

Premature Birth

- Premature or preterm birth is categorized as the birth of an infant three weeks or more before a baby's due date (i.e., less than 37 weeks; full term is 40 weeks).
- Each year, roughly 55,000 preemies are born weighing less than 1,500g (3 lbs 5 oz)¹ – so small that the baby could fit in the palm of your hand. Neonatal intensive care unit (NICU) costs exceed \$3,500 per day, and it's not unusual for costs to top \$1 million for a prolonged stay.² The earlier a baby is born, the more severe the health problems can be.
- Although preterm babies are a small percentage of all births, more infants die from preterm-related health problems than from any other single cause.³
- Preemies can be classified by birth weight and will fall into one of three categories:
 - Low Birth Weight (LBW): Weighs less than 2,500g (5 lbs 8 oz) at birth
 - Very Low Birth Weight (VLBW): Weighs less than 1,500g (3 lbs 5 oz) at birth
 - Extremely Low Birth Weight (ELBW): Weighs less than 1,000g (2 lbs 3 oz) at birth
- Preemies are cared for in a hospital NICU, which are categorized as Level I (full term and late preterm newborns requiring additional medical care), Level II (moderately ill newborns), Level III (advanced care for premature, low birth weight and fragile infants), and Level IV (added capability of 24/7 pediatric medical and surgical specialty consultants for the most complex, critically ill preemies).⁴
- Premature infants have significant nutritional requirements. Increased calories, protein, calcium and other minerals are vital to their survival. During the last trimester, babies receive vast amounts of nutrition through the umbilical cord. Very premature infants miss this crucial nutrition, and their dietary needs are greater than what breast milk alone can supply outside the womb. This is why, for preemies weighing less than 1,500g, the American Academy of Pediatrics (AAP) recommends fortifying mother's milk or pasteurized donor milk with protein, minerals and vitamins to ensure optimal nutrient intake.⁵

What Problems Occur as a Result of Premature Birth?

- Standard practice in the NICU is to fortify mother's milk or donor breast milk with a Human Milk Fortifier (HMF) to provide the extra calories and protein that very premature infants need. Yet, until the introduction of Prolacta+ H²MF[®], the only way to provide the extra calories and protein was to add a cow milk-based HMF to mom's or donor milk.
- A 2014 cohort study published in the journal *Breastfeeding Medicine* found that for each 10% increase in cow milk in the infant's diet, the risk of necrotizing enterocolitis (NEC) increases by 11.8%, the risk of surgical NEC increases by 21% and the risk of sepsis increases by 17.9% for extremely premature infants born weighing less than 1,250g.⁶
- NEC is the most common and serious intestinal disease among extremely premature infants (preemies born < 28 weeks gestational age), and is one of the leading causes of mortality among these very young patients.⁷
- Other complications for premature babies can include sepsis, bronchopulmonary dysplasia, patent ductus arteriosus and retinopathy of prematurity.⁸
- Prematurity is a leading cause of long-term neurological disabilities in children³ and can also result in lifelong problems such as cerebral palsy, hearing loss, chronic health issues, vision loss and dental problems.⁸

References

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