

Breastmilk and the Creamatocrit Plus™

Breastmilk is the recommended form of nutrition for all infants for the first six months of life based on the American Academy of Pediatrics guidelines. This is due to breastmilk's unique nutritional composition and protective qualities which are proven to help safeguard against enteral feed intolerance, nosocomial infection, and necrotizing enterocolitis, as well as provide other immunological benefits.¹ These benefits are even more important when applied to a pre-term or low birthweight (LBW) baby due to their vulnerable condition. Several older studies indicate however that weight gain may be slower in human milk-fed than formula-fed premature infants, raising questions about the caloric adequacy of breastmilk.² This has led to a practice of using formula and fortifiers in many NICUs across the country as an exclusive form of nutrition for premature, LBW infants.

Lipid concentration in breastmilk varies considerably, depending upon the stage of lactation, frequency of milk expression, time of day, and completeness of breast emptying. The lipid concentration contributes the majority of the calories in breastmilk, so fluctuations always affect caloric density. The Creamatocrit Plus provides objective and real-time information about the caloric content of any given breastmilk sample.³ This provides nutritional data for neonatologists, registered nurses, lactation consultants, and nutritionists to individualize feeding interventions for infants in a variety of ways and in a variety of settings. In the NICU, the Creamatocrit Plus is instrumental when performing hindmilk fractionation of breastmilk which has shown to accelerate weight gain in LBW infants without the use of formula or fortifiers.

The Creamatocrit Plus is also a valuable diagnostic tool for Lactation Consultants to manage breastfeeding problems with mom. The test results can be used to confirm lipid concentration variations and help LC's to prescribe a corrective milk expression schedule or changes to storage techniques.² Mothers also feel assured when they see that their breastmilk has enough calories, especially in comparison to formula, thus encouraging them to continue with their breastfeeding efforts. Mothers can be taught to separate the foremilk from the hindmilk at the time of pumping and feed the high calorie hindmilk in cases where babies are not achieving desired weight gain.

The Creamatocrit Plus is an essential tool to validate the caloric benefits of breastmilk allowing clinicians to utilize breastmilk confidently as the nutrition of choice. The Creamatocrit Plus – helping ensure that the youngest lives get the healthiest possible start.

Sources:

1. Breastfeeding and the Use of Human Milk. American Academy of Pediatrics. Pediatrics, Feb 2005;115(2):496-506.
2. Creamatocrit Measures with Mothers' Milk: Utility in Neonatal Intensive Care. Rush Mothers' Milk Club Special Care Nursery, 2006.
3. Accuracy of a User-Friendly Centrifuge for Measuring Creamatocrits on Mothers' Milk in the Clinical Setting. Meier, Paula et. al., Breastfeeding Medicine, Jun 2006; 1(2): 79-87.