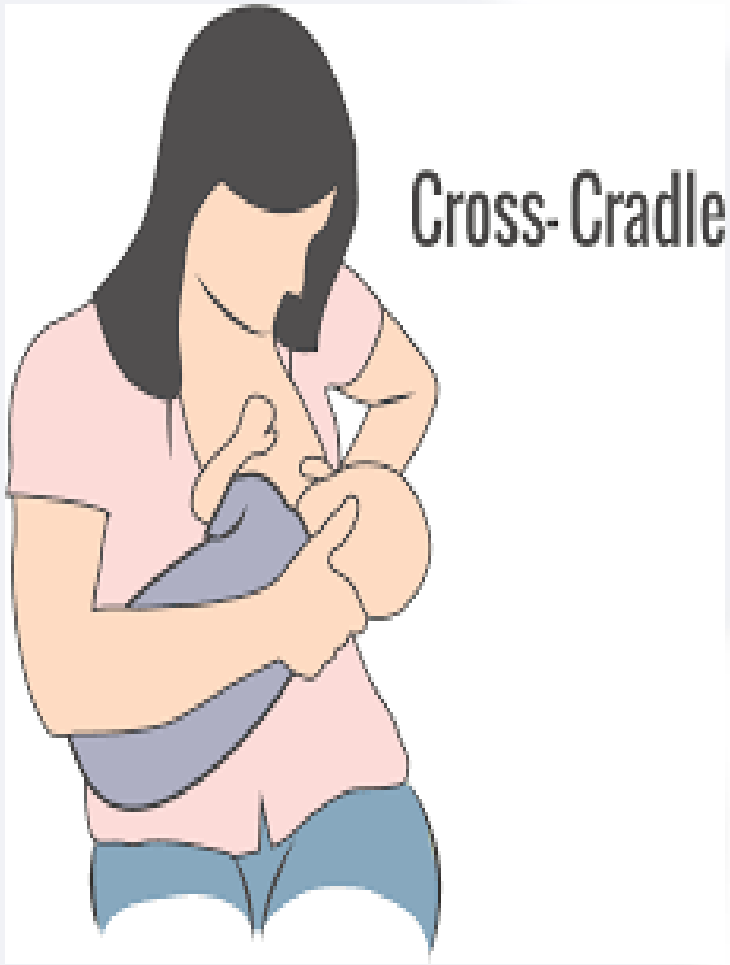
- Cleft Lip malformation is more likely to be associated with breastfeeding success.
- The infants are capable of generating negative pressure, providing occlusion of the lip is maintained.
- Cleft palate infants are least likely to breastfeed because they cannot generate negative pressure and usually have poor oral-motor function.
- These infants usually require feeding device.

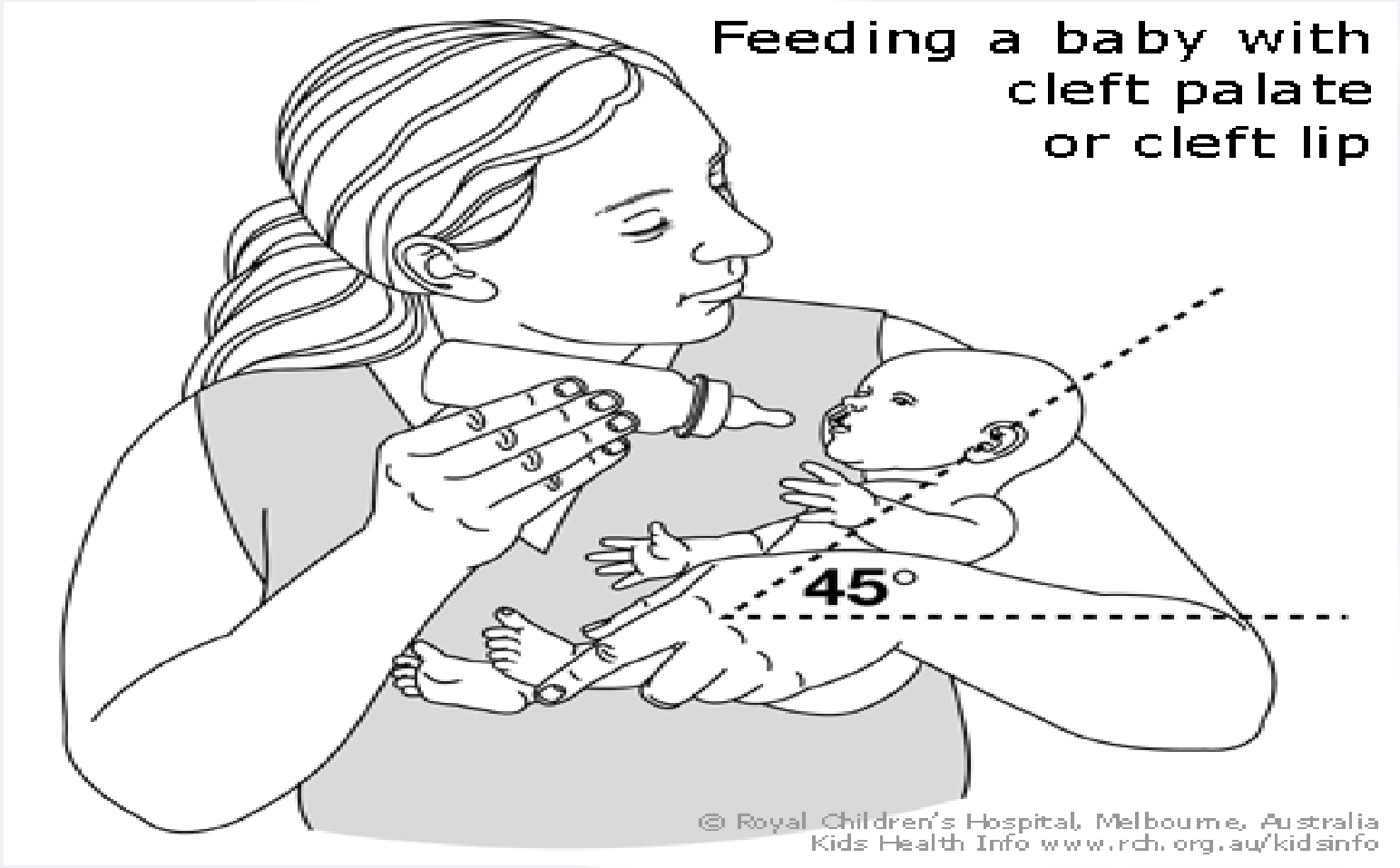
Breastfeeding Techniques

Feeding technique



Nasal regurgitation / airway occlusion




Feeding a baby with
cleft palate
or cleft lip
45°
© Royal Children's Hospital, Melbourne, Australia
Kids Health Info www.rch.org.au/kidsinfo

straddle position

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Breastfeeding Techniques Cleft Lip /Palate

- Hold the breast with the C-hold technique
- The U-hold from under the breast can also be used.
- Hold the infant at breast level in semi-upright positions
- For hypotonic infants, their trunk and head should be placed at the same level as the breast with pillows.
- To avoid nasal regurgitation and airway occlusion.

- Use the straddle position for infants with bilateral cleft lip and palate to promote gravity delivery of milk and decreased nasal regurgitation and aspiration.
- Position the breast toward the side of the palate that has the most intact bone and position the nipple down so that it is not pushed into the cleft.
- Massage the breast rhythmically to enhance milk delivery.
- Mothers may need to manually express human milk into the baby's mouth to compensate for absent suction and to stimulate the letdown reflex.

Types of Cleft lip feeder

Feeding of cleft lip and palate patients

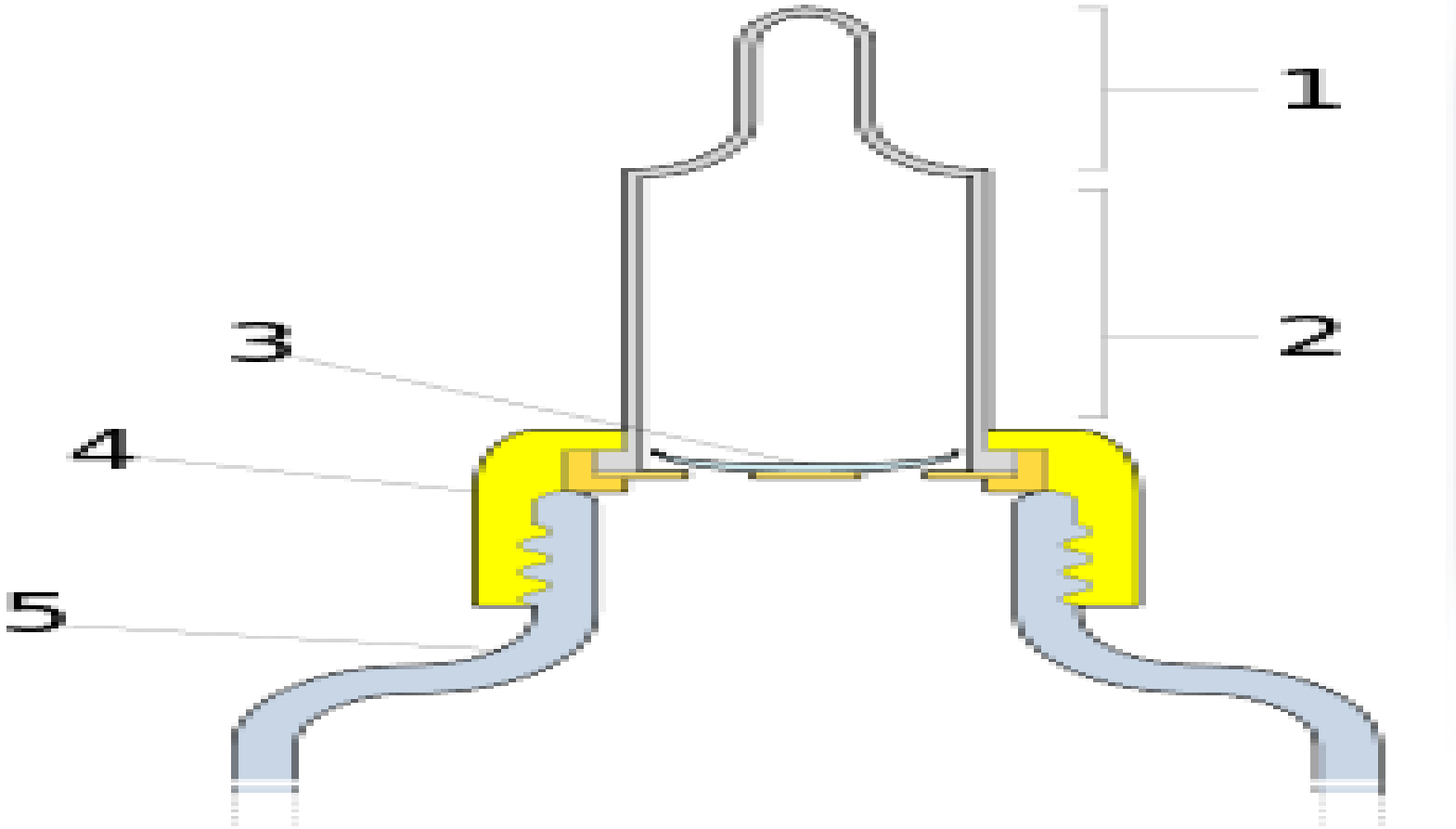

1
2
3
4
5

Fig. 2: Correct position of feeding

Fig. 3: Incorrect position of feeding

Fig. 4: Dancer hand position for feeding

feeding is not adequate, one can always switch on to specially designed bottles, as nutrition cannot be compromised.

Babies with Cleft of the Soft Palate

He or she may be able to feed from the breast with correct positioning, as discussed above. In some cases, they may need supplementary feeds from specially designed bottles with either expressed breast milk or formula milk.

Babies with Cleft of the Lip, Soft and Hard Palate

In most cases, these babies are unable to breast-feed though one can always try to breast-feed. If breast feeding is not achieving the outcomes, then it may be necessary to bottle feed as well. Various specially designed feeding bottles and teats like Haberman feeder (Fig. 5), Mead-Johnson cleft palate nurser bottle (Fig. 6), Pigeon bottle are available. These bottles are made up of soft, squeezable plastic to help draw milk from the bottle with very little pressure (Fig. 7). A long nipple to press against the tongue, with a Y-cut in

Fig. 5: Haberman feeder bottle for feeding

Fig. 6: Mead Johnson cleft palate Nurser bottle for feeding

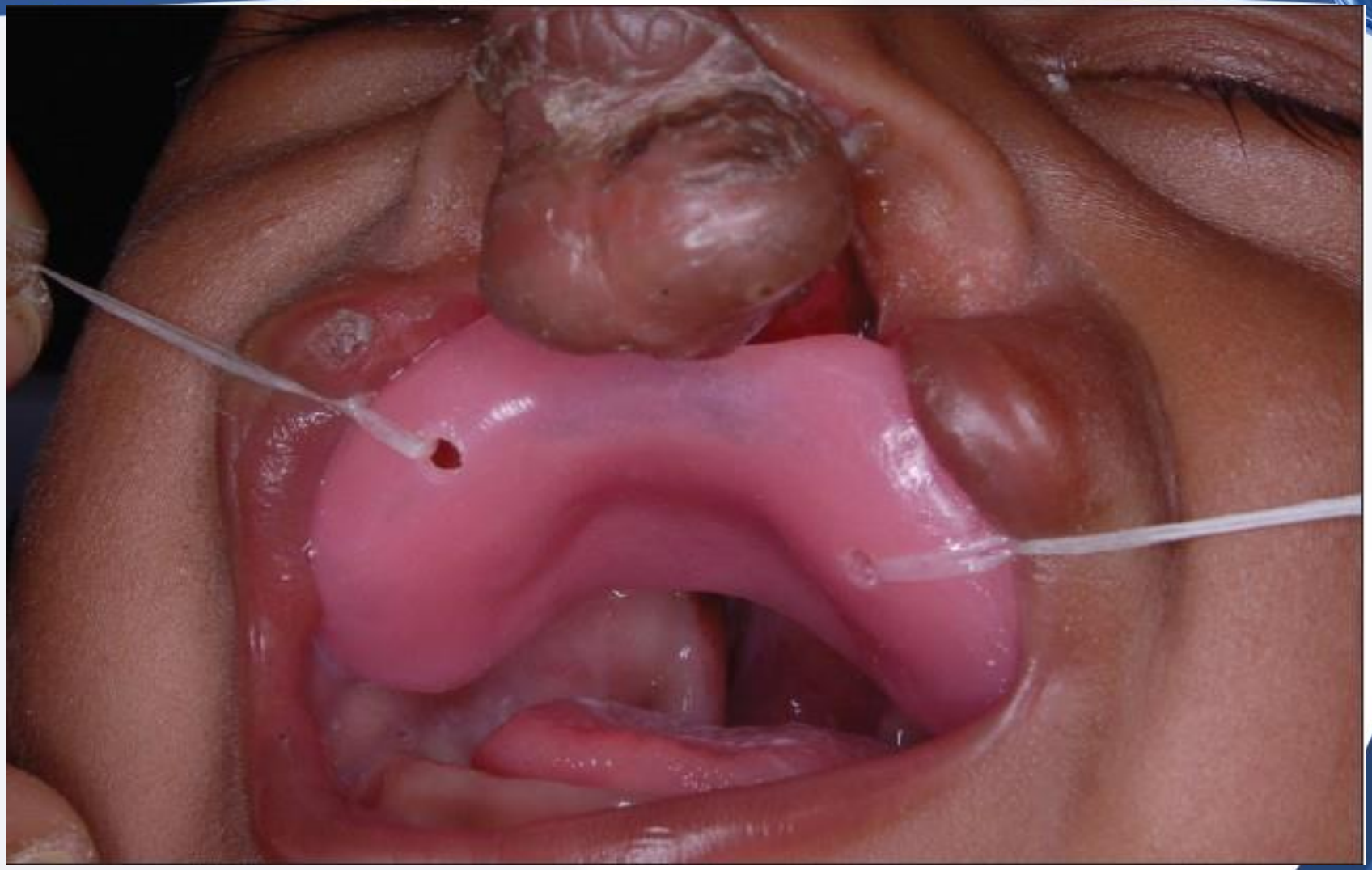
Mead Johnson/Enfamil Cleft Feeder
Haberman Feeder

Special Needs Feeder /

Pigeon Feeder
Flow *to relieve gas*

Dr. Brown's Natural

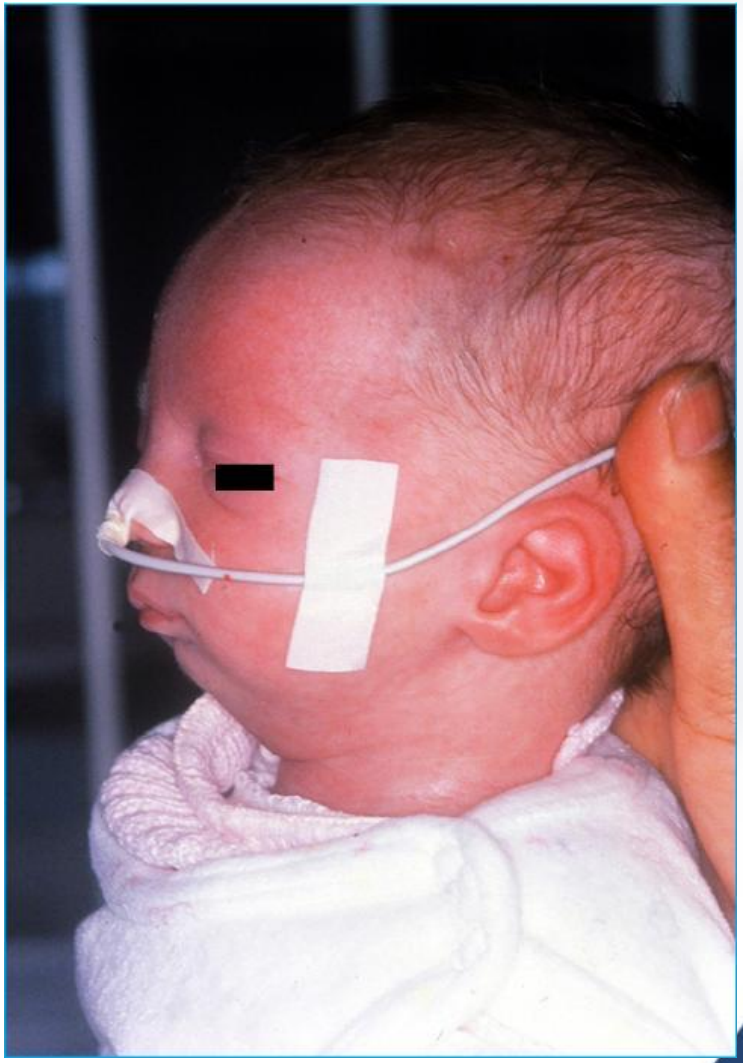
- “Pulse squeezing” used in Mead Johnson and the Medela Special Needs Feeder.
- Gently squeeze the bottle (MJ) or the nipple (Medela) to help milk to flow into the mouth.
- A brief squeeze once every 2 or 3 sucks allows for a limited amount of milk to flow into your infant’s mouth.
- Only squeezes when infant is actively feeding (moving lips against the nipple).
- Infants rest every 15-20 seconds to breathe; do not squeeze when your baby stops actively feeding.

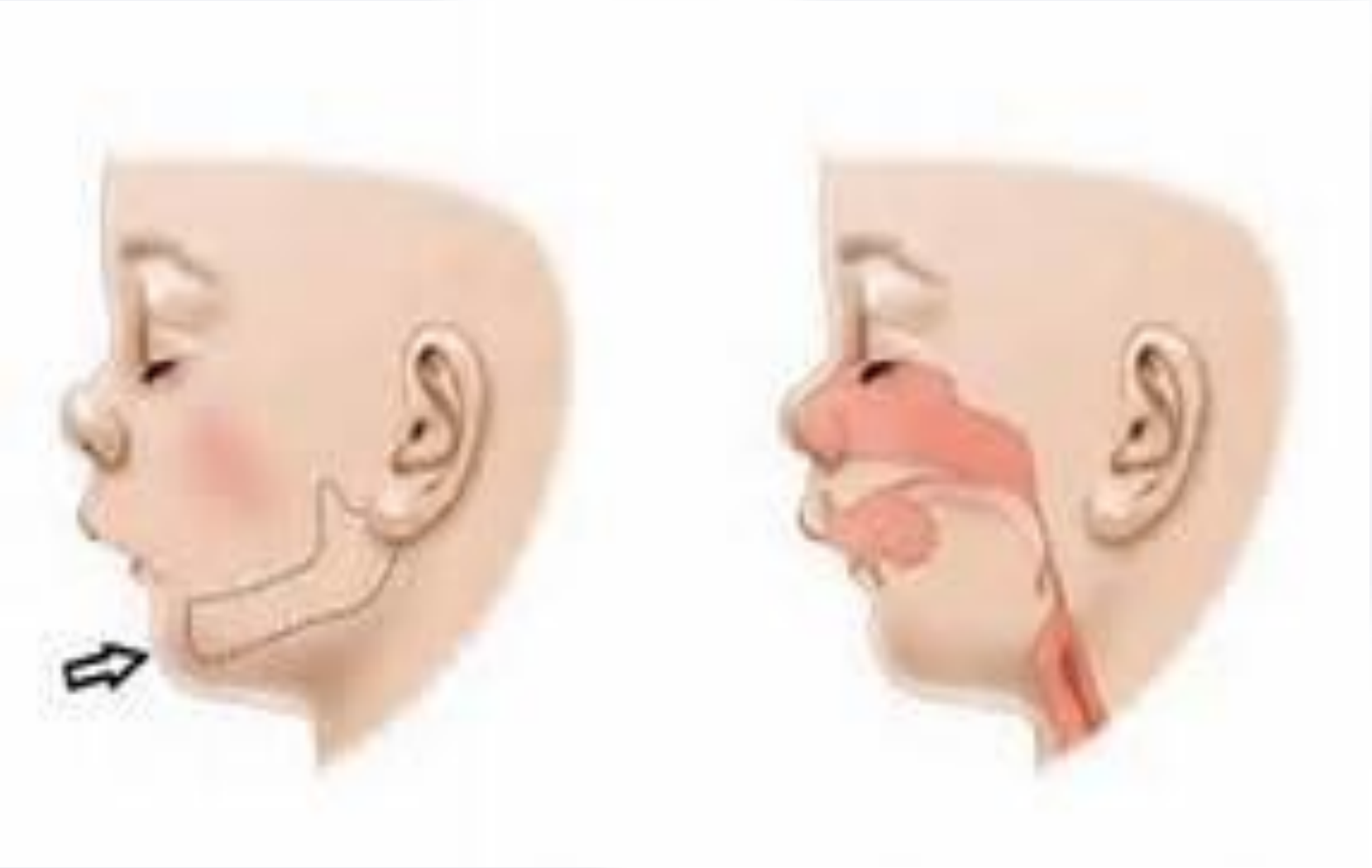


Surgical Repair

- Cleft lip is usually surgically repaired in 1–4 months, whereas the palate is repaired at 9 to 12 months.
- Infants who underwent surgical repair of a cleft lip were fed with a cup, dropper, or spoon during post-operative recovery.
- One study found that six weeks after surgery, breastfed infants, when compared with device-fed infants, had better weight gain, shortened postoperative hospital stay

Pierre Robin Sequence





Pierre Robin Sequence

- Infants with Pierre Robin sequence have breathing difficulties may have higher than average caloric needs as a result of chronic airway obstruction.
- Those who are unable to tolerate oral feedings will need tube feedings to provide adequate nutrition.

- Sucking and swallowing dysfunction is a major cause of feeding difficulties
- Micrognathia leads to problems with latch-on.
- The cleft palate creates sucking problems.
- The tongue is displaced posteriorly and infants are unable to stroke the nipple efficiently, so they have difficulty propelling the milk into the oropharynx.

- Human milk is advantageous: they have an increased risk for aspiration and associated respiratory infections, otitis media and hearing deficits
- Mothers should be encouraged to pump milk early to establish an adequate milk supply for those infants who are unable to breastfeed effectively.

Down Syndrome

Down Syndrome

- Their oral structures may include a variety of abnormalities that affect feeding: protruding tongue, narrow palate, and a small nose with a low nasal bridge.
- Hypotonia exhibit ineffective suckling or tongue thrusting, resulting in difficulty with latch-on.
- The infant cannot form a trough with the tongue around the areola which results in milk going down the side of the mouth instead of into the back of the mouth to be swallowed.

Breastfeeding Techniques for Down Syndrome

- Place the infant's trunk and head at the same level while supporting the head
- The C-hold with helps control the nipple.
- Support the infant's jaw with a finger.
- For hypotonic infants, the U-hold supports the breast and the infant's chin, allowing the mandible to rest within the inter digital space.
- For infants with macroglossia, assist them in opening their mouths and latch.

- To overcome the tongue thrusting:

✓ Breastfeed with infant's chin pointing downward, almost touching the infant's chest.

✓ Gently stroke the infant's cheek toward mouth, brushing the lips a few times.

✓ Use a clean index finger to massage the outside of the infant's gums. Begin at the midline of the gum and move toward the sides of the gum.

✓ As the infant's mouth opens, press down firmly on the tongue tip with the tip of the index finger and count 1-2-3.

✓ Release the pressure, and move back on the tongue repeating this 1 or 2 more times. Avoid gagging the infant.

✓ Repeat this procedure 3 or 4 times before each breastfeeding session.

Multiple Births

- Multiple births can be breastfed successfully, and in many cases without supplementation.
- Breastfeeding multiples, however, requires additional time and creates higher nutritional needs for the mother.
- Current recommendations for energy supplementation during breastfeeding are 500 to 600 kcal per baby per day.

- Twins may be breastfed in any of 3 modes:

✓ Simultaneously

✓ separately on an individual demand schedule

✓ separately on a modified demand schedule where one infant is fed on demand and then the other immediately afterward.

- Simultaneous breastfeeding saves time and also has a physiologic advantage in that the more vigorous baby on one side may stimulate the letdown reflex for the other twin.

- The most common practice is to start breastfeeding each baby individually because

✓ It takes time for the mother to recover from the delivery,

✓ Infants do not necessarily have the same sucking ability

Tandem Nursing

- Tandem nursing :continuation of breastfeeding into the next pregnancy and after delivery of the next child.
- A normal pregnancy is not an indication for immediate weaning, but preterm labor precludes continued breastfeeding.
- A review of breastfeeding during pregnancy found that
- only 43% of mothers continue breastfeeding throughout the pregnancy.
- %48 of breastfeeding children wean spontaneously, most at the end of the second trimester, when most of the mothers reported a decline in milk production.

- The main reason for mother-initiated weaning is breast and nipple pain, fatigue, and irritability. Only 7% of mothers reported uterine contractions during nursing.
- Care must be taken to ensure that the new infant has priority at the breast and that milk intake and growth are not compromised.

- Often the previously breastfeeding older child will be nursing only for comfort ,claim
- Some studies demonstrate slower weight gain in newborns whose mothers are tandem nursing, possibly due to qualitative longitudinal differences in the milk composition.
- The mother will produce milk at the same rate that it is removed; if she is nursing 2 or more infants, she will produce greater amounts of milk.

Adoptive Nursing

- Breastfeeding an adopted infant is possible.
- The non pregnant mammary gland may over a period undergo changes in response to the physical stimulation of suckling or pumping the breast.
- If the breast is stimulated, prolactin may be secreted and milk may be produced.

- A key component to successful lactation is the letdown reflex, which is directly dependent on adequate levels of circulating oxytocin.
- Letdown may be facilitated by exogenous oxytocin.
- Milk production may take from 1 to 6 weeks, after beginning pumping or nursing.
- Galactagogues often are used, but their efficacy is unproven

QUESTIONS?

COMMENTS?