



Fed is Best Resource Page

- Feeding Plan to prevent feeding complications
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"We will keep talking about the importance of safe breastfeeding until not a single baby is harmed by accidental starvation."

- OUR FOUNDERS

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PO Box 241736
Little Rock, Arkansas, AR
72223



www.fedisbest.org

THE FED IS BEST FOUNDATION

a non-profit organization



WHAT WE DO

The Fed Is Best Foundation is a non-profit, volunteer organization of health professionals and patient advocates who study the scientific literature on infant feeding and real-life infant feeding experiences of mothers through clinical practice and social media connections. We seek to provide information on the safest, most brain-protective methods for breastfeeding, mixed-feeding, formula-feeding, pumped-milk-feeding and tube-feeding for families to prevent complications to babies that have become too common in today's "Breast is Best" world.

MISSION

The Fed is Best Foundation believes that babies should never go hungry and mothers should be supported in choosing clinically safe feeding options for their babies.

Whether breast milk, formula, or a combination of both -
#FedIsBest

RESEARCH

10% of vaginally-delivered and 25% of cesarean-delivered exclusively breastfed (EBF) babies lose excessive weight in the first days of life.

10-18% of babies experience starvation jaundice from insufficient milk intake.

10% of healthy, term EBF babies experience levels of hypoglycemia that can cause developmental complications.



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The Brain-Protective Guide to
Infant Feeding

FEEDING PLAN

I do not want my baby
to lose greater than 7%
of their birth weight.

Birth weight _____kg

7% wt. loss _____kg

(BW x 0.93)

ex. 3 kg x 0.93 = 2.79 kg

Patient: _____
DOB: _____

Feeding Plan for My Baby

Name of baby: _____ DOB: _____

I wish to get assistance from my nurses, doctors and lactation consultants to achieve my feeding goals without risking my child's health. I am aware that the most common reason an exclusively breastfed (EBF) newborn is rehospitalized is due to problems with insufficient feeding. I am aware that 22% of mothers have been found to have delayed onset of copious milk production, which puts her child at 7-fold risk of complications. I wish to feed my child to optimize my feeding success and minimize the risks of feeding complications. Outlined below are my feeding goals and what I would like to do if problems arise during the course of my child's feeding.

My current risk factors for feeding complications, pathological jaundice and/or rehospitalization are the following: [1][2][3]

<p><u>Risk Factors for Feeding Complications:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> First-time mother <input type="checkbox"/> Exclusive breastfeeding <input type="checkbox"/> Cesarean section <input type="checkbox"/> Complicated/prolonged labor > 12 hrs <input type="checkbox"/> History of low milk supply, delayed (>72 hours) or failed lactogenesis II <input type="checkbox"/> Pre-term baby (< 37 weeks gestation) <input type="checkbox"/> Small-for-Gestational-Age baby/IUGR <input type="checkbox"/> Large-for-Gestational Age baby <input type="checkbox"/> Diabetes <input type="checkbox"/> Hypertension <input type="checkbox"/> Obesity <input type="checkbox"/> Smoking <input type="checkbox"/> Hypothyroidism <input type="checkbox"/> Hypopituitarism <input type="checkbox"/> Polycystic ovarian syndrome <input type="checkbox"/> Prior breast surgery/injury <input type="checkbox"/> Minimal growth of breast tissue during pregnancy (breast hypoplasia), tubular or asymmetric breasts <input type="checkbox"/> Infertility history <input type="checkbox"/> Excessive blood loss during delivery or low blood pressure <input type="checkbox"/> Psychosocial considerations that may interfere with nursing 	<p><u>Risk Factors for Pathological Jaundice or Hyperbilirubinemia:</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> First-time mother <input type="checkbox"/> Exclusive breastfeeding <input type="checkbox"/> History of low milk supply, delayed or failed lactogenesis II <input type="checkbox"/> Rapid or excessive weight loss <input type="checkbox"/> Prior history of jaundiced newborn <input type="checkbox"/> Male gender <input type="checkbox"/> Maternal age ≥ 25 <input type="checkbox"/> Asian race <input type="checkbox"/> Jaundice within the first 24 hours <input type="checkbox"/> Jaundice before discharge <input type="checkbox"/> Pre-term baby < 37 weeks <input type="checkbox"/> Gestation 37-38 weeks <input type="checkbox"/> Large-for-Gestational Age baby <input type="checkbox"/> Small-for-Gestational Age baby <input type="checkbox"/> Blood type incompatibility, G6PD deficiency, other hemolytic disease <input type="checkbox"/> Cephalohematoma or bruising and swelling on the scalp from birth <input type="checkbox"/> Vacuum-delivery <input type="checkbox"/> Discharge at 48 hours or less
---	--

Patient: _____
 DOB: _____

I understand the risks of exclusive breastfeeding before onset of copious milk production include increased incidence and severity of jaundice, dehydration, excessive weight loss, hypernatremia, hypoglycemia and possible brain injury if my child gets insufficient breast milk. initial _____

I understand the risks of supplementation include 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 and theoretical changes to the gut microbiome. initial _____

1. I wish to: (choose one)

- Breastfeed while supplementing until my milk comes in, then exclusively breastfeed thereafter
- Exclusively breastfeed from birth
- Extended mixed-feeding with breast milk and formula (combo-feeding)
- Formula-feed exclusively

2. I want to know the birth weight in kilograms at birth so that I may calculate the 4% and the 7% weight loss thresholds. 4% weight loss at 24 hours and 7% weight loss by 48 hours predicts the development of hyperbilirubinemia (>15 mg/dL), which may require treatment with phototherapy.[4] 7% is also the maximum weight loss recommended by the AAP.[5]

Birth weight _____ kg
4% weight loss _____ kg (BW x 0.96)
7% weight loss _____ kg (BW x 0.93)

(No weight loss threshold protects a newborn from [hypoglycemia](#) and its negative effects on the brain. Only glucose checks and providing sufficient calories protects against hypoglycemia.)[6]

3. I wish for my child to not lose greater than (select all that apply):

- 4% by 24 hours
- 7% at any time
- I wish for my child to be supplemented to their satisfaction and lose as little weight as possible (supplementation must occur only after nursing to stimulate milk production)

4. I wish for my child to be weighed and would like to know the percent weight loss with each weigh in to prevent excessive weight loss. The highest percentile weight loss in vaginally-delivered exclusively breastfed babies is 7% within 24 hours. [7]

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

Patient: _____ DOB: _____

5. In order to avoid excessive weight loss, I would like assistance with learning how to feed my child on the first day.

- Manual expression of breasts **before every feeding** to check for presence of milk (Video tutorial <http://newborns.stanford.edu/Breastfeeding/HandExpression.html>)
- Assistance with latch and position
- Assistance with hearing swallows to ensure intake of milk
- Assistance with learning how to pump my milk, especially if baby is sleepy at breast and is not actively breastfeeding every 2- 3 hours on both breasts for at least 10-15 minutes.
- A pre- and post-breastfeeding weight or "weighted feed" to measure the amount my child is gaining in a feeding session after my milk comes in
- I would like education on formula-feeding
- I would like education on combo-feeding

6. In the event that my child reaches the 4% weight loss threshold by 24 hours, I would like to:

- Express colostrum/transitional milk and feed it to my child by syringe / spoon
- If little to no milk is present, I would like to offer screened and pasteurized donor milk if available and if my child has medical indication for it (prematurity)
- If little to no milk is present, I would like to supplement my child with my preferred formula (see below)
- I would like assistance to assess the breastfeeding before supplementing
- I would like my pediatrician's opinion on supplementation

7. In the event that my child reaches 7% weight loss at any time, I would like to:

- Express colostrum/transitional milk and feed it to my child by syringe / spoon
- If little to no milk is present, I would like to offer screened and pasteurized donor milk if available and if my child has medical indication for it (prematurity)
- If little to no milk is present, I would like to supplement my child with formula
- I would like assistance to assess the breastfeeding before supplementing
- I would like my pediatrician's opinion on supplementation
- I would like a "weighted feed" to be done
- I would like an immediate glucose check

(Note: > 7% weight loss has been associated with the development of pathological hyperbilirubinemia and hypernatremia, which can cause brain injury and developmental disabilities)[4][8]

Patient: _____ DOB: _____

8. **If I am exclusively breastfeeding**, to protect my baby's brain from insufficient milk intake, I would like my child to be monitored:

- Once daily transcutaneous bilirubin checks (or serum bilirubin test if necessary) (the [ABM](#) has cited that 10-18% of EBF newborns experience starvation jaundice from insufficient intake of milk)[9]
- Glucose monitoring per hospital protocol for high-risk babies (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)[10]

9. **If my child appears hungry and unsatisfied at the breast:**

- I would like an immediate glucose checks and supplementation to maintain a normal glucose above 50 mg/dL. (Note: 47 mg/dL is the only prospectively validated glucose level that has been shown to protect newborns from developing long-term developmental delay. [11] The Pediatric Endocrine Society recommends a threshold of > 50 mg/ dL in the first 48 hours and > 60 mg/dL thereafter)
- I would like assistance with manual expression to evaluate for presence of milk
- I would like to supplement with my own 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 until my child is satisfied and no longer crying or lethargic (15 mL at a time)
- I would like to supplement only after nursing sessions to continue stimulation of milk production.

*The size of the newborn stomach at birth has been found to be 20 mL, much larger than the volumes per feed previously published by the Academy of Breastfeeding Medicine.[12]

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

- Syringe
- Spoon
- Supplemental nursing system
- Bottle (slow-flow, nursing-friendly preferred if breastfeeding)

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

- Screened and pasteurized donor milk if available to my child
- Elemental formula
- Hydrolyzed formula
- Standard formula

Patient: _____ DOB: _____

12. Other preferences:

- No pacifiers
- I want a pacifier for my baby and understand the possibility of nipple confusion or decreased desire to suckle directly at the breasts
- Rooming-in with my baby
- Option to sleep during the day / night by sending my child to the nursery so I may recover from delivery for the safety of my baby
- No bed-sharing while breastfeeding to avoid suffocation.
- I do not want to be left alone while breastfeeding in bed, while recovering to avoid accidental suffocation.
- I do not want to be left alone while doing skin-to-skin, while recovering to avoid accidental suffocation (falling asleep, immobility, pain medication effect)

I wish to feed my child in the best way that I can and to reach my feeding goals without risking any harm and rehospitalization. Please help me reach my feeding goals and help protect my child from the dangers of underfeeding.

I have additional concerns and requests:

Respectfully,

Signature

Mother's name

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 hospitalizations due to complications from underfeeding. Earlier supplementation may be needed for babies who are premature or have medical conditions. It is recommended that a parent seeks evaluation by a pediatrician for any concerns regarding the health and safety of her baby if they arise.

initial _____

Note: Many errors can be made when using pounds and ounces for weight. You can convert pounds and ounces to kilograms with the following equation: (Weight in lbs + ounces/16) divided by 2.2 = weight in kilograms. Or go to the following weight converter:

http://www.retrowow.co.uk/retro_britain/old_money/pounds_to_kilograms.html

Patient: _____
DOB: _____

Tracking Baby to Protect the Brain

Hours/ Time	Birth _____	12 hrs _____	24 hrs _____	36 hrs _____	48 hrs _____	60 hrs _____	72 hrs _____
Glucose (Normal > 50 mg/dl)							
Bilirubin* (see chart)							
Weights# (kg)/% loss							

*To calculate the bilirubin risk category, please go to <http://bilitool.org> or the see last page.

#To calculate the percent weight loss, go to <https://www.newbornweight.org>.

Percent weight loss = (Birth weight - current weight)/birth weight x 100%

How to supplement AFTER nursing to continue the stimulation needed for milk production

*Please consult with a lactation consultant, nurse or breastfeeding educator to optimize breastfeeding technique. Medical necessity for supplementation is primarily based on the judgment of a pediatrician, who is the only person qualified to protect your child's brain from underfeeding. **However, the person with the ultimate authority over supplementation is the mother.** Early limited supplementation after nursing has been shown to DOUBLE the rates of exclusive breastfeeding at 3 months for underfed babies, relative to those who are not supplemented.[13]*

1. **Manually express your breasts to check for presence of breast milk.**
2. Breastfeed your baby with optimal latch and positioning for 20-30 minutes every 2-3 hours while assisting your baby through manual expression of your breasts. (see Stanford Video Tutorial)
3. If your child needs supplementation, you may do so with either expressed breast milk, donated screened and pasteurized breast milk, if available, or formula. This can be done through the following methods.
 - a. Supplementing 12 mL at a time with a periodontal syringe slipped into the corner of baby's mouth while baby is latched at the breast.
 - b. Supplementing 15 mL at a time with a supplemental nursing system, a tube taped to the nipple or slipped into the mouth while baby is latched at the breast.
 - c. Bottle-feeding 15 mL at a time, ideally through a slow-flow, nursing-friendly bottle.
4. Burp baby after each 15 mL feeding to prevent gas and regurgitation.
5. Supplement until indications for supplementation and newborn distress are resolved.

Patient: _____ DOB: _____

Please note that wet and dirty diaper counts are not tracked on this feeding plan because they have not been shown to have any correlation with actual breast milk intake or prevention of excessive weight loss.[14] It is important to track eliminations on the hospital records to be sure your baby is eliminating normally.

Clinical Signs of Newborn Hypoglycemia which causes brain injury if uncorrected (< 50 mg/dL)

From Early to Late

10% of EBF babies and 23% of first-born EBF babies have hypoglycemia with no symptoms

Jitteriness or shakiness, especially with hands

Prolonged and unsatisfied nursing (>45 minutes)

Baby wants to nurse constantly, heightens after 24 hours of life

Inconsolable and high-pitched crying despite nursing

Low body temperature

Having weak muscle tone

Being very sleepy or difficult to arouse

Falling asleep at breast after a few suckles or needs constant stimulation for a satisfactory breastfeeding session

Seizures (eyes rolling back in head or jerking rhythmic motions)

Blueness of skin, usually starting around the mouth

Poor breathing or cessation of breathing

[1] [Recognizing and Treating Delayed or Failed Lactogenesis II](#). Nancy M. Hurst, RN, DSN, IBCLC. *J Midwifery Womens Health*. 2007;52(6):588-594.

[2] [Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation. Subcommittee on Hyperbilirubinemia](#). *Pediatrics*, July 2004, 114 (1): 297-316

[3] [Predicting Nonhemolytic Neonatal Hyperbilirubinemia](#). Norman, M, et al. *Pediatrics*. 2015 Dec;136(6):1087-94. doi: 10.1542/peds.2015-2001. Epub 2015 Nov 9.

[4] [Bodyweight loss in predicting neonatal hyperbilirubinemia 72 hours after birth in term newborn infants](#). Wen-Chieh Yang et al., *BMC Pediatrics* 2013, 13:145 DOI: 10.1186/1471-2431-13-145

[5] [Breastfeeding and the Use of Human Milk](#). AAP Breastfeeding Section, *Pediatrics*, March 2012, Volume 129 (3): e827-e841.

[6] [Late-Onset Hypoglycemia in Term Newborns With Poor Breastfeeding](#). Laura M. Seske, et al. *Hospital Pediatrics* Sep 2015, 5 (9) 501-504; DOI: 10.1542/hpeds.2015-0086

[7] [Early weight loss nomograms for exclusively breastfed newborns](#). Flaherman VJ et al. *Pediatrics*. 2015 Jan;135(1):e16-23. doi: 10.1542/peds.2014-1532. Epub 2014 Dec 1.

[8] [Moderate hypernatremic dehydration in newborn infants: retrospective evaluation of 64 cases](#). Uras N et al. *J Matern Fetal Neonatal Med*. 2007 Jun;20(6):449-52.

[9] [ABM Clinical Protocol #22: Guidelines for Management of Jaundice in the Breastfeeding Infant Equal to or Greater Than 35 Weeks' Gestation](#) BREASTFEEDING MEDICINE 2010. 5 (2): 87-93

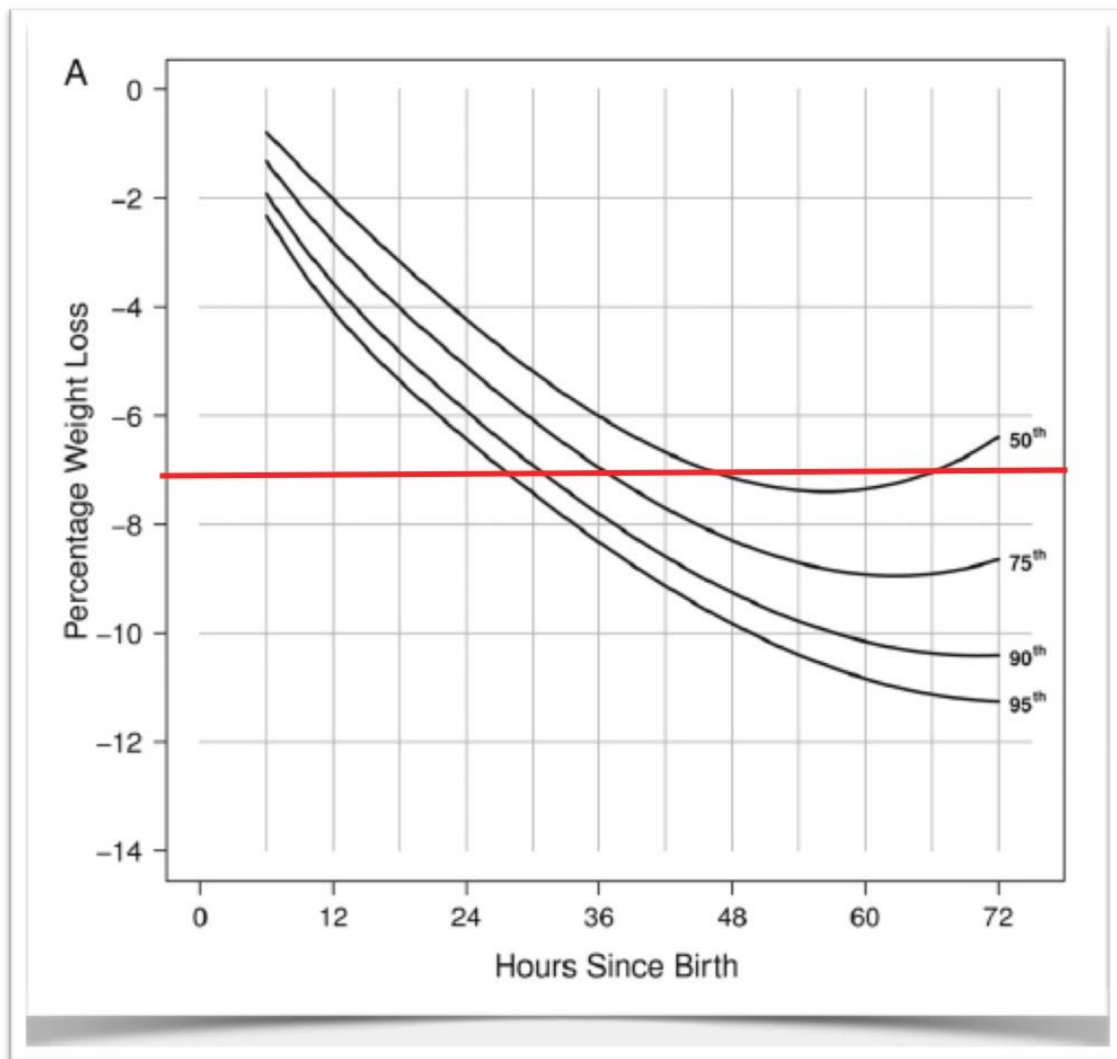
[10] [Study of Asymptomatic Hypoglycemia in Full Term Exclusively Breastfed Neonates in First 48 Hours of Life](#). Purnima Samayam, et al. *J Clin Diagn Res*. 2015 Sep; 9(9): SC07–SC10. Published online 2015 Sep 1. doi: 10.7860/JCDR/2015/14971.6610

Patient: _____
DOB: _____

- [11] [Neonatal Glycemia and Neurodevelopmental Outcomes at 2 Years](#). Christopher J.D. McKinlay, Ph.D., et al. N Engl J Med 2015;373:1507-18. DOI: 10.1056/NEJMoa1504909
- [12] [Neonatal stomach volume and physiology suggest feeding at 1-h intervals](#). Bergman NJ. Acta Paediatr. 2013 Aug;102(8):773-7. doi: 10.1111/apa.12291. Epub 2013 Jun 3.
- [13] [Effect of early limited formula on duration and exclusivity of breastfeeding in at-risk infants: an RCT](#). Flaherman, V.J., et al.(2013). Pediatrics, 2013. 131: 1059–1065.
- [14] [Newborn Wet and Soiled Diaper Counts and Timing of Onset of Lactation as Indicators of Breastfeeding Inadequacy](#). Laurie A. Nommsen-Rivers, PhD, et al. J Hum Lact 24(1), 2008 DOI: 10.1177/0890334407311538

Weight Loss Nomogram for Exclusively Breastfed Vaginally-Delivered Newborns [7]

(Red line indicates 7% threshold)



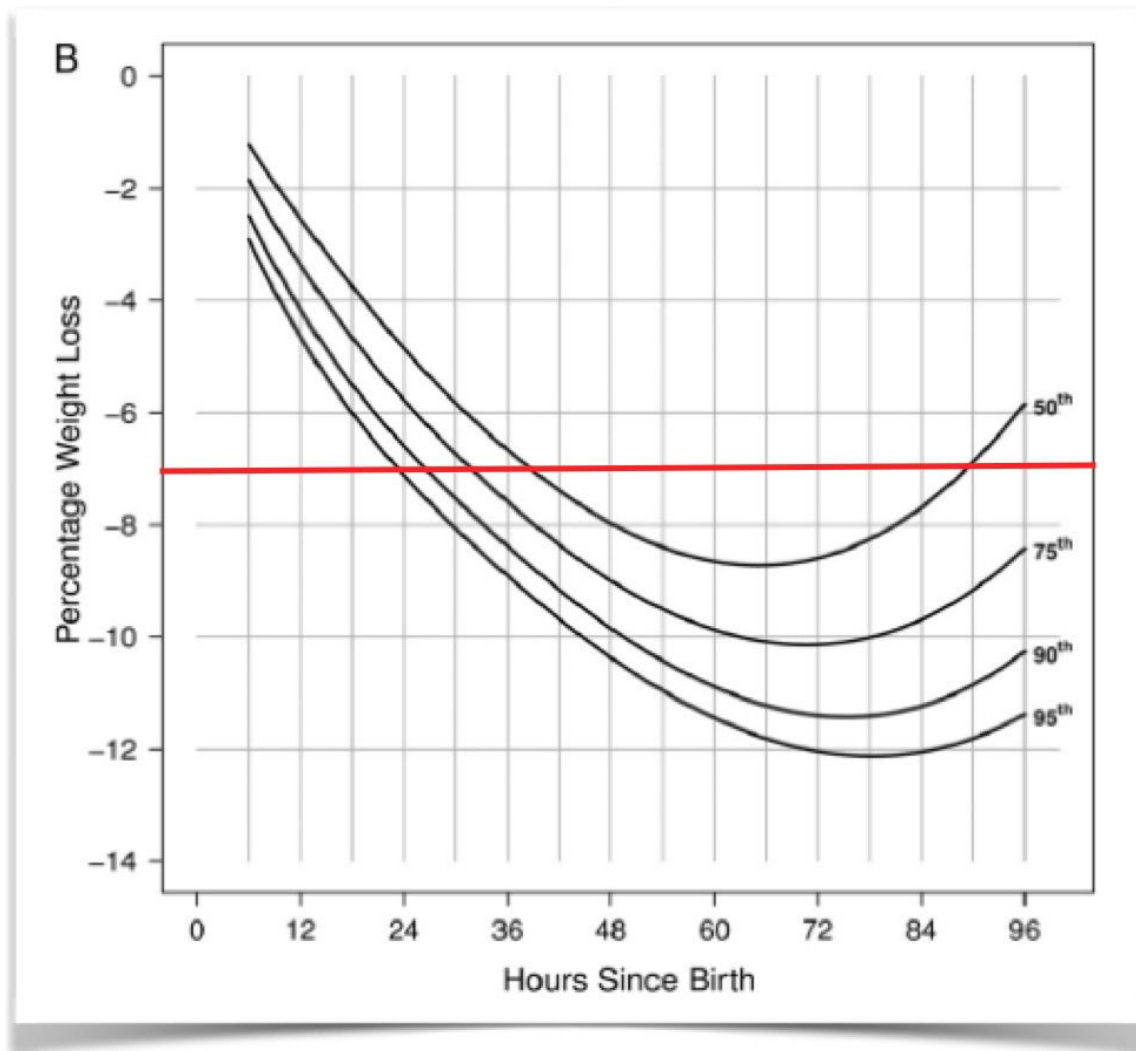
To calculate the newborn weight loss percentage, go to <https://www.newbornweight.org>

Patient: _____
 DOB: _____

Note: This weight loss nomogram has not been tied to clinical outcomes. Therefore, a child at the 50% percentile can still experience complications like hyperbilirubinemia and hypoglycemia. Every child has their own tolerance for weight loss. A child that is crying inconsolably and displaying signs of distress may in fact require supplementation sooner than 7%.

Weight Loss Nomogram for Exclusively Breastfed Cesarean Delivered Newborns [7]

(Red line indicates 7% threshold)

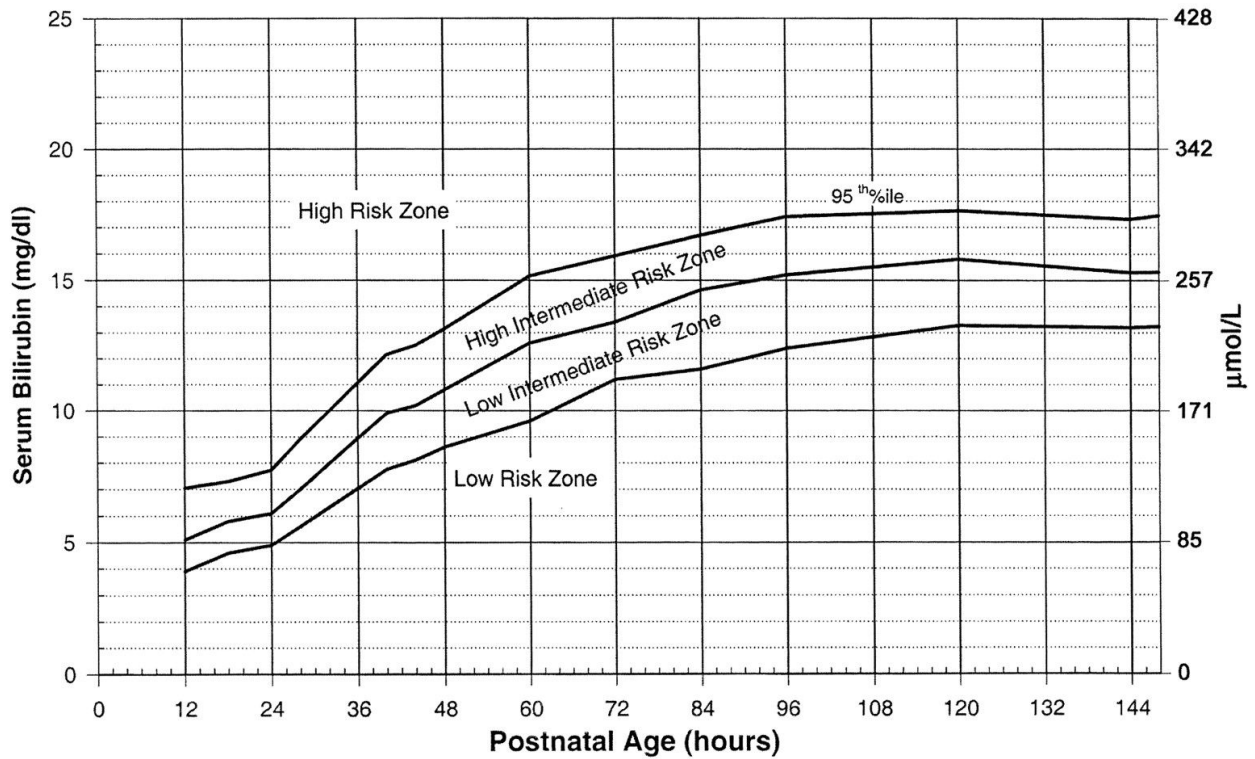


To calculate the newborn weight loss percent, go to <https://www.newbornweight.org>

Patient: _____
DOB: _____

Note: This weight loss nomogram has not been tied to clinical outcomes. Therefore, a child at the 50% percentile can still experience complications like hyperbilirubinemia and hypoglycemia. Every child has their own tolerance for weight loss. A child that is crying inconsolably and displaying signs of distress may in fact require supplementation sooner than 7% weight loss.

Serum Bilirubin Nomogram by Hour



*To calculate the bilirubin risk category on the Bhutani nomogram, please go to <http://bilitool.org>

Patient: _____
 DOB: _____



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Recent data trends show a concerning rise in hospitalizations of exclusively breastfed newborns. This is due to feeding complications from insufficient breast milk intake, including jaundice, hypoglycemia, and dehydration- which can threaten a newborn's brain.

Know the signs to look for when your newborn baby is **HUNGRY**, in the first days of life and watch your baby for:

- H** Hypoglycemia (low blood sugar) jittery hands, low body temperature, inconsolable and high-pitched crying, turning blue and seizures
- U** Unsatisfied nursing, lasting longer than 30 minutes and occurring more frequently than every 2 hours, crying despite continuous breastfeeding
- N** Not waking for feeding every 3 hours, difficult to arouse and very sleepy while attempting to breastfeed, limpness, lethargy
- G** Growth or weight loss exceeding 4% in the first 24 hours and 7% at any time, which increases risk of hospitalization for jaundice
- R** Reduced wet and dirty diaper counts (no wet diapers in 6 hours), and/or red brick dust on diapers
- Y** Yellowing of the skin or eyes, known as jaundice

If you see the signs that your baby is **HUNGRY**, seek medical assistance from your pediatrician immediately and supplement your baby. Don't wait until it's too late.

For more resources about how to safely breastfeed your newborn baby, click on parent resources at: <https://fedisbest.org/resources-for-parents/feeding-plan/>



THE BRAIN-PROTECTIVE WEIGHING PROTOCOL

WHY WEIGH MY BABY IN THE FIRST DAYS OF LIFE?

The most important information an exclusively breastfeeding mother must know is the percent weight loss of her child. In the first days of life, if your baby is fed only colostrum, they will often lose weight. **The current guidelines by the American Academy of Pediatrics (AAP) now recommends a weight loss threshold of 7% [1] as the weight at which the feeding of the baby should be evaluated in order that they not lose more weight. They also recommend that babies start gaining by the 5th day of life.** Weight loss is associated with dangerous conditions like pathological hyperbilirubinemia (jaundice), dehydration, hypoglycemia (low glucose) and hypernatremia (high sodium). All of those markers can be signs of underfeeding and hunger in the newborn. Ten percent of exclusively breastfed newborns that are vaginally delivered and 25% of those delivered by cesarean delivery can lose greater than 10% in the first 72 hours of life. Greater than half of all exclusively breastfed babies lose greater than the 7% recommended by the AAP. It is important that you protect your child from developing this pathological weight loss. An exclusively breastfed child has a higher risk of developing these conditions, which can require hospitalization and may have irreversible effects on their cognitive development.

In the months after delivery, it is important to keep monitoring the weight at home weekly or at the minimum, monthly to make sure they are not developing, failure to thrive. Failure to thrive or weight faltering within the first 9 months of life (falling off the growth curve or reaching below the 5th percentile for age) can negatively impact a child's long-term cognitive development. [2]

HOW DO I WEIGH MY BABY?

Ideally, a baby should be monitored on the same scale so if it is possible to bring your home scale to the hospital to weigh them at birth, that would be the most accurate way to interpret all the other measurements made by that scale. However, if that is not possible, it is important to know how much



your baby weighs regardless. The easiest way to use the scale is to measure your baby in kilograms. 1 kilogram (kg) is 1000 grams. Most home scales measure to 2 decimal places in kilograms.

1. To figure out the 7% weight loss threshold, one must take the birth weight in kilograms and multiply it by 0.93 (signifying when the baby has reached 93% of their birth weight or 7% loss). For example: 3.00 kg at birth $\times 0.93 = 2.79$ kg is the 7% weight loss threshold
2. Remember to weigh you baby naked or press “zero” or “tare” while your baby blanket is on the scale to remove the weight of the blanket from your measurement. Swaddle your naked baby with this blanket and weigh your baby in kilograms.
3. I recommend weighing every 12 hours until a mother’s milk comes in and successful transfer of milk has been established between mother and baby, because an exclusively breastfed baby can lose 7% within 24 hours.
4. Plot this weight loss using the newborn weight loss tool to give you an idea of their weight loss trajectory and percentile relative to other exclusively breastfed newborns. A child who is already at the 90% percentile or worse on the first day of life may already be in need of supplementation. However, pay attention still to the 7% weight loss threshold, which is still the maximum recommended weight loss.

<https://www.newbornweight.org>

WHAT DO I DO IF MY CHILD HAS LOST MORE THAN 7% OF THEIR BIRTH WEIGHT?

To figure out what is causing the weight loss, one must trouble shoot where the problem is starting from the breasts and ending with the child’s weight.

1. Manually express your breast to check for presence of breast milk. **This can be done right after birth** by the following method:

<http://newborns.stanford.edu/Breastfeeding/HandExpression.html>

It is difficult to define what is “enough” breast milk. Ultimately, “enough” for your child is the amount that keeps them satisfied. The weight loss pattern of freely-fed (formula-fed or supplemented) babies show that vaginally-delivered babies lose an average of 3% and maximum of 7% total in the first days of life. After that, a baby’s daily milk intake should allow them a daily weight gain of 1 ounce or 30 grams per day. A mother not producing 40-60 mL by the third day every 3 hours may cause an exclusively breastfed child to lose too much weight.



Unfortunately, this can happen even before the third day, which is why it is important to weigh your baby in those first days.

Colostrum has 60 kcal/100 mL and mature milk has 75 kcal/100mL. [3]

A newborn requires 100-110 kcal/kg/day.

A 3 kg baby (6.5 pounds) may need 330 kilocalories or 440 mL of mature breast milk or 14.7 ounces in one day. This is roughly the amount a baby needs to take in to not lose weight.

2. If milk is present and your baby has trouble getting it, you may need help with achieving a good latch. Ask for the help of a lactation consultant or trained nurse. If your child is still not getting milk, they may need assistance with getting milk by feeding of manually expressed or pumped milk with a syringe or [supplementary nursing system](#) (SNS).

3. If copious milk production has not started and sufficient milk is not present, supplementation may be required in order to prevent the complications of underfeeding to your baby until milk comes in. This may be done with safe and tested human donor milk, if available, or formula. Supplementary feeding may be done with a syringe or an SNS in order to avoid nipple confusion or bottle-preference. However, if baby is having trouble with nursing by this method, bottle-feeding should be initiated with a slow-flow, nursing-friendly bottle. Making sure the baby receives milk to maintain normal glucose through supplementation if breast milk is insufficient is of utmost importance to prevent long-term cognitive deficits from hypoglycemia and dehydration.

4. Supplementation should be done while burping between each ½ ounce (15 mL) and be given only until the baby is satisfied to prevent overfeeding and regurgitation.

THE BOTTOM LINE

Finally, your baby is the only one who knows their tolerance for colostrum-only feeding. A newborn who is crying incessantly after nursing, who is not falling asleep for hours (longer than 3 hours) or is too sleepy to nurse at least every 3 hours are signs of a child in distress from underfeeding. The link below is a video of a newborn who is very hungry:

http://www.dailymotion.com/video/x27kdkv_newborn-baby-crying-cute_fun

A child that is too fatigued from underfeeding will be unable to latch and provide the needed stimulation needed for mother's milk to come in. Judicious supplementation can not only protect



your baby from underfeeding but also protect the breast milk supply by giving your baby enough energy to continue nursing. In fact, judicious supplementation after breastfeeding has been shown to **double exclusive breastfeeding rates** at 3 months.[4] Not only does supplementation of an underfed baby protect that baby's brain, but it also protects the breastfeeding.

Once the milk has come in, a mother may breastfeed exclusively and monitor her child intermittently for adequate growth weekly to monthly, using the WHO or CDC infant growth charts.[5]

[1] [PEDIATRICS Vol. 129 No. 3 March 1, 2012 pg.e827 -e841](#). Breastfeeding and the Use of Human Milk. Section of Breastfeeding.

[2] [Pediatrics. 2007 Oct;120\(4\):e1051-8](#). Weight faltering in infancy and IQ levels at 8 years in the Avon Longitudinal Study of Parents and Children. Emond AM1, Blair PS, Emmett PM, Drewett RF.

[3] [BMC Pediatrics 2014, 14:216](#). A systematic review and meta-analysis of the nutrient content of preterm and term breast milk. Gidrewicz and Fenton.

[4] [Pediatrics June 2013;131:1059-1065](#), Effect of Early Limited Formula on Duration and Exclusivity of Breastfeeding in At-Risk Infants: An RCT. Valerie J. Flaherman, Janelle Aby, Anthony E. Burgos, Kathryn A. Lee, Michael D. Cabana, Thomas B. Newman

[5] Infant growth charts. WHO and CDC. http://www.cdc.gov/growthcharts/who_charts.htm

Last updated July 29, 2016



THE BEST FED IS BEST GUIDE TO SUPPLEMENTING

In the First Days of Life

Supplementing does not ruin your chances at breastfeeding!

Early limited supplementation has been shown to encourage breastfeeding duration¹ and recent research confirms that nipple confusion is a myth² in 5 mothers can experience delayed milk onset³, which may lead to brain-threatening jaundice, dehydration, and hypoglycemia from underfeeding. These complications are the leading causes of newborn hospitalization in the world.⁴

You can supplement from birth to protect your baby's brain while also protecting your milk supply:

- 1. Manually express breasts to check for milk/colostrum (important before milk comes in)**
- 2. Nurse baby until breasts are empty (15- 20 min each side) every 2-3 hours**
- 3. If baby still shows signs of hunger (fussiness, rooting), supplement 15 ml at a time until full and content.**

Feed...

Safe Donor Milk

from a medically regulated milk bank

Commercial Infant Formula

"ready to feed" is ideal when accessible for newborns

With a...

Bottle:

newborns usually prefer a slow flow nipple

Supplemental Nursing System (SNS):

tube taped to the nipple and into the mouth while baby is latched at the breast

Syringe or spoon:

hospital may provide periodontal (curved mouth) syringe or teaspoon

If your baby is still showing signs of hunger, please get help from a trained professional regarding latch and transfer of milk with a weighed feed. If you replace an entire nursing session, manually express or use a breast pump instead to help maintain supply.

For more information on bottle feeding, syringe, SNS, tube feeding, breastfeeding, and pumping, please visit <https://fedisbest.org/resources-for-parents>

It is important to make sure your baby is safely fed first while you and your baby learn how to breastfeed.

#fedisbest

1 "Effect of early limited formula on duration and exclusivity of breastfeeding in at-risk infants: an RCT", Flaherman, VJ., et al.(2013). Pediatrics, 2013. 131: 1059-1065

2 "Clarifying Nipple Confusion", Thompson, K., Zimmerman, E.(2015). Journal of Perinatology, 2015. Nov;35(11): 895-9. ; "Pacifier Use in the first month of life", Goldman, Ran D. (2013). Can Fam Physician, 2013. May; 59(5): 499-500

3 "Risk Factors for Suboptimal Infant Breastfeeding Behavior, Delayed Onset of Lactation, and Excess Neonatal Weight Loss", Dewey, Kathryn G., et al. (2003). Pediatrics, 2003. September; 112(3).

4 "Early readmission of Newborns in a Large Healthcare System", Buchi, KF, et al (2013). Pediatrics, 2013. May;131(5):e1538-44

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The Fed is Best Foundation believes that no baby should ever go hungry while breastfeeding and that every mother deserves support to safely feed her baby.

If you are an expectant mother planning to breastfeed your baby, please go to FedisBest.org to learn about safe, brain-protective breastfeeding.

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