

# Gestational Age and Developmental Risk in Moderately and Late Preterm and Early Term Infants.

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## Abstract

**OBJECTIVES:** The objective of this study was to evaluate the association between gestational age (GA) at birth and risk of developmental delay at 8 and 18 months of corrected postnatal age.

**METHODS:** During 2008 to 2011, infants at a corrected postnatal age of 8 or 18 months attending health centers in Santiago, Chile, were recruited. Participants completed a form on biographical and demographic characteristics and the Chilean validated version of the Ages and Stages Questionnaires, Third Edition (ASQ). Logistic regression was used to detect the capacity of GA to predict scores  $< -2$  SDs on the basis of the Chilean ASQ reference group, in at least 1 ASQ domain, adjusted by different control variables.

**RESULTS:** A total of 1667 infants were included in the analysis. An inverse “dose response” relationship between developmental delay risk and GA at birth was found, both in the crude and adjusted models. Compared with those born full term, the odds ratio for developmental delay risk was 1.56 for those born early term (95% confidence interval [CI]: 1.19–2.06), 2.58 for infants born late preterm (95%CI: 1.66–4.01), and 3.01 for those born moderately preterm (95%CI: 1.59–5.71).

**CONCLUSIONS:** An inverse dose-response relationship between GA and risk of developmental delay was found in the tested population. Future prospective studies and predictive models are needed to understand whether this higher developmental risk in moderately and late preterm infants is transient and modifiable or persists throughout life, allowing for better targeting of early-intervention strategies.