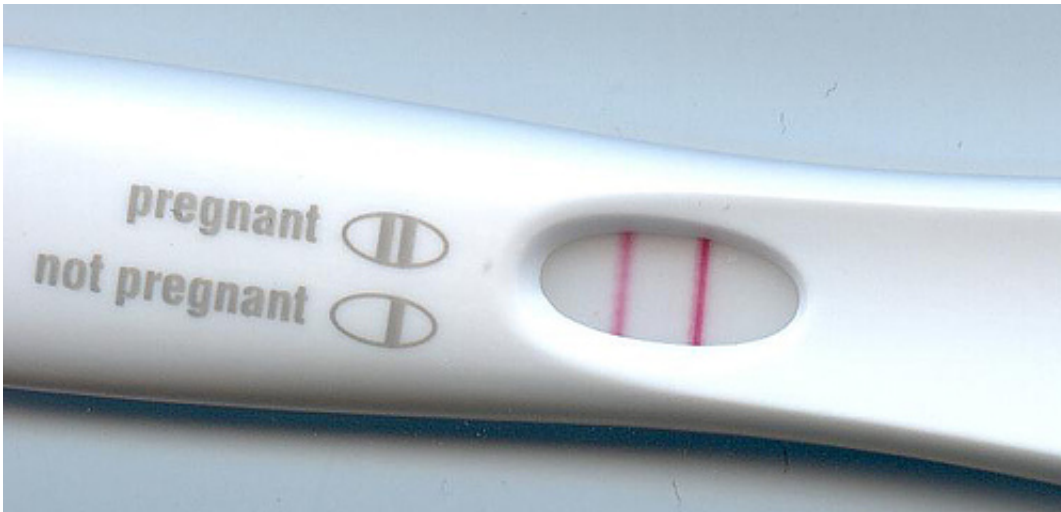


# Early planned birth linked to risk of poor child development

November 7 2016

---



Pregnancy test. Credit: public domain

Planned births occur where a considered decision is made to deliver an infant, and in recent years there have been significant changes in clinical practice resulting in an increase in planned births before the ideal time of birth at 39-40 weeks' gestation. This is mostly attributable to the increased use of elective caesarean section and induction of labour.

The study of 153,000 Australian children published today in *Pediatrics* reports that overall, 9.6 per cent of children were developmentally [high risk](#). In particular, infants born following planned birth before the optimal time of birth were more likely to have poor child development.

Using the Australian Early Development Census instrument, children in the study were assessed in five domains: physical health and wellbeing, language and cognition, social competence, emotional maturity, and general knowledge and communication.

Children scoring in the bottom 10 per cent of these domains were considered 'developmentally vulnerable', and children who were 'developmentally vulnerable' on two or more domains were classified as 'developmentally high risk'.

Compared to children born vaginally following spontaneous labor, the combined adjusted relative risk of being 'developmentally high risk' was 26 per cent higher for a planned birth at 37 weeks and 13 per cent higher at 38 weeks. This is after taking account other important factors associated with poor child development such as socioeconomic disadvantage, lower maternal age, maternal smoking in pregnancy and [fetal growth restriction](#).

"The timing of planned birth is potentially modifiable, and the benefits of waiting should be communicated to clinicians, mothers and families," says study co-author, Dr Jonathan Morris of the Kolling Institute and the University of Sydney.

The study also reports that the risk of being 'developmentally vulnerable' increased with decreasing [gestational age](#).

Compared to children with a gestational age of 40 weeks, the adjusted relative risk of being 'developmentally high risk' was 25 per cent higher at 32-33 weeks, 26 per cent higher at 34-36 weeks, 17 per cent higher at 37 weeks, and six per cent higher at 38 weeks.

Compared to children born vaginally following spontaneous labor, the adjusted relative risk of being 'developmentally high risk' was seven per

cent higher for labor induction or pre-labor cesarean section.

The study's senior author, Associate Professor Natasha Nassar from the University of Sydney Menzies Centre for Health Policy said: "While the association between being born earlier - lower gestational age - and poorer developmental outcomes is well established, our results revealed that poor development is further exacerbated in the case of planned birth, where a considered decision made to deliver an infant determines gestational age.

"Significant changes in clinical practice have seen an increase in planned births before 39-40 completed weeks' gestation from an increased use of primary and repeat cesarean section and a greater use of labor induction. At a population level this has resulted in a decrease in modal gestational age with planned birth accounting for almost half of births before 39-40 weeks. It is of paramount importance to ensure there are no unintended harms from such a significant shift in [clinical practice](#)."

The study's lead author, Mr Jason Bentley from the Menzies Centre for Health Policy commented: "There is an urgent need for strategies to inform more judicious clinical decision making about the timing of planned birth."

"In cases where labor occurs naturally before 39 weeks or planned birth is unavoidable, it is important that there are appropriate interventions and support in early childhood for these potentially vulnerable children."

Provided by University of Sydney

Citation: Early planned birth linked to risk of poor child development (2016, November 7) retrieved 23 March 2023 from <https://medicalxpress.com/news/2016-11-early-birth-linked-poor->

[child.html](#)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.