



NEONATAL SYMPOSIUM 2022

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Importance of Breastfeeding

- The American Academy of Pediatrics (AAP) and the World Health Organization (WHO) recommend exclusive breastfeeding for the first 6 months of life. Continue breastfeeding along with complementary foods until 2 years of age or longer.

Exclusive breastfeeding: No formula, water, baby foods, rice cereal given to baby during first 6 months

Nothing Compares to Breastmilk

- Breastmilk is the best food for infants. Mother's milk is custom-made for their baby. The breast milk changes as the baby gets bigger. Breastmilk has hormones that help baby grow and stay healthy. Breastmilk protects babies with:
 - Antibodies
 - Anti-viruses
 - Anti-allergens
- Over 200+ components are found in milk, many have not been recognized or replicated
- These important ingredients are NOT in formula. Breastmilk is also more easily digested than formula. Plus, breastmilk is free, fresh and safe for baby to drink anytime, anywhere.

Formula is like Mashed Potatoes...



STAGES FOR MAKING MILK

- Lactogenesis I:
- Placental Hormones: Progesterone
 - Mother should see breast changes and may leak colostrum during pregnancy
 - Progesterone in the receptor sites produces colostrum
- Lactogenesis II:
- Complete Delivery of Placenta
- Rapid drop in Progesterone
 - Lactogenesis I and II are hormonally driven

STAGES FOR MAKING MILK

- Lactogenesis III: Maintenance stage
- Prolactin in receptor sites produces *Mature Milk*
 - Prolactin levels increase from frequent nipple stimulation/Frequent removal of milk
 - Levels go up during breastfeeding/pumping and decrease in between feedings
 - Infrequent latching/pumping leads to lower levels of prolactin= lower milk supply

STAGES FOR MAKING MILK

- Lactogenesis III: Breastfeeding/Pumping
 - Oxytocin released with nipple stretching and massage of the breast
 - Causes myoepithelial cells to compress (milk flows)
 - Mothers tend to get discouraged with the lack of milk production the first few days and may decrease the frequency of pumping
 - Remind them about the hormone processes (supply/demand)

Establishing Breastmilk Supply NICU Mothers

- Breastmilk expression should be initiated as soon as possible after delivery, but no more than 6 hours after birth
Prolactin receptor sites are primed with nipple stimulation
- For high risk and special needs babies, beginning manual expression within the **first hour** is recommended
- Combining hand expression with the use of an electric pump is most effective in establishing milk supply

Mature Milk

- Mature Milk usually comes in Day 3-5 after delivery, if medical interventions have not occurred
 - I.E. C-sections, inductions, retained placenta or medical emergencies
- NICU mothers should hand express and/or pump 8-12 times a day, set a timer
- Even at night!
- Consistency is KEY!

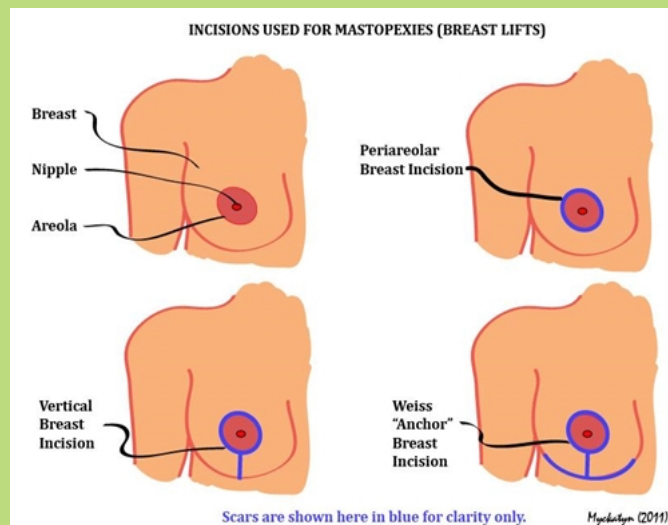
MATERNAL CONDITIONS DECREASED SUPPLY

- Postpartum Hemorrhage:
 - Can occur after delivery and up to 12 weeks PP (commonly 6-8 weeks)
 - Medications given postpartum to decrease bleeding can oversaturate receptor sites
 - Retained placenta
 - Polycystic Ovarian Syndrome (PCOS): excess insulin increases androgen (male) hormones
 - Hypo and Hyperthyroidism

BREAST ANATOMY DECREASED SUPPLY

BREAST REDUCTION: Can significantly affect breastfeeding

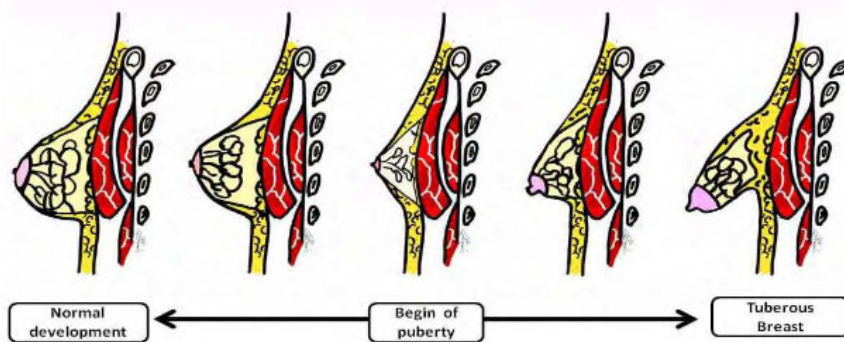
- Procedure can damage nerves and milk producing glands and ducts
- Often nipple is removed and repositioned severing the milk ducts
- Often the milk comes in, but can't get out



BREAST ANATOMY DECREASED SUPPLY

• BREAST HYPOPLASIA OR TUBULAR BREASTS

- Often mothers aren't aware of the condition
- Lacking breast tissue both vertically and horizontally
- Wide spaced
- Enlarged areola; "droopy" appearance
- Less storage capacity so supply can be low



INCREASING MILK SUPPLY FOR PUMPING MOTHERS

- Supply is determined by the removal of milk from the breasts and by hormones.
- The more frequently milk is removed, the more milk you make.
- Make sure pump flange is the appropriate fit and the settings are correct. If you are unsure you can bring your pump to NICU and Lactation can assist.
- Power Pumping: Increases the lactation hormones
 - Once per day for 1 hour
 - Pump for 10 minutes, rest for 10 minutes
 - Pump for 10 minutes, rest for 10 minutes
 - Pump for 10 minutes

INCREASING MILK SUPPLY FOR PUMPING MOTHERS

Nutrition:

- Eat a normal, healthy diet. Frequent snacks during the day and drink 8 ounces of water while pumping. There is no need to drink excessive amounts of water
- Oatmeal, Brewer's Yeast and Body Armor (coconut water) are great additions to your diet that may help supply.

GALACTAGOGUES

- Substances believed to increase milk production:
- Fenugreek, Goat's Rue, Herbal Teas, Oatmeal, etc....
- Herbs have pharmacological properties and significant side effects
- Studies find no evidence that fenugreek increased prolactin or milk production
- Reglan: off label use and can have significant side effects (depression/anxiety)
- Domperidone: Not legally marketed in US (effects on heart)

RESOURCES FOR ONGOING SUPPORT

- NWTLS Lactation Office:
 - 806-354-1394
- Infant Risk Center: Texas Tech
 - *Information about medication safety and breastfeeding*
 - 806-352-2519
 - They also have an app you can download called "Mommy Meds"
- WIC Breastfeeding Peer Counselors: (by appointment)
 - 806-371-1119
- Texas Tech Breastfeeding Medicine Clinic:
 - 806-414-9999