



Suturing the Perineum

Midwifery Practice Guideline

Suturing the Perineum Practice Points

A large prospective study of women's experience of childbirth found that suturing is a major and sometimes traumatic event for women; 12% of the women reported it as the worst thing about giving birth ([Green et al. 1998](#)).

The amount of pain experienced during perineal suturing is considerable amongst women who have not received regional analgesia ([Sanders et al. 2002](#)).

The severity of the trauma, skill of the operator, technique of repair and type of suture used for repair can all contribute to the levels of perineal pain (Kettle & O'Brien, 2004).

It is important that suturing be carried out without unreasonable delay after the birth, with adequate pain relief ([Green et al. 1998](#)).

There is evidence that women prefer to be sutured by midwives; it can mean a reduction in waiting time ([Ho 1985](#)) and a more sympathetic approach ([Hulme and Greenshields 1993](#)).

The continuous suturing technique for perineal repair when compared to interrupted sutures is associated with less short term pain ([Kettle et al. 2007](#)).

Absorbable suture material appears better for women compared to non-absorbable material such as catgut ([Kettle and Johanson 2004](#)).

Comparisons of two forms of polyglactin reflect better outcomes for women when the rapidly absorbed material is used ([Kettle et al. 2002](#)).

The Ipswich Childbirth Study compared two- and three-stage perineal repairs ([Gordon et al. 1998](#)). Women in the two-stage repair group (leaving the skin unsutured) had less pain and dyspareunia at three months postpartum; there were no apparent disadvantages. These advantages persist one year after childbirth ([Grant et al. 2001](#)).

Studies of non-suturing of the perineum have conflicting findings in respect of impact on perineal healing ([Lundquist et al. 2000](#); [Fleming et al. 2003](#)). Further studies are required.

Administering NSAIDs as rectal suppositories has been found to offer pain relief after perineal trauma and suturing when compared with placebo ([Hedayati et al. 2004](#)).

Women have reported a preference for using a specially designed cooling gel pad when compared with ice packs or no treatment. (Steen and Marchant, 2007). Ice packs provide some pain relief 24 to 72 hours after birth when compared to no treatment but no differences in pain levels were detected between cooling and non cooling treatments. No adverse effects on healing have been reported when localised cooling is applied (East et al, 2007).

Any changes in practice related to perineal care should be accompanied by appropriate education and training for midwives.

It has been estimated that 85% of women experience perineal/ lower genital tract trauma related to childbirth, and that 69% require suturing of that trauma ([Kettle et al. 2002](#)). There is some evidence that maternal position during birth can contribute to perineal outcome and an all-fours position is associated with less need for suturing ([Soong & Barnes \(2005\)](#)).

The severity of the trauma, skill of the operator, technique of repair and type of suture used for repair can all contribute to the levels of perineal pain (Kettle & O'Brien, 2004). In addition, risk factors such as a long 2nd stage, instrumental deliveries and more severe the trauma is associated with an increase risk of perineal repair breakdown ([Williams & Chames 2006](#)).

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Two studies, in particular, reflect women's experiences of perineal suturing. [Green et al.'s \(1998\)](#) large prospective study (*n* 710) of women's experiences of childbirth found that suturing is a major, and sometimes traumatic event for women. The process and the later consequences were identified by women as a matter of great concern. The pain of suturing was a particular issue for two thirds of the sample with 19% of women describing "a lot of pain" during stitching; this could suggest that pain relief methods were inadequate or that insufficient time was given for drugs to take effect. 12% of women found suturing the worst thing about their birth. Some women complained about the baby being taken away during this process and about the lack of information given about the degree of the tear or the number of stitches they had. The most common complaint, however, was the delay in being stitched: such delays were not just a cause of significant physical discomfort but also anxiety producing and meant that the woman could not relax. A more recent study offers further information. Women's experiences of pain during perineal suturing were examined using the McGill Pain Questionnaire (short form) and Present Pain Intensity Index in a study of three

groups of women (total sixty-eight). Women were asked to complete a questionnaire at one of three times: shortly after suturing whilst still on the delivery suite, during their stay on the postnatal ward and at home six to eight days after giving birth. Women who had not received regional analgesia had experienced high levels of pain during suturing ([Sanders et al. 2002](#)). This study suggests that pain relief methods for suturing are inadequate and that further evaluation is required.

One of the first issues that need to be considered is whether trauma should be left to heal naturally or whether suturing is required. The 1990s saw a gradual change in midwifery practice that did not appear to be evidence-based, where second degree tears and probably less frequently episiotomies were not sutured. [Lewis \(1997\)](#) argued that this practice change was not justified and did not accord with current understanding of the healing process. Since then, a small amount of research has been reported using both descriptive and experimental approaches. [Clement and Reed](#) followed-up 107 women who had received care from their own independent midwifery practice. These women had chosen not to have perineal tears sutured and six months to seven years after giving birth, found that the vast majority (n= 98) felt positive about not having had stitches (1999). Two women had negative views and seven had mixed views. They make a useful comparison between the morbidity of women in their study and morbidity in general postnatal populations. The comparison suggests that the women in their sample reported broadly similar morbidity. Clement and Reed suggested that, in the absence of evidence from randomised trials, the findings of this study, which offers a psychological and social perspective as well as a physical one, could offer a useful contribution to helping women make an informed decision. Subsequent research evaluating non-suturing in a randomised controlled trial involving eighty women in Sweden found no significant differences in the healing process or amount of discomfort, although the type of pain reported was different. There was also a trend to reporting negative consequences on breastfeeding from the tear amongst women who had been sutured ([Lundquist et al. 2000](#)). A trial conducted in Scotland encountered significant shortfalls from the planned rates of recruitment of participants, ascribed in part to midwifery concerns about autonomy in practice ([Fleming et al. 2003](#)). From 1414 women recruited antenatally, 74 were randomly allocated between suturing or non-suturing of the perineum. Pain was evaluated using the McGill Pain Questionnaire, and the REEDA score used to measure wound approximation. No significant differences were found between the groups for pain at one and ten days after birth or for pain or depression at six weeks postpartum. However, at six weeks, significant deficits in wound approximation were found in women who had not been sutured. Those investigators feel that their study contains useful information about the consequences of non-suturing and, until further quality of life information is available, they recommend suturing of perineal tears ([Fleming et al. 2003](#)).

The repair of the perineum is an important part of the continuing care of a woman during labour and delivery. The trust and support that is developed between the woman and the midwife can make the experience less traumatic. The permanent presence of midwives, trained and continually developing expertise in perineal repair, minimises the problems associated with the rotation of inexperienced junior medical staff ([Draper and Newell 1996](#)). There is also evidence to suggest that women prefer to be sutured by midwives. It can mean a reduction in waiting time ([Ho 1985](#)) and a more sympathetic approach ([Hulme and Greenshields 1993](#)). However, it has recently been reported that there appears to be a lack of general knowledge on the agreed classification of perineal trauma and that midwives felt inadequately prepared to assess or repair perineal trauma ([Mutema, 2007](#)). There is some recent evidence that surgical skills laboratory teaching when compared to traditional teaching alone can improve the knowledge and performance of episiotomy repair ([Banks et al, 2006](#)).

There is a growing body of evidence related to both the materials and the suturing techniques used in perineal repair. Evidence from a Cochrane review indicates that in comparisons with catgut, absorbable sutures (polyglycolic acid and polyglactin) result in less pain within the first three days after birth, reduced need for analgesia and a reduction in suture dehiscence. No significant differences in longer term pain were found between the two materials, but

removal of sutures was more common for the absorbable suture materials. Subgroup analysis demonstrated some evidence of a reduction in women's reports of dyspareunia but no significant differences were reported in the need for re-suturing of wounds or long term pain (Kettle et al., 2007). A recent midwifery-led trial comparing rapidly absorbed polyglactin 910 with standard polyglactin found no difference in pain at ten days postpartum or superficial dyspareunia at three months postpartum. Removal of sutures was required less frequently with the rapidly absorbed form of suture material (Kettle et al. 2002); a factor, suggested by the investigators, as being of importance to women and healthcare professionals. The effects of continuous versus interrupted perineal repair were examined in the same trial. Women in the continuous suture group reported less pain at ten days following birth and less need for suture removal with no difference in superficial dyspareunia at three months. Women's satisfaction with repair was greater at three and twelve months and more women felt back to normal within three months of the birth following use of the continuous technique.

A pilot study of a new tissue adhesive for twenty women who had experienced an episiotomy or second degree perineal tear has been reported; further studies would be required before widespread incorporation into practice (Rogerson et al. 2000).

The Ipswich Childbirth Study compared a two-stage perineal repair, which left the skin unsutured, with three-stage repair which included skin closure with interrupted or sub-cuticular sutures. Women in the two-stage repair group had less pain and dyspareunia at three months postpartum, and there were no apparent disadvantages (Gordon et al. 1998). Women who participated in that trial were subsequently followed up one year after the birth. At that point, fewer women allocated to two-stage repair reported that the perineum felt different, but there were no differences in time to resumption of sexual intercourse, pain or discomfort in the perineum or dyspareunia (Grant et al. 2001). It appears, therefore, that a two-stage repair confers benefit and no apparent disadvantages.

The effectiveness of pain relief has been examined in a Cochrane review (Hedayati et al. 2004). Three trials were identified, with two contributing data, to this review of the use of non-steroidal anti-inflammatory drugs (NSAIDs) administered as rectal suppositories immediately after perineal suturing and in some cases again later. Women were less likely to report pain within 24 hours of giving birth following administration of NSAIDs compared to placebo, and needed less additional pain relief within the first 48 hours postpartum, although there was no information about longer term or psycho-social impacts. Steen compared a cooling gel pad with ice packs (both applied within 30 minutes of suturing) and no treatment in an unblinded, randomised controlled trial that involved 450 women following vaginal birth. Women in the gel pad group reported less pain on days five, ten and fourteen compared to women allocated to the ice pack or no treatment groups. The author describes the difficulties of trying to achieve standardisation of perineal closure between different operators (midwives and obstetricians) but no adverse effects on healing were detected from use of localised cooling treatments (Steen 2002). Women appeared to find the cooling gel pad to be the more acceptable treatment and this may be due to its controlled cooling properties, shape and size enabling it to remain pseudoplastic at low temperatures giving it a cushioning and comforting effect (Steen & Marchant, 2007). A very recent Cochrane's review has been published on the effectiveness and side effects of localised cooling treatments for relieving pain from perineal trauma sustained during childbirth (East et al, 2007). Seven studies were included comparing local cooling treatments with no treatment or other treatments. The reviewers reported that ice packs provided some pain relief 24 to 72 hours after birth when compared to no treatment, but women reported a preference for the cooling gel pad when compared with ice packs or no treatment. No differences in pain levels were detected between the treatments. No adverse effects on healing were reported.

The training needs associated with changes in practice should not be overlooked in any aspect of perineal care. The past few years have also seen significant developments in assessing perineal trauma, with several midwifery groups reporting the development of new tools to

assess the extent of perineal trauma for women receiving appropriate care ([Metcalf et al. 2002](#); [Gomme et al. 2001](#)).

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The development and ratification of this guideline has been under the auspices of the Professional Policy Committee of the RCM Council and the final version remains their responsibility.
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Appendix A

Sources

Four bibliographic sources (Medline, CINAHL, MIDIRS and the Cochrane Library) were searched in order to identify the published literature. As this document is an update of research previously carried out, the publication time period was restricted to 2004 to January 2008

Search Terms

Separate search strategies were developed for each section of the review. Initial search terms for each discrete area were identified by the authors. For each search, a combination of MeSH and keyword (free text) terms was used

Journals hand-searched by the authors (2004) were as follows:

- Birth
- British Journal of Midwifery
- Midwifery
- Practising Midwife
- Evidence-based Midwifery