



PRETERM FORMULA - AN ACCEPTABLE OPTION FOR INFANTS THAT DO NOT HAVE ACCESS TO HUMAN MILK

“Every effort, including use of preterm formula, is justified to protect the preterm infant from growth failure and the neurodevelopmental impairment it engenders” (E.E. Ziegler 2015)

WHEN HUMAN MILK IS NOT ACCESSIBLE

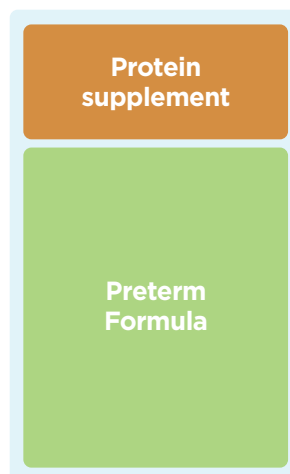
Although breastfeeding and provision of own mother's milk (OMM) or donor human milk (DHM) are the preferred feeding options for all preterm infants, not every preterm infant receives human milk today [1-3].

This may be due to the health status of the mother or other external factors that together decrease HM use or access [2,3]

- Immaturity of breast tissue
- Maternal stress
- Caesarean section
- Poor maternal health status
- Medications interfering with milk flow
- Maternal unawareness of HM benefits
- Lack of or insufficient lactation support
- Unsuitable environment for milk expression in hospital or at home
- Lack of donor milk bank access
- Financial constraints to purchase donor milk

Ideally, a lactation specialist as well as NICU staff are available to educate parents about the importance of HM in the child's health, the personalised nature and benefits of HM, to encourage, support and monitor mothers in expressing and fathers to support this practice despite high effort and low volume of initially expressed milk [3,4]. In addition the hospital would have access to affordable

DHM that can be used as preferred alternative to own mother's milk.



FORMULA FEEDING

For those infants that do not have access to HM or not enough HM, a preterm formula can serve as fall-back option. Such formula is specially developed to meet the preterm infants' nutrient requirements accounting for feeding restrictions and low tolerance for high feeding volumes. A well-designed preterm formula is the next feeding option after OMM or DHM to prevent growth failure and neurodevelopmental impairment associated with it [1].

>25

Years of expertise on LCPUFA research in preterm nutrition

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Years of expertise on prebiotic research in preterm nutrition

Features of Nutricia preterm formula providing solutions to prevent growth failure

- High energy (80 kcal/ 100 ml)
- Protein concentration meeting the needs of preterm infants born weighing between 1000 – 1800g
- Easily digestible carbohydrates, including milk sugar
- Medium-Chain Fatty Acids for fast accessible energy
- Long-Chain Poly-Unsaturated Fatty

Acids i.e. Linoleic acid, alpha-linolenic acid, docosahexaenoic acid, arachidonic acid for membrane incorporation and in support of brain development

- Prebiotic mixture scGOS:lcFOS (9:1) clinically demonstrated to mimic the natural prebiotic effect of the oligosaccharides in human milk [7-13]

For additional protein needs of extremely low birth weight infants, the protein supplement can be added, shown to improve growth [5,6].

References

- 1 Ziegler. (2015) J Pediatr Gastroenterol Nutr. 61 Suppl 1: S3.
- 2 Tudehope. (2013) J Pediatr. 162: S17-S25.
- 3 Flaherman & Lee. (2013) Pediatr Clin North Am. 60(1): 227-246.
- 4 Lapillonne. (2014) 110: 264-277. In: Koletzko-Uauy-Pointdexter (Eds.). Nutritional care of preterm infants: Scientific basis and practical guidelines. Karger, Basel, Switzerland.
- 5 Morlacchi *et al.* (2016) J Transl Med. 14(1): 195.
- 6 Loui & Buhner. (2013) J Perinat Med. 41(6): 735-741.
- 7 Boehm *et al.* (2002) Arch Dis Child. 86: F178-181.
- 8 Moro *et al.* (2006) Arch Dis Child. 91: 814-819.
- 9 Moro *et al.* (2002) J Pediatr Gastroenterol Nutr 34: 291-295.
- 10 Rigo *et al.* (2001) Pediatr Gastroenterol Nutr. 32: 402-407.
- 11 Rinne *et al.* (2005) FEMS Immunol Med Microbiol. 43: 59-65.
- 12 Schmelzle *et al.* (2003) J Pediatr Gastroenterol Nutr. 36: 343-351.
- 13 Knol *et al.* (2005) Acta Paediatr Suppl. 94: 31-33.