

Benefits of supplemented preterm formulas on insulin sensitivity and body composition after discharge from the neonatal intensive care unit

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Objective: To evaluate body composition and fasting insulin level in preterm infants receiving preterm formulas (higher protein plus docosahexaenoic acid) for longer periods compared with a recent historical cohort receiving these formulas for shorter periods. **Study design:** A total of 95 infants fed preterm formula for 6 months or longer (postdischarge formula group) and 87 infants fed preterm formula only during their hospital stay (hospital formula group) were included in this arm of the study. **Results:** Bone mineral density, content, and lean mass were not different at 1 year and 2 years. However, in the postdischarge formula group, total fat mass (%) was lower by the second year ($19.3\% \pm 5.3\%$ vs $21.7\% \pm 4.2\%$; $P < .01$), trunk fat was lower by the first year ($14.7\% \pm 5.0\%$ vs $16.9\% \pm 4.9\%$; $P < .005$) and at the second year ($14.1\% \pm 5.7\%$ vs $17.2\% \pm 4.7\%$; $P < .001$), and fasting insulin was lower by the first year ($13.2\% \pm 7.1\%$ vs $17.2\% \pm 13.6\%$ mIU/L; $P = .06$) and at the second year ($13.6\% \pm 6$