



Centre for CLINICAL EFFECTIVENESS

For women in labour, which birth positions have been shown to be related to better outcomes with respect to urinary incontinence?

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DISCLAIMER

The information in this report summarises the best available current evidence. It is primarily designed to give readers a starting point to consider the currently available research evidence. Readers should not use the comments made in isolation and should have read the literature suggested. Readers should also be aware that more appropriate research might have become available since the request was dealt with.

CENTRE FOR CLINICAL EFFECTIVENESS

The Centre for Clinical Effectiveness exists to enhance patient outcomes through the clinical application of evidence-based research. The Public Health Division, Department of Human Services, Victoria, and the Southern Health Care Network fund the Centre. The Centre is also affiliated with the Faculty of Medicine, Monash University. Amongst other programs, the Centre operates an Evidence Centre that accepts requests to identify and critically appraise the available evidence on particular clinical topics. It offers this service to staff of the Southern Health Care Network, especially Program Directors, who will use the information provided to influence medical planning and decision-making.

Rationale

The Centre for Clinical Effectiveness Evidence Centre searches for best available evidence by a strategy that incorporates two factors:

1. A hierarchy that reflects methodological quality, that is the likelihood of systematic bias affecting the research results reported.
2. A desire to limit the amount material provided if adequate, sound, research summaries already exist.

The Evidence Centre goes first to databases that enable us to identify systematic reviews, then evidence-based clinical practice guidelines or health technology assessments, then individual randomised controlled trials. If adequate, sound, summaries of the best evidence available are found in this way then individual research trials are not included in the report. If adequate summaries are not found our search strategy becomes considerably broader and may incorporate individual studies that may be more prone to bias, less generalisable, or have other difficulties identified through our critical appraisal of their methodology. For this reason, when citing research, we describe the quality of evidence (i.e. "Level of Evidence") appropriate for each study as defined by the Australian National Health & Medical Research Council (1995; see Appendix).

DETAILS OF REQUEST:

Bree Bulle, CNS, Delivery Suite Monash Medical Centre Clayton, approached the Centre in April 1999, requesting a literature search with critical appraisal of evidence relating birth positions to urinary incontinence.

Details Of Evidence Request

Patients	women in labour (delivery suite)
Comparisons	birth positions
Outcomes	urinary incontinence

Search terms

Patient terms	(left unrestricted)
Intervention terms	delivery methods, midwifery methods, posture
Outcome terms	urinary incontinence, delivery adverse effects, labour (labor) complications, perineum injuries,

Refinements, Searching & Reporting Constraints

We have included only English language articles. Our electronic searching was completed on 12 May 1999.

RESULTS

No evidence of research aimed at relating a particular birth position to urinary incontinence was identified.

Two systematic reviews, (Renfrew *et al* 1998, Flynn *et al* 1997), Level 1 evidence (see next section) provided summaries of trials of various birth positions (without meta-analyses) but urinary incontinence was not one of the outcomes studied. In case this outcome had been omitted from the systematic review, we obtained the full text of the randomised controlled and quasi-randomised trials studies of birth positions. It was confirmed that data comparing urinary incontinence outcomes were not provided. Several retrospective studies in Renfrew *et al* 1998 also looked at birth position but did not relate this specifically to urinary incontinence. Since results from retrospectively-designed studies have greater potential for bias, the full text of these articles was not obtained to see if urinary incontinence data was included.

Australian National Health & Medical Research Council's Levels of Evidence

The quality of the evidence presented in this report was systematically assessed and classified according to the NHMRC's *A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines* (1998):

Level I	Evidence obtained from a systematic review of all relevant randomised controlled trials
Level II	Evidence obtained from at least one properly designed randomised controlled trial
Level III	
.1	Evidence from well-designed pseudo-randomised controlled trials (alternate allocation or some other method).
.2	Evidence obtained from comparative studies with concurrent controls and allocation not randomised (cohort studies), case control studies or interrupted time series with a control group.
.3	Evidence obtained from comparative studies with historical controls, two or more single arm studies or interrupted time series without a parallel control group.
Level IV	Evidence obtained from case series (either post-test or pre-test and post-test), opinions of respected authorities, descriptive studies, reports of expert (i.e. consensus) committees, case studies.

APPENDIX

Databases

The following databases and websites were searched in the order:

Cochrane Library CD-ROM
Best Evidence CD-ROM
OVID Medline
CINAHL
National Library of Medicine
Agency for Health Care Policy and Research (AHCPR)
NHS Centre for Reviews and Dissemination
DARE
BioMedNet
Medical Matrix
Cliniweb
Medscape
Bandolier
Current Controlled Trials
TRIP
Aggressive Research Intelligence Facility (ARIF)

References

Flynn P, Franiek J, Janssen P, Hannah WJ, Klein MC. How can second-stage management prevent perineal trauma. *Canadian Family Physician* 1997; 43:73-84.

Renfrew MJ, Hannah W, Albers L, Floyd E. Practices that minimize trauma to the genital tract in childbirth: a systematic review of the literature. 1998; 25: 143-160.

