



## NICU Breaststeps: Birth to Breast

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#### Purpose

The **purpose** of this activity is to allow learners to identify and support the NICU infant thru the age appropriate behaviors of learning how to breastfeed.

The **goal** of this activity is to outlines the 5 steps infants go thru from delivery thru discharge.  
LOVE.LICK.LACTH. LEARN. LEAVE.

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UVA Children's Hospital



## BreaSteps



USLCA January 22, 2018

Valerie Goodman RN IBCLC



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## Objectives

At the end of this lecture the learner will be able to:

- ☐ Describe the benefit of skin-to-skin holding as it relates to the NICU baby
- ☐ Compare feeding behaviors of a 35 weeker with those of a term infant.

## Importance of Human Milk for the Preterm Infant:

- Healthier gastrointestinal system (lower incidence of NEC)
- Improved neurodevelopment outcomes
- Higher metabolic protection
- Enhanced protection from infection
- Development of neonatal immune system
- Essential fatty acids enhance GI, retinal neurological development
- Decreased length of stay



Lucas 2015

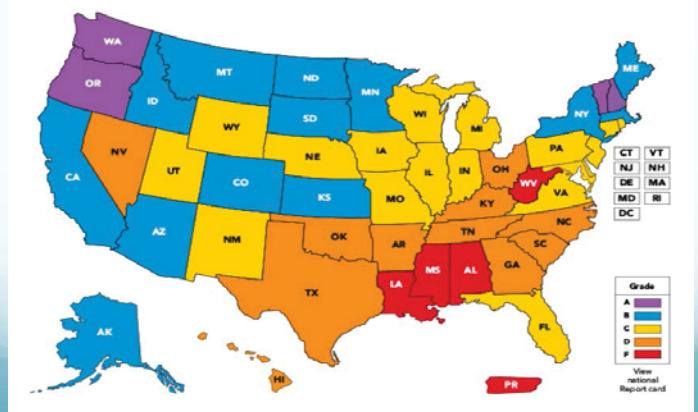
## Scope of the Problem

- More than 380,000 babies are born preterm in the U.S. each year, facing a greater likelihood of death before their first birthday, lifelong disabilities or chronic health conditions.
- Most preterm infants are not able to breastfeed right after birth
- Joint commission's requirement for healthcare professionals to provide age appropriate care across the lifespan.

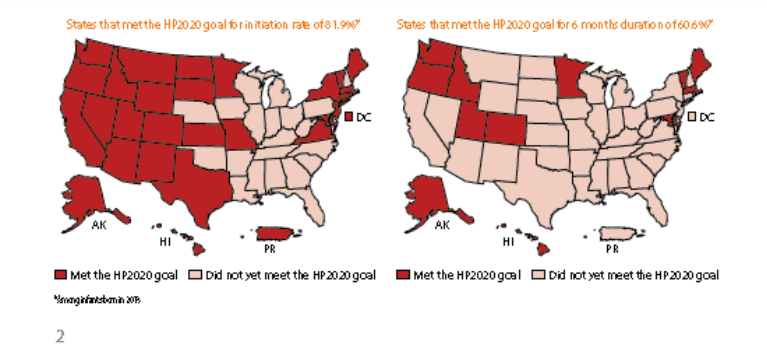
Ragnhild 2014

## March of Dimes 2017 Premature Birth Report Cards

Click on a state to view or download its Report Card.



## Maternity Practices in Infant Nutrition and Care (mPiNC)



## 10 Steps to Promoting Breastfeeding in the Vulnerable Infant

Step 1:	• Informed decision
Step 2:	• Establish & maintain milk supply
Step 3:	• Breast milk management
Step 4:	• Feeding the infant the milk
Step 5:	• Skin-to-skin care (Kangaroo Care)
Step 6:	• Non-nutritive sucking
<b>Step 7:</b>	• Transition to breast
Step 8:	• Measuring milk transfer
Step 9:	• Preparation for discharge
Step 10:	• Appropriate follow-up

Diane Spatz 2004

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Step 10:	• <b>Appropriate follow-up</b>

Diane Spatz 2004

- # *Birth to Breast –*
- ## *A Feeding Care Map for the NICU Helping the ELBW Navigate the Course*
- Phase 1: Kangaroo Care
  - Phase 2: Lick and Sniff
  - Phase 3: Nibble and Swallow
  - Phase 4: Milk Transfer
  - Phase 5: Full Breastfeeding
- Dorothy Dougherty RN IBCLC and Maureen Luther BSc, MA,  
IBCLC

- Phase 1: Kangaroo Care
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## Steps for Breastfeeding in the NICU

- Step 1 - Skin to Skin on Chest
- Step 2- Skin to Skin near Breast
- Step 3- Beginning to learn Breastfeeding Skills
- Step 4 – Early Practice Breastfeeding
- Step 5 – Support Establishing Success

Slivinski RN, BSN, IBCLC, Marjorie Muth RN, BSN, IBCLC, Cynthia Brooks, RN





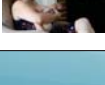
## NICU BreaSteps

Emerging breastfeeding behaviors are supported by age appropriate activities and experiences:

- 1) **Love** - Skin to skin (STS) high on chest
- 2) **Lick** - Skin to skin near breast
- 3) **Latch** - To drained breast
- 4) **Learn** - To full breast, reduce dependency on NG
- 5) **Leave** - Feeding tube out full PO, prep for discharge

## Steps to BreaSteps

Step	Birth to Breast	Steps to BF	BreaSteps
1	STS	STS high	Love
2	Lick/Sniff	STS at breast	Lick
3	Nibble/Swallow	Beginning	Latch
4	Milk Transfer	Practice	Learn
5	Full BF	Success	Leave

BreaSteps	Actions	Rationale	Readiness
1 Love	 <ul style="list-style-type: none"> <li>• Skin to skin (STS) with head high on chest</li> <li>• RN and RT needed for STS transfer if intubated</li> <li>• STS on chest at 45 degree angle</li> <li>• Diaper only. Mom with gown open in front</li> <li>• Mom in recliner w/ legs up. NOT straight chair</li> <li>• Cover exposed infant with baby blanket</li> <li>• Quiet time for mom and baby</li> <li>• Document STS and tolerance in EMR</li> <li>• Oral care with Mothers Milk</li> </ul>	<ul style="list-style-type: none"> <li>• Stress reduction</li> <li>• Stabilizes baby's temp, HR and RR</li> <li>• Promotes bonding</li> <li>• Increases milk supply</li> <li>• Aids healthy microbiota</li> <li>• Supports immune system</li> </ul> <p><b>Risk:</b> exhalation, line migration, hypothermia, overstimulation</p>	<ul style="list-style-type: none"> <li>• Out of humidity</li> <li>• Tolerates position changes</li> <li>• Not on cooling</li> <li>• No Slio</li> <li>• Any gestation age</li> </ul>
2 Lick	 <ul style="list-style-type: none"> <li>• STS with head near breast</li> <li>• Diaper only. Mom with gown open in front</li> <li>• Position baby's nose at mom's nipple</li> <li>• Mom hand expresses drops of milk for baby</li> <li>• Baby smelt, licks, tastes milk drops on lips</li> <li>• Document STS and tolerance</li> <li>• Too soon for nipple shield</li> </ul>	<ul style="list-style-type: none"> <li>• As above</li> <li>• Although not ready for oral feeds, <b>exposes baby to maternal milk</b></li> <li>• Mother practices handling baby</li> </ul> <p><b>Risk:</b> Unrealistic expectations, Frustration or discouraged if infant "not doing anything" Infant may desaturate if not held properly with extension of chin</p>	<ul style="list-style-type: none"> <li>• Above and</li> <li>• Exubated</li> <li>• CPAP OK</li> <li>• Trach OK</li> <li>• 27+ weeks CGA</li> </ul>
3 Latch	 <ul style="list-style-type: none"> <li>• In breastfeeding position</li> <li>• If mom has strong letdown have her pump first</li> <li>• Follow infant cues</li> <li>• MG feed while at breast</li> <li>• Latch on practice as able at drained breast</li> <li>• Practice daily during quiet alert periods</li> <li>• Document feeding attempt in EMR</li> <li>• Nipple shield if infant vigorous at breast</li> <li>• STS holding</li> </ul>	<ul style="list-style-type: none"> <li>• Support emerging feeding skills</li> <li>• Oral feeds initiated</li> <li>• A baby's ability to coordinate suck, swallow, &amp; breathe begins around 32 weeks gestation.</li> <li>• Mother and infant gaining comfort</li> </ul> <p><b>Risk:</b> Unrealistic expectations, Frustration or discouraged if infant re-latching and "not doing it" Desaturation if unable to coordinate suck, swallow, &amp; breathe</p>	<ul style="list-style-type: none"> <li>• Nasal Canula OK</li> <li>• 30+ weeks CGA</li> <li>• Cue Based Feeding</li> </ul>
4 Learn	 <ul style="list-style-type: none"> <li>• Put infant to full breast on cue</li> <li>• Watch for evidence of milk transfer</li> <li>• Listen for swallowing and assess breast softening</li> <li>• Prepost feeding weights as indicated</li> <li>• May need intro of nipple shield to sustain latch</li> <li>• Document feeding quality / tolerance</li> <li>• Introduce paced bottle feeding in side lying or semi upright position</li> <li>• STS holding</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage breastfeeding success</li> <li>• Coordination of suck-swallow-breathe emerging = milk transfer</li> <li>• Suckling rhythms maintained with appropriate rest phases</li> </ul> <p><b>Risk:</b> Unrealistic expectations, Frustration or discouraged if infant sometimes sleepy at breast, sometimes engaged Low maternal milk supply or low milk transfer</p>	<ul style="list-style-type: none"> <li>• 32+ weeks</li> <li>• Reducing dependence on feeding tube</li> </ul>
5 Leave	 <ul style="list-style-type: none"> <li>• Encourage at least 2-3 times daily</li> <li>• Put infant to full breast following hunger cues</li> <li>• Watch for evidence of milk transfer</li> <li>• Bottles as desired/indicated</li> <li>• Mother to room in and feed for 24 hours in same manner as she will feed once home</li> <li>• Prepost feeding weights if indicated</li> <li>• Document feeding quality / tolerance</li> <li>• Evaluate for home visit/follow up</li> <li>• STS holding</li> </ul>	<ul style="list-style-type: none"> <li>• Reaching maturity needed for success</li> <li>• Improvement of endurance and coordination</li> <li>• Self-feeding evident</li> <li>• Preparation for discharge</li> <li>• Support mothers feeding goals</li> </ul> <p><b>Risk:</b> Lack of follow up support for breastfeeding resulting in low milk supply, poor milk transfer, poor weight gain. Mother stopping before she has reached her goals of exclusive breastfeeding.</p>	<ul style="list-style-type: none"> <li>• 35+ weeks</li> <li>• No Feeding tube</li> </ul>



## I was moved to create BreaSteps

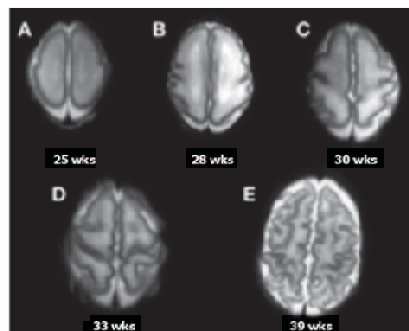
To **CELEBRATE** and **VALIDATE**  
age appropriate breastfeeding behaviors.

Babies and Mom need positive reinforcement and encouragement to try.



## 33- 39 weeks Profound Brain Growth

### Brain Development



Trivette et al  
BMJ, 2006

## I like BreaSteps because...



Jonathan R Swanson MD, MSc  
Chief Quality Officer  
Medical Director - UVA NICU

“It provides a  
**quantitative** and  
**insightful** way to  
evaluate an  
infant’s ability to  
feed at the  
breast.”

## I like BreaSteps because...

“It is infant driven  
based in the infants  
readiness cues and  
thus **fosters**  
**neuroprotection!**”



Lori DeWeese, MA, CCC\_SLP  
Speech Pathologist

We like BreaSteps  
because...



NICU Mom and Dad

“It helps the mom to **relax and be patient**. It shows how mom and baby can learn together, from each other.”

Insert BreaStepsUSLCA  
iMovie Here

Questions? Comments?

LOVE  
BreaStep 1

## STS with head high on chest



## STS with head high on chest



## **Breaststep 1 - Love**

STS with head high on chest

- Physician order
- Educate mother on appropriate touch/hold
- RN and RT needed for STS transfer if intubated
- STS on chest at 45 degree angle
- Diaper only, Mom with gown open in front
- Mom in recliner w/ legs up, NOT straight chair
- Cover exposed infant with baby blanket
- Bonding time for mom and baby
- Limited by tolerance
- Document STS and tolerance

**ACTION  
Steps**

## **Breaststep 1 – Love** Goal: Stress reduction

### **RATIONALE**

- Promotes stability of baby's temperature, HR and RR <sup>(17)</sup>
- Promotes parent-infant bonding <sup>(17)</sup>
- Increases maternal milk supply <sup>(17,18)</sup>
- More STS in NICU = earlier attainment and duration of exclusive BF <sup>(9, 18)</sup>





## Breaststep 1 – Love

### READINESS

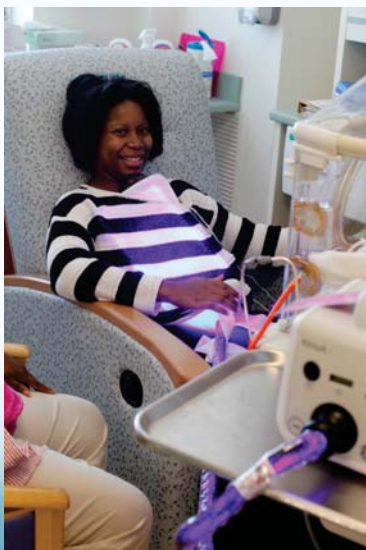
- Out of humidity
- Able to tolerate position changes
- Not on cooling
- No Silo
- Any gestational age



## Breaststep 1 – Love

### RISK

- Unintended extubation
- Line Migration
- Overstimulation
- Hypothermia



Got Hyperbilirubinemia?  
Got Phototherapy?



NO  
Problem!

Don't forget the Dads



Insert LOVE USLCA  
iMovie Here

## Questions?

Skin to skin with siblings is also a great bonding experience.



## How Skin to Skin Benefits the NICU Baby

### ↓ STRESS

Decreases infant **cortisol** reactivity in response to handling, lower salivary cortisol at one month, correlation between mother and infant cortisol at 4 months.

### ↑ CALM

Salivary **oxytocin** levels increased in mothers, fathers and infants during STS. Parents with higher oxytocin levels had more synchrony and responsiveness in their infants reactions.

Morelius 2015, Vittner 2015

## Immediate Benefits of Skin to Skin for the NICU Baby

- Decrease cortisol and stress as well as decreasing reactivity in response to handling.
- Increase Oxytocin
- Stabilized HR, RR and Temperature

## Long Term Benefits for the NICU Baby

Parent holding is related to **better developmental outcomes**, which highlights the importance of engaging families in the NICU.

- Better reflexes
- Better gross motor development at 4 – 5 years old
- Less asymmetry



Pineda 2017

## Parents are the most important caregivers for the infant during the admission to the NICU.

- Decreases fathers experiences of spouse relationship problems.
- Separation between preterm infant and parents is a threat to the attachment and bonding process.
- Singing during STS increases autonomic stability and decreases maternal anxiety.
- Increases parental preparedness for home.



Morelius 2015, Arnon 2014, Aagaard 2015

# LICK

BreaStep 2



## BreaStep 2 - Lick

- Physician order
- Educate mother on appropriate touch/hold
- Diaper only, Mom with gown open in front
- Position baby's nose at mom's nipple
- Mom hand expresses drops of milk for baby
- Baby smells, licks, tastes drops on lips, sleeps
- Cover exposed infant with baby blanket
- Focus on experience – not milk transfer
- Limited by tolerance
- Document in chart

**ACTION  
Steps**

## BreaStep 2 - Lick

First Experience at the Breast

### RATIONALE

- Mother gains confidence with handling baby
- Infant becomes familiar
- Early physical contact strong predictor of breastfeeding initiation<sup>(21)</sup>



## Breaststep 2 - Lick

Goal: Oral exposure to maternal milk

### READINESS

- Extubated
- CPAP OK
- Trach OK
- 27 + weeks CGA



## Breaststep 2 - Lick

### RISK

- Line migration
- Desat if not held properly
- Seen as “doing nothing” with unrealistic expectations
- Too much milk causing sputter



## Supporting mothers to breastfeed

- Mothers who breastfeed at least once a day in the NICU have a better chance of breastfeeding after discharge at 4 months.

**Putting a baby to breast early, before the expectation of milk transfer allows for the natural progression to unfold.**

Briere et al, 2016

Insert LICK USLCA  
iMovie Here

# LATCH

## BreaStep 3

### **BreaStep 3 – Latch (and Linger)**

At drained breast in feeding position

- Physician order
- Educate mother on appropriate touch/hold
- Latch on practice for mom and baby
- Have mom pump first – if baby not po feeding yet
- Hand express drops for baby
- Practice daily during quiet alert times
- Focus on experience- not milk transfer
- Limited by tolerance
- Document in chart

**ACTION  
Steps**



## Breaststep 3 - Latch

### RATIONALE

- **Coordination** of suck, swallow, and breathing begins around 32 weeks
- Mother and infant gain experience



## BreaStep 3 - Latch

Goal: Support emerging breastfeeding skill

### READINESS

- Ability to maintain alertness
- >30 weeks PMA
- Tolerating bolus feeds
- Rooting



## BreaStep 3 - Latch

### Risk:

- Desat from poor positioning or uncoordinated feeding.
- Staff undervaluing benefit of early experiences at breast. "Didn't do anything"



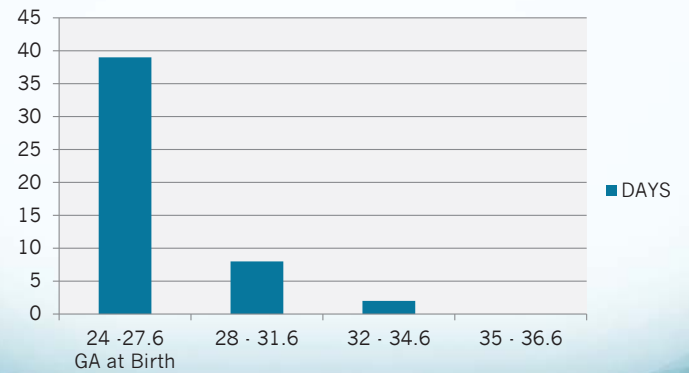
## Emerging breastfeeding behaviors <sup>(17)</sup>

- Begin in utero with sucking and swallowing amniotic fluid (where are the hands?)
- Maintain physiological stability
- Self paced with cues
- Feedings took longer than bottles
- Does not expend energy needed for growth
- PIBBS scoring matches EMG tracing 85% of the time

### At drained breast in feeding position



## Mean GA at Initiation of Breastfeeding



Ragnhild et al 2014

## Ages and Stages

### When exposed to the breast

- Rooting and Sucking – **all ages**
- Efficient rooting, grasp of areolar and latch – **28 weeks**
- Repeated swallowing – **31 weeks**
- Long competent sucking bursts – **32 weeks**
- Fully breastfeeding with good weight gain – **36 weeks**

Lucas, et al 2015

## Points

- **Mother needs practice** as much or more than baby.
- Mother and staff must have **appropriate expectations** for baby based on infant's maturity and ability.
- “He went to breast but he didn’t do anything” How would “anything” be defined? Did mom have a chance to hold and position? Did baby nuzzle and lick milk?
- STS and positioning at breast are valuable experiences for mother and baby.

Guidelines for breastfeeding  
Initiation should be based on  
medical stability and not post  
conceptual age or weight.



Lucas, 2015

Insert LATCH USLCA  
iMovie Here

Should you (try to) wake  
these babies to feed better?



# LEARN

BreaStep 4



## BreaStep 4 - Learn

To mom's full breast

- Physician order
- Educate mother on appropriate touch/hold
- Put infant to full breast on cue
- Watch for evidence of milk transfer
- Listen for swallows/assess milk transfer
- May need introduction of nipple shield at this point for increased milk transfer
- Limited by tolerance
- Document in chart

**ACTION Steps**

## BreaStep 4 - Learn

Encourage breastfeeding success

### RATIONALE

- Coordination of suck/swallow/breathe
- Sucking rhythms maintained with appropriate rest phases



## BreaStep 4 - Learn

### READINESS

- Cue based oral feeding
- Reducing dependence on feeding tube



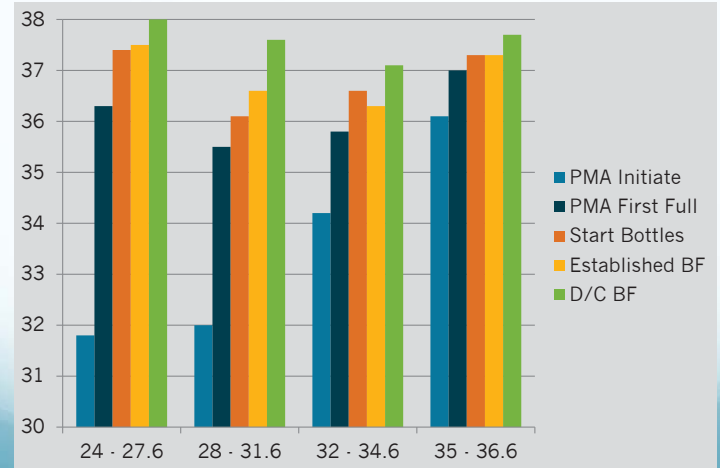
## BreaStep 4 - Learn

### Risk:

- low maternal milk supply
- infant fatigue
- poor milk transfer
- unrealistic expectations – despair



## Milestones at the different PMA



Ragnhild et al, 2014

## Higher PMA at establishment of exclusive breastfeeding may be related to

Slower or altered brain maturation

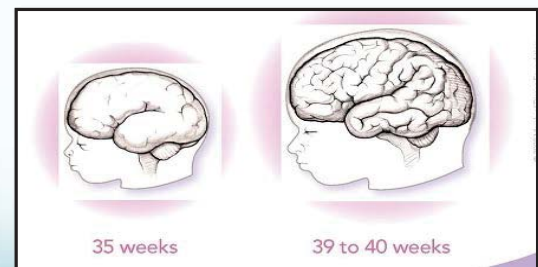
- Acute illness
- Nutrition
- Quality of experience
- Lengthy incubator stays
- Factors not yet understood

Ragnhild 2014



## “Fetal Brain Syndrome”

THE LAST 6 WEEKS OF GESTATION IS A CRITICAL PERIOD OF RAPID GROWTH AND DEVELOPMENT OF THE FETAL BRAIN.



Rev Obstet Gynecol. 2010 Winter; 3(1): 10-19.  
March of Dimes



## Breastfeeding Behaviors

### 35 Weeker

- Poor stamina
- Weak suck
- State Instability
- Low tone
- Brief wakeful periods
- Unreliable for taking in enough calories to grow

### Term Infant

- Reliable cue based feeding
- Good “Sucking Pads”
- Able to generate suction
- Reliable to sustain needs

## Maturity Happens

### 35 weeker



### Term



## State Considerations

- Premature infants may not be able to maintain quiet alert if fatigued by bath, etc.
- Limit activities before oral feeding
- Fatigued infants should not be fed orally



## Make the Most of brief wakeful times



## Factors associated with age at first full oral feed

### Sooner

- Admitting mother to NICU with baby directly after
- Minimizing the use of pacifier during transition to BF
- Continuous STS on a daily basis after incubator care.
- Late Preterm at delivery

### Later

- Extremely preterm at delivery
- SGA
- Multiple Birth
- Mechanical ventilation
- Primip Mother
- Delay in maternal breastmilk expression (>24 hours)

Ragnhild et al, 2014

## Recognize Signs of Stress and Remove Stressors

Motor and sensory neuro pathways are developing. Stress during feeding may promote altered sensory-motor pathways in the brain that guide the infant away from feeding and adversely affect the ability and desire to feed both in the NICU and after discharge.



C. Shaker 2013

## Recognize and Remove



Preterm infants are establishing their learned experiences with feeding, and, therefore, every feeding experience must be as positive as possible.

C. Shaker 2013

## Cue Based Feeding

- Earlier achievement of full oral feeding
- Infant is perceived as having meaningful behavior
- Research has shown that the ability to feed well is closely related to the caregiver's ability to understand and sensitively respond to the infant's physiologic and behavioral communication.

## Nipple Shield

Can be helpful for preterm infants as it probably compensates for a weak intra oral pressure, gives a continuous negative pressure that supports milk transfer and stimulates sucking.



Neo-BFHI Core document, 2015

## Fit the Mom or Fit the Baby?



## Cannot Hold the Breast Without Help

- Nipple Shield is needed
- Nipple Shield to the rescue!



Insert Nipple Shield Movie  
here

## CAUTION! Nipple Shield Ahead

Nipple shields should not be used routinely in the neonatal ward.

They should only be used after the mother has received skilled support in solving the underlying breastfeeding problem, and after the mother's repeated attempts to breastfeed her infant without the shield.

If a nipple shield is introduced, the mother is counseled on how to attempt to discontinue its use.

Neo-BFHI Core document, 2015  
Meier 2000

## Questions?

## Alternate feeding methods

- Cup/spoon
- Syringe at the breast
- Supplemental Nursing System

A comparison between late preterm infants who received supplementation with bottles and infants who were cup fed, showed that the rate of breastfeeding was higher in the cup fed group with no increase in duration of hospital stay.

Neo-BFHI Core document, 2015

## Cup or Spoon Feeding

- Transitional method prior to breastfeeding for late preterm infants during hospitalization
- Increased exclusive breastfeeding at discharge and 3 and 6 months
- Did not increase hospital stay IF cup feeding was started 35 weeks, however younger infants had a lengthier stay of about 10 days <sup>(13)</sup>

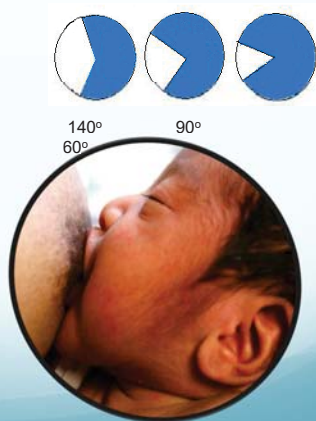
Yilmaz et al; Journal of Human Lactation 2014, Vol. 30(2) 174–179

Insert Spoon feeding iMovie here

Did you notice how the baby  
got better with a little  
practice?

## Good latch

- The chin is touching the breast and the nose is free
- The lips are flanged (rolled out)
- Angle of the lips on the breast greater than  $140^{\circ}$



## Poor latch

- Chin not touching the breast
- Lips rolled in
- Angle of the lips on the breast is less than  $140^{\circ}$
- Shallow
- Maternal pain usually





## You Still With Me?



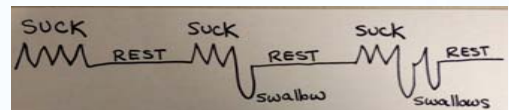
## Breast Compression



## Breast Compression

- Coordinate with infant sucking rhythm
- Increases milk transfer
- Mom can see more swallowing
- Increases fat delivery
- Increases milk supply
- See Jack Newman videos @ [Breastfeedingonline.com](http://Breastfeedingonline.com)

## An easy visual tool for parents



Insert Finger feeding iMovie  
here

Why is syringe feeding at  
the breast better than bottle  
feeding in the early days?

Nurses and families should be  
skillfull with proper bottle-  
feeding technique.



### Paced bottle feeding



An infant who is having  
trouble coordinating  
swallowing and breathing  
may stop sucking, although  
awake and hungry.



C.Shaker 2013

## Signs of stress with feeding

- Change in state of alertness
- Change in cardiorespiratory behavior
- Change in postural control or tone
- Disorganized swallowing and breathing
- Drooling
- Gulping
- Gurgling sounds in the pharynx
- Multiple swallows to clear bolus
- Coughing and/or choking



C.Shaker  
2012

## Breast Before Bottle

Several studies have reported that early breastfeeding is less physiologically stressful than early bottle feeding for premature infants.



Meier et al 2013

Insert Bottles Movie here

Questions?

Motor and sensory neuro pathways are developing. Stress during feeding may promote altered sensory–motor pathways in the brain that guide the infant away from feeding and adversely affect the ability and desire to feed both in the NICU and after discharge.



C. Shaker 2013

## Rooming-In before discharge



## Enhancing Parental Preparedness for Taking Infant Home

- Minimizing separation
- Encourage skin to skin holding
- Encourage hands on care – feeding, vs, bath, diaper changes
- Collaborate roles and responsibilities with nurses and family

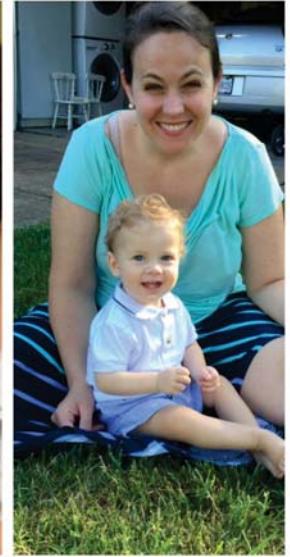


Aagaard H 2015

Insert Learn iMovie Here

# LEAVE

## BreaStep 5



### Breaststep 5 - Leave

Go Baby GO!

- Physician order
- Educate mother on appropriate touch/hold
- Encourage 2 – 3 times daily if appropriate
- Follow hunger cues
- Watch for evidence of milk transfer
- May use nipple shield or SNS at breast
- Limited by tolerance
- Document in chart

**ACTION  
Steps**

### Breaststep 5 - Leave

Reaching maturity needed for success success

#### RATIONALE

- Improvement of endurance and coordination
- Self pacing evident
- Preparation for discharge





## Breaststep 5 - Leave

### READINESS

- No Feeding tube
- Breastfeed WELL for at least 15 minutes 8 or more times per day <sup>(11)</sup>
- May be bottle feeding also



## Breaststep 5 - Leave

### RISK

- Low maternal milk supply
- Maternal exhaustion
- Infant fatigue
- Poor milk transfer
- Poor weight gain
- Unrealistic expectations



## Criteria for Discharge Home

- Full suck feeds for minimum of 48 hours without weight loss
- Off Caffeine
- No Apnea and Bradycardia for at least 5 days



Simmer 2016

## Support Mom

- Use a breastpump to drain breast well until infant can do so
- Separate day for breastfeeding and night for pumping and bottle-feeding instead of "triple feeding" each feed
- Use of nipple shield as needed
- Test weights in home if needed
- Close and frequent follow up
- Community support –  
Peer to Peer is best



Briere, 2015

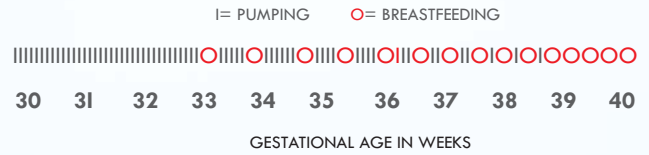
## Test Weights

- Weigh the infant before and after a breastfeeding
- Estimate the volume of intake, 1 gm = 1 cc
- Reliable, accurate, and reassuring to mothers
- Test weights can be used to validate clinical indicators of milk transfer.



Spatz 2004

## Pumping and Breastfeeding



Mom Must WEAN GRADUALLY FROM PUMPING

Failure to use a breastpump on a regular basis while feeds at breast are advanced results in milk stasis with resultant low milk volume.

Meier et al 2013

Insert Leave iMovie here

NICU care providers can make all the difference.



Breastfeeding promotion should include every NICU nurse and incorporate both evidence-based



And affective components to overcome day-to-day feeding practice challenges.

Cricco-Lizza 2016

## Final Thoughts?



## Questions?

### Objectives

- ☐ Describe the benefit of skin-to-skin holding as it relates to the NICU baby.

### Objectives

- ☐ Describe the benefit of skin-to-skin holding as it relates to the NICU baby.
- Decrease cortisol and stress as well as decreasing reactivity in response to handling.
- Increase Oxytocin
- Stabilized HR, RR and Temperature
- Better reflexes
- Better gross motor development at 4 – 5 years old
- Less asymmetry

## Objectives

- Compare feeding behaviors of a 35 weeker with those of a term infant.

## Compare feeding behaviors of a 35 weeker with those of a term infant

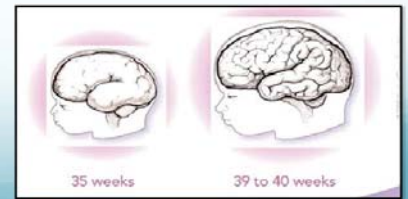
### Breastfeeding Behaviors

#### 35 Weeker

- Poor stamina
- Weak suck
- State Instability
- Low tone
- Brief wakeful periods
- Unreliable for taking in enough calories to grow

#### Term Infant

- Reliable cue based feeding
- Good “Sucking Pads”
- Able to generate suction
- Reliable to sustain needs



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**

**LOVE**



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**

**LOVE**

**LICK**



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**

**LOVE**

**LICK**

**LATCH**



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**

**LOVE**

**LICK**

**LATCH**

**LEARN**



**UVA Children's Hospital**



**Can You Name the 5 Breaststeps?**

**LOVE**

**LICK**

**LATCH**

**LEARN**

**LEAVE**





**Can You Name the 5 Breaststeps?**

**LOVE**

**LICK**

**LATCH**

**LEARN**

**LEAVE**



**Meaning In Milk video here please**

## Meaning in Milk

Mothers who have faith in the healing properties of their milk use this as a motivating factor for sustaining lactation while coping with the stress and anxiety inherent during the infants NICU hospitalization



Rossman B, 2013

**Every NICU should aim to discharge infants on mothers milk.**



What is **one practice change** you can make **tomorrow** to **help mom** reach her **goal of** establishing **breastfeeding** in your **NICU?**



## Resources

- UVA Breastfeeding Medicine Program (434) 982-3316
- S.P.I.N Program
- AAP
- CPQCC [www.cpqcc.org](http://www.cpqcc.org)
- Breastfeeding Online [www.breastfeedingonline.com](http://www.breastfeedingonline.com)
- Kelly Mom [kellymom.com](http://kellymom.com)
- Academy of Breastfeeding Medicine
- Global Health Media Project
- Childbirth Graphics, Ltd.: [www.childbirthgraphics.com](http://www.childbirthgraphics.com)
- Geddes Productions: [www.geddesproductions.com](http://www.geddesproductions.com)
- Growing with Baby: [www.growingwithbaby.org](http://www.growingwithbaby.org)
- Pharmasoft Publishing LP: [www.iBreastfeeding.com](http://www.iBreastfeeding.com)

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#### Attendance Certificate

To receive your certificate, follow the link  
<https://uslca.wufoo.com/forms/breaststeps/>  
and complete the evaluation.

The link can also be found in the chat box  
(located in the bottom left of the screen) and  
follow-up email.



Thank You!

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