



*The Royal College of*  
**Midwives**

# Evidence Based Guidelines *for* *Midwifery-Led Care in Labour*

## Positions for Labour and Birth



## *Practice Points*

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There are significant advantages to assuming an upright position in labour and birth (Lawrence et al. 2009; MIDIRS 2008). However, lying down continues to be the most frequently used position (RCM 2010).

Women often “choose” to do what is expected of them, and the most common image of the labouring woman is “on the bed”. Midwives therefore need to be proactive in demonstrating and encouraging different positions in labour (RCM 2010).

The environment is key to freedom of movement. There should be a variety of furniture and props available in the room that encourage women to try different positions (Albers 2007).

The use of electronic fetal monitoring, intravenous infusions and different methods of analgesia may affect a woman’s mobility and use of postural change during labour (Spiby et al. 2003). Midwives should support women with suggestions on how to remain upright in these situations (RCM 2011).

Use of postural coping strategies during the first stage of labour is associated with providing some pain relief and helping a woman to cope with pain (Simkin and Bolding 2004; Spiby et al. 2003).

Use of upright positions for the second stage of labour confers several benefits including a shorter second stage, fewer instrumental births and fewer episiotomies, although estimated blood loss is greater (De Jonge et al. 2004; Gupta et al. 2004).

Use of the lateral position for birth appears to protect the perineum (Shorten et al. 2002) whereas squatting using a birthing chair has been reported as a predisposing factor for third and fourth degree tears (Jander and Lyrenas 2001).

Women should be encouraged and helped to move and adopt whatever positions they find most comfortable throughout labour (NICE 2007).

## Positions for Labour and Birth

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There are several theoretical physiological advantages for being upright during labour and birth. These include the effect of gravity on the fetus within the uterus; reduced risk of aorto-caval compression; better alignment of the fetus; more efficient contractions and increased pelvic outlet when the woman is in squatting and kneeling positions (MIDIRS 2008).

The Cochane review by Lawrence et al. (2009) concluded that upright positions and walking in labour are associated with a reduction in the length of the first stage of labour and the use of epidural analgesia. Upright positions in the first stage are those that avoid lying flat, and may include walking around. Upright positions in the second stage include sitting (more than 45 degrees from the horizontal), squatting or kneeling, and being on hands and knees. Recumbent positions include supine, lateral, semi-recumbent with wedges, and lithotomy (MIDIRS 2008).

Birthing positions can also have a psychological impact on the women's experience of labour when being able to find a comfortable position can influence her feeling of being in control of her labour (de Jonge and Lagro-Jansenn 2004; Green and Baston 2003; Green et al. 1990).

Women should be encouraged and helped to move and adopt whatever positions they find most comfortable throughout labour (NICE 2007).

A large trial investigated the effects of walking during labour and found no differences in length of first stage, use of oxytocin, analgesic use, or instrumental or operative births between women allocated to walking and those who were allocated to usual care in bed (Bloom et al. 1998). The population included was predominantly Hispanic and black women, and there were elements of labour care that appear different from UK midwifery practice. The duration of walking was an average of 56 minutes, and a significant proportion (reported as 22%) of women allocated to walking did not do so.

An upright position in the first stage can mean less severe pain (Miquelutti et al. 2009; Hemminki and Saarikoski 1983), shorter first stage (Roberts et al. 1983) and less use of narcotics and epidurals (Williams et al. 1980). The use of position changes as a coping strategy for labour is associated with providing some pain relief and helping to cope with pain (Simkin and Bolding 2004; Spiby et al. 2003).

In some studies it was observed that women changed positions frequently in the first half of the first stage (Gardosi et al. 1989). Gould (2004) reported, using concept analysis, that movement was a vital component in normal labour. Some women preferred to recline in the bed as labour progressed (Hemminki and Saarikoski 1983; Roberts et al. 1983).

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A Cochrane review has compared use of any upright or lateral position with supine or lithotomy positions in the second stage (Gupta et al. 2004). This review shows that women's being upright results in a shorter second stage; fewer assisted births and episiotomies; more second degree perineal tears; more women with a blood loss estimated as over 500ml; fewer reports of severe pain and fewer fetal heart rate abnormalities. The upright position during the second stage was achieved in a number of ways: by the woman squatting or through use of equipment such as birth stools, chairs or cushions. For that reason, and due to the variation in methodological quality across the trials, the results should be interpreted with caution. However, the reviewers suggest that, in the absence of ill-effect (apart from increased blood loss) women can be encouraged to adopt positions of comfort during the second stage of labour. De Jonge et al. 2004 discuss in detail the problems of subjectivity of estimated blood loss. They suggest that in an upright position the blood loss may appear more than in a supine position because it can be collected in a receptacle. They comment that even if the decreased blood loss was found to be statistically significant, it was only 60 mls and a difference in the requirement for blood transfusion was not found.

Gupta et al.'s (2004) review also examines the effects and experiences of using a birth stool with the supine position, the lateral and supine positions; use of a birth cushion with supine or lithotomy positions and birth chair compared with supine or lithotomy position. Use of a birth stool results in fewer episiotomies, more second degree tears, a higher incidence of blood loss estimated to be over 500 mls; fewer reports of severe pain at birth and (in the only trial that reported it) fewer fetal heart rate abnormalities than the supine posture. Comparison of the lateral and supine positions found no differences in length of second stage, number of episiotomies and assisted births although numbers were small. Use of the birth cushion resulted in shorter second stages of labour, less assisted births, no difference in number of episiotomies and blood loss estimated to be over 500ml and less second degree tears when compared with the second stage spent in supine or lithotomy positions. Comparisons of the birth chair with the supine or lithotomy position found no difference in length of second stage, fewer episiotomies, more second degree tears and more women experiencing blood loss estimated at greater than 500ml.

In a review of 2891 births from New South Wales, researchers used multiple regression analysis to examine associations between birth position, accoucheur and perineal trauma (Shorten et al. 2002). A protective effect on perineal integrity was identified from use of the lateral position for birth. In contrast, use of the squatting position was associated with the lowest proportion of intact perineum, particularly amongst women having their first baby. Other birth positions including standing, kneeling and all fours were not associated with increased benefit compared to the semi-recumbent position. Squatting using a low birthing chair has been implicated as a predisposing factor for third and fourth degree tears in a case control study of births in Sweden (Jander and Lyrenas 2001).

However the use of the ball in second stage is thought to be supportive by providing counter pressure on the perineum that aids descent in second stage pushing. This can be especially helpful when the head is high as the upright open position with the perineal support that the ball provides (unlike the stool) can maximise pelvic capacity.

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On the whole women will “choose” to do what they think is expected of them and they are usually informed by the most common image of the labouring women as lying down. Midwives will need to be proactive in demonstrating and encouraging different positions. The labour environment is key to women’s ability to try different positions (Albers 2007; MIDIRS 2008). There should be appropriate furniture and props readily available: bean bags, mattresses, chairs and birth balls (RCM 2011). A useful account of the introduction of a birth ball into midwifery practice is reported by Shallow (2003).

Midwives have an important role in helping women to find and choose comfortable positions (Cotton 2010, Walsh 2007). De Jonge et al.’s (2009) cohort study of 665 women in Holland found that there was considerable variation between midwifery practices that support women in the use of different positions for labour and birth.

The use of electronic fetal monitoring, intravenous infusions and different methods of analgesia will all affect women’s mobility. Women need to be aware of this in order for them to make an informed choice (MIDIRS 2008). These procedures may also interfere with use of postural coping strategies in labour (Spiby et al. 2003). Support should then be given to continue or resume use of postural strategies if they have been interrupted by care procedures.

Advancing technology may require more research into the use of telemetry for women who have an escalation into the use of electronic fetal monitoring. Telemetry can enable women to remain upright and mobile.

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The guidelines have been developed under the auspices of the RCM Guideline  
Advisory Group with final approval by the Director of Learning Research and Practice  
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The guideline review process will commence in 2016 unless evidence requires  
earlier review.

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## Appendix A

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### Sources

The following electronic databases were searched: The Cochrane Database of Systematic Reviews, MEDLINE, Embase and MIDIRS. As this document is an update of research previously carried out, the publication time period was restricted to 2008 to March 2011. The search was undertaken by Mary Dharmachandran, Project Librarian (RCM Collection), The Royal College of Obstetricians and Gynaecologists.

### 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 were as follows:

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