THE FED IS BEST FOUNDATION

Feed. Love. Grow.

Photo Credit: Canva

The Fed Is Best Feeding Plan: My Plan for Safe and Optimal Newborn Feeding

Updated 2024

Mothers, especially first-time mothers, commonly experience problems with breastfeeding, particularly in the first days after birth. Many are told that insufficient breast milk is rare when research shows it is, in fact, common.[1] This occurs when colostrum is insufficient to meet the infant's needs or when full milk production is delayed or inadequate. Therefore, supplementation is often needed for the health and safety of the baby. If parents were educated about their risk factors for milk supply problems, safe supplementation until their milk supply is adequate, and methods of increasing or maintaining their milk supply, they could go on to have a sustainable breastfeeding relationship instead of experiencing trauma from breastfeeding complications, losing confidence, and stopping breastfeeding altogether.

Feeding Plan for My Baby

Name of mother: _____ Mother's Date of Birth: _____
Name of baby:_____ Baby's Date of Birth: _____

Outlined below is my actionable infant feeding plan that identifies my personal risk factors for delayed onset of milk production, chronic low milk supply, and/or potential feeding complications (e.g., dehydration, hypoglycemia, and excessive jaundice). In addition, it outlines how I want to prioritize my infant's health and well-being, my own physical and mental health, and how I want to protect my milk supply if temporary supplementation is needed or requested. I ask for assistance from my nurses, doctors, and lactation consultants to honor my feeding goals during my hospital stay, while ensuring that my baby is fed enough to be satisfied.

1. My infant feeding goals and choices are:

- ❏ Exclusive breastfeeding from birth, with the option of supplementing with expressed breast milk or banked donor milk
- ❏ Breastfeeding from birth with the option of supplementing with formula
- ❏ Breastfeeding from birth while supplementing until my milk comes in, then exclusively breastfeeding thereafter
- ❏ Extended combination feeding with breast milk and formula from birth (combo-feeding)
- ❏ Exclusive formula feeding
- ❏ Pumping and bottle-feeding breast milk exclusively
- ❏ Feeding colostrum through direct nursing (or syringe/bottle-feeding expressed colostrum if needed) followed by exclusive formula feeding

2. My current known risk factors for delayed onset of full milk production (delayed lactogenesis II), chronic low milk supply, and/or potential infant feeding complications before delivery are:

Risk Factors for Feeding Complications Before Delivery[2,3]	
Parent Health History	Breast and Nipple Variances
❏ First-time mother ❏ History of low milk supply, delayed (> 72 hours) or failed lactogenesis II ❏ Prior history of jaundiced newborn ❏ Maternal age ≥ 25 years ❏ Asian race (increased risk for jaundice)	❏ Injury to the 4th intercostal nerve from breast surgeries, biopsies, injuries, piercings ❏ Flat, inverted, cracked, bleeding, or infected nipples ❏ Breast reduction or breast augmentation

Patient Sticker

Initials _____

- ❑ Hypertension (elevated blood pressure)
- ❑ Pre-pregnancy BMI > 27
- ❑ Diabetes (all types)
- ❑ Thyroid disease
- ❑ Pituitary disease
- ❑ Smoking/nicotine use
- ❑ Infertility history
- ❑ Advanced maternal age (≥ 30 years old)
- ❑ Polycystic ovarian syndrome, insulin resistance
- ❑ Theca lutein cysts
- ❑ Sickle cell disease
- ❑ Autoimmune diseases: multiple sclerosis, Crohn's disease, ulcerative colitis, lupus, rheumatoid arthritis and chronic diseases
- ❑ Epilepsy, visual, auditory, and physical disabilities
- ❑ Weight loss surgery
- ❑ Use of SSRI antidepressants
- ❑ Pre-delivery betamethasone treatment for premature labor

- ❑ Asymmetric, tubular-shaped breasts
- ❑ Minimal growth of breast tissue during pregnancy (breast hypoplasia, insufficient glandular tissue, IGT)
- ❑ Fibrocystic breasts

Psychological, Social, Mental Health Considerations

- ❑ History of depression, bipolar disorder
- ❑ History of anxiety, chronic stress, OCD
- ❑ History of eating disorders
- ❑ PTSD, sexual trauma, domestic abuse
- ❑ Smoking, vaping, alcohol, marijuana and or drug use
- ❑ Tactile sensory challenges
- ❑ Inadequate partner or family support
- ❑ Returning to work before six weeks
- ❑ Dysphoric milk ejection reflex (D-MER)
- ❑ Previous breastfeeding trauma

Risk Factors for Feeding Complications After Delivery[2,3]

Maternal Risk Factors

- ❑ Exclusive breastfeeding with inadequate infant milk intake
- ❑ Cesarean section delivery
- ❑ Vacuum delivery
- ❑ Blood type incompatibility, G6PD deficiency, other hemolytic diseases
- ❑ Complicated/prolonged labor > 12 hrs
- ❑ Excessive blood loss during delivery (>500 mL, need for transfusion)
- ❑ Retained placental fragments

Infant Risk Factors

- ❑ Male gender
- ❑ Pre-term baby <37 weeks
- ❑ Large for gestational age baby (LGA)
- ❑ Small for gestational age baby (SGA)
- ❑ Cephalohematoma (bruising and swelling on the scalp) from delivery
- ❑ Jaundice within the first 24 hours
- ❑ Jaundice before discharge
- ❑ Rapid or excessive weight loss > 7%
- ❑ Discharge at 48 hours or less

Initials _____

❑ Hypertension (elevated blood pressure) receiving treatment with magnesium ❑ Medical complications after delivery	❑ Medical complications requiring separation from mother ❑ Oral anomalies such as clefts, tongue restrictions, recessed chin ❑ Ineffective latch and transfer of milk from the breast (e.g., low tone, disorganized sucking pattern) ❑ Non-latching or sleepy at the breast ❑ Metabolic disorders (e.g., PKU, MCADD)

Note: A "risk factor" is a condition associated with a higher chance of breastfeeding difficulties; it does not mean that you will necessarily have difficulties. Knowing your risk factors can help you prepare for challenges with breastfeeding while ensuring your baby's feeding.

3. I would like the following assistance with learning how to feed my child on the *first day* (select all that apply):

   ❑ I would like to manually express my breasts before every feeding to check for the presence of colostrum (Stanford Nursery tutorial) http://newborns.stanford.edu/Breastfeeding/HandExpression.html
   ❑ I would like assistance with positioning and latch
   ❑ I would like assistance learning how to pump my milk, especially if the baby is sleepy at the breast and is not actively breastfeeding every 2–3 hours on both breasts for at least 10–15 minutes.
   ❑ I would like to see a lactation consultant
   ❑ I do *not* want to see a lactation consultant or be counseled about breastfeeding.
   ❑ I would like education on safe formula preparation and formula feeding.
   ❑ I would like education on combo-feeding.

4. I would like assistance with tracking my baby's weight loss in the following manner (select all that apply):

   ❑ I would like to know my baby's birth weight (highly recommended)
   ❑ I would like to know their percent weight loss and track it on the Newborn Weight Loss Tool (NEWT) at all subsequent weight checks (highly recommended)

5. I request my baby to be weighed on the following schedule (select one):

   ❑ Twice daily to closely monitor weight loss *(recommended for exclusively breastfed babies)*
   ❑ Once daily *(likely sufficient for combo-fed and formula-fed babies)*

Initials _____

6. I wish for my child to lose no more than (select all that apply):

- ❑ 4.5% in the first 24 hours
- ❑ 7% of birth weight at any time
- ❑ 75%ile of the Newborn Weight Loss nomogram

Note: >4.5% weight loss in the first 24 hours and >7% birth weight loss at any time has been associated with increased rates of hyperbilirubinemia (excessive jaundice) and hypernatremia (severe dehydration).[5,6] *(Read more: IV Fluids Do Not Inflate Weight Loss)*

7. If my child reaches 4.5% weight loss in the first 24 hours, 7% weight loss at any time, or 75%ile on the Newborn Weight Loss Tool, I would like to (select all that apply):

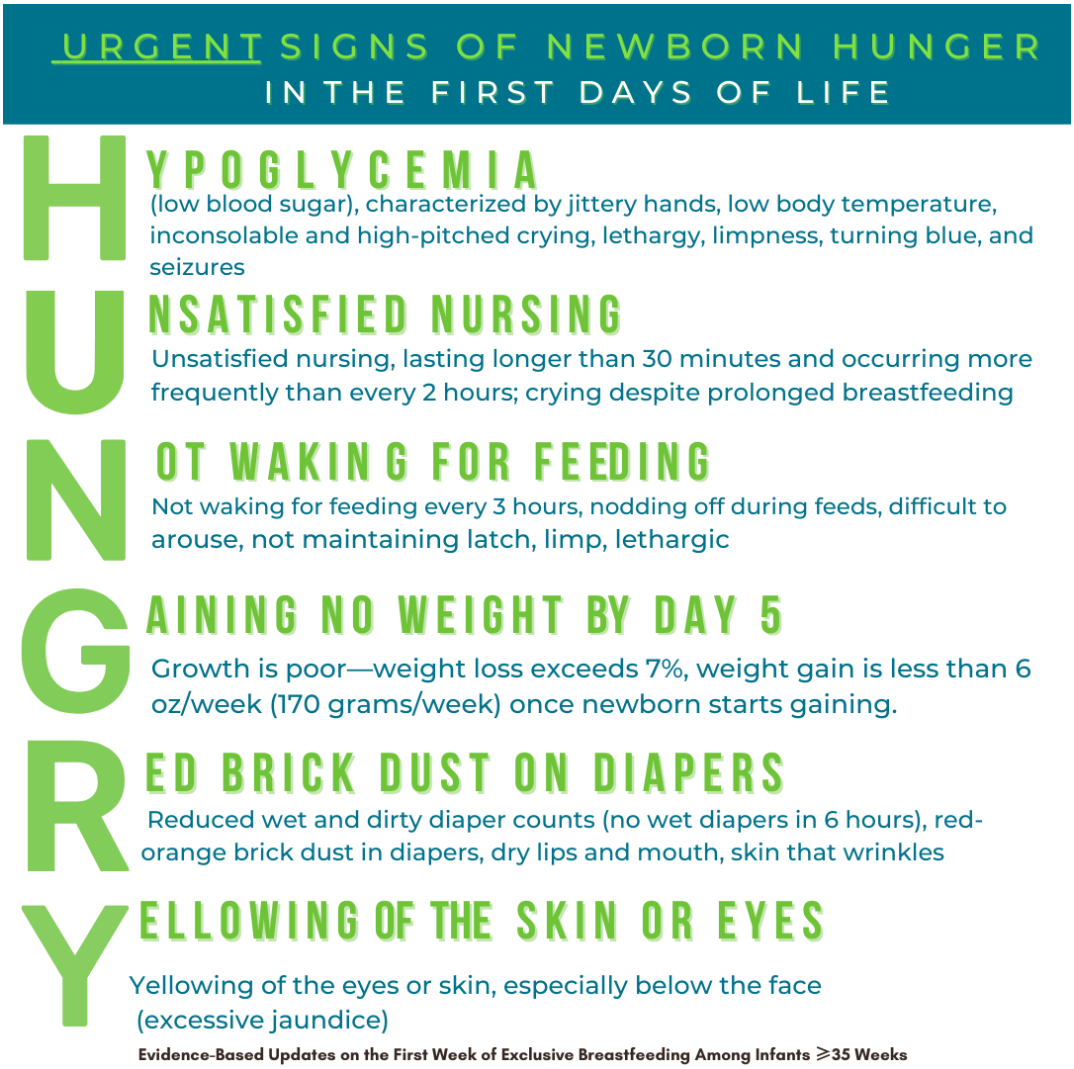
- ❑ Express colostrum and feed it to my child by syringe / spoon / cup / bottle (circle all that apply)
- ❑ If little to no milk is present, I would like to be offered screened and pasteurized donor milk if available, especially if my child has a medical indication for it (e.g., prematurity)
- ❑ If little to no milk is present, I would like to supplement my child with formula
- ❑ I wish for my child to be supplemented to their satisfaction and lose as little weight as possible (for breastfeeding parents, supplementation must occur only after nursing to stimulate milk production; additional milk expression may also be recommended).
- ❑ I would like an immediate blood sugar check (recommended)

8. I would like additional screening to protect my exclusively breastfed baby from complications due to insufficient milk intake. I would like my child to be monitored by (select all that apply): *Note: Breastfeeding babies who are being supplemented to satisfaction and exclusively formula-feeding babies will likely not need these additional tests, since they are less likely to develop problems related to insufficient feeding.*

- ❑ Glucose (blood sugar) monitoring (hypoglycemia in healthy, full-term, exclusively breastfed babies has been shown to occur in 1 in 10 babies overall and 1 in 4 first-born babies in the first 48 hours,[4] and about 39% of health term babies overall.[5]
- ❑ Glucose checks for signs of persistent hunger at my request.
- ❑ Screening for high sodium levels (> 145 mEq/L) for clinical signs of dehydration (dark or concentrated urine, uric acid crystals, called “brick dust,” in diaper, dry mouth, infrequent urination), ≥7% weight loss, and/or persistent hunger. (Hypernatremia has been shown to occur in as many as 36% of exclusively breastfed newborns, with as little as 4.8% weight loss but more commonly at >7% weight loss..)[6]
- ❑ Weight, glucose, sodium, and bilirubin check within one hour of discharge

9. If my child appears HUNGRY (see graphic below) and unsatisfied *after* breastfeeding, repeatedly coming on and off the breast, persistently crying or falling asleep at the breast despite my efforts to stimulate them (select all that apply):

Initials _____



- ❑ I would like to supplement until my child is satisfied and no longer crying or lethargic (15 mL at a time, repeated until satisfied).
- ❑ I would like to supplement with my own expressed breast milk first.
- ❑ I would like to supplement with screened and pasteurized donor milk if available to my child.
- ❑ I would like to supplement with formula.
- ❑ I would like to supplement *after* nursing sessions to continue stimulating milk production unless they are unable to nurse or have an urgent need for supplementation.
- ❑ I would like assistance with manual expression to evaluate for the presence of colostrum.
- ❑ If my newborn is sleepy and/or not breastfeeding well, I would like to supplement to ensure that my baby has the energy needed to breastfeed effectively; in this situation, I would like to express or pump my breast milk if adequate removal of milk cannot be accomplished through direct nursing.

Initials _____

Note: Any time your baby is supplemented, adequate breast stimulation and milk removal are essential to protecting your milk supply.

Recommended Feeding Volume*

- On day 1, expect your baby to feed typically 15–30 ml every 2–3 hours
- On day 2, expect about 20–40 ml every 2–3 hours.
- On day 3, expect about 25–50 ml every 2–3 hours.
- Day 4 to 1 month, 45-90 mL every 2-3 hours for a total of about 2.6 oz/lb/day.

**Small to average-sized newborns may take 15–30 ml (0.5–1 ounce) per feed, usually every 3 hours beyond the first day. It's normal to take different amounts at each feeding. Always feed according to your baby's hunger and satisfaction cues. 15-30 mL of mature breast milk or formula every 2-3 hours provides the resting energy requirement of a term newborn, which is the estimated minimum number of calories required to feed their brain and vital organs.*[7]

See: "How to Prepare for Supplementing When Breastfeeding Your Baby in the Hospital": https://fedisbest.org/2021/11/how-to-prepare-for-supplementing-when-breastfeeding-your-baby-in-the-hospital/

10. If I am supplementing, I would like to supplement with:

- ❑ Cup
- ❑ Spoon
- ❑ Syringe
- ❑ Supplemental nursing system
- ❑ Bottle with a slow-flow nipple

Note: According to the Academy of Breastfeeding Medicine, "There is no evidence that any of these methods are unsafe or that one is necessarily better than the other."[8]

11. If I am supplementing, I would like to supplement with:

- ❑ Banked, screened, and pasteurized donor milk, if available to my child
- ❑ Standard formula
- ❑ Hydrolyzed formula
- ❑ Soy formula
- ❑ Elemental formula (for infants with a family history of cow milk protein allergy; discuss this with your baby's pediatrician)
- ❑ I have brought my own ready-to-feed formula

Initials _____

12. Pacifier choices:

- ❏ No pacifiers
- ❏ I want a pacifier for my baby*
- ❏ I brought my own pacifier
- ❏ I want to use a pacifier after nursing for my baby's comfort

**Note: 2017 WHO breastfeeding guidelines no longer discourage pacifier use, given evidence that it does not interfere with breastfeeding and protects infants from SIDS.*[10]

13. Nursery care:

- ❏ Rooming in with my baby at all times.
- ❏ Option to sleep during the day/night when requested by sending my child to the nursery so I may recover from delivery for the safety of my baby
- ❏ I do not want to be left alone to breastfeed after delivery until I say that I feel safe doing so
- ❏ If I have a surgical delivery, I do not want to be left alone to provide care for my baby until I say I feel safe to do so
- ❏ I do not want to be left alone while doing skin-to-skin while recovering or until I am stable enough to hold my baby safely. (Note: Being unable to move unassisted, pain medication effects, and falling asleep have caused accidental infant suffocation and falls.)

14. Discharge follow-up care:

- ❏ I would like my baby to be weighed right before discharge. (highly recommended)
- ❏ I would like to have a copy of my baby's laboratory data to take to my pediatrician
- ❏ I would like my baby to be examined and weighed by my pediatrician within 24 hours after discharge. (recommended for exclusively breastfed newborns who are still losing weight)
- ❏ I would like a follow-up weight check and assessment appointment with a lactation consultant after discharge.
- ❏ I would like a pre- and post-breastfeeding weight ("weighted feed") with a lactation consultant to measure the amount my child transfers in a feeding session after my milk comes in.
- ❏ I would like community or hospital lactation support group information.
- ❏ I would like pump and scale rental information.

Initials _____

I have additional concerns and requests:

References:

1. Kent, Jacqueline C., et al 2016. "Breastmilk Production in the First 4 Weeks after Birth of Term Infants." *Nutrients* 8 (12). https://doi.org/10.3390/nu8120756; Dewey, Kathryn G., Laurie A. Nommsen-Rivers, M. Jane Heinig, and Roberta J. Cohen. 2003. "Risk Factors for Suboptimal Infant Breastfeeding Behavior, Delayed Onset of Lactation, and Excess Neonatal Weight Loss." *Pediatrics* 112 (3 Pt 1): 607–19.

2. Kemper, Alex R., et al. 2022. "Clinical Practice Guideline Revision: Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation." *Pediatrics* 150 (3): e2022058859. https://doi.org/10.1542/peds.2022-058859.

3. Feldman-Winter L, et al. "Evidence-Based Updates on the First Week of Exclusive Breastfeeding Among Infants ≥35 Weeks." *Pediatrics.* 2020;145(4):e20183696. doi:10.1542/peds.2018-3696

4. Samayam P, et al. "Study of Asymptomatic Hypoglycemia in Full Term Exclusively Breastfed Neonates in First 48 Hours of Life." *J Clin Diagn Res*. 2015;9(9):SC07-SC10. doi:10.7860/JCDR/2015/14971.6610

5. Harris DL, et al. "Glucose Profiles in Healthy Term Infants in the First 5 Days: The Glucose in Well Babies (GLOW) Study." *J Pediatr*. 2020;223:34-41.e4. doi:10.1016/j.jpeds.2020.02.079

6. Ferrández-González M, et al. "Weight loss thresholds to detect early hypernatremia in newborns." *J Pediatrics (Rio J)*. 2019;95(6):689-695. doi:10.1016/j.jped.2018.06.005

7. Zhao, Lu-Lu, et al. 2021. "Effect of Early Supplemental Formula Intervention on Body Weight and Hyperbilirubinemia in Neonates During 72 h After Birth." *Frontiers in Pediatrics* 9: 625536. https://doi.org/10.3389/fped.2021.625536.

8. FAO/WHO/UNU Expert Committee. 2001. "Human Energy Requirements Report of a Joint FAO/WHO/UNU Expert Consultation." http://www.fao.org/3/y5686e/y5686e.pdf.

9. Kellams, A, et al. 2017. "ABM Clinical Protocol #3: Supplementary Feedings in the Healthy Term Breastfed Neonate, Revised 2017." *Breastfeeding Medicine: The Official Journal of the Academy of Breastfeeding Medicine* 12 (May): 188–98. https://doi.org/10.1089/bfm.2017.29038.ajk.

10. "WHO | Protecting, Promoting and Supporting Breastfeeding in Facilities Providing Maternity and Newborn Services." 2017, WHO. Accessed April 11, 2019. https://www.who.int/publications/i/item/97892415500

Initials _____

Informed Consent Regarding Risks of Insufficient Infant Feeding

I understand that the risks of exclusive breastfeeding before the onset of copious milk production ("lactogenesis II") are caused by insufficient breast milk intake due to either low/delayed breast milk supply and/or insufficient transfer of milk from mother to baby, all of which can be prevented with supplemental feeding to satisfaction. The complications include increased incidence and severity of the following:

- excessive jaundice (yellow skin; hyperbilirubinemia)
- excessive weight loss (>75th percentile weight loss according to the NEWT nomogram)
- dehydration (>7% weight loss increases the risk of hyperbilirubinemia and hypernatremia)
- hypernatremia (high blood sodium >145 mEq/L, which occurs in 36% of exclusively breastfed (EBF) newborns, commonly at greater than 7% weight loss, but can occur with as little as 4.8% weight loss)
- low blood sugar (hypoglycemia, glucose < 40 mg/dL occurs in 10% of healthy, term EBF newborns; glucose >47 mg/dL occurs in 39% of healthy term newborns)

I am aware that the most common reason a newborn is rehospitalized is due to problems with insufficient feeding and that it occurs in 1 in 25 to 1 in 71 EBF newborns.

I am aware that 22% (one in five mothers) and 34-44% of first-time mothers have been found to have delayed onset of copious milk production (defined as full milk supply coming in later than 72 hours after delivery), which puts their infants at seven-fold increased risk of excessive weight loss. I am aware that 5–8% of mothers do not experience lactogenesis II and only produce small volumes of milk.

I am aware that supplementing will not decrease my milk supply *if my breasts are adequately stimulated and emptied with every supplemental feeding*.

I am aware that wet and dirty diapers do not indicate adequate breast milk intake, and urate crystals or concentrated urine in the diaper indicate dehydration.

I am aware that "cluster feeding" occurs *after* the onset of full milk supply. The Academy Of Breastfeeding Medicine defines cluster feeding as "several short feedings close together." However, constant and prolonged feeding for many hours can be mistaken for "cluster feeding," which has resulted in insufficient feeding complications.

I am aware that constant and prolonged feeding are signs of insufficient breast milk and/or insufficient transfer of milk, and those signs indicate my baby is hungry and likely needs temporary supplementation for their health and safety.

I am aware there is no evidence showing that "second-night syndrome" or "cluster feeding" in breastfed newborns before full milk supply is normal, safe, or necessary for full milk production.

I am aware that research has not found any reliable indicators of colostrum intake including hearing of swallows.

I am aware that the newborn stomach size is around 20-30 ml at birth and is not 5-7 ml.

Initials _____

I am aware that a WHO expert panel has found that "addition of artificial milk in the first few days after birth probably makes little to no difference to breastfeeding at discharge, compared to those not given additional artificial milk." Additionally, the WHO panel found that "it [is] uncertain whether giving additional artificial milk in the first few days after birth has an effect on breastfeeding...or exclusively breastfeeding at three months for the last 24 hours, as the quality of the evidence has been assessed as very low."

I understand the above-mentioned complications from insufficient feeding can result in the need for hospitalization to protect my child's health.

I understand the above-mentioned complications from insufficient feeding can result in brain injury, which can subsequently result in developmental delays; disabilities; lower cognitive development; lower academic achievement; problems with vision, hearing, motor, sensory, language, and behavioral development; and higher rates of seizure disorder, cerebral palsy and rarely, death.[1]

I understand that *timely and adequate fluids and nutritional supplementation* with properly handled certified banked donor milk and/or properly prepared formula, depending on my child's unique nutritional requirements, can prevent nearly all the above complications.

I understand the risks of supplementation, including insufficient breast milk supply, if my child is supplemented *without continuing the frequent breastfeeding* (or self-expression or bilateral breast pumping, if indicated) needed to stimulate milk production.

Disclaimer: This document does not replace in-person physician evaluation and treatment. This document is meant to inform parents of the most recent data regarding infant feeding and to increase their knowledge on how to protect their newborns from hyperbilirubinemia, dehydration, hypernatremia, hypoglycemia, and extended or repeat hospitalization.

Respectfully,

_____
Signature

_____
Parent's Name

_____
Date & Time

[1] Das S, van Landeghem FKH. Clinicopathological Spectrum of Bilirubin Encephalopathy/Kernicterus. *Diagnostics (Basel)*. 2019;9(1):24. Published 2019 Feb 28. doi:10.3390/diagnostics9010024; Del Castillo-Hegyi C, et al. Fatal Hypernatremic Dehydration in a Term Exclusively Breastfed Newborn. Children (Basel). 2022;9(9):1379. Published 2022 Sep 13. doi:10.3390/children9091379; Thornton PS, et al. Recommendations from the Pediatric Endocrine Society for Evaluation and Management of Persistent Hypoglycemia in Neonates, Infants, and Children. J Pediatr. 2015;167(2):238-245. doi:10.1016/j.jpeds.2015.03.057

Initials _____

Educational Resources

About Newborn Weight Loss

According to the AAP, babies normally lose 5–7% of their birth weight before starting to gain again. However, research shows greater than 7% weight loss is associated with an increased risk for hyperbilirubinemia and hypernatremic dehydration. (*Source: UpToDate guidelines, 2020*). Excessive weight loss can be detected earlier with the Newborn Weight Tool, and similar actions can be taken before 7% weight loss occurs if it is greater than the 75th percentile. For example, 7% weight loss may be considered average weight loss, but if they lose this amount in the first 24 hours, the NEWT would consider this excessive. Using 10% as the accepted weight loss threshold is now outdated and may increase the risk of medical complications for an infant. The NEWT can reassure parents that their infant is getting sufficient breast milk and that supplementation may not be needed at this time.

- ❏ We recommend practicing using the Newborn Weight Loss Tool before delivery to familiarize yourself with how it works. We have provided a few examples here to help you practice using the tool.
- ❏ Tutorial: How to Use the Newborn Weight Loss Tool

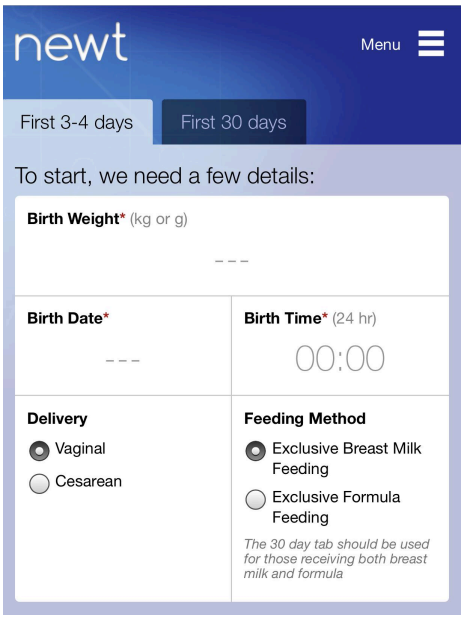
Normal vs. Excessive Weight Loss,

Early postnatal growth

	Usual pattern	Trigger for action
Weight loss	5 to <7 percent	>7 percent
Duration of weight loss	<5 days	5 to 10 days
Time to regain birthweight	One to two weeks	>2 weeks
Intervention	Routine management	Evaluate lactation management
		Rule out primary lactation failure
		Rule out infant oral-motor abnormalities
		Monitor closely, including daily weights
		Consider supplementation

Note: This NEWT weight loss nomogram has not been tied to long-term clinical outcomes. Therefore, a child at the 50th percentile can still experience complications. Every child has their own tolerance for weight loss. A child who is crying inconsolably or not waking up and staying awake while nursing (lethargic) is displaying signs of distress and may, in fact, require supplementation at less than 7% weight loss or 75%ile weight loss. In fact, the lead author of the Academy of Breastfeeding Medicine (ABM) Supplementation Guidelines, Dr. Casey Rosen-Carole, has stated that "If the baby is hungry and they're not getting enough milk out of the mother's breast, then they need to be supplemented," she says. "If lactogenesis hasn't happened and you're at day 2 or 3, and the baby is not acting full at the breast, they have excess weight loss, or they are not peeing or pooping appropriately, then I think every breastfeeding expert is going to agree that it's time to develop an infant feeding plan that includes supplementation."

This is the NEWT website link and an example of how the NEWT can detect early excessive weight loss.



This baby had a 9.7% weight loss at 36 hours of age. Using the NEWT tracking tool, this baby was identified with excessive weight loss at discharge. He had lost much more weight than 95% of vaginally born babies, placing him at the highest risk for complications of insufficient feeding.

What is the newborn stomach size?

Table 1 Summary of evidence on stomach capacity for human neonates

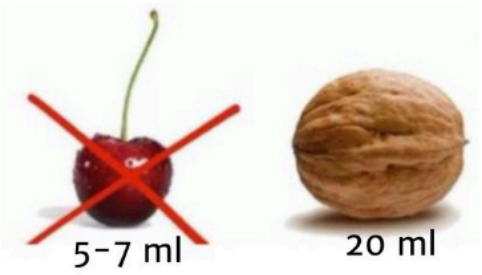
Author	Number	Method	Capacity	Comments
Goldstein et al. (1987)	152	Ultrasound	12 mL*	Foetal studies, gastric dimensions for 37- to 39-week gestation.
Sase et al. (2000)	80	Ultrasound	*	Foetal studies, gastric filling and emptying (only areas provided)
Widstrom et al. (1988)	25	Aspirates	10 mL	Term neonates, sampled immediately after birth
Zangen et al. (2001)	17	Balloon	20 mL	Term neonates, pressure study, this author's inference on data reported
Scammon & Doyle (1920)	38	Autopsy	30–35 mL	Term neonates, 20 cm water pressure.
Naveed et al. (1992)	100	Autopsy	18–20 mL	Stillbirths at term (63) and neonatal deaths (37), water pressure.
Kernesiuk et al. (1997)	11	Autopsy	15 mL*	Neonatal deaths at term, undisturbed *in situ* dimensions
Bergman			20 mL	This author's conclusion from available data

*Mathematical calculation (see Table 2) based on dimensions provided.

Is the newborn stomach size really 5-7 ml?

This summary table comes from a literature review published in Acta Pediatrica (Bergman, 2013)

- Five of the studies indicate the anatomical stomach size is at ***least 20 ml on day one*** for a full term baby .



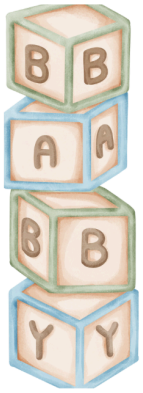
- The stomach is a highly expandable and muscular organ; its biological function is to hold food and fluids, while secreting digestive enzymes.
- The stomach continuously churns and empties into the small intestine where nutrient absorption takes place.

Feeding your baby drops of colostrum is not enough; 1 teaspoon (5 mL) of colostrum has three calories, and one teaspoon of mature breast milk has five calories.

Additional breastfeeding resources:

- ❏ How To Breastfeed The First 2 Weeks of Breastfeeding by Jody in NYT Parenting
- ❏ Fed is Best Infant Feeding Educational Website
- ❏ Feeding Your Baby—When Supplementing Saves Breastfeeding and Saves Lives
- ❏ How to Prepare for Supplementing When Breastfeeding Your Baby in the Hospital

Printable Resources for Posting in Your Room: Crib Card and Wall/Door Sign



Name_____

Birthdate_____

Weight_____kg **Length**_____

Please support us with our chosen feeding plan:

Exclusive Breastfeeding: Yes / No

Formula Feeding: Yes / No

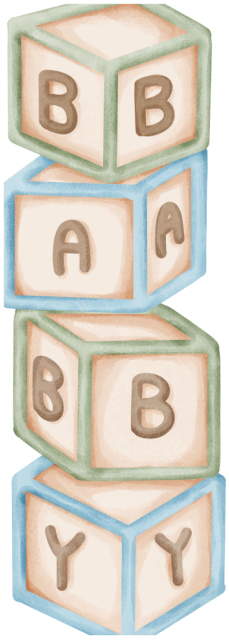
Combo feeding: Yes / No

Exclusive Pumping: Yes / No

If needed or desired, I want to supplement with: banked human milk / formula

I want to supplement using a bottle / syringe / spoon / cup / supplemental nursing system

Lactation Consultation: Yes / No Pacifier: Yes / No Nursery Care: Yes / No



Our Infant Feeding Plan

Name_____

Birthdate_____

Weight_____ **kg** **Length**_____

Please support us with our chosen feeding plan:

Exclusive Breastfeeding: Yes / No **Formula Feeding: Yes / No**

Combo Feeding: Yes / No **Exclusive Pumping: Yes / No**

If needed or desired, I want to supplement with:
my previously expressed frozen colostrum / banked donor milk / formula.

I want to supplement using a bottle / syringe / supplemental nursing system / cup / spoon.

Lactation Consultation: Yes / No **Pacifier: Yes / No**

Nursery Care: Yes / No

Weight before discharge: Yes / No