

## Comparing cerebral palsy in births to Australian Indigenous and non-Indigenous mothers

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**Aim:** To explore the differences in proportion, risks and characteristics between Indigenous and non-Indigenous cases of CP in Australia for birth years 1996-2005.

**Method:** Numbers of cases of CP born in the decade 1996-2005 inclusive in QLD, WA and NT were collected then tabulated and stratified by Indigenous status and whether the CP was acquired pre/perinatally or postneonatally. All data were grouped by birth gestation, birth weight and the following characteristics of CP: Gross Motor Function Classification System level, vision impairment, hearing impairment, speech impairment, intellectual impairment and presence of epilepsy at age 5. For those with postneonatal CP, the distribution of causes was also estimated. Proportions were estimated and compared between Indigenous and non-Indigenous groups within each jurisdiction and in all jurisdictions combined. Relative risks associated with Indigenous status, and their 95% confidence intervals, were estimated for both postneonatal and pre/perinatal CP.

**Relevance:** This study has been able to draw on the largest population of CP in Indigenous Australian children ever used for epidemiological research.

**Results:** The proportion of Indigenous births subsequently described as CP was higher than that of non-Indigenous births. In all three states/territory the relative risk of postneonatal CP associated with Indigenous status was substantially higher than that for pre/perinatal CP. From combined data Indigenous births have almost 5 times the risk of postneonatally acquired CP, but only a 42% increase in risk of pre/perinatally acquired CP. For Indigenous infants almost half acquired their brain damage as a result of infection and a further third as a result of head injury, whereas for non-Indigenous infants the most frequent cause was cerebrovascular accident, followed by infection (22%) with head injury accounting for only 15%. Within each ethnic group those with postneonatally acquired CP were more likely to be born at term and of normal birth weight than those with pre/perinatal CP. Indigenous children with CP were more likely to be non-ambulant and have more associated impairments than non-Indigenous children with CP. Within the group of Indigenous children, those with postneonatal CP were more likely to be non-ambulant and to have more associated impairments than Indigenous children with pre/perinatal CP.

**Conclusions:** It is important to continue to monitor CP in Australia's Indigenous and non-Indigenous populations to provide evidence of the health disparities between them and direct attention to areas requiring particular attention.

**Policy recommendation:** Monitoring CP in both populations may assist to increase prevention of CP for the different populations and direct services to where they are most needed.