

Height at 2 and 5 years of age in children born very preterm: the EPIPAGE study.

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Abstract

Objectives To evaluate growth for children born very preterm with particular focus on those born small-for-gestational age (SGA) or with ex utero growth restraint (GR), and to identify risk factors for short stature at 5 years of age. **Study design** Population-based study of children born at less than 33 completed weeks of gestation (Étude Epidémiologique sur les Petits Ages Gestationnels (EPIPAGE)). Short stature was defined as height $<-2SD$ on WHO growth curves. Ex utero GR was considered to have occurred in children with appropriate size for gestational age at birth and with a height and/or weight below $-2SD$ at 2 years of corrected age. Logistic regression models were used to test associations between risk factors and short stature. **Results** The authors measured height at 5 years of age for 1597 of 2193 children (73%), 5.6% (95% CI 4.6 to 6.9) of whom were diagnosed as having a short stature. Height was measured at 2 and 5 years of age in 1417 children. Among these, 24% of those born SGA and 36% of those with ex utero GR ($p=0.002$) had a short stature at 5 years. Predictors of short stature were SGA or birth length $<-2SD$, maternal height ≤ 160 cm, gestational age <29 weeks and systemic corticosteroids. Breastfeeding at discharge decreased the risk of short stature. **Conclusions** Short stature at 5 years of age is common in children born preterm. The highest incidence was observed in the group with ex utero GR. Systemic steroids have a long-term impact on growth and should be used with caution. Breastfeeding at discharge appeared to be protective.