Care Practices that Promote Normal Birth

#5: Non-Supine (e.g., Upright or Side-Lying) Positions for Birth

Lamaze International Education Council
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Abstract

In this position paper—one of six care practice papers published by Lamaze International and reprinted here with permission—the benefit of non-supine positions for birth is discussed and presented as an evidencebased practice that helps promote, protect, and support normal birth. The paper is written for childbearing women and their families. Upright and gravity-neutral positions facilitate rotation and descent of the baby and result in reduced duration of second stage, a reduction in episiotomies, and fewer abnormal fetal heart rate patterns. The accompanying commentary—written by a leading proponent of maternity care—supports these benefits. Lamaze International recommends that laboring women not push until they feel an urge to do so, and that they choose positions for birth that are most comfortable for them.

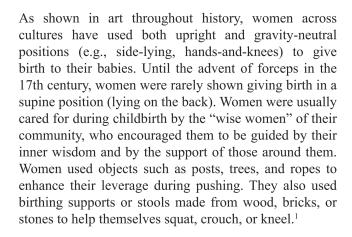
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When a woman in labor is positioned other than flat on her back, blood flow to the uterus is increased and the woman feels less pain. This means more oxygen to the baby, more normal fetal heart patterns, more effective uterine contractions, a shorter second stage of labor, and less need of pain medications—all positive factors that encourage a normal vaginal birth.



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A pregnant woman in a Lamaze class asks about the best position for birth. "The hospital where I plan to give birth has a birthing bed, but I still see lots of pictures that show women giving birth lying down with their legs up. Is there an advantage of one position over another?"



The use of a variety of positions during the second stage of labor (the bearing-down part of labor) will allow you to respond to the changing position of your baby as he descends, rotates, and extends in an effort to be born. The positions that you choose will often increase your comfort and facilitate the progress of your baby. Each position has possible advantages and disadvantages.

Upright Positions

Upright positions such as standing, kneeling, or squatting take advantage of gravity to help the baby move down. X-rays have shown that squatting widens the diameter of the pelvis, creating more room for the baby to descend.² However, it is also the most tiring position. In most Western cultures, women are not used to squatting for long periods of time; therefore, they should rest in a semi-sitting position between contractions.



Respected childbirth educator and author Penny Simkin recommends a "standing supported squat" or "dangle" position, especially for women with a long second stage. In this position, the woman is supported under her arms, without putting weight on her legs or feet. Her trunk is lengthened, providing more space for the baby to maneuver. In addition, there is no pressure on the pelvis, allowing it to move freely as the baby passes through it.³

Gravity-Neutral Positions

Gravity-neutral positions such as all-fours, side-lying, and semi-sitting are restful and may be good for the woman who is exhausted. A side-lying position may help to slow down a birth that is progressing too rapidly.

After the baby has entered the pelvis, he will turn his head to either an anterior (toward the front) or a posterior (toward the back) position. It is far easier for the baby to descend, and more comfortable for the laboring woman, if the baby's head is in an anterior position. Babies in a posterior position may cause a painful "back labor." The all-fours position removes the weight of the baby from the woman's lower back and tailbone and may provide room for a baby to rotate to the anterior position.³

What Research Tells Us

According to the Cochrane Pregnancy and Childbirth Group, a respected worldwide source of information regarding evidence-based care, the use of any upright or side-lying position, compared with supine or lithotomy positions (lying on back with legs supported by stirrups), is associated with the following results:

- reduced duration of the second stage of labor,
- a small reduction in assisted delivery,
- a reduction in episiotomies,
- reduced reporting of severe pain,
- fewer abnormal fetal heart rate patterns,
- a small increase in second-degree lacerations (in the upright group only), and
- an increase in estimated blood loss.4

In addition, lying on the back may cause lower blood pressure for the laboring woman and reduced blood flow to the baby, due to the weight of the uterus on major blood vessels. ^{5,6} In the lithotomy position, the woman is actually pushing against gravity!

Recommendations from Nurses

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) recommends that all pregnant women receive information about the benefits of upright positions for the second stage of labor. They also recommend that nurses discourage supine positions and instead encourage squatting, semi-recumbent, standing, upright-kneeling positions. (Semi-recumbent positions are those in which a woman is reclining but not totally flat on her back.) In addition, AWHONN recommends that women not begin pushing until they feel the urge to do so; and that, when they do push, they push according to what their body is telling them. Grunting, groaning, exhaling during the push, and breath-holding less than 6 seconds as the laboring woman pushes in response to her contractions should all be encouraged by the nurse.7

Recommendations from Lamaze International

Lamaze International recommends that you choose upright or side-lying positions for birth. You and your partner should view and practice various positions for second-stage labor in your childbirth classes. You should ask your caregivers which positions they encourage for birth and what, if any, restrictions they may feel are needed. During labor, you should listen to your body and choose the positions for birth that are the most comfortable for you. You should be confident that by responding to what you are feeling, you will be making birth easier for both yourself and your baby.

References

- Gupta, J.K., & Nikodem, C. (2000). Maternal posture in labour. European Journal of Obstetrics & Gynecology and Reproductive Biology, 92(2), 273– 277.
- Johnson, N., Johnson, V.A., & Gupta, J.K. (1991). Maternal positions during labor. *Obstetrical and Gynecological Survey*, 46(7), 428–434.
- 3. Simkin, P., & Ancheta, R. (2000). *The labor progress handbook*. Malden, MA: Blackwell Science.
- 4. Gupta, J.K., & Nikodem, V.C. (2003). Position for women during second stage of labor. (Cochrane Review) *The Cochrane Library*. Oxford: Update Software.
- 5. Roberts, J.E. (2002). The "push" for evidence: Management of the second stage. *Journal of Midwifery & Women's Health*, 47(1), 2–15.
- 6. Enkin, M., Keirse, M.J., Neilson, J., Crowther, C., Duley, L., Hodnett, E., et al. (2000). *A guide to effective care in pregnancy and childbirth*. New York: Oxford University Press.
- Mayberry, L.J., Wood, S.H., Strange, L.B., Lee, L., Heisler, D.R., & Nielsen-Smith, K., et al. (2000). Second-stage management: Promotion of evidencebased practice and a collaborative approach to patient care. Washington, DC: Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN).

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Commentary by Leah Albers, CNM, DrPH, FACNM, FAAN

Care measures for labor and birth are judged according to how well they meet three criteria: promotion of maternal well-being, promotion of fetal well-being, and facilitation of labor progress. Ideal care measures meet all three criteria at once. As such, promoting upright or lateral positions for giving birth can be called an ideal care measure. In addition, women *like* giving birth in upright or lateral positions, which convey a sense of normalcy and allow women some degree of autonomy and control.

The physiologic advantages to women in giving birth in an upright or lateral position are correctly and succinctly described in the Lamaze International's care practice paper #5, Non-Supine (e.g., Upright or Side-Lying) Positions for Birth. When a woman in labor is positioned other than flat on her back, blood flow to the uterus is increased and the woman feels less pain (Enkin et al., 2000). This means more oxygen to the baby, more normal fetal heart patterns, more effective uterine contractions, a shorter second stage of labor, and less need of pain medications—all positive factors that encourage a normal vaginal birth.

Giving birth while lying on the back makes it easier for the birth attendant to perform an episiotomy or use instruments (forceps or vacuum) for delivery. However, the elective or routine use of these procedures no longer has a legitimate place in obstetric practice. Both procedures are associated with greater trauma to the birth canal, increased need for suturing, and excess postpartum health problems such as protracted perineal pain and difficulties with bowel and sexual functions (Eason, Labrecque, Wells, & Feldman, 2000). Although the use of these procedures has declined in recent years, data for the nation show that 30% of vaginal births are accompanied by episiotomy (Hall & DeFrances, 2003) and 6% are assisted by forceps or vacuum (Martin et al., 2003). The continued prevalence in the use of episiotomy and instrumental delivery provides a good reason to use an upright or lateral position for birth, wherever possible.

Women who are mobile during labor, are well supported by family members and caregivers, and have choices as to the use of technologies and pain management modalities tend to have better childbirth outcomes. They are also more likely to choose upright or lateral positions for delivery. Even when an epidural is used for pain control in advanced labor, the medication can wear off in the second stage so that the mother is able to push effectively and help control the speed of expulsion. A slow, gentle birth helps to minimize lacerations in the birth canal.

The importance of a normal vaginal birth and an intact birth canal cannot be overstated. A woman with a normal birth and minimal or no genital tract trauma will have the best postpartum health: less likelihood of hospital readmission for a serious problem, less perineal pain, a stronger pelvic floor, better sexual function, and better physical functioning (Lydon-Rochelle, Holt, & Martin, 2001; Thompson, Roberts, Currie, & Ellwood, 2002). Because the well-being of a newborn infant is so intertwined with the health and functional status of its mother, the overall condition of newly delivered mothers should concern everyone involved in maternity care. The goals of intrapartum care ideally include both a safe birth and optimal health of the new mother. However, hospital-based caregivers typically have no connection to the extended postpartum period. Therefore, they are not reminded on a daily basis that the style of intrapartum care can affect the early weeks of infant care and family transition. Their shortterm goal of a safe birth is not counterbalanced by a more long-range view of maternal health and early parenting.

Thus, upright or lateral positions for birth are related to other aspects of care earlier during labor and to postpartum health. The physiologic benefits of giving birth in positions other than lying on the back are well established. Why, then, are three-quarters of all births in this country performed with the woman lying on her back (Declercq, Sakala, Corry, Applebaum, & Risher, 2002)? Are the caregivers poorly informed? Are they unsympathetic to women? Or are they simply creatures of habit? Why is evidence-based care not being practiced?

Reconciling the difference between what exists and what should be is partly tied up with acknowledging that a safe birth cannot be the only important goal of maternity care. Care must support and strengthen women. It must also ensure that women leave the hospital in the best possible health and confident as they enter the new territory of motherhood.

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References

- Declercq, E. R., Sakala, C., Corry, M. P., Applebaum, S., & Risher, P. (October 2002). Listening to mothers: Report of the first national U.S. survey of women's childbearing experiences. New York: Maternity Center Association.
- Eason, E., Labrecque, M., Wells, G., & Feldman, P. (2000). Preventing perineal trauma during childbirth: A systematic review. Obstetrics and Gynecology, 95, 464-471.
- Enkin, M., Keirse, M. J. N. C., Neilson, J., Crowther, C., Duley, L., Hodnett, E., & Hofmeyr, J. (2000). A guide to effective care in pregnancy and childbirth (3rd ed.). Oxford, UK: Oxford University Press.
- Hall, M. J., & DeFrances, C. J. (2003). 2001 National hospital discharge survey. Advance data from vital and health statistics; no. 332. Hyattsville, MD: National Center for Health Statistics.
- Lydon-Rochelle, M. T., Holt, V. L., & Martin, D. P. (2001). Delivery method and self-reported postpartum general health status among primiparous women. Paediatric and Perinatal Epidemiology, 15, 232-240.

- Martin, J. A, Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., & Munson, M. L. (2003). Births: Final data for 2002. National vital statistics reports; vol. 52, no. 10. Hyattsville, MD: National Center for Health Statistics.
- Thompson, J. F., Roberts, C. L., Currie, M., & Ellwood, D. A. (2002). Prevalence and persistence of health problems after childbirth: Associations with parity and method of birth. Birth, 29, 83-94.

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Finding Inspiration and Strength from Within	
It is funny, to me, the way people refer to childbirth as a miraculous event. A miracle is something that defier nature. Only, childbirth has got to be the most natural thing in the world.	S
—Barbara Hall	
Every time you don't follow your inner guidance, you feel a loss of power.	
—Shakti Gawa	i
Serenity isn't freedom from the storm, but peace within the storm.	
—Unknown	1
To follow without halt, one aim: There's the secret of success.	
—Anna Pavlova	ı
You gain strength, courage and confidence by every experience in which you really stop to look fear in the face. You are able to say to yourself, I lived though this and I can take the next thing that comes along.	e
—Eleanor Roosevel	t
In all things of nature, there is something of the marvelous.	

—Aristotle