

Milk expression within eight hours associated with lactation success for VLBW infants in NICU

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A study led by physician researchers at Boston Medical Center has shown that first milk expression within eight hours of giving birth is associated with the highest probability of mothers of very low-birth-weight infants being able to provide milk throughout hospitalization in the neonatal intensive care unit. The study results, published in *Obstetrics and Gynecology*, help better inform perinatal providers and new mothers how to prioritize the many aspects of perinatal care after delivery of a very low-birth-weight infant.

Mother's milk has many benefits for very low-birth-rate infants, including reduction of necrotizing enterocolitis, sepsis, and chronic lung disease, and improvement in later childhood development. However, mothers of very low-birth-rate infants often have challenges making milk. They are more likely to have complications during or after delivery and comorbid health conditions that affect milk production, such as diabetes. They are also more likely to be separated from their newborn for a prolonged period of time after birth.

Because of these challenges, lactation support for mothers of very low-birth-weight infants is crucial. The World Health Organization's Baby-Friendly Hospital Initiative suggested milk expression within six hours after birth as one strategy for support. However, evidence for this time period is limited. In addition, milk expression within six hours can be difficult due to the need for intensive monitoring of newborns and/or

mothers.

"Mothers who have recently delivered very low-birth-weight infants have a number of competing needs," says Margaret G. Parker, MD, MPH, a neonatologist at Boston Medical Center and the study's corresponding author. "Our data-driven approach to determining optimal time of first milk expression can help providers balance the need for safe maternal care with effective support to create long-term lactation success."

The researchers used data from 1,157 mother-baby pairs in nine Massachusetts hospitals. The infants were all very low-birth-weight infants who spent time in the [neonatal intensive care unit](#). They found 70 percent of infants whose mothers expressed first milk within eight hours of delivery were being fed any mother's milk at discharge or transfer, compared with 52 percent of infants whose mothers expressed first milk 9-24 hours after delivery.

The authors note that given these results, randomized control trials are needed to further establish the [causal relationship](#) between timing of first [milk](#) expression and long-term lactation success among mothers of very low-birth-weight [infants](#).

Provided by Boston Medical Center

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