

# Assessment of the Breastfeeding Dyad

Presented by

Elizabeth Myler, BSN, RN, IBCLC  
USLCA Webinar  
September 27th, 2013



## Disclosure

- I am the co-owner of **Mahala Lactation and Perinatal Services LLC**
- Consent was given to share clients' clinical photos in our on screen presentations
- I have no other disclosures

2

1. **ASSESS** lactation and breastfeeding
2. **IDENTIFY** findings that can affect lactation and breastfeeding
3. **DESCRIBE** those findings (your assessment) in a systematic and consistent format (SOAP)

## Our Objectives



3 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Art and Science

- ❖ Breastfeeding as normal feeding and experience
- ❖ Consultations *also* require critical thinking skills in the **biology, physiology and pathology** of lactation to help real life mothers and babies...



“Rubber meets the Road”

4 of 135

## NAMASTE

“The *life* in me, sees and honors the *life* in you”

Before we break the woman and infant and their stories into clinical parts and data points...  
We can acknowledge their wholeness and the principle of mutual respect and our mutual work together

5 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

*How do you determine the problems and assist the dyad?*

- ❖ Use a **systematic and cyclical method of ASSESSMENT**  
To create a personalized **PLAN of CARE**

- ❖ **SUBJECTIVE**
  - Reported History
- ❖ **OBJECTIVE**
  - Observable Data
- ❖ **ASSESSMENT**
  - Analysis of Findings
- ❖ **PLAN**
  - An oral or written plan of action
  - Plan for follow-up communication

7 of 135 Copyright © Elizabeth Myler, BSN, RN, IBCLC

**Take a Thorough \*History\***  
to consider factors that could affect lactation and breastfeeding

8 of 135 Copyright © Elizabeth Myler, BSN, RN, IBCLC

**START WITH \*HER\* STORY**

“In times of stress, the best thing we can do...is to listen with our ears and our hearts and to be assured that our *questions* are just as important as our *answers*.”

[Fred Rogers, The World According to Mister Rogers: Important Things to Remember](#)

“There’s not anyone you can’t learn to love once you’ve heard their story.” ~Quote found in Mr. Roger’s wallet

Photo courtesy of: fredrogerscenter.org  
Copyright © Elizabeth Myler, BSN, RN, IBCLC

9 of 135

**Maternal History**

- ❖ Age
- ❖ Hormonal problems (Thyroid, PCOS, DM, GOTLC)
- ❖ Infertility
- ❖ Anemia (severe)
- ❖ Hypertension
- ❖ Obesity
- ❖ Edema
- ❖ Medications (herbal or prescription)

10 of 135 Copyright © Elizabeth Myler, BSN, RN, IBCLC

**Maternal History**

- ❖ Previous surgery or injury
  - Breast, nipple, chest at any time of life.
  - Bariatric surgery
  - Spinal cord injury
  - Injury to chest wall

11 of 135 Copyright © Elizabeth Myler, BSN, RN, IBCLC

**Maternal History**

- ❖ Delivery Complications
  - Cesarean
  - Postpartum hemorrhage
  - Retained placenta

12 of 135 Copyright © Elizabeth Myler, BSN, RN, IBCLC

The Birth Story:  
Put down your pen  
and just listen...

13 of 135

Copyright ©2013 by Beth Myler, BSN, RN, IBCLC

*“Having reverence and an appreciation that every birth and birth story is monumental for new mothers and fathers could minimize the feelings of overwhelm, sadness, fear, or emptiness that many new parents experience.”*

Quote from Birthing Now website:  
[birthingnow.com/birthstorylistening.html](http://birthingnow.com/birthstorylistening.html)

14 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Maternal History

### ❖ Prior Lactation History

- Problems?
- What feels the same/different now?



15 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Maternal History

### ❖ Breasts

- Changes in this pregnancy?

- Enlargement
- Areolar Darkening
- Leaking
- Tenderness



16 of 135

Copyright 2013 Beth Myler, BSN, RN, IBCLC

## Maternal History

### ❖ Breasts

- Changes during the milk coming in (Lactogenesis II)?
- Fullness
- Veining

17 of 135

Copyright©2013 Beth Myler, BSN, RN, IBCLC

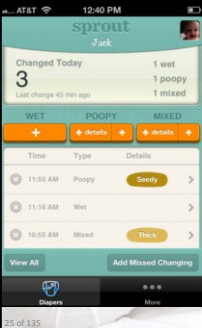
## Take a Thorough Infant History

19 of 135

Copyright 2013 Beth Myler, BSN, RN, IBCLC




## Diaper Tracking Apps



❖ Diaper Tracker

❖ Sprout



Copyright © 2013 Beth Myler, BSN, RN, BCCLC

## Birth – 4 Weeks

(WHO Child Growth Standards, 2006)

- ❖ Fewer than 3-4 yellow, curdy stools per day  
*(after Day 4 until Week 4)* (Mohrbacher, 2010)

→ **MAJOR RED FLAG, baby may be in trouble**

26 of 135 Copyright © 2013 By Beth Myler, BSN, RN, BCCLC

## NEIFERT'S RULE of FOURS

- ✓ 4 yellow seedy stools
- ✓ By the 4th day
- ✓ For the first 4 weeks

27 of 135 Copyright © 2013 by Beth Myler, BSN, RN, BCCLC

## NEIFERT'S RULE of FOURS

BUT

Diaper output is unreliable for assessing milk intake  
after 6 weeks of age (Mohrbacher, 2010)

28 of 135 Copyright © 2013 by Beth Myler, BSN, RN, BCCLC

# S

# O

# A

# P

BJECTIVE: WEIGHT

SSESSMENT

LAN

29 of 135 Copyright © 2013 by Beth Myler, BSN, RN, BCCLC

## Examine Weight Data

## Baseline Weight



- ❖ Mom should obtain baseline weight at doctor's office as soon as possible after birth
- ❖ Compare future weights to baseline weight rather than to birth weight taken on hospital scale

31 of 135 Copyright © 2013 by Beth Myler, BSN, RN, BCCLC

## Obtain a Reliable Weight Measurement

### ❖ Naked

- The weight of clothes can vary from measurement to measurement, skewing results
- Diaper can be worn, but weight of diaper should be subtracted from the total weight

## Obtain a Reliable Weight Measurement

### ❖ Hungry

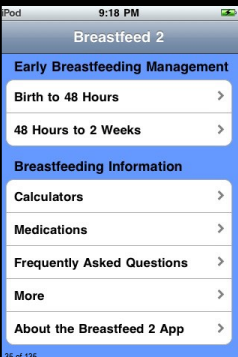
- The weight of milk in the baby's stomach can vary and skew results

## Obtain a Reliable Weight Measurement

### ❖ On same scale

- **All scales are calibrated differently** (Meier, 1994)
- **Weighing on same scale avoids calibration issues**

## Calculate Weight Loss and Gain



- ❖ MASSACHUSETTS BF COALITION
  - Weight loss calculator
- ❖ USE WEIGHT AT 24h
  - To compensate for labor fluid load (Noel-Weiss et al, 2011)

35 of 135 Copyright © 2013 by Beth Myler, BSN, RN, BCCLC

## Calculate Weight Loss

- ❖ Normal maximal weight loss is 5.5-6.6% of birth weight and occurs between Day 2-3 due to physiologic diuresis (ABM Clinical Protocol #3, 2009)

→ **GREEN FLAG, most likely no problem**

36 of 135

## Calculate Weight Loss

- ❖ Weight loss of > 7% by Day 3 (Gartner, 2005)

→ **YELLOW FLAG**, needs breastfeeding assistance, may indicate difficulty

37 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

## Birth – 4 Weeks

(WHO Child Growth Standards, 2006)

- ❖ After first four days when milk comes in (Lactogenesis II), failure to gain at least 25 gm (0.88 oz.) per day (Mohrbacher, 2010)

→ **YELLOW FLAG**, needs breastfeeding assistance, may indicate difficulty

38 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

## Birth – 4 Weeks

(WHO Child Growth Standards, 2006)

- ❖ Failure to regain birth weight by Day 10 (95 % of breastfed babies will regain by Day 8.3) (ABM Clinical Protocol #3, 2009)

→ **MAJOR RED FLAG**, baby may be in trouble

39 of 135

Copyright © 2013 Beth Meyer, BSN, RN, BCCLC

## Birth – 4 Weeks

(WHO Child Growth Standards, 2006)

- ❖ Failure to regain birth weight by Day 21 (97.5%) (ABM Protocol #3, 2009)

→ **URGENT RED FLAG**, baby may be in trouble

40 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

**S**UBJECTIVE  
**O**BJECTIVE: EXAM  
**A**SSESSMENT  
**P**LAN

41 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

Before You Touch the Mother and Baby:

Wash Your Hands

- ❖ Hand hygiene is first line of defense against disease transmission
- ❖ Proper hand hygiene is proven to:
  - Prevent outbreaks in healthcare facilities
  - Reduce transmission of antimicrobial resistant organisms
  - Reduce overall infection rates

US Centers for Disease Control and Prevention

43 of 135

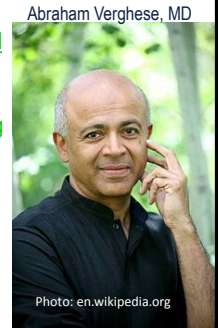
Copyright © 2013 Beth Meyer, BSN, RN, BCCLC

## Maternal Exam

- ❖ The exam is a valuable way of setting your priorities for care in complicated cases

## Maternal Exam

- ❖ Recognizing the importance of the bedside evaluation as a healing ritual and a powerful diagnostic tool ...could be a stimulus for the recovery of an ebbing skill set among *clinicians*  
Vergheze A, Brady E, Kapur CC 2011
- ❖ Studies suggest that the *context, locale, and quality* of the bedside exam are associated with neurobiological changes in the client (mother/baby)



44 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Maternal Exam

### ❖ Physical Examination of Breasts

- Look for scars
- Note any anatomic breast or nipple variations
- Assess for edema
- Palpate glandular tissue
- Rule out hypoplasia (*Huggins, 2000*)

## Maternal Exam

- ❖ Technique is important
  - Ask permission
  - Be gentle
  - Use Palpation

A technique used in physical examination in which the examiner uses gentle pressure to feel the texture, size, consistency, and location of certain body parts with the hands -Mosby Med Dic 8<sup>th</sup> Ed 2009

## Assess for Pedal Edema

- ❖ Usually follows high IV fluid and/or pitocin administration  
(Powers 1997)
- ❖ **Staging (1+ to 4+)**
  - ❖ 1+: slight pitting/2 mm, disappears rapidly,
  - 2+: deeper pit/4 mm, disappears in 10-15 sec
  - 3+: deep pit/6 mm, may last > 1 minute
  - 4+: very deep pit/8 mm, lasts 2-5 min, extremity grossly distorted

Photo credit: Wikidocs.org

48 of 135

Copyright ©2013 by Beth Myler, BSN, RN, IBCLC

## Assess for Engorgement

- ❖ Severe breast edema can inhibit and diminish secretory activation or lactogenesis II (Powers 1997)
- ❖ Taut breast tissue flattens areola; makes deep latching problematic
  - Reverse Pressure Softening and lymphatic drainage can help (Cotterman, 2008)

Photo courtesy of Mahala Lactation and Perinatal Services LLC

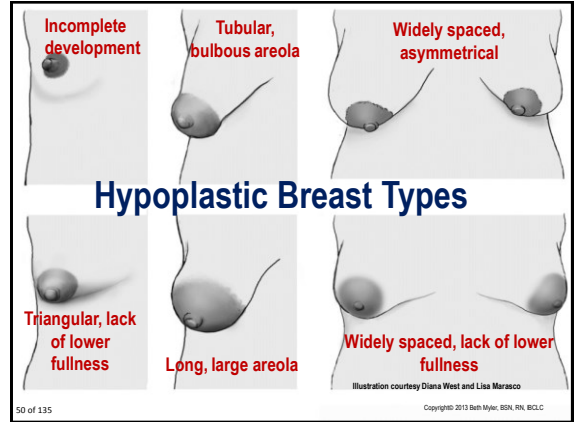
48 of 135

Copyright ©2013 Beth Myler, BSN, RN, IBCLC



# Palpate Glandular Density

49 of 135



50 of 135

# Mammary Hypoplasia

## Record Findings on Your Charting Forms

The image shows two examples of the 'Mammary' Lactation Assessment charting form. Each form includes sections for 'Mammary' and 'Mammary' with various assessment criteria and checkboxes. The forms are titled 'Mammary' and 'Mammary'.

53 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

# Assess Spacing

## Next: Assess the Baby

The image shows a blank charting form for 'Baby' assessment. The form is titled 'Baby' and includes various assessment criteria and checkboxes. The form is titled 'Baby'.

54 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCCLC

## Affect

Does baby wake  
on own to feed?

- Sleepy
- Alert
- Serene
- Fussy
- Crying

55 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCLC

## Muscle Tone

➤ Floppy  
(Hypertonia)

Copyright © 2013 by Beth Meyer, BSN, RN, BCLC

## Muscle Tone

➤ Tight  
(Hypertonia)

Photo courtesy of Mahala  
Lactation and Perinatal  
Services LLC

57 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCLC

## Skin and Hydration

- ❖ Skin flaky or dry
- ❖ Low skin turgor — tenting

58 of 135

Copyright © 2013 by Beth Meyer, BSN, RN, BCLC

## Any Anatomical Abnormalities?

- ❖ Facial asymmetry
- ❖ Cranial asymmetry
- ❖ Torticollis
  - Head tilt
  - Turn only to one side

Photos courtesy of whichdisease.com

59 of 135

Copyright © 2013 Beth Meyer, BSN, RN, BCLC

## Any Anatomical Abnormalities?

- ❖ Recessed chin
  - ❖ Low-set ears
  - ❖ Para-nasal bulge
  - ❖ Gull wing sign
- Associated with many genetic disorders*
- Associated with submucosal cleft*

Photo courtesy of Mahala Lactation and  
Perinatal Services LLC

## Any Anatomical Abnormalities?

- ❖ Hematoma
- ❖ Vacuum hematoma
- ❖ Forceps bruise

61 of 135

## Body Fat

- ❖ Does baby have some energy reserves?
  - Low
  - Moderate
  - High

62 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Chest

- Labored breathing (>60 breaths/minute)
- Sternal retractions
- Stridor
- Heart rate (>150 beats per minute)
- Cyanosis
- Hypotonia

Photo courtesy of Mahala Lactation and Perinatal Services LLC

63 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Abdomen

- Watch abdominal respirations
  - Shape
    - Cylindrical and soft
    - Swollen and firm

64 of 135

## Infant Oral Assessment AKA Digital Suck Exam

DIGITAL SUCK EXAM			
Buccal pads: <input type="checkbox"/> yes <input type="checkbox"/> no	Facial tone: <input type="checkbox"/> normal <input type="checkbox"/> low		
LIPS: Blister: <input type="checkbox"/> none <input type="checkbox"/> upper <input type="checkbox"/> lower <input type="checkbox"/> top center	Strength: <input type="checkbox"/> normal <input type="checkbox"/> strong <input type="checkbox"/> weak		
Tongue: <input type="checkbox"/> norm <input type="checkbox"/> thin <input type="checkbox"/> thick <input type="checkbox"/> long <input type="checkbox"/> short <input type="checkbox"/> bunched <input type="checkbox"/> notched	Extend past gum: <input type="checkbox"/> yes <input type="checkbox"/> no	Gape: <input type="checkbox"/> easy <input type="checkbox"/> reluctant	
Palate: <input type="checkbox"/> norm <input type="checkbox"/> flat <input type="checkbox"/> mod high <input type="checkbox"/> very high <input type="checkbox"/> forward slope <input type="checkbox"/> bubble	Suck: <input type="checkbox"/> normal <input type="checkbox"/> strong <input type="checkbox"/> weak <input type="checkbox"/> absent <input type="checkbox"/> could not elicit		
Motion: <input type="checkbox"/> norm <input type="checkbox"/> reverse peristaltic (back to front)	<input type="checkbox"/> retract <input type="checkbox"/> thrust <input type="checkbox"/> piston <input type="checkbox"/> disorganized		
Lift: <input type="checkbox"/> norm <input type="checkbox"/> restricted	Cupping: <input type="checkbox"/> yes <input type="checkbox"/> no		
Tongue center divot: <input type="checkbox"/> no <input type="checkbox"/> yes	Gag reflex: <input type="checkbox"/> norm <input type="checkbox"/> sensitive		
FRENULUM			
LINGUAL visible: <input type="checkbox"/> no <input type="checkbox"/> yes	Lingual presentation:		
Type: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 2.5 <input type="checkbox"/> 3 <input type="checkbox"/> 4	<input type="checkbox"/> thin <input type="checkbox"/> thick <input type="checkbox"/> fibrous		
LABIAL: <input type="checkbox"/> thin <input type="checkbox"/> thick <input type="checkbox"/> Attach/are:	<input type="checkbox"/> long/stretchy <input type="checkbox"/> short/tight		
<input type="checkbox"/> gum top <input type="checkbox"/> mid-gum <input type="checkbox"/> gum base	<input type="checkbox"/> piano wire <input type="checkbox"/> submucosal		

65 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Gather Your Infant Oral Assessment Tools

- ❖ Gloves
- ❖ Pen Light
- ❖ Grooved Director?
- ❖ Tongue Depressor?
- ❖ Syringe and tube with milk
  - 10cc syringe + #5 French



Photo courtesy Lena Bredtkina

Photo courtesy Catherine Watson Gerns

66 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Buccal Pads Same baby!

- ❖ Fat pad in cheek
- ❖ Stabilizes baby's face against breast
- ❖ Increases with weight gain

Photos courtesy Mahala Lactation and Perinatal Services LLC

68 of 135

Copyright © 2013 by Beth Myer, BSN, RN, BCCLC

## Look at the Lips

Sucking blister from lip friction from holding onto breast because tongue cannot

Photo courtesy of Mahala Lactation and Perinatal Services

## Older Babies: Look at the Tongue and Cheeks

- ❖ Any white coating?
  - Did baby just feed?
  - Does baby always have it?
- ❖ Can the coating be easily wiped off with a cloth or does it stick?
  - If YES: normal milk tongue
  - If NO (and bloody underneath): candida infection

70 of 135

Copyright © 2013 Beth Myer, BSN, RN, BCCLC

## Assess Baby's Oral Anatomy and Function

Tap on lips to ask permission

Look at:

Gape

Tongue thickness

Tongue extension

SMILE and INTERACT with BABY

76 of 135

Copyright © 2013 Beth Myer, BSN, RN, BCCLC

## Lip Strength

Try tugging gently but firmly on the chin

Can he maintain the latch?

Is suction broken?

Photo courtesy of Mahala Lactation and Perinatal Services LLC

## Feel the Palate

- Higher than finger pad?
- Forward sloping?
- Bubble?
- Prominent midline raphe (ridge)?
- Sensitive gag reflex?

Photo courtesy of Mahala Lactation and Perinatal Services LLC

## Palate Variations

### What is our Reference for "Normal?"

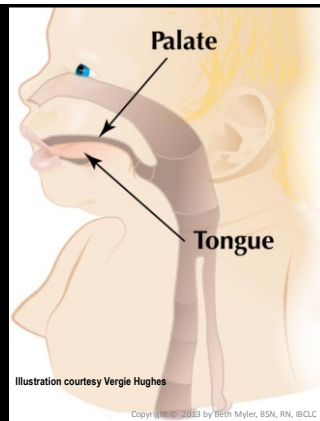
A "normal" infant palate is:

- ❖ Smooth
- ❖ Sloping
  - Front to back slope about 0.25 in (0.5 cm)
- ❖ 1.5 in (3.75 cm)
  - Your finger will reach to juncture of the hard/soft palate
- ❖ Low
  - Length of your finger will remain in contact with palate

75 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Normal Infant Palate



76 of 135

## Palate Variation

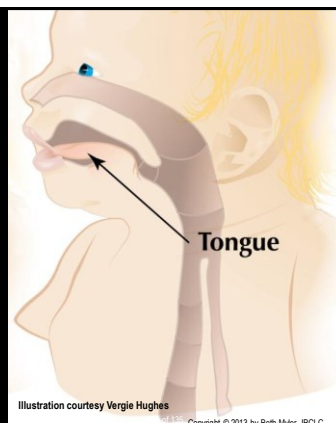
### What is "Abnormal?"

- ❖ Bubble
  - A gap, or *bubble*, is felt above your finger
  - May be shallow, deep, round or oval
    - Anterior
    - Posterior

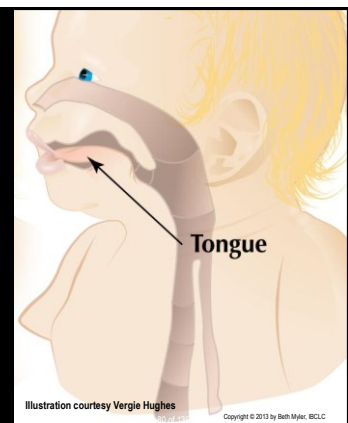
77 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Anterior Bubble Palate



## Posterior Bubble Palate



## Palate Variation

### What is "Abnormal?"

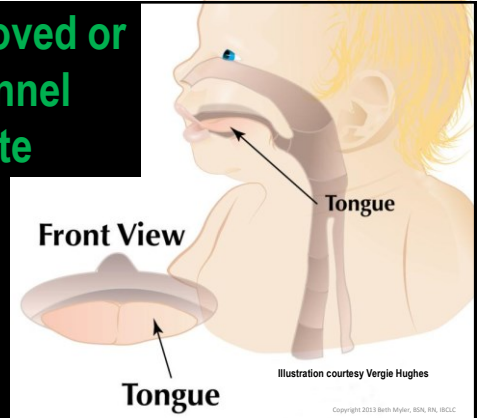
#### ❖ Grooved / Channel

- You feel the groove of the suture at midline
- Baby may have trouble maintaining suction

82 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Grooved or Channel Palate



82 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Palate Variation

### What is "Abnormal?"

#### ❖ High, Arched

- Decreases in suction
- Sensitive gag reflex
  - Baby not used to anything touching the roof of their mouth, including mom's nipple

84 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Cleft Palate and Lip

Photo courtesy of Mahala Lactation and Perinatal Services LLC

86 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Palate Variation

### What is "Abnormal?"

#### ❖ Cleft (*palatoschisis*)

- Fissure or opening in the hard/soft palate and often lip
- Unilateral or bilateral
- Usually prevents adequate suction
- Requires repair
- Most common birth defect (lip + palate)
  - Incidence 1:700

87 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Elicit Sucking Reflex

❖ Let baby suck for a minute and feel the tongue movement

❖ Talk to the baby while you do this

Photo courtesy of Mahala Lactation and Perinatal Services LLC

88 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Elicit Sucking Reflex

❖ *If baby doesn't begin sucking:*

- Gently rub juncture of hard and soft palate to elicit suck reflex

Photos courtesy of Mahala Lactation and Perinatal Services LLC

89 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Elicit Sucking Reflex

❖ In some cases, you might use syringe and tube to assess suck with milk flow

Photos courtesy of Lena Bredkhina

90 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Suck Strength

How strong is baby's suck?

91 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Tongue Movement

Photo courtesy Mahala Lactation and Perinatal Services LLC

- ❖ Peristaltic (front to back)? 🖐
- Retraction? 🖐
- Posterior piston (up and down) motion? 🖐

92 of 135

## Tongue Movement

❖ Lateralize (twist tongue)? 🖐

93 of 135

## Tongue Movement

❖ Extend easily beyond gum line or lips? 🖐

94 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Tongue Movement

- ❖ Uncomfortable? 🐼
- Fatiguing? 🐼
- Tongue tremors? 🐼

96 of 135

## If tongue motion is restricted it can't:

Photo courtesy Mahala Lactation and Perinatal Services LLC

- **Extend**
  - Helps grasp and stabilize breast
- **Cup**
  - Sides can't stabilize breast in mouth
- **Lift**
  - Lift enables drop to create vacuum
- **Groove**
  - A groove isn't formed to channel milk to throat
- **Move**
  - Normal wave-like (peristaltic) motion is inhibited

96 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

When baby cries,  
the middle of the tongue should lift to  
middle of mouth

Photo courtesy Mahala Lactation and Perinatal Services LLC

97 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## Assess the Lingual Frenulum

Photo courtesy Mahala Lactation and Perinatal Services LLC

98 of 135

## "Murphy Maneuver" to identify tongue-tie (Dr. James Murphy)

Photo courtesy Mahala Lactation and Perinatal Services LLC

- ❖ Press your little finger at side of tongue base and sweep across
- No resistance more than a small "speed bump"
- **GREEN FLAG, most likely no problem**

99 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## "Murphy Maneuver" to identify tongue-tie (Dr. James Murphy)

Photo courtesy Mahala Lactation and Perinatal Services LLC

- ❖ Press your little finger at side of tongue base and sweep across
- Large speed bump you can push through with a little effort
- **YELLOW FLAG FOR POSSIBLE TONGUE RESTRICTION (ANKYLOGLOSSIA)**

100 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC



**“Murphy Maneuver”**  
to identify tongue-tie (Dr. James Murphy)

Photo courtesy Mahala Lactation and Perinatal Services LLC

- ❖ Press your little finger at side of tongue base and sweep across
- Unable to sweep finger across without pulling back to “jump over the fence”
- **MAJOR RED FLAG FOR TONGUE RESTRICTION (ANKYLOGLOSSIA)**

101 of 135 Copyright © 2013 by Beth Meyer, BSN, RN, IBCLC

### The Kotlow Maneuver

- ❖ Baby lying on back
  - On lap
  - On bed
  - On floor
  - On changing table (right after diaper change)
- ❖ Tissue falls back with gravity to reveal frenulum

### Assess Frenulum Attachment

Photo courtesy Dr. James Murphy

*May even be hidden behind mucosal layer*

*May be a small notch when tongue extends*

Frenulum holds it back

### Coryllos-Genna Classification System of Tongue-Tie Types

Classification is **ONLY** a general approximation

TYPE I	TYPE II	TYPE III	TYPE IV
<b>Anterior</b>		<b>Posterior</b>	

105 of 135 Copyright © 2012 by Dana West, IBCLC

### Type 3 — Posterior

- pulls at floor of mouth
- restricts tongue elevation
- Exhibits characteristic “divot” in center of tongue

109 of 135 Copyright © 2013 by Beth Meyer, BSN, RN, IBCLC

Frenulum pulls down center of tongue

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

Type 3 — Posterior

“Piano Wire”  
Pushing your finger into it often causes:  
tongue tip to tilt downward  
tongue center to pull down and crease along middle

Photo courtesy Dr. James Murphy  
Copyright © 2013 by Beth Myler, BSN, RN, IBCLC  
111 of 135

Type 4 — Posterior

Behind mucosal layer

Photo courtesy Dr. James Murphy  
Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

Assess Frenulum Length

➤ Frenulum may be

SHORT (Tight)	or	LONG (Stretchy)
------------------	----	--------------------

Copyright © 2013 by Beth Myler, IBCLC  
Copyright © 2012 by Maeva West, IBCLC

Feel the Palate  
Assess the Labial Frenulum

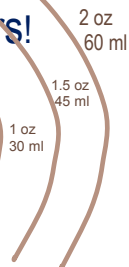
Tongue retract?  
Tongue curl on the sides?  
Lips tighten?  
Palate feel higher than finger pad?

Photo courtesy Mahala Lactation and Perinatal Services LLC  
Copyright © 2013 by Beth Myler, IBCLC  
114 of 135

Assess the Feeding

Photo courtesy Mahala Lactation and Perinatal Services LLC  
Copyright © 2013 by Beth Myler, IBCLC

## Breasts Don't Have Volume Markers!



116 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Test Weights

- ❖ A reliable way to measure how much milk transfers from the mother if scale is accurate to 2 grams
- Research validates reliability (Meier, 1994)
- Research proves INvalidity of observation (Meier, 1996)

## Watch the Feeding

### ❖ *How is he sucking?*

- Does he latch easily?
- Does he stay attached?
- What is the suck/swallow ratio?
- Any clicking, dimples, lip blisters?

Photo courtesy Mahala Lactation and Perinatal Services LLC

118 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Watch the Feeding

### ❖ *How is he breathing?*

- Is it slow and steady or labored with stridor

Photo courtesy Mahala Lactation and Perinatal Services LLC

119 of 135

Copyright © 2013 by Beth Myler, IBCLC

## Watch the Feeding

### ❖ *How is his stamina?*

- Does he stay awake long enough to get a full feeding?

Photo courtesy Mahala Lactation and Perinatal Services LLC

120 of 135

Copyright © 2013 by Beth Myler, IBCLC

## What is Baby's Body Language Saying?

### ❖ *Hands*

- Are they relaxed?
  - Tight, clenched = Hunger

Photo courtesy Mahala Lactation and Perinatal Services LLC

121 of 135

Copyright © 2013 by Beth Myler, IBCLC

# What is Baby's Body Language Saying?

## ❖ Eyes

- Are they open?
- Open during feeding = milk actively flowing

Photo courtesy Mahala Lactation and Perinatal Services LLC

Copyright © 2013 by Beth Myler, IBCLC  
122 of 135

# What is Baby's Body Language Saying?

## ❖ Forehead

- Is it relaxed?
- Scrunched = frustration/stress

Copyright © 2013 by Beth Myler, IBCLC  
123 of 135

# Consider His Behavior

- Unusually frustrated?
- Apathetic / lethargic / shutting down?
- Falling asleep quickly or tiring out before filling up?
- TRY A BREAST COMPRESSION
- Increases milk fat and milk transfer

Photo courtesy Mahala Lactation and Perinatal Services LLC

Copyright © 2013 by Beth Myler, IBCLC  
124 of 135

# Consider His Behavior

- ❖ Frequent pulling away?
- ❖ Gags, chokes, sputters as if drowning or suffocating?
- Oversupply?
- Overactive milk ejection?
- Difficulty coordinating suck / swallow / breathe?

Photo courtesy Mahala Lactation and Perinatal Services LLC

Copyright © 2013 by Beth Myler, IBCLC  
125 of 135

# Record Findings on Your Charting Forms

126 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

# However....

- ❖ **NO** need to verbalize everything we see (findings)
  - Can scare parents
  - Might not be correct

127 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

# SUBJECTIVE OBJECTIVE ASSESSMENT PLAN

128 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## IBCLCs are not responsible for diagnosing

- ❖ We collect data (clues)
- ❖ We compare the clues against possible causes to make a *differential diagnosis* of the likely causes of dyad's difficulty

- ❖ We create a **CARE PLAN** →

129 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Elements of a Treatment or Care Plan

- ❖ When to feed
- ❖ Supplementing
- ❖ Breastfeeding
- ❖ Pumping / hand expression
- ❖ Galactagogues
- ❖ Breast and nipple care
- ❖ Baby care
- ❖ Mother's care

130 of 135

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

Copyright © 2012 by Diana West, IBCLC

## CYCLICAL EVALUATION

- *If treatment is unsuccessful, you \*cycle back\* to reevaluate your initial assessment and plan*
- REMEMBER...
- A systematic and cyclical method can lead to a more personalized plan of care

131 of 135

Copyright © 2013 by Beth Myler, BSN, RN, IBCLC

## IBCLCs are not responsible for diagnosing

- ❖ We make referrals
- ❖ We share findings with the dyad's providers
  - SOAP format?
  - Characterize, not classify
    - *Most doctors unfamiliar with tongue tie types*
  - Describe anatomy and function or capability

132 of 135

Finally, Determine  
How Follow-Up  
Communication  
Will Happen

133 of 135

# Questions? Thoughts? Comments?

## NAMASTE

Beth Myler, BSN, RN, IBCLC  
beth@mahalamom.com

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

## Bibliography

- Allen, J., Keller, R., Archer, P., et al. Studies in human lactation: milk composition and daily secretion rates of macronutrients in the first year of lactation. *Am J Clin Nutr* 1993; 54(1):69-80.
- Benson, S. What is normal? A study of normal breastfeeding dyads during the first sixty hours of life. *Breastfeed Rev* 2001; 9(1):27-32.
- Black, L. Incorporating breastfeeding care into daily newborn rounds and pediatric office practice. *Pediatric Clinics of North America* 2001; 48(2):299-319.
- Brunsted, J., and Riddick, D. The breast during pregnancy and lactation. In: Sciarra JJ, ed. *Obstetrics and Gynecology*. Philadelphia: Lippincott, Williams and Wilkins, 1999: Volume 5, Chapter 31.
- Cadwell, K., Turner-Maffei, C., O'Connor, B., et al. *Maternal and Infant Assessment for Breastfeeding and Human Lactation, A Guide for the Practitioner*. Sudbury, MA: Jones and Bartlett Publishers, 2006.
- Chapman, D. and Perez-Escamilla, R. Does delayed perception of the onset of lactation shorten breastfeeding duration? *J Hum Lact* 1999 Jun; 15(2):107-11, 107-10.
- Cotterman KJ. *Reverse Pressure Softening: A Simple Tool to Prepare Areola for Easier Latching During Engagement*. *J Hum Lact* 2004 20: 227-237.
- Cox, D., Owens, R., Hartmann, P. Blood and milk prolactin and the rate of milk synthesis in women. *Exp Physiol* 1996 Nov; 81(6):1007-20.
- Cregan, M., Mitoulas, L., Hartmann, P. Milk prolactin, feed volume and duration between feeds in women breastfeeding their full-term infants over a 24 h period. *Exp Physiol* 2002; 87(2):207-14.
- Daly, S. and P. Hartmann. Infant Demand and Milk Supply, Part 1: Infant Demand and Milk Production in Lactating Women. *Journal of Human Lactation* 1995; 11(1): 21- 26, 27-37.
- Daly, S. and P. Hartmann, P. Infant demand and milk supply: Part 2: The short-term control of milk synthesis in lactating women. *Journal of Human Lactation* 1995; 11:27-37.
- Daly, S., Owens, R., Hartmann, P. The short-term synthesis and infant regulated removal of milk in lactating women. *Exp Physiol* 1995; 78: 209-20.
- Daly, S., Kent, J., Huynh, D., et al. The Determination of Short-Term Breast Volume Changes and the Rate of Synthesis of Human Milk Using Computerized Breast Measurement. *Experimental Physiology* 1992; 77(1): 79-87.

136

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

- Daniel, C. and Smith, G. The Mammary Gland: A model for development. *Journal of Mammary Gland Biology and Neoplasia* 1999; 4(1):3-8.
- DeCarvalho, M., Robertson, S., Friedman, A., et al. Effect of frequent breast-feeding on early milk production and infant weight gain. *Pediatrics* 1983 Sep; 72(3):307-11.
- DeCarvalho, M., Robertson, S., Merkatz, R., et al. Milk intake and frequency of feeding in breast fed infants. *Early Hum Dev* 1982 Nov; 7(2):155-63.
- DeMarzo, S., et al. Initial weight loss and return to birth weight criteria for breast-fed infants: challenging the "rules of thumb." *Am J Dis Child* 1991; 145:402.
- Dewey, K., Nommsen-Rivers, L., Heinig, M., et al. Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss. *Pediatrics* 2003 Sep; 112(3 Pt 1):607-19.
- Dewey, K. Maternal and fetal stress are associated with impaired lactogenesis in humans. *Journal of Nutrition*. 2001 Nov; 131(11):3012S-5S.
- Dewey, K., et al. Growth of breast-fed infants deviates from current reference data: A pooled analysis of US, Canadian, and European data sets. *Pediatrics* 1995; 96(3):495-503.
- Dewey, K., et al. Breastfed infants are leaner than formula-fed infants at one year of age: The DARLING study. *Am J Clin Nutr* 1993; 57:140-45.
- Dewey, K., Heinig, J., Nommsen, L., et al. Maternal versus infant factors related to breast milk and residual milk volume: The DARLING study. *Pediatrics* 1991; 87:829-37.
- Dewey, K., et al. Adequacy of energy intake among breastfed infants in the DARLING study: Relationships to growth velocity, morbidity, and activity levels. *J Pediatr* 1991; 119:538-47.
- Dewey, K. and Lonnerdal, B. Infant self-regulation of breastmilk intake. *Acta Paediatr Scan* 1986; 75:893-98.
- Dewey, K. and Lonnerdal, B. Milk and nutrient intake of breast-fed infants from 1 to 6 months: relation to growth and fatness. *J Ind Gen Nutr* 1983; 2:497-506.
- Dunbar, M. and Wyslowski, J. Mammary Ductal and Alveolar Development: lesson learned from genetically manipulated mice. *Microscopy Research and Techniques* 2001; 52:163-170.

137

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

- Greenberg, S. Nursing Trouble: New thinking on why some mothers are unable to produce enough breast milk to adequately feed their newborns. *Newsweek Spring/Summer* 1999.
- Hall, R., Mercer, A., Teasley, S., et al. A breast-feeding assessment score to evaluate the risk for cessation of breast-feeding by 7 to 10 days of age. *Journal of Pediatrics* 2002; 141(5):659-64.
- Hartmann, P., Owens, R., Cox, D., et al. Breast development and control of milk synthesis. *Food Nutrition Bulletin*. 1996; 17:292-304.
- Hartmann, P., Sheriff, J., Kent, J. Maternal nutrition and the regulation of milk synthesis. *Proceedings of the Nutrition Society* 1995; 54: 379-89.
- Hartmann, P. and C. Prosser: Physiological basis of longitudinal changes in human milk yield and composition. *Fed Proc* 1984; 43:2448-53.
- Hill, P. and Aldag, J. Potential indicators of insufficient milk supply syndrome. *Res Nurs Health* 1991 Feb; 14(1):11-9.
- Hilleverk-Lindquist, C., Hofvander, Y., Sjölin, S. Studies on perceived breast milk insufficiency. *Acta Paediatr Scan* 1991; 80:836-839.
- Houston, M., Howie, P., McNelly, A. Factors affecting the duration of breastfeeding: 1. Measurement of breast milk intake in the first week of life. *Early Hum Dev* 1983; 8:49-54.
- Howie, P., Houston M., Cook, A., et al. How long should a breast feed last? *Early Hum Dev* 1981 Feb; 5(1):71-7.
- Huggins, K., Petok, E., Mireles, O. Markers of Lactation Insufficiency: A Study of 34 Mothers. *Current Issues in Clinical Lactation* 2000; 25-35.
- International Lactation Consultant Association. *Clinical Guidelines for the Establishment of Exclusive Breastfeeding*. Raleigh, NC: 2005.
- Kelly, P., Bachelot, A., Kedzija, C., et al. The role of prolactin and growth hormone in mammary gland development. *Molecular and Cellular Endocrinology*. 2002 Nov 29; 197(1-2):127-31.
- Kent, J., Mitoulas, L., Cregan, M., et al. Volume and Frequency of Breastfeedings and Fat Content of Breast Milk Throughout the Day. *Pediatrics* 2006; 117:387-395.

138

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

- Kim, J., Mizoguchi, Y., Yamaguchi, H., et al. Removal of milk by suckling acutely increases the prolactin receptor gene expression in the lactating mouse mammary gland. *Molecular and Cellular Endocrinology* 1997 Jul; 131(1):31-38.
- Lai, C., Hale, T., Kent, J., et al. *Hourly rate of milk synthesis in women*. ISHMLM, Cambridge, England, 2004.
- Lauwers, J. and Swisher, A. *Counseling the Nursing Mother*, 4th edition. Sudbury, MA: Jones and Bartlett Publishers, 2005.
- Lawrence, A. and Lawrence, R. *Breastfeeding: A Guide for the Medical Profession*, 6th edition. New York, NY: Elsevier Mosby, 2005.
- McCarter-Spaulling, D. and Kearney, M. Parenting self-efficacy and perception of insufficient breast milk. *J Obstet Gynecol Neonatal Nurs* 2001 Sep-Oct; 30(5):515-22.
- Mathur, G., Chitranshi, S., Mathur, S., et al. Lactation Failure. *Indian Pediatrics* 1992; 29(12):1541-4.
- Meier, P., Engstrom, J., Crichton, C., et al. A new scale for in-home test-weighting for mothers of preterm or high risk infants. *J Hum Lact* 1994; 10(3):169-68.
- Mosby's Pocket Dictionary of Medicine, Nursing, & Allied Health. The CV Mosby Co. St. Louis 2007
- Neifert, M., Seacat, J., DeMarzo, S., et al. The association between infant weight gain and breast milk intake measured by office test weights. *Am J Dis Child* 1990; 144:420-21.
- Neville, M., Allen, J., Archer, P., et al. Studies in human lactation: milk volume and nutrient composition during weaning and lactogenesis. *Am J Clin Nutr* 1991 Jul; 54(1):81-92.
- Neville, M., Keller, R., Seacat, J., et al. Studies in human lactation: milk volumes in lactating women during the onset of lactation and full lactation. *Am J Clin Nutr* 1988; 48: 1375-86.
- Noel-Weiss J, Woodend AK, Peterson WF, Gibb W, Groll DL. An observational study of associations among maternal fluids during parturition, neonatal output, and breastfed newborn weight loss. *Int Breastfeed J*. 2011 Aug 15;6:9.
- Noel-Weiss J, Woodend AK, Groll DL. Iatrogenic newborn weight loss: knowledge translation using a study protocol for your maternity setting. *Int Breastfeed J*. 2011 Aug 15;6(1):10.
- Nyhan, W. Stool frequency of normal infants in the first week of life. *Pediatr* 1952; 10:415.
- Powers, N. S. Suser W. Breastfeeding Update2: Clinical Lactation Management. *Pediatrics in Review* 1997; 18 (5); 147-161
- Ramsay, D., Mitoulas, L., Kent, J., et al. Milk flow rates can be used to identify and investigate milk ejection in women expressing breast milk using an electric pump. *Breastfeeding Medicine* 2006; 1(1):14-23.

139

Copyright © 2013 Beth Myler, BSN, RN, IBCLC

- Ramsay, D., Kent, J., Owens, R., et al. Ultrasound imaging of milk ejection in the breast of lactating women. *Pediatrics* 2004; 113(2):361-367.
- Ramsay, D., Mitoulas, L., Kent, C., et al. The use of ultrasound to characterize milk ejection in women using an electric breast pump. *J Hum Lact* 2005 Nov; 21(4):421-8.
- Riordan, P. *Breastfeeding and Human Lactation*, 3rd edition. Sudbury, MA: Jones and Bartlett Publishers, 2005.
- Scanlon, K., Alexander, M., Serdula, M., et al. Assessment of infant feeding: The validity of measuring milk intake. *Nutr Rev* 2002; 60(8):335-51.
- Shani, M. and Shinwell, E. Breastfeeding characteristics and reasons to stop breastfeeding. *Harefuah* 2003 Jun; 142(6):426-8, 486.
- Shawky, S. and Abalkhail, B. Maternal factors associated with the duration of breast feeding in Jeddah, Saudi Arabia. *Paediatric and Perinatal Epidemiology* 2003 Jan; 17(1):91-6.
- Shrago, L., Refsnyder, E., Inad, K. The Neonatal Bowel Output Study: Indicators of Adequate Breast Milk Intake in Neonates. *Pediatr Nurs* 2006; 32(3):195-201.
- Shrago, L. *Adequacy of breastmilk intake: assessment and interventions*. Presented at the La Leche League International Lactation Consultant Workshop, October 30, 1998, Chicago, IL.
- Spence, J. The modern decline of breast-feeding. *Br Med J* 1938; 2:729-733.
- Thiel, P., Seisen, K., Hurley, W., et al. Role of suckling in regulating cell turnover and onset and maintenance of lactation in individual mammary glands of sows. *J Anim Sci* 2006 Jul; 84(7):1691-8.
- Verghese A, Brady E, Kapur CC, Horwitz, R. *Ann Intern Med*. 2011 Oct 18;155(8):550-3. doi: 10.1093/0003-4819-155-8-201110180-00013. The bedside evaluation: ritual and reason. Source: Stanford University School of Medicine, California 94305-5110, USA.
- Verghese, Abraham. Beyond Measure: Teaching Clinical Skills. *J Grad Med Educ*. 2010 March; 21(1): 1-3.
- Vetharanam, I., Davis, S., Soboleva, T., et al. Modeling the interaction of milk frequency and nutrition on mammary gland growth and lactation. *J Dairy Sci* 2003 Jun; 86(6):1987-96.
- Walker, M. *Breastfeeding Management for the Clinician: Using the Evidence*. Sudbury, MA: Jones and Bartlett Publishers, 2006.
- Woodruff, M. Problems of establishing lactation. *Food and Nutrition Bulletin* Dec 1956; 17(4).  
<http://www.unu.edu/unupress/food/8F174e/8F174E06.htm>. Accessed July 25, 2005.

140

Copyright © 2013 Beth Myler, BSN, RN, IBCLC