

Fed is Best Guide to Safe Infant Feeding Updated 2020



Photo Credit: Canva

"Mothers, especially first-time mothers, have told us that they gave up breastfeeding in the days after birth because they felt that they were not making enough milk, when in fact, their milk arrival was simply delayed. If mothers were educated about their risk factors for delayed onset of milk or insufficient milk supply, how to safely supplement while waiting for their milk to come in, how to increase their milk production, or how to sustain a combo-feeding relationship if their supply is limited, they could go on to have a sustainable breastfeeding relationship instead of losing confidence and stopping breastfeeding altogether." —The Fed Is Best Foundation

Safe Feeding Plan for My Baby

Name of mother and baby: _	
Date of birth:	
Birth weight:	Discharge weight

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 feeding complications. In addition, it outlines how to protect my milk supply if temporary supplementation is necessary. I request assistance from my nurses, doctors and lactation consultants to honor my personal feeding choices and goals while protecting my baby's health.

- I am aware that the most common reason an exclusively breastfed (EBF) newborn is <u>rehospitalized</u> is due to problems with insufficient feeding.
- I am aware that <u>22%</u> or one in five mothers and up to <u>44%</u> 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.
- Recent research has also found that <u>5–8% mothers do "not experience lactogenesis II and</u> <u>only produce small volumes of milk."</u>
- I am aware that supplementing <u>will not decrease my milk supply</u> *if my breasts are adequately stimulated and emptied while supplementing breastfeeding.*

From the World Health Organization (WHO) **Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services guideline,** 2017.

Early additional foods or fluids

Summary of evidence

The systematic review on giving additional foods (for instance, artificial milk) or fluids (for instance, water or glucose water) other than breast milk to full-term infants, in the first few days after birth, identified 11 studies with 2542 randomized mother-infant pairs (86). Three studies (with 270 mother-infant pairs) contributed to the evidence. Addition of artificial milk in the first few days after birth probably makes little or no difference to breastfeeding at discharge (RR: 1.02; 95% CI: 0.97 to 1.08; 1 study, n = 100; moderate quality of evidence), compared to those not given additional artificial milk. It was uncertain whether giving artificial milk in the first few days after birth has an effect on breastfeeding at 3 months (RR: 1.21; 95% CI: 1.05 to 1.41; 2 studies, n = 137; very low quality of evidence) or exclusively breastfeeding for the last 24 hours at 3 months of age (RR: 1.43; 95% CI: 1.15 to 1.77; 2 studies, n = 138; very low quality of evidence), as the quality of the evidence has been assessed as very low.

My current risk* factors for feeding complications, pathological jaundice, and/or rehospitalization are the following:

*Note: "Risk" means a mother should be followed closely	why her medical/lactation	professionals for optimal outcomes
TNOLE: KISK means a mouner should be followed closer	y by her medical/factation	professionals for optimal outcomes.

Risk Factors for	r Feeding Complications:
Mother - physical	□ Flat, inverted, large, cracked, bleeding, or
Generation First-time mother	infected nipples. Decreased graspability.Breast reduction or breast augmentation
Exclusive breastfeeding	Asymmetric, tubular-shaped breasts
Cesarean section delivery	Minimal growth of breast tissue during
□ Complicated/prolonged labor > 12 hrs	pregnancy (breast hypoplasia, insufficient
□ History of low milk supply, delayed (> 7	
hours) or failed lactogenesis II	Fibrocystic breasts
□ Hypertension (elevated blood pressure)	
□ Pre-pregnancy BMI > 27	Psychological, Social, Mental Health
□ Excessive blood loss during delivery (>	500 Considerations
mL blood, need for transfusion) anemia	ι
□ Retained placenta and placental fragment	nts Alcohol and/or drug addiction, smoking
Diabetes (all types)	PTSD, sexual trauma, domestic abuse
Thyroid disease	History of depression, bipolar disorder
Pituitary disease	Anxiety, OCD, chronic stress, poverty
Smoking/nicotine use	Tactile sensory challenges
Infertility history	Absent partner and family support,
□ Advanced maternal age (\geq 30 years old)	poverty, going back to work before 6 week
Polycystic ovarian syndrome, insulin	D-MER (Dysphoric Milk Ejection Reflex)
resistance	
Theca lutein cysts	Baby
□ Sickle cell disease	, i i i i i i i i i i i i i i i i i i i
□ Autoimmune diseases: multiple sclerosi	s, I NICU admission and separation from
Crohn's disease, ulcerative colitis, lupus	mother/medical complications
rheumatoid arthritis and chronic diseas	es Premature or late preterm baby- ineffectiv
Epilepsy, visual, auditory and physical	latch and transfer of milk at the breast.
disabilities	Oral anomalies such as clefts, tongue
Weight loss surgery	restrictions, recessed chin
	 Low tone, suck swallow disorganization
Breast and nipple variances	 Non-latching, sleepy at breast full-term
	baby.

Injury to the <u>4th intercostal nerve</u> from breast surgeries, biopsies, injuries, piercings	 Familial history of metabolic disorders (e.g., PKU, MCADD) Preterm baby (< 37 weeks gestation)
Risk Factors for Excessive Jau	indice or Hyperbilirubinemia
Exclusive breastfeeding	Pre-term baby <37 weeks
General First-time mother	Gestation 37–38 weeks
History of low milk supply, delayed or	Large for gestational age baby
failed lactogenesis II	Small for gestational age baby
□ Rapid or excessive weight loss > 7%	Blood type incompatibility, G6PD
Prior history of jaundiced newborn	deficiency, other hemolytic diseases
Male gender	Cephalohematoma or bruising and swelling
☐ Maternal age ≥ 25	on the scalp from birth
Asian race	Vacuum delivery
Jaundice within the first 24 hours	Discharge at 48 hours or less
Jaundice before discharge	
Source link: <u>Pediatrics Evidence-Based Updates on th</u> <u>Infants ≥35 Weeks</u>	e First Week of Exclusive Breastfeeding Among

2. My infant feeding goals and choices are:

- □ Breastfeed while supplementing until my milk comes in, then exclusively breastfeed thereafter
- **D** Exclusively breastfeed from birth
- **□** Extended mixed-feeding with breast milk and formula (combo-feeding)
- □ Formula-feed exclusively
- □ Pump and bottle-feed partially or exclusively
- \Box I want to feed my baby colostrum for the antibodies only and then exclusively formula feed

3. I would like the following assistance with learning how to feed my child on the *first day*.

- □ I would like to manually express my breasts before every feeding to check for the presence of colostrum milk (video tutorial <u>http://newborns.stanford.edu/Breastfeeding/HandExpression.html</u>)
- □ I would like assistance with <u>positioning</u> and <u>latch</u>
- □ I would like assistance with 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
- □ I would like education on <u>safe formula preparation</u> and <u>formula feeding</u>.
- □ I would like education on <u>combo-feeding</u>.

4. I will need assistance tracking my baby's weight loss. I want to know the weight of my baby in pounds/ounces *and* kilograms/grams at birth and at all subsequent weight checks.

Example: 7 pounds 4 ounces = 3.288 kg or 3288 grams

(Go here to use a <u>conversion calculator</u>)

5. Normal vs. Excessive Weight Loss

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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

According to the AAP, babies normally lose 5-7% of their birth weight before starting to gain again. Greater than 7% weight loss is associated with an increased risk for hyperbilirubinemia and hypernatremic dehydration. They state that if a baby loses more than 7%, action should be taken to evaluate feeding, as described in the table. (Source: UpToDate guidelines, 2020). Excessive weight loss can be detected earlier by the newborn early weight loss tool (NEWT) and that similar actions can be taken before 7% weight loss if it is greater than the 75th percentile. For example, 7% weight loss was believed to be normal and safe for all newborns, but if they lose this amount in the first 24 hours, this would be considered excessive by the NEWT. Using 10% as the accepted weight loss threshold is now out of date and may increase risk to an infant. Alternatively, the NEWT may provide mothers reassurance that their infant is getting sufficient breast milk and that supplementation may not be needed at this time.

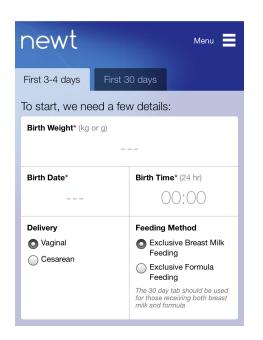
We recommend practicing using the Newborn Weight Loss Tool before delivery to become familiar with how it works. We have provided <u>a few examples here</u> to help you practice using the tool.

□ Tutorial: <u>How to Use the Newborn Weight Loss Tool</u>

Note: This NEWT weight loss nomogram has not been tied to long-term clinical outcomes. Therefore, a dild at the 50th percentile can still experience complications. Every dild has their own tolerance for weight loss. A dild 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, 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 <u>NEWT website link</u> and an example of how the NEWT can detect early excessive weight loss.



 $\mathbf{\nabla}$ Weight Date Time Sep 3 00:00 3515g Vaginal Breast Fed Edit Details ∇ Hour Weight Change 3515 g Birth 35.8 3175 q -9.7% 🔳 50th 📕 75th 📕 90th 🔳 95th 0.0 -2.5 ^Dercentage Weight Loss -5.0 -7.5 -10.0 -12.5 24 30 36 42 48 54 60 66 72 12 18 0 6 Hours Since Birth

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 risk for complications of insufficient feeding.

6. I request my baby to be weighed on the following schedule:

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

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

- \Box 4.5% in the first 24 hours
- □ 7% of birth weight at any time

□ >75%ile of the <u>Newborn Weight Loss</u> nomogram

8. In the event that my child reaches 4.5% weight loss in the first 24 hours, 7% weight loss at any time, or >75% ile on the NEWT, I would like to:

- **D** Express colostrum/transitional milk and feed it to my child by syringe/spoon/cup/bottle
- □ If little to no milk is present, I would like to be offered screened and pasteurized donor milk if available and if my child has a medical indication for it (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 mothers, supplementation must occur only after nursing to stimulate milk production; additional milk expression may also be recommended).
- □ I would like an immediate glucose check (*recommended*)

Note: >7% birth weight loss has been associated with increased rates of hyperbilirubinemia and hypernatremia. [*Resource: <u>IV Fluids Do Not Inflate Weight Loss</u>]*

9. I would like *additional* screening to protect my baby from complications due to insufficient milk intake while exclusively breastfeeding. I would like my child to be monitored by (select all that apply):

- Once daily transcutaneous skin checks (or serum bilirubin test if necessary) for jaundice levels.
- Glucose monitoring (<u>hypoglycemia in healthy, full-term, exclusively breastfed babies</u> has been shown to occur in 1 in 10 babies overall and 1 in 4 first-born babies in the first 48 hours.
- Glucose (blood sugar) check at my request.
- Screening for dehydration and high sodium (<u>hypernatremia ≥ 145 mEq/L</u>, which has been recently shown to occur to as many as 36% of exclusively breastfed newborns and can occur by 4.77% weight loss).
- □ Weight, glucose, sodium and bilirubin check within one hour of discharge

* Note: (No weight loss threshold protects a newborn from <u>hypoglycemia</u> and its negative effects on the brain. *Only glucose decks and providing sufficient calories protect against hypoglycemia*. Newer data suggests that even early, transitional hypoglycemia within <u>six hours</u> of birth, even without symptoms, can be associated with long-term impaired brain development.)

10. Normal vs. abnormal infant feeding signs:

- □ I am aware that wet and dirty diapers <u>do not indicate adequate breast milk intake</u>, and <u>urate crystals</u> or concentrated urine in the diaper may indicate dehydration.
- □ I am aware that "<u>cluster feeding</u>" occurs *after* the onset of full milk supply. The Academy Of Breastfeeding Medicine defines cluster feeding as "several short feedings close together." However,

<u>constant and prolonged feeding</u> around the clock can be mistaken for "cluster feeding," which has resulted in infant harm. I am aware that constant and prolonged feeding are signs of insufficient breast milk and/or insufficient transfer of milk and those <u>signs must be taken seriously</u> for the health and safety of my baby.

- □ I am aware there is no evidence showing that "<u>second night syndrome</u>" or "cluster feeding" in breastfed newborns before full milk supply is normal or safe.
- □ I am aware that research has shown that <u>hearing of swallows</u> in the first days of life is not a reliable indicator of how much colostrum milk a baby is ingesting.

11. If my child appears <u>HUNGRY</u> and unsatisfied *after* breastfeeding, coming on and off the breast crying, persistently falling asleep at the breast despite parents' efforts to stimulate him, crying and cueing to feed:

- □ 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 stimulation of milk production
- **I** would like assistance with manual expression to evaluate for the presence of milk
- □ If my newborn is sleepy and/or not breastfeeding well, I would like to supplement to provide energy to improve my baby's ability to breastfeed; in this situation, I would like to express or pump my breast milk if adequate removal of milk cannot be accomplished through direct nursing.



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 impair a newborn's future brain development.

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



Hypoglycemia (low blood sugar) jittery hands, low body temperature, inconsolable and high-pitched crying, turning blue and seizures



Unsatisfied nursing, lasting longer than 30 minutes and occurring more frequently than every 2 hours, crying despite prolonged breastfeeding



Not waking for feeding every 2-3 hours, difficult to arouse and very sleepy, not maintaining latch, limpness, lethargy



Growth or weight loss exceeding 7% at any time, which increases risk of high sodium levels (hypernatremia) and excessive jaundice



Reduced wet and dirty diaper counts (no wet diapers in 6 hours), Red brick dust on diapers, dry lips and mouth, crying without tears



Yellowing of the skin or eyes, especially below the face, known as hyperbilirubinemia or excessive 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: <u>https://fedisbest.org/resources-for-parents/feeding-plan/</u>

The Fed is Best Foundation is a registered 501(c)3 tax-exempt non-profit organization of health professionals and parents who study the science of infant feeding and work to identify dangerous gaps in current breastfeeding protocols, guidelines, and education programs in order to provide families and health professionals the most up-to-date evidence-based resources to practice safe infant feeding with breast milk, formula, or a combination of both.



Step By Step Guide For Supplementing

- Supplementing does not ruin your chances for establishing breastfeeding!
- Early, limited, and temporary supplementation has been shown to encourage breastfeeding duration.
- 1 in 5 mothers (especially first time mothers) will have delayed onset of milk production which can lead to serious
 complications of jaundice, hypoglycemia and dehydration from insufficient breast milk intake.
- Temporary supplementation if indicated, will protect your baby from hunger, thirst and complications of insufficient breastfeeding.
- It is imperative to pump when supplementing for optimal stimulation of your milk making hormones, while waiting for your milk arrival.



Be informed of your individual risk factors for delayed onset of breast milk production and how to manually self express to check for colostrum presence

Knowing your risk factors can help determine if timely supplementation is indicated. Delayed lactogenesis II is defined as breast milk coming in greater than 72 hours post delivery. Manual self expression before every breastfeeding session will confirm the presence of colostrum.



9 Breastfeed your baby on both breasts

Breastfeeding on both breasts for 15 minutes every 2-3 hours. Effective latch and milk transfer should be confirmed by your lactation professional.



3 Hunger signs and cues and excessive weight loss

If your baby continues to exhibit hunger cues after breastfeeding, or is not nursing effectively, supplement with 15 ml of expressed milk, banked donor milk or formula until your baby is satisfied.

If your baby is losing excessive weight according to the NEWT online tool, supplementation is also indicated.

You may use a syringe, tube on your breast, spoon, cup or bottle to supplement.

For additional resources please download our infant feeding plan for detailed guidelines. https://fedisbest.org/resources-for-parents/feeding-plan/

What is the newborn stomach size?

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 <i>in</i> <i>situ</i> dimensions
Bergman			20 mL	This author's conclusion from available data

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 <u>has 3</u> calories and 1 teaspoon of mature breast milk has 5 calories.

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

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

Note: According to the <u>Academy of Breastfeeding Medicine</u>, "there is no evidence that any of these methods are unsafe or that one is necessarily better than the other."

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

- Banked, screened and pasteurized donor milk if available to my child
- **General** Elemental formula
- □ Hydrolyzed formula
- □ Standard formula
- □ Soy formula
- □ I brought my own ready-to-feed formula

14. Pacifier choices:

- No pacifiers
- □ I want a pacifier for my baby [*Note: the 2017 WHO breastfeeding guidelines no longer discourage pacifier use given evidence that it <u>does not interfere with breastfeeding and protects infants from SIDS</u>]*
- □ I brought my own pacifier
- □ I want to use a pacifier after nursing for my baby's comfort

15. 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 am safe to do so.
- □ I do not want to be <u>left alone while doing skin-to-skin while recovering</u> or until I am stable to safely hold my baby. (Maternal immobility, pain medication effects, and falling asleep <u>have caused</u> <u>accidental infant suffocation and falls</u>.)

16. Discharge follow-up care

- □ I want my baby to be seen for an exam and weight check at my pediatrician within 24 hours after discharge.
- □ I want 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 is transferring 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

I have additional concerns and requests:

Respectfully,

 Parent's name

 Signature

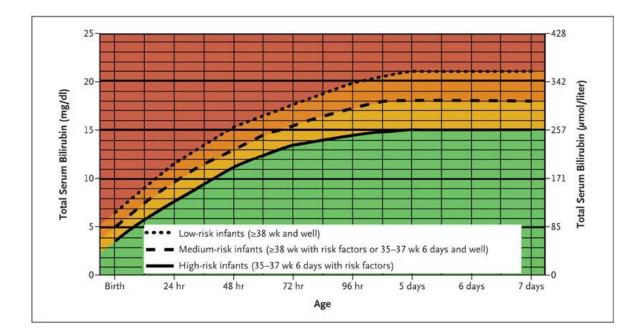
 Date & Time

TRACKING BABY'S WEIGHT, JAUNDICE, AND BLOOD SUGAR TO ENSURE SAFE FEEDING

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

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

<u>Please note that wet and dirty diaper counts</u> 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 prior to the onset of copious milk production. It is important to track wet and dirty diapers on the hospital records to be sure your baby is eliminating normally.



he hospital records to be sure your baby is eliminating normally.

[†]To calculate the bilirubin (known as jaundice) risk category on the Bhutani nomogram, please go to <u>http://bilitool.org</u>

ADDITIONAL BREASTFEEDING RESOURCES:

- How To Breastfeed The First 2 Weeks of Breastfeeding
- Fed is Best Infant Feeding Educational Website
- One-on-One Consultation with Infant Feeding Expert, Jody Segrave-Daly, RN, IBCLC
- **General Section** Feeding Your Baby—When Supplementing Saves Breastfeeding and Saves Lives

PRINTABLE RESOURCES: CRIB CARD

Birth Date:		
Name:		
	Length:	
	feeding is t	the best choice for our family.
Please Support Us With Our Infant F		the best choice for our family. Mixed Feeding: Yes/No
Please Support Us With Our Infant F Breastfeeding: Yes/No	Feeding Plan:	Mixed Feeding: Yes/No
Please Support Us With Our Infant F Breastfeeding: Yes/No	Feeding Plan: Formula Feeding: Yes/No	Mixed Feeding: Yes/No Yes/No

PRINTABLE DOOR OR WALL SIGN

Our Infant Feeding Plan
Name:
Weight:Length:
feeding is the best choice for our family.
Please support us with:
Breastfeeding Education: Yes/No Lactation Consultant: Yes/No
Formula Feeding Education: Yes/No Mixed Feeding Education: Yes/No
Our Infant Feeding Plan Is: Breastfeeding: Yes/No Formula Feeding: Yes/No Mixed Feeding: Yes/No
Supplementation with banked donor milk or formula until my milk comes in: Yes/No
Bottle for supplementing: Yes/No SNS for supplementing: Yes/No
Breast Pumping and Bottle Feeding : Yes/No Pacifier: Yes/No
Sending our baby to the nursery if requested: Yes/No
Other Requests:

Informed Consent Regarding Risks of Insufficient Feeding

I understand that the risks of exclusive breastfeeding before the onset of copious milk production are caused by insufficient breast milk intake due to either low/delayed breast milk supply and/or insufficient transfer of milk. The complications include increased incidence and severity of the following:

- excessive jaundice (yellow skin; hyperbilirubinemia occurs to <u>10–25%</u> of exclusively breastfed newborns)
- excessive weight loss (>75th percentile weight loss according to the <u>NEWT</u> nomogram
- dehydration (>7% weight loss increases the risk of hyperbilirubinemia and hypernatremia and occurs to <a>>50% of EBF newborns)
- hypernatremia (high blood sodium >145 mEq/L occurs to <u>36% of EBF newborns</u>)
- low blood sugar (hypoglycemia, glucose < 40 mg/dL occurs to <u>10% of EBF newborns</u>) (Note: ≥47 mg/dL is the only prospectively validated glucose level that has been shown to protect newborns from long-term developmental delay. The Pediatric Endocrine Society recommends maintaining glucose above 50 mg/dL in the first 48 hours and above 60 mg/dL thereafter.)

initials _____

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

initials _____

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.

initials _____

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

initials _____

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.

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.