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Mini-review

Sex-specific nutrition requirements for preterm infants in India

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This narrative review examines the evidence that sex is a vital factor in determining nutritional interventions for preterm infants. The biological disparities between the sexes are obvious from the initial phase of pregnancy. The female and male fetuses exhibit different responses to maternal nutrition. Female newborns have a natural survival advantage over male. Further, the composition of a mother's breast milk varies depending on the foetal sex and the early neonatal nutritional interventions affect girls and boys differently. The preterm formulas and donors' milk does not vary with infant sex, which might be one reason for better growth and developmental outcomes favoured by mother's own milk. However, preterm neonates have high nutritional requirements that cannot be met by breast milk alone and manifest a need for fortification with human milk fortifiers which are not sex-specific. Thus, optimising early nutrition for preterm girls and boys may improve the outcomes of both sexes as they have distinct and conflicting nutritional needs.

Keywords: Low birth weight, Mother's milk, Preemie feeding, Premature babies, Preterm formulas