

# Breastfeeding Progression in the NICU Graduate



## FAST FACTS

### direct breast-feeding (feeding at the breast)

may increase breastfeeding duration in preterm infants

### full maternal milk supply

at discharge is a good predictor of successful breastfeeding after NICU

## WHEN TO REFER

Refer to Cincinnati Children's Breastfeeding Medicine Clinic or NICU Follow-Up Clinic for:

- Infants with poor growth parameters during transition to direct breastfeeding
- Latch assessment
- Low maternal milk supply or decreased pumped milk volumes

Breast milk feedings are always the first choice for a NICU infant's nutrition, but exclusive breastfeeding may not be achieved by NICU discharge. A pre-term or full-term infant with complex medical conditions may not be able to effectively transfer milk from the breast and may require caloric fortification to meet nutritional needs. The infant may consume more volume at the breast over time through maturity and improved skills. Nutritional care plans post-discharge depend on maternal milk supply, feeding goals and the infant's nutritional status and feeding behaviors. Develop individualized plans to promote breast milk feedings, provide optimal nutritional support (while supporting the mother's feeding goals), and protect mother's milk supply. Highest risk infants require additional attention in planning. Infants born <32 weeks of <1500g, or with complex medical conditions such as chronic lung disease are automatically referred to the NICU follow-up clinic at discharge.

## ASSESSMENT

Frequently and carefully assess (1) the infant's ongoing nutritional needs, (2) infant growth, (3) milk transfer and (4) maternal milk supply during the transition to more frequent breastfeeding. Assess latching for adequacy and evaluate breastfeeding effectiveness. Weigh before and after feeding on an electronic scale with an accuracy at minimum of +/- 5g for objective measurement of milk transfer.

## HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

- Average growth <15g/day
- High-risk infant (<3rd or 5th percentile)
- Maternal history suggestive of poor milk emptying/stasis (e.g., mastitis)
- Maternal history suggestive of decreasing milk supply

## MANAGEMENT/TREATMENT

Follow the NICU discharge feeding plan until growth trajectory is established. Time at the breast may need to be limited initially to avoid fatigue. For lower-risk infants (without ongoing prematurity complications, >10th percentile for weight), gradually increase breastfeeding frequency as the infant improves in emptying the breast. Test weights can quantify milk intake at the breast. As breastfeeding frequency increases, supplementation and pumping can gradually decrease. Some infants (especially higher risk) may require continued supplementation with fortified breast milk or preterm formula, depending on family preference, feeding plan sustainability and maternal milk supply. See algorithm (reverse) for more detail.

Breastfeeding mothers of NICU graduates should discontinue pumping gradually (over 1–2 month period following discharge). Continue pumping until infant transitions to exclusive at-the-breast feeding and use of a nipple shield is no longer required.

**Cincinnati Children's  
Breastfeeding Medicine  
Clinic: 513-636-2326**

**Cincinnati Children's  
NICU Follow-Up Clinic:  
513-636-3882**

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

# Breastfeeding Progression in the NICU Graduate

## Inclusion Criteria

Infant recently discharged from neonatal intensive care

## Patient Presents

## Standard Workup

- History of Present Illness
- Family History
- Physical Exam

## HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

- Average growth <15g/day
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Born at <32 weeks or <1500 grams, or with NICU complications such as chronic lung disease?

Yes

Feedings managed by  
NICU follow-up clinic

No

Growth concerns?

Yes

### Conduct breastfeeding assessment and perform test weights before and after feeding

- Consider altering number of feedings at the breast and increasing the number of feedings of preterm formula or fortified breast milk
- OR
- Increase caloric concentration of preterm formula or fortified breast milk supplements
- OR
- Increase volume of supplementation following direct at-the-breast feeding

No

- Increase number of direct-at-breast feeds
- Decrease supplemental feeds of preterm formula or fortified breast milk

Adequate milk transfer?

Yes

- Continue current number of direct-at-breast feeds
- Increase calories of preterm formula or fortified breast milk
- OR
- Increase volume of supplementation after direct-at-breast feedings

No

- Alter number of direct-at-breast feeds per day with prescribed number of feeds per day of preterm formula or fortified breast milk
- Increase feedings of preterm formula or fortified breast milk