

Membrane sweeping for induction of labour (Cochrane Review)**Boulvain M, Stan C, Irion O**

ABSTRACT

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A substantive amendment to this systematic review was last made on 09 November 2004. Cochrane reviews are regularly checked and updated if necessary.

Background: Sweeping of the membranes, also named stripping of the membranes, is a relatively simple technique usually performed without admission to hospital. During vaginal examination, the clinician's finger is introduced into the cervical os. Then, the inferior pole of the membranes is detached from the lower uterine segment by a circular movement of the examining finger. This intervention has the potential to initiate labour by increasing local production of prostaglandins and, thus, reduce pregnancy duration or pre-empt formal induction of labour with either oxytocin, prostaglandins or amniotomy. This is one of a series of reviews of methods of cervical ripening and labour induction using standardised methodology.

Objectives: To determine the effects of membrane sweeping for third trimester induction of labour.

Search strategy: We searched the Cochrane Pregnancy and Childbirth Group trials register (6 July 2004) and bibliographies of relevant papers.

Selection criteria: Clinical trials comparing membrane sweeping used for third trimester cervical ripening or labour induction with placebo/no treatment or other methods listed above it on a predefined list of labour induction methods.

Data collection and analysis: A strategy was developed to deal with the large volume and complexity of trial data relating to labour induction. This involved a two-stage method of data extraction.

Main results: Twenty-two trials (2797 women) were included, 20 comparing sweeping of membranes with no treatment, three comparing sweeping with prostaglandins and one comparing sweeping with oxytocin (two studies reported more than one comparison). Risk of caesarean section was similar between groups (relative risk (RR) 0.90, 95% confidence interval (CI) 0.70 to 1.15). Sweeping of the membranes, performed as a general policy in women at term, was associated with reduced duration of pregnancy and reduced frequency of pregnancy continuing beyond 41 weeks (RR 0.59, 95% CI 0.46 to 0.74) and 42 weeks (RR 0.28, 95% CI 0.15 to 0.50). To avoid one formal induction of labour, sweeping of membranes must be performed in eight women (NNT = 8). There was no evidence of a difference in the risk of maternal or neonatal infection. Discomfort during vaginal examination and other adverse effects (bleeding, irregular contractions) were more frequently reported by women allocated to sweeping. Studies comparing sweeping with prostaglandin administration are of limited sample size and do not provide evidence of benefit.

Authors' conclusions: Routine use of sweeping of membranes from 38 weeks of pregnancy onwards does not seem to produce clinically important benefits. When used as a means for induction of labour, the reduction in the use of more formal methods of induction needs to be balanced against women's discomfort and other adverse effects.

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This is an abstract of a regularly updated, systematic review prepared and maintained by the Cochrane Collaboration. The full text of the review is available in *The Cochrane Library* (ISSN 1465-1858).