



IN LINE WITH THE WHO, WE BELIEVE THAT HUMAN MILK IS THE BEST NUTRITION FOR PRETERM INFANTS

Breastfeeding and human milk (HM) are the preferred feeding mode and nutrition for every infant [1,3,4,9]. The composition of HM is highly variable and tailored to the personal nutritional needs of an infant [6-8]. For preterm infants on parenteral feeds, trophic feeding with HM soon after birth is recommended to prepare the intestine for enteral feeding [3-5].

MATERNAL HUMAN MILK BENEFITS

Beyond the benefits of breastfeeding known for term infants [2], providing HM to premature infants

- offers immune protection against infection [3-5],
- reduces the risk of necrotising enterocolitis (NEC) [3-5],
- prepares the gut for enteral feeding [3-5],
- supports healthy gut development [3-5],
- provides enzymes for fat absorption [6],
- is associated with improved neurocognitive development [3-5],
- is tolerated well [3-5], and personalised to the mother-infant dyad [7,8].

Colostrum, a pre-milk fluid rich in immunoglobulins and immune cells that is produced during the first 24-48 hours postpartum, is especially important for immune protection and gut maturation and should never be discarded [4].

DONOR HUMAN MILK

If own mothers milk (OMM) is not available donor human milk (DHM) from milk banks is the next preferred alternative for preterm infant feeding [9]. However, as with OMM, DHM is not nutrient enriched enough to meet the high requirements of extreme and very premature infants and fortification i.e. adding

macro- and micronutrients to HM or a multicomponent Human Milk Fortifier (HMF) is required [10-12].

FORTIFICATION

HM fortification is associated with improved growth and brain development [1,3-5,9-12]. Infants born weighing less than 1800g are recommended to receive fortified HM enriched in energy, macronutrients, minerals, and vitamins [11,12] to achieve growth rates similar to those of the foetus. However, infants born weighing less than 1000g and/or those born small-for-gestational age may need an even faster weight gain for recovering growth [13,14] and have therefore even higher protein and energy needs [10-13].

FORTIFICATION TECHNIQUES

Although *standard fortification* (adding a fixed volume of a multicomponent fortifier to HM) has been linked to improved growth [15], this approach may not meet all preterm infant's requirements for growth [10]. In *targeted or individualised fortification*, the amount of fortifier is adjusted according to measured HM protein concentration or markers indicating the protein needs of the individual infant, or both [10].

>40

Years of experience in breastfeeding research

>25

Years of expertise on human milk fortification



The addition of individual macronutrients such as lipids, carbohydrates, or protein is also practiced [15]. Targeted fortification improves growth of preterm infants [15-17].

Human milk is the preferred nutrition for preterm infants. However, fortification is recommended for preterm infants < 1800g to ensure the required nutrients are received alongside all HM associated benefits for healthy growth and development.



Supporting breastfeeding by providing solutions that are and can be further personalised to individual needs.

At Nutricia, we know that the composition of HM is highly variable and tailored to the personal nutritional needs of an infant. To meet the high preterm requirements and support breastfeeding, we offer a multicomponent fortifier and - for additional protein needs of extremely low birth weight infants - a protein supplement to improve growth of preterm infants [16,17].

References

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