Triaging the Breastfeeding Dyad:

What's Normal, What's Not, and How to Help

Andrea Sanmiguel RN, BSN, IBCLC

Objectives:

- Review AAP policy on breastfeeding
- List benefits of breastfeeding for mom and baby
- Learn how to take a complete breastfeeding history
- Identify normal breastfeeding/elimination patterns, expected weight loss/gain, and signs of adequate intake
- List common breastfeeding problems and interventions
- List indications for supplementation, methods of supplementation and appropriate volumes
- Identify breastfeeding support resources for providers and parents
- Identify tools to assess and assist breastfeeding dyads by phone

AAP Policy Statement

The AAP reaffirms its recommendation of exclusive breastfeeding for about 6 months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for 1 year or longer as mutually desired by mother and infant.

AAP Breastfeeding and the Use of Human Milk
http://pediatrics.aappublications.org/content/pediatrics/early/2012/02/22/peds.2011-3552.full.pdf

Current evidence demonstrates breastfeeding decreases risk of:

- **Infant**
  - Respiratory tract infections
  - Otitis media
  - Gastrointestinal tract infections
  - Necrotizing enterocolitis/sepsis
  - Sudden infant death syndrome
  - Allergic disease
  - Celiac disease
  - Inflammatory bowel disease
  - Obesity
  - Diabetes
  - Childhood leukemia & lymphoma
- **Mom**
  - Excess bleeding after delivery
  - Breast & ovarian cancer
  - Uterine & endometrial cancer
  - Osteoporosis and osteoporosis related fractures
  - Type 2 Diabetes
  - Cardiovascular disease
  - Postpartum depression*
  - Suboptimal child spacing
  - Child abuse/neglect

Healthy People 2020 Objective		
MICH-21: Increase the proportion of infants who are breastfed		
MICH-21.1	Ever	81.9%
MICH-21.2	At 6 months	60.6%
MICH-21.3	At 1 year	34.1%
MICH-21.4	Exclusively through 3 months	46.2%
MICH-21.5	Exclusively through 6 months	25.5%
MICH-22: Increase the proportion of employers that have worksite lactation support programs.		38%
MICH-23: Reduce the proportion of breastfed newborns who receive formula supplementation within the first 2 days of life.		14.2%
MICH-24: Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies.		8.1%

Department of Health and Human Services 2010

CDC Breastfeeding Report Card 2016

Percentage of babies ever breastfed:

Kansas – 83.8% Missouri – 85.4%

Percentage of babies breastfeeding at 6 months:

Kansas – 50.5% Missouri – 56.6%

Percentage of babies breastfeeding at 12 months:

Kansas – 32.4% Missouri – 36.5%

https://www.cdc.gov/breastfeeding/pdf/2016breastfeedingreportcard.pdf

Taking a Breastfeeding History

- Maternal history
- Pregnancy & birth history
- Infant history
- Feeding/Elimination/Weight Patterns
- Baby's behavior during and between feedings
- Current concerns

Maternal history

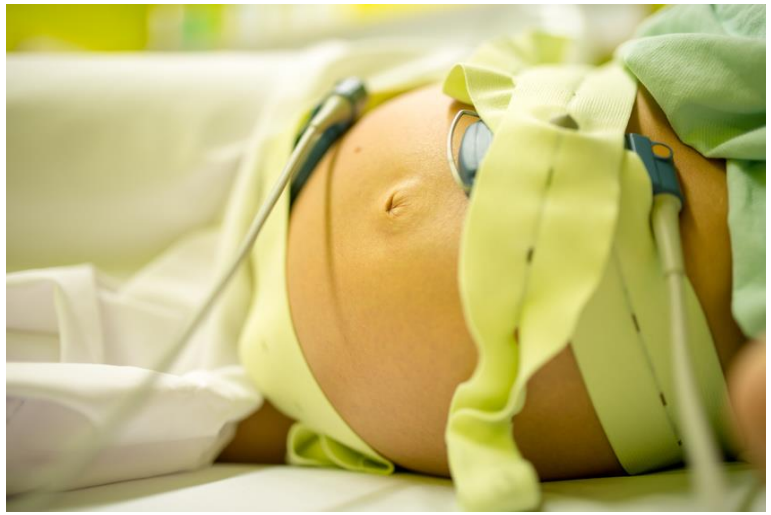
- Any chronic medical problems? (ex. hypertension, thyroid disorders, PCOS, infertility, obesity, anxiety/depression)
- Any history of surgeries, biopsies, piercings, or trauma to the chest? (ex. chest tubes, lumpectomies, breast reduction/augmentation, burns)
- Flat or inverted nipples?
- Any medications/supplements taken on a routine basis?
- Did she breastfeed her other children and if so for how long?
- Did she have any problems breastfeeding previously?

Pregnancy History

- Gravida/Para
- Pregnancy complications (ex. gestational diabetes or hypertension, anemia, severe nausea/vomiting)
- Breast growth during pregnancy
- Prenatal breastfeeding education

Birth History

- Type of delivery
- Ruptured membranes over 24 hours
- Labor over 30 hours
- Push over 2 hours
- Magnesium sulfate for PIH
- Fever/Infection
- Antibiotics
- Retained placenta
- Vacuum extraction/forceps



- Hemorrhage
- Blood transfusion
- $3^{rd}/4^{th}$ degree tear
- Separated from infant at birth
- Multiples
- Stressful delivery
- Meconium

Infant History

- Gestational age at birth
- Current age (include adjusted age if born preterm)
- Resuscitation at delivery
- Jaundice (before/after hospital discharge)
- Low blood sugar
- Respiratory distress
- NICU admission
- Chronic medical problems

Feeding Patterns

- Number of feedings in past 24 hours
- Does baby actively suck throughout feeding?
- Audible swallows?
- Typical duration of feeding
- Does baby feed from both breasts each feeding?
- Longest time between feedings?
- Who decided when feeding is over?
- Any factors limiting feedings?

Is baby receiving supplemental feeding?

- When was supplementation started?
- Was it ordered by physician?
- What is being given?
- How much is being given?
- What is mom using to supplement?

Is mom pumping?

- What kind of pump is she using?
- How often is she pumping?
- For how long?
- Is she pumping both breasts at the same time?
- How much milk is she able to express?
- Any pain with pumping?

Signs of adequate intake

- How many wet and dirty diapers in 24 hours?
- What color is stool?
- Baby’s birth weight, discharge weight, current weight?
- Does baby actively suck throughout feeding?
- Does mom hear swallows during feeding?
- Does baby wake to feed?
- Is baby content between feedings?

Normal newborn feeding patterns

- 8-12 feedings per 24 hours
- Not always predictable “every 2-3 hours”
- Cluster feeding is normal (feeding every hour, 24 hours a day is not)
- Encourage parents to wake a baby to feed at least every 3 hours until baby is back to birthweight or if baby is slow to gain weight
- Cue based feeding leads to more effective feeding than clock based feeding

Expected Urine Output

Day 1: 1-2 wet diapers

Day 2: 2-3

Day 3: 3-4

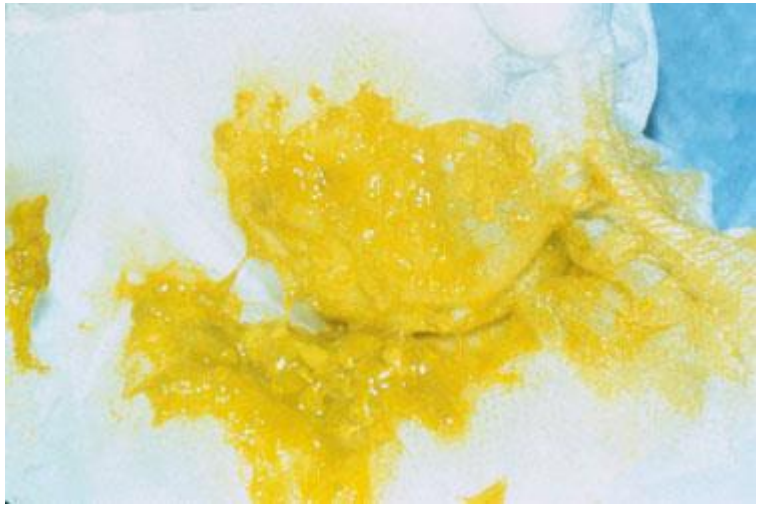
Day 4: 4 or more

Day 5: 6 or more good wet diapers

*Maternal IV fluids may cause increased voiding in first 24-48 hours of life that then drops off if baby's intake is not sufficient

Normal newborn stooling patterns

- 1 stool within first 24 hours advancing to 4+ stools/day by day 5
- Stools should change from meconium to yellow, seedy by day 5
- Stooling frequency may decrease at 4-6 weeks of age
- Not considered constipation as long as stools remain soft,easy to pass

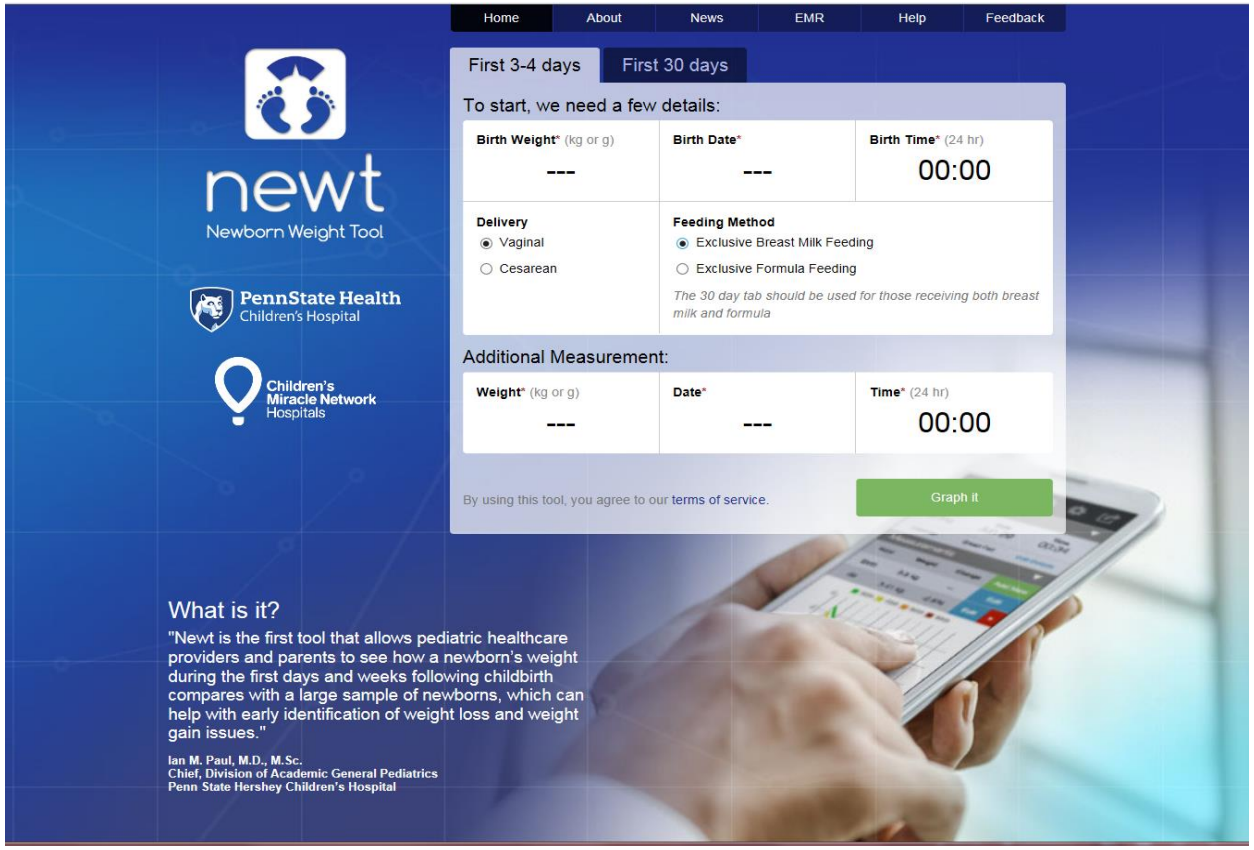


Weight loss

- All babies lose weight after birth
- Maternal IV fluids may cause appearance of more rapid weight loss
- Up to 10% weight loss is considered acceptable in a baby who is actively feeding, voiding and stooling appropriately
- Weight loss should plateau and then begin to increase when mom's breastmilk comes in (which should happen between day 3-5)
- Weight loss that continues past day 5 usually indicates a problem

Resources for Calculating Weight Loss

- https://www.newbornweight.org/



Expected weight gain

- Weight gain should average 5-7 oz/week (15-30 grams/day) in the first 4 months of life
- Babies should be back to birthweight by 10-14 days of life
- Weight gain generally slows to 4-6 oz/week between 4-6 months and 3-5 oz/week between 6-12 months

Baby’s behavior

Current Concern

- Latch difficulties
- Engorgement
- Milk never “came in”
- Low supply
- Over supply
- Sore nipples
- Breast pain
- Sleepy baby
- Baby always hungry
- Excessive crying
- Baby slow to gain or losing weight
- Spitting up/reflux
- Pump dependent
- Returning to work
- Medications in breast milk

Common Breastfeeding Problems

Sore Nipples

- Most common is incorrect latch
- Ankyloglossia (tongue-tie)
- Secondary infection from nipple trauma
- Less common vasospasm
- Incorrect fit of pump flanges

Nipple/Breast Pain Assessment

- When does nipple pain occur?
- How does the nipple look when baby comes off the breast?
- Does the nipple turn white at the end of feeding?
- Is your nipple a different color than usual?
- Is there any nipple damage?
- Does the nipple hurt with pumping?
- When does breast pain occur?
- Is pain aching, stabbing, tingling? Does it radiate?
- What are you doing to help with the pain?

Timing of nipple pain can help identify cause

- Pain that occurs with initial latch and goes away may be normal
- Pain that occurs throughout feeding is generally a sign of poor latch
- Pain that worsens as feeding progresses is generally a sign baby has slipped into a poor latch
- Pain that occurs after the feeding, at times unrelated to feeding, or all the time is generally due to nipple breakdown or secondary infection
- Deep stabbing pain in breast may indicate ductal infection and mom should be referred to her PCP.
- Fever, flu-like symptoms may indicate mastitis and mom should be referred to her PCP.

Appearance of nipple also helps determine cause

- A nipple that is creased, pinched, compressed, looks like a triangle or a lipstick is a sign of shallow latch (or baby with tongue issues)
- A nipple that is normal color in general but white, red, or purple after feedings may indicate vasospasm
- A nipple that is pink, red, lighter in color than normal may indicate secondary infection
- Any nipple with breakdown (abrasions, cracks, blisters, scabs, bleeding) should be treated
- White hard spots on the tip of nipple may indicate a nipple bleb

Provider Resources to Assess/Assist Latch

- http://med.stanford.edu/newborns/professional-education/breastfeeding/a-perfect-latch.html

Infant symptoms that may indicate Ankyloglossia

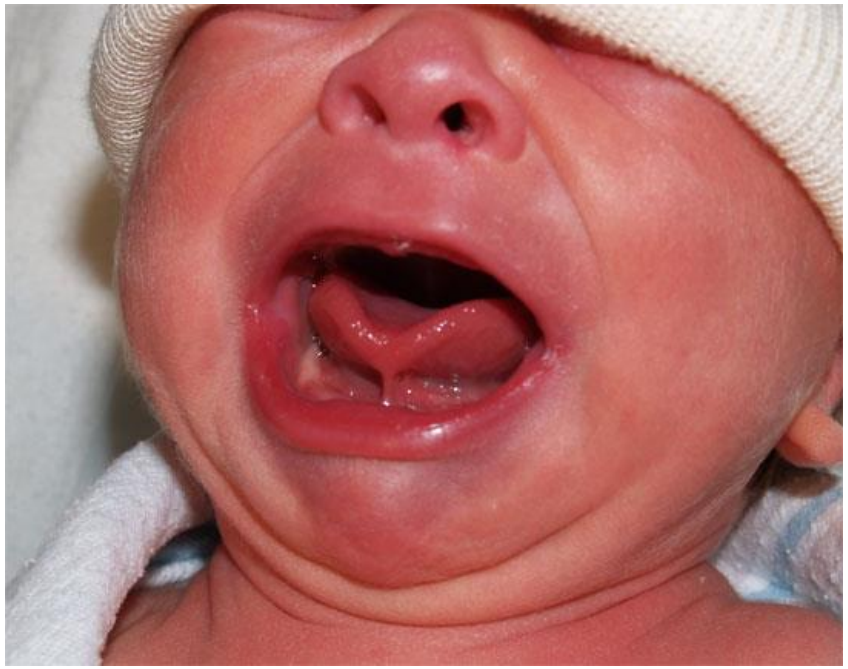
- Difficulty latching or maintaining latch
- Gumming, chewing, or biting the nipple
- Clicking noises audible when sucking
- Gassiness, reflux, choking on milk due to inability to restricted tongue movement
- Poor weight gain despite what appears to be appropriate breastfeeding frequency and duration

Maternal symptoms that may indicate Ankyloglossia

- Pain with latch that continues throughout feeding
- Nipple is compressed, misshapen, or blanched when baby detaches
- Nipple breakdown
- Recurrent nipple or breast infections
- Persistent engorgement, blocked ducts, feeling that breasts aren’t emptied during feeding
- Sleep deprivation due to greater than expected feeding frequency and duration
- Decreased milk supply

Ankyloglossia

- Babies should always have an assessment of oral anatomy when breastfeeding difficulty identified



Treatment of Secondary Nipple Infections

- Newman's All Purpose Nipple ointment (available by prescription through compounding pharmacy)
- Contains Murpirocin 2% OINTMENT, Betamethasone 0.1% OINTMENT, miconazole or clotrimazole powder to concentration of 2%
- OTC option polysporin ointment (NOT Neosporin), hydrocortisone cream/ointment 1%, miconazole or clotrimazole cream mixed in equal portions
- Apply after feeding/pumping at least 4 times a day
- Should not be used for longer than 2 weeks
- Consider referral to lactation for latch evaluation

Vasospasms (Raynaud's Phenomenon of the Nipple)

- Nipple turns white, purple, or dark red
- Generally described as burning or tingling pain
- First rule out latch and infection as cause
- Treatment is dry heat before and after feeding, massage to improve blood flow, avoidance of leaving nipples open to air
- B6, magnesium, and calcium supplements may decrease symptoms
- May require treatment with nifedipine in extreme cases

Engorgement

- Usually occurs between day 3-5 postpartum
- Sudden increase in milk volume and breast swelling
- Mom’s breasts may feel warm but she should not have a fever >100 F
- May make latch difficult, nipple becomes more flat, breast more taut

Engorgement management

- Controversy over whether heat or cold is best
- If baby still latching and discomfort mild, moist heat may work
- If baby unable to latch and moderate to severe discomfort, cold compresses or ice usually more beneficial followed by brief application of moist heat prior to latch/pumping
- NSAID best for inflammation if mom does not have allergy/contraindication
- In severe cases, intermittent application of cold, green cabbage leaves may decrease swelling and pain
- Best treatment is frequent, effective milk removal by baby or pump

Low Milk Supply

- Attempt to identify and fix the cause
- Increase frequency of feeding if feeding less than 8 times/day
- Encourage breast compression during feeding to facilitate milk transfer, fully empty breasts
- Add in pumping sessions based on mom’s ability to do so
- Hands on pumping technique beneficial
- Galactagogue use is controversial
- Supplement as needed to maintain hydration and adequate growth

Oversupply

- Is mom pumping in addition to feeding? How often?
- Is baby having difficulty with mom's milk flow (ex. gagging, choking, spitting up)?
- Is mom having recurrent blocked ducts or nipple/breast infections?
- To reduce supply, avoid additional pumping if at all possible (may need to wean slowly)
- Consider period of block feeding (mom feeds on same breast for set period of time, usually 4-6 hours)
- Feed baby in an upright or reclined position to better tolerate fast flow

Spitty baby/Reflux

- Often caused by maternal oversupply (assess and address this first)
- Baby may self regulate by shorter, more frequent feedings
- May improve with reduction or elimination of dairy from mom's diet (but takes 2-3 weeks to notice a difference)
- Assess latch/feeding behavior (Is baby on and off repeatedly? Gulping and taking in air during feeding)?
- May benefit from reclined breastfeeding position.
- Burp frequently, position upright after feedings, avoid overly tight diapers
- Needs physician evaluation if fussy and not gaining weight

Returning to Work

- Unless returning to work sooner than 6 weeks, generally no need to start pumping sooner than 2-3 weeks postpartum
- 1-2 pumping sessions/day based on amount of time mom will be separated from baby and how long she has prior to returning to work
- Pick a time after a feeding that coincides with a time she will be able to pump at work
- Alternately, if baby has a long stretch of sleep in the evening, mom may choose to pump at some point during that time
- Introduce a bottle between 3-4 weeks and offer at least weekly until return to work
- Discuss pumping accommodations with employer
- Discuss breastmilk preparation and feeding expectations with care provider
- Consider a “dry run” prior to first day of work
- Consider starting back mid week to allow for adjustment period

Break Time for Nursing Mothers under the Fair Labor Standards Act 2010

Employers must provide workers with babies less than 12 months of age:

- Reasonable time to pump
  - -2-3 pump sessions/8 hours
  - -May be unpaid unless others have paid breaks
- Place to pump other than a restroom, shielded from view, free from interruption
- Space for pump and cooler

Additional resources on returning to work

- Nancy Mohrbacher's "Magic Number" will help moms develop pumping/feeding schedule to maintain milk supply

http://www.dhss.delaware.gov/dhss/dph/chs/files/resmohrbachermagicnumber2011.pdf

- Childcare and the Breastfed Baby –Kellymom.com

https://kellymom.com/bf/pumpingmoms/employed-moms/childcare-breastfed-baby/

When Breast isn't Best

- HIV, HTLV-I, HTLV-II are not considered to be compatible with breastfeeding in the US.
- Infections requiring temporary cessation include:
  - -Lesions on the breast due to active herpes or syphilis
  - -Active, infectious tuberculosis until treatment is initiated
  - -Varicella, if developed 5 days or less before delivery & within 48 hours after delivery
- Type 1 Galactosemia is considered incompatible
  - -Other inborn errors of metabolism require stabilization first, then close monitoring/follow up of modified breastmilk feeding.
- Certain maternal medications, including amphetamines, chemotherapy agents, ergotamines, and statins.

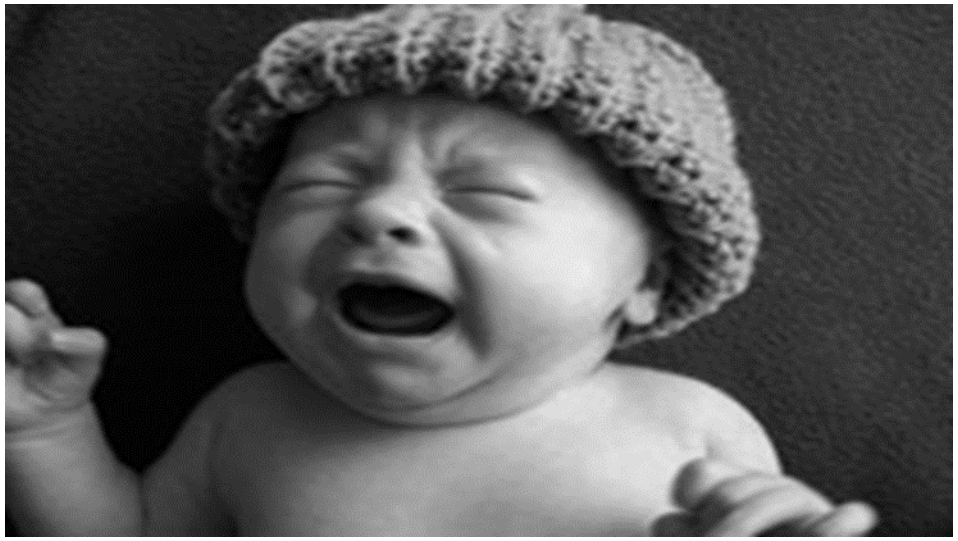
Resources for Determining Maternal Medication Compatibility

- Medications and Mother's Milk by Thomas Hale
  - -Online at www.medsmillk.com
  - -InfantRisk app
- LactMed
  - -Online at https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm
  - -LactMed App

- Drugs in Pregnancy and Lactation by Briggs, Freeman, and Yaffe

Any time things don’t go as planned

- Feed the baby
- Protect the milk supply
- Provide or refer for breastfeeding help
- Reassure mom



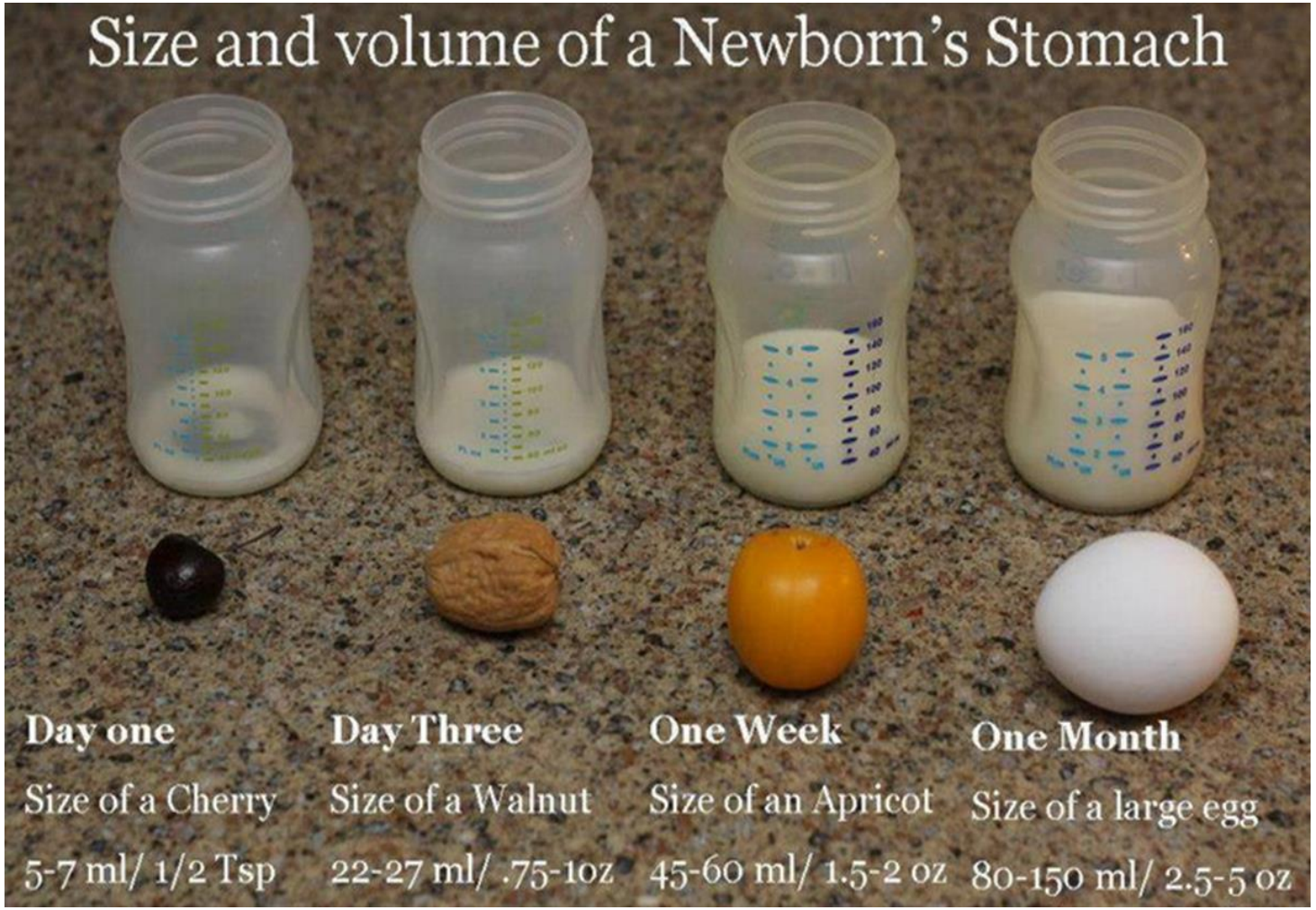
What to feed?

- Mom’s own breastmilk is always first preference
- Donor breastmilk from HMBANA source
- Formula
- Informally shared breastmilk (only if risk discussed and baby’s provider is agreeable)

Protocol to supplement healthy, term babies

Volume per feed:

- 1st 24 hours: 2-10 ml
- 24-48 hours: 5-15 ml
- 48-72 hours: 15-30 ml
- 72-96 hours: 30-60 ml



What about an older baby?

- 5 days to 3 months - 150 ml/kg/day
- 3-6 months – 120 ml/kg/day
- 6-9 months – 60-90 ml/kg/day (varies based on intake of solids)

How to calculate?

ml x kg divided by number of feedings per day

How to supplement the breastfed baby

Early days of supplementation/small volumes

- Syringe – drops to 5 ml
- Spoon – drops to 5 ml
- Cup feeding
- Finger feeding

Larger volume/long term supplementation

- Paced bottle feeding (upright or sidelying)
- At breast supplementation (with feeding tube or nursing system)

Pumping

- If baby is not latching at all, mom should pump 8 times in 24 hours, both breasts at the same time for 10-15 minutes
- If baby is latching but not breastfeeding effectively, limit feedings to 15 minutes, then mom pumps after each feeding.
- If supplementation is started, mom should be pumping. Ideally every time supplement is given.
- Important to gauge mom's ability to follow the plan
- Encourage mom to enlist help with baby care and household duties
- If "triple feeding", have mom check in after 2-3 days and adjust plan as able

Community Lactation Resources

- Delivering hospital lactation department
- Health Department/WIC
- Children’s hospital lactation department
- Pediatrician’s office
- Private practice lactation consultants
- Telehealth lactation practices
- La Leche League

Other helpful resources:

- Academy of Breastfeeding Medicine (bfmed.org)
- Kellymom.com
- Jack Newman (breastfeedinginc.ca)

References:

- American Academy of Pediatrics. (2012). Breastfeeding and the use of human milk. *Pediatrics, 129(3)*, e827–e841.
- Kent JC, Hepworth AR, Sherriff JL, Cox DB, Mitoulas LR, Hartmann PE. (2013) Longitudinal changes in breastfeeding patterns from 1 to 6 months of lactation. *Breastfeed Med* **8**:401-407.
- Thulier D & Mercer J (2009) Variables associated with breastfeeding duration. *J Obstet Gynecol Neonatal Nurs* **38**:259-268.
- Nommsen-Rivers, Laurie & Heinig, Meredith & Cohen, Roberta & G Dewey, Kathryn. (2008). Newborn Wet and Soiled Diaper Counts and Timing of Onset of Lactation as Indicators of Breastfeeding Inadequacy. Journal of human lactation : official journal of International Lactation Consultant Association. 24. 27-33. 10.1177/0890334407311538.
- Bertini, G., Breschi, R., Dani, C. (2015). Physiological weight loss chart helps to identify high-risk infants who need breastfeeding support. Acta Paediatrica, 104(10), 1024-1027. doi:10.1111/apa.12820
- Mangesi, Lindeka, Zakarija-Grkovic, Irene, Treatments for breast engorgement during lactation, Cochrane Database of Systematic Reviews, 2016, 10.1002/14651858.CD006946.pub3