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Mother's own milk is optimum nutrition for very low birthweight infants: AAP

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Courtesy of Margaret G. Parker, M.D.,
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A new AAP clinical report highlights the importance of promoting breastfeeding in neonatal intensive care units (NICUs) for very low birth weight (VLBW) infants (1,500 grams or less).

The report reaffirms previous policy statements that strongly support a mother's own milk as the optimal nutrition source and provision of pasteurized human donor milk when her milk is unavailable.

The report *Promoting Human Milk and Breastfeeding for the Very Low Birth Weight Infant* is from the Section on Breastfeeding, Committee on Nutrition and Committee on Fetus and Newborn. It is available at <https://doi.org/10.1542/peds.2021-054272> and will be published in the November issue of *Pediatrics*.

Benefits, challenges

Key observational studies and randomized, controlled trials summarized in the report demonstrate the robust benefits of mother's own milk. They also highlight the continued social inequities in breastfeeding outcomes and support within the VLBW population.

Research shows that many mothers of VLBW infants do not reach their personal lactation goals. This population faces unique challenges, including a high risk of maternal morbidities that impact lactation; prolonged mother-infant separation; pump dependence to maintain milk production; and competing demands on time that impede frequent milk expression and NICU visitation.

Supportive strategies

The report reviews evidenced-based strategies that can support maternal lactation. For example, mothers of



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VLBW infants need double electric breast pumps - often called "hospital-grade" pumps - to maintain lactation in the hospital and home. Mothers should be trained in use of these pumps prior to their discharge home. Optimally, they should receive the breast pump intended for home use *prior to* discharge to prevent any disruption in frequent milk expression.

Milk expression should begin as soon as possible after birth, ideally within six to eight hours and continuing every three to four hours. Frequent milk expression is important throughout lactation but is especially important in the first days and weeks after birth, when milk supply is being established.

Skin-to-skin care is an evidence-based practice to support lactation among mothers of VLBW infants. It also promotes other positive health outcomes. The statement reaffirms what has been expressed in previous AAP statements regarding skin-to-skin care. It can be performed safely with securely placed umbilical lines and intubated infants or infants on continuous positive airway pressure in many NICUs in the U.S. Family members should be encouraged to participate in skin-to-skin care as much as possible and for as long as desired.

Transition to direct breastfeeding is an important practice that is associated with longer duration of lactation. Barriers include prolonged immature coordination, mother-infant separation and the need for all VLBW infants to have fortification during the NICU hospitalization to optimize growth. Oral feeding at the breast is possible as soon as the infant shows feeding cues and respiratory support allows for feeding. Many studies have shown that this happens as early as 31 to 33 weeks. More frequent episodes of direct breastfeeding can lead to longer duration of lactation.

Mothers' lactation goals should be assessed and supported at all stages of the NICU hospitalization and particularly as part of the discharge process.

The report also provides an account of macronutrient differences between mother's own milk and pasteurized donor milk over time. Pasteurized milk has a substantially lower energy content than a mother's own milk, demonstrating the importance of maximally supporting mothers in their own milk production.

Finally, the report provides guidance on postnatally acquired cytomegalovirus (CMV) infection. While this vulnerable population is at risk of CMV-acquired infection through mother's own milk, the benefits of her milk are thought to outweigh the risk. NICU providers should consider CMV as a source when VLBW infants present with symptoms of late-onset sepsis.

Dr. Parker is a lead author of the clinical report and a chair of a Section on Breastfeeding subcommittee on the report.