



Breastfeeding in Special Circumstances

M. MAHALLEI

NEONATOLOGIST

ASSISTANT PROFESSOR


TABRIZ UNIVERSITY OF MEDICAL SCIENCES

breast milk availability

- ▶ 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

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

PROPER LATCH-ON


- ▶ Baby open the mouth wider.
- ▶ The chin touching the breast
- ▶ The chick looked flatulent.
- ▶ The lip are flanged out.
- ▶ The breast looked full and round
- ▶ Can hear the sound suck and swallow
- ▶ The nipple looked long and round after
breastfeed.



Images used with Permission of *Fit Pregnancy Magazine* ©2001

Cleft Hard Palate

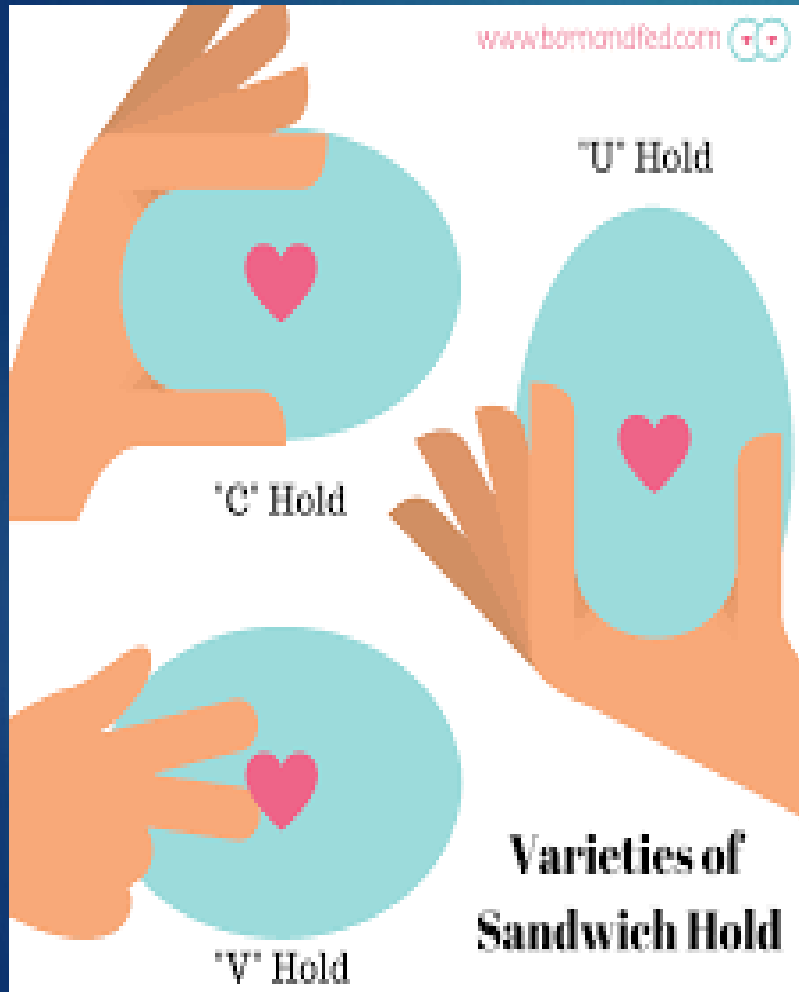
- ▶ Negative pressure and effective seal is needed for success breastfeeding
- ▶ The cleft malformations prevent an **effective seal** around the nipple
- ▶ These infants are unable to generate **negative sucking pressure** in the oral cavity, resulting in an excessive intake of air
- ▶ They commonly have **nasal regurgitation** of milk
- ▶ often **fatigue** during prolonged attempts to breastfeed.

- 
- ▶ **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**.

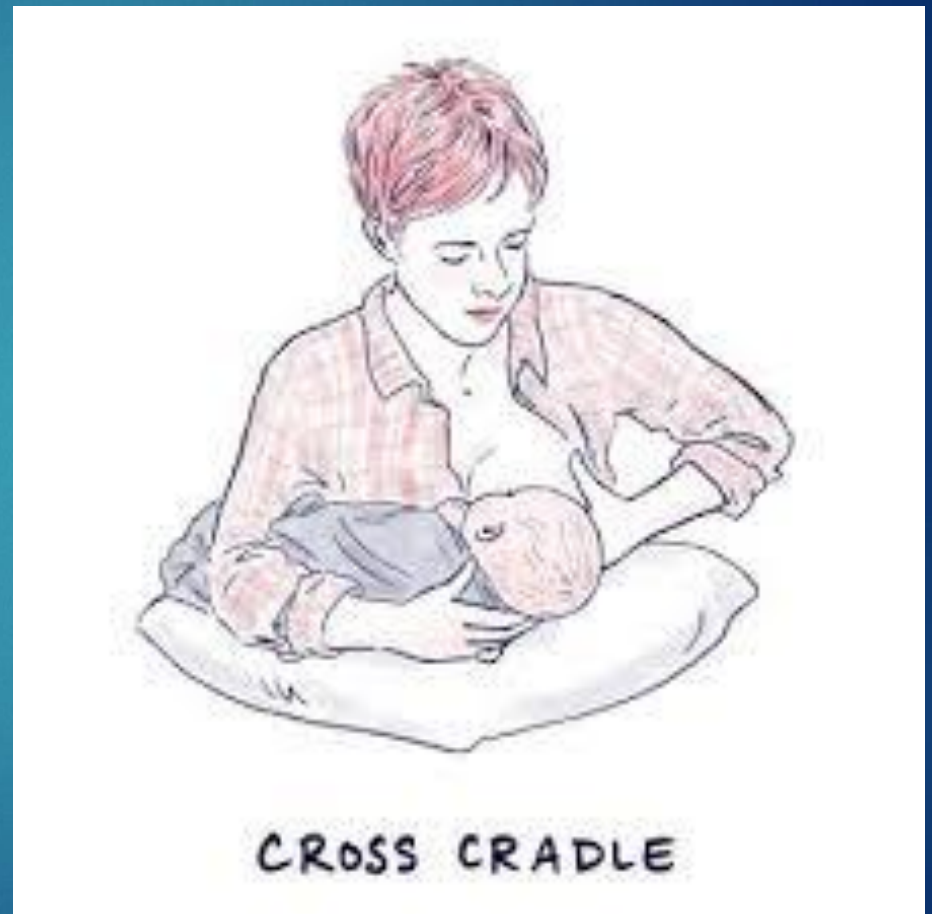
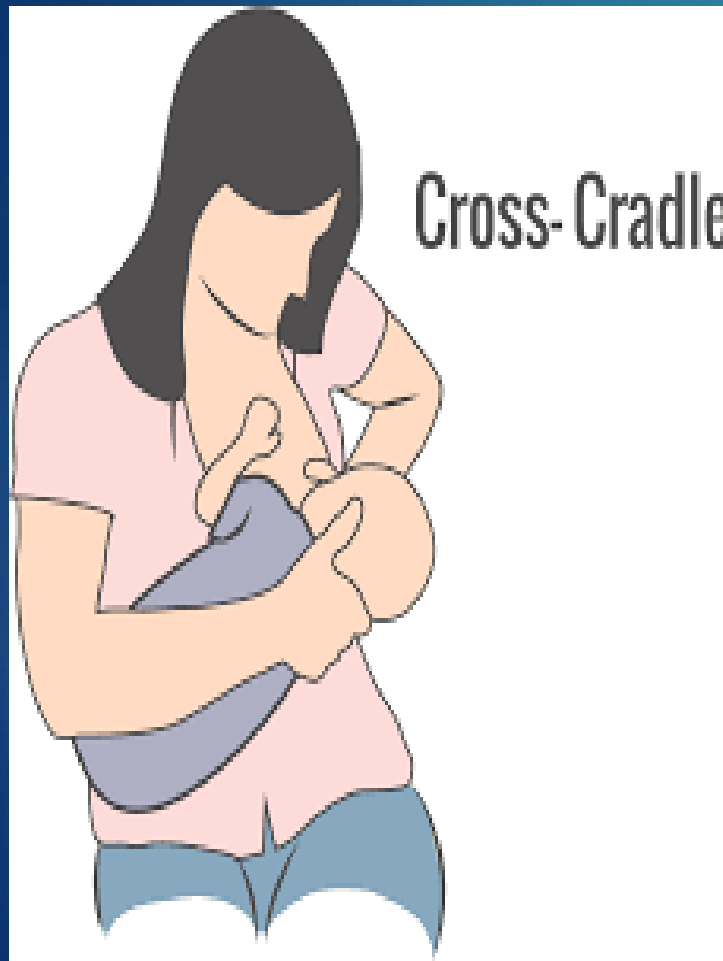
Breastfeeding Techniques

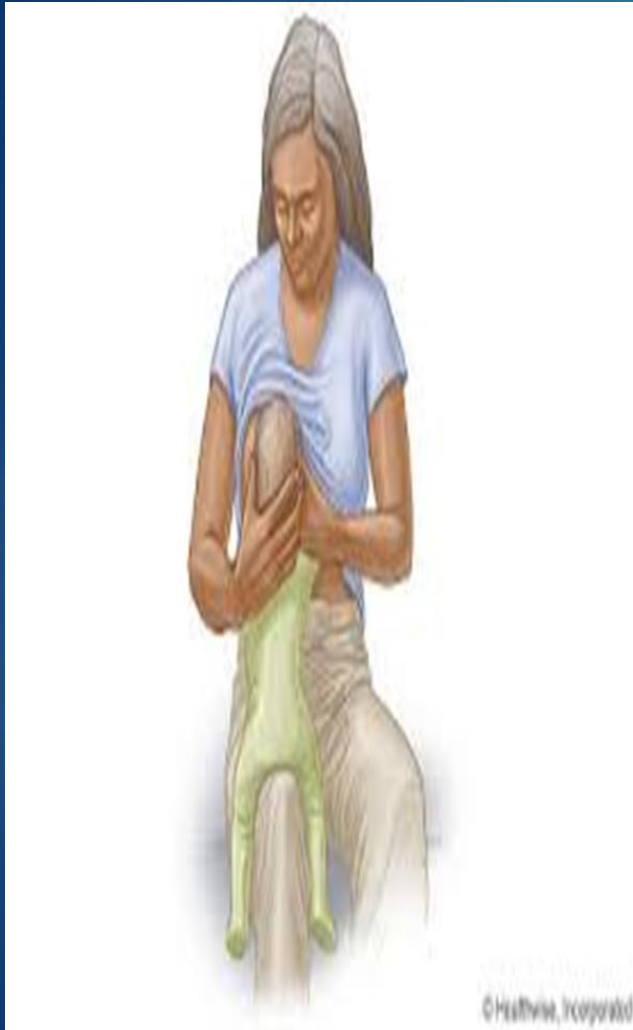


Feeding technique



Nasal regurgitation / airway occlusion





- ▶ 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.

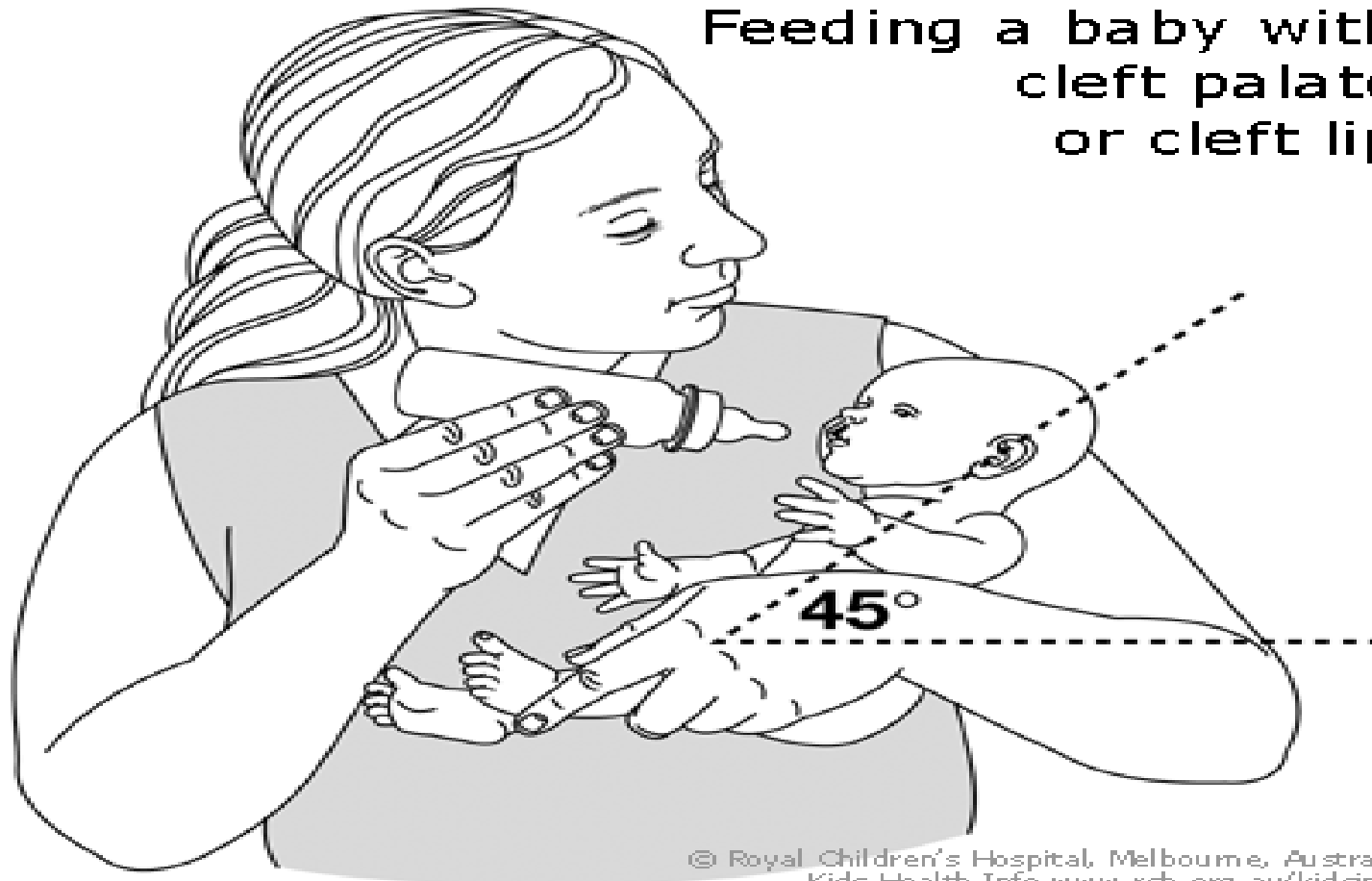
straddle position



**BREASTFEEDING:
HOW TO DO THE
"STRADDLE" POSITION**



Feeding a baby with cleft palate or cleft lip



© Royal Children's Hospital, Melbourne, Australia
Kids Health Info www.rch.org.au/kidinfo



Feeding of cleft lip and palate patients



Haberman feeder



Squeeze bottle



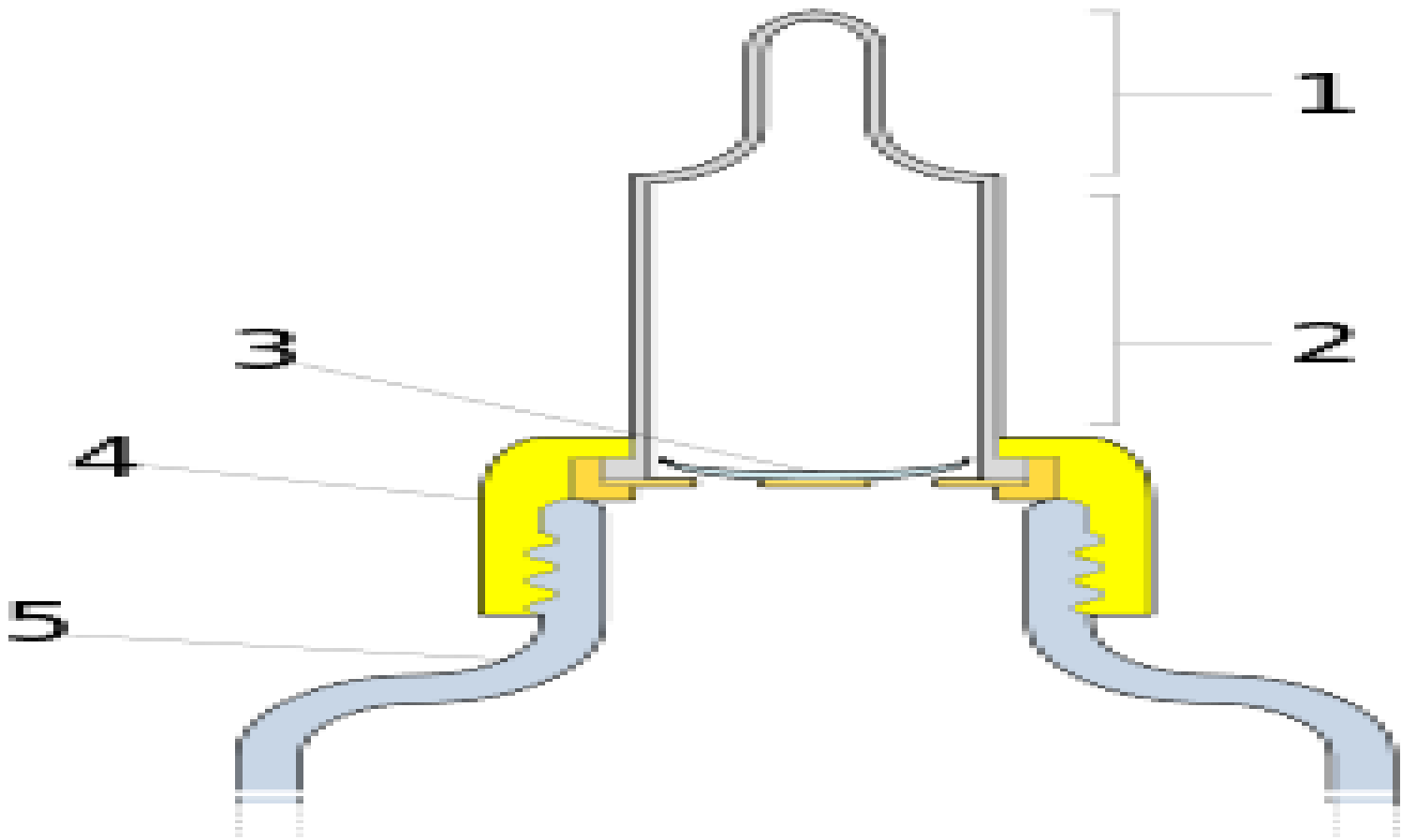
Pigeon feeder


Types of Cleft lip feeder









- 
- ▶ “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.

Pierre Robin feeding problem

- ▶ 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


- ▶ A variety of abnormalities that affect feeding: protruding tongue, narrow palate
- ▶ 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

- ▶ straddle position : 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.





Images used with Permission of *Fit Pregnancy Magazine* ©2001

- 
- ▶ 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

- ▶ 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.

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?

