

Review of 700,000 women reveals factors affecting vaginal birth after previous cesarean

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A wide range of clinical and non-clinical factors can affect whether women go on to have a vaginal delivery after having a caesarean, according to two major reviews published in the August issue of the *Journal of Advanced Nursing*.

Private [health insurance](#), induction, cervical ripening agents, local guidelines and scoring systems were just some of the issues explored by the reviews of 60 studies, published over 24 years, covering more than 700,000 [women](#) and hundreds of hospitals in 13 countries.

Researchers from the Faculty of Nursing, Midwifery and Health at the University of Technology, Sydney, [New South Wales](#), Australia, were keen to see if clinical and non-clinical interventions increased the uptake and/or success of vaginal births after caesarean sections (VBAC).

"Many women who have had caesarean sections opt for the same procedure with their next pregnancy" says lead author Christine Catling-Paull. "Caesarean rates have increased around the world in the past two decades and much of this increase is due to women who have had previous caesareans.

"Research shows that only 33 per cent of women in the UK will have a VBAC and in Australia the rate is even lower at just under 17 per cent. However, another study from the USA shows that 73 per cent of women

who had a caesarean went on to have a successful [vaginal delivery](#)."

The review of non-clinical factors comprised 34 papers published between 1984 and 2007, covering more than 650,000 women and hundreds of hospitals. Thirteen countries were included, with 18 studies from the USA, three from Canada, three from the UK and one each from Australia, France, China, Ireland, Israel, Jordan, Scotland, Singapore, Switzerland and South Africa.

Key findings included:

- Guidelines, audit and feedback and the attitudes and characteristics of individual [clinicians](#) have an impact on VBAC rates.
- Local guideline changes appear to have a greater effect on practice than guidelines that are developed and distributed on a large scale, possibly because they are more likely to be driven and owned by local clinicians. Clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. Catling-Paull et al. Journal of Advanced Nursing. 67.8, pp 1646-1661. (August 2011). DOI: 10.1111/j.1365-2648.2011.05635.x

Non-clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. Catling-Paull et al. Journal of Advanced Nursing. 67.8, pp 1662-1676. (August 2011). DOI: 10.1111/j.1365-2648.2011.05662.x

- Providing evidence-based information about caesarean sections and VBAC enables women to make easier decisions about their preferred mode of delivery.
- There is inconsistent evidence that having [private health](#)

[insurance](#) may be a barrier to a successful VBAC.

The review of clinical factors comprised 27 papers published between 1989 and 2008 and covering more than 50,000 women, including one that also provided information for the non-clinical review. Eighteen studies were from the US, six from Canada, two from the UK and one from Australia.

Key findings included:

- VBACs tend to be less successful if they are induced using artificial rupture of membranes, prostaglandins, oxytocin infusion and various combinations of these methods.
- Cervical ripening agents, such as prostaglandins and transcervical Foley catheters, may result in a lower VBAC rate compared with women who go into labour spontaneously.
- Women who have X-ray pelvimetry have a reduced uptake of VBAC and higher caesarean section rates.
- Scoring systems devised to predict VBAC success are largely unhelpful.

"Both of the reviews also confirmed that there is a high caesarean section rate around the world, mainly women choosing to have a repeat caesarean, and there is considerable variation with regard to acceptance, uptake, support and success of women undergoing VBAC" says Christine Catling-Paull.

The authors have come up with a number of key recommendations for clinical practice as a result of the reviews:

- Given the potential adverse health risks posed by caesarean

sections for both mothers and babies, further work is necessary to lower the rate of repeat caesareans.

- Hospitals should implement evidence-based local guidelines to increase the uptake and success of VBACs.
- They should also implement VBAC decisional aids and develop specific clinics in existing antenatal clinics to provide women with clear and consistent, evidence-based information about the choices open to them.
- Clinicians need to show caution when inducing or augmenting women who have had a previous [caesarean section](#).
- X-ray pelvimetry and scoring systems to predict VBAC success should not be used exclusively to direct clinical practice.

More information: Clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. Catling-Paull et al. *Journal of Advanced Nursing*. 67.8, pp 1646-1661. (August 2011). [DOI: 10.1111/j.1365-2648.2011.05635.x](https://doi.org/10.1111/j.1365-2648.2011.05635.x)

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