

# Proactive labor induction can improve perinatal outcomes, study suggests

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A proactive labour induction practice once women are full term can improve perinatal outcomes suggests a new Danish study, published today (18 February) in *BJOG: An International Journal of Obstetrics and Gynaecology (BJOG)*.

In 2008, the National Institute for Health and Clinical Excellence (NICE) published a guideline on late-term induction, stating that uncomplicated pregnancies should be induced in weeks 41-42. The following year the national Danish guidelines were changed accordingly to recommend labour induction at week 41 and 3 - 5 days, and even earlier in high-risk pregnant women, with a goal to ensure delivery by 42 weeks.

This study assesses the changes in perinatal outcomes in children born from 37 weeks gestation after implementation of a proactive labour induction practice from 2009. The study included all births in Denmark from 2000 to 2012 with data taken from the Danish National Health Register and the Medical Birth Register.

Over the 13 year study period, a total of 832,935 children were born in Denmark. There were 770,096 children born after 37 gestational weeks, making the study group. Of these, 13.5% of children were born after labour induction, 78.1% were born after planned vaginal delivery and 8.4% were born after elective caesarean section.

In Denmark, labour induction from 37 weeks increased from 9.1% in

2000 to 26% in 2012 and the percentage of pregnancies that continued beyond 42 gestational weeks decreased from 8% in 2000 to 1.5% in 2012.

Results show that the risk of neonatal death was almost halved from 1.9 to 1.0 neonatal deaths per 1,000 births from 2000 to 2012. The risk of asphyxia decreased by 23% from 2003 to 2012, which also led to a decrease in the incidence rate of cerebral palsy by 26% from 2002 to 2010.

Throughout the study period, the risk of birth weight of more than 4500g, defined as macrosomia, decreased by one-third and peripheral nerve injury decreased by 43%. However, the risk of shoulder dystocia increased by 32%.

Risk factors such as smoking, increased maternal age, first-time motherhood, multiple pregnancies and a higher body mass index were all examined throughout the study period, however, the results only changed minimally when adjusted for these risk factors, state the authors.

The authors conclude that the findings must be examined carefully before implementing national initiatives elsewhere.

Professor & Ostroke; jvind Lidegaard, from the University of Copenhagen and co-author of the study said:

"We have seen significant reductions in newborn asphyxia, neonatal mortality, macrosomia and peripheral nerve injuries. Another similar study we conducted recently also demonstrated a halving of stillbirths following the implementation of proactive labour induction practice.

"Our results therefore suggest an overall improvement in [perinatal outcomes](#) following a national change towards a proactive management

of post-term pregnancy through labour induction."

John Thorp, BJOG Deputy Editor-in-chief added:

"One quarter of Danish women pregnant beyond 37 weeks now experience labour induction. Labour induction is a simple intervention, but demands a closer surveillance during labour and hospital settings must be able to support such changes.

"These findings require further education and scrutiny before being implemented in other nations."

**More information:** M Hedegaard, &Ostroke; Lidegaard, C W Skovlund, L S M&ostroke;rch, M Hedegaard. Perinatal outcomes following an earlier post-term labour induction policy: a historical cohort study. *BJOG* 2015; [dx.doi.org/10.1111/1471-0528.13299](https://doi.org/10.1111/1471-0528.13299)

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