Assessment of fetal presentation:

Exploring a woman-centred approach

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(Updated June 2014)

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Abstract:

This article explores the core midwifery skill of fetal presentation assessment from the perspective of women's meanings and experiences, including the social and relational aspects of antenatal palpation. Brief background information is provided, explaining the clinical purpose of determining presentation antenatally, and the key debates surrounding the available interventions applied when babies present breech, eg. external cephalic version and caesarean section. In order to make the screening process transparent, women need to know the accuracy (or rather, inaccuracy) of abdominal palpation, and what her options will be if her baby is found to be presenting breech, either before or during labour. Specialist midwifery care may help meet women's increased needs for counselling and reassurance, and provide continuity throughout the breech care pathway, which for low-risk women begins with palpation.

Keywords: breech, midwives, antenatal, palpation, woman-centred, specialist

Key phrases:

From 33 weeks, there is almost a 3:4 chance overall that a breech baby will remain breech, and many women will want to be considering their options by this point.

The clinical value of detecting breech babies antenatally, in terms of improved outcomes, is highly dependent on whether ECV is offered, accepted and performed with a high degree of success, factors known to be highly variable.

Antenatal detection of breech presentation is associated with a significant level of anxiety for women. However, provider's ways of speaking about breech influenced women's experiences, and a more supportive stance to all three options (ECV, VBB, CS) may result in less anxiety in the final weeks of a known breech pregnancy.

The UK clinical collective has remained comfortable with a certain degree of uncertainty when it comes to diagnosing all breech presentations antenatally. Whether an individual woman will be comfortable with this uncertainty is likely to depend on her general approach to pregnancy and childbirth, as well as the approach of her providers.

Women reveal themselves physically for each abdominal examination, and the emotional and psychological effects of this exposure and vulnerability should not be underestimated.

In woman-centred care, the core midwifery skill of palpation is used mindfully and holistically, taking into consideration what knowing her baby's position will mean for this individual woman, and how this information can help her meet her needs, aspirations and expectations for this pregnancy.

Note on Figure 1: Wiley & sons have given me permission to use the figure.

The assessment of fetal presentation by abdominal palpation is a fundamental antenatal care skill, in which the midwife (or doctor) uses her/his hands to gently feel the position of the baby through the mother's abdomen, in order to assess which way the baby is lying in the uterus. The clinical purpose of this activity is to enable appropriate interventions to be offered and care to be planned. In their 2008 *Antenatal Care* guideline, the National Institute for Health and Clinical Excellence (NICE) recommend:

> *Fetal presentation should be assessed by abdominal palpation at 36 weeks or later, when presentation is likely to influence the plans for the birth. Routine assessment of presentation by abdominal palpation should not be offered before 36 weeks because it is not always accurate and may be uncomfortable (NICE, 2008:276).*

The purpose of this article is to explore how the process of assessing presentation in routine antenatal care can reflect NICE's ambition of woman-centred care (p 37), which can be understood as 'care which focuses on the woman's individual needs, aspirations and expectations, rather than the needs of the institution or professionals' (Leap, 2009:12).

Background

External cephalic version (ECV) is a procedure to turn the baby to a head-down position in the uterus, appropriate to offer primigravidas from 36 weeks and multigravidas from 37 weeks (RCOG 2006a). ECV can be performed by an

obstetrician or a specially trained midwife (Taylor & Robson 2003). NICE suggest that a well-performing ECV service has the potential to reduce the caesarean section (CS) rate by 1% overall, if all women are offered ECV and the success rate is 50% (2008), and ECV is therefore a maternity service quality indicator (Kuku & Bewley 2006).

If ECV is unaccepted, unsuccessful or unavailable, a planned CS is offered (RCOG 2006b, NICE 2008). Planned CS are recommended based on the findings of the term breech trial (TBT). Hannah et al (2000) found reduced short-term morbidity and mortality for babies who were born by CS than those who were born vaginally. While this trial informs many national guidelines, the results are far from universally accepted and the consequences have been the subject of much criticism and debate since its publication (Kotaska 2004, Glezerman 2012). In addition, the long-term outcomes for the TBT showed no difference at two years of age between those babies born after planned vaginal birth and those who planned a CS (Whyte *et al* 2004).

Breech presentation is associated with an increased risk of both cerebral palsy (Anderson *et al* 2009, Morken *et al* 2010, O'Callaghan & MacLennan 2013) and congenital anomaly (Mostello *et al* 2014); neither of these associations are reduced with ECV or CS (Morken *et al* 2010, O'Callaghan & MacLennan 2013). The aim of this article is not to debate the most appropriate course of action or method of delivery but to discuss how, given these complexities, the screening process for

breech presentation might be more transparent and, ultimately, more woman-centred.

Making the screening process transparent

Abdominal palpation is a screening process, through which likely non-cephalic presentations can be identified. The accuracy of this process is affected by the gestation at which it is performed, as most babies present breech at some point (20% at 28 weeks), before turning head-down spontaneously by the end of pregnancy (3-4% remain breech) (RCOG 2008b). However, the evidence indicates that breech presentation at any point in the third trimester is associated with an increased likelihood that the baby will be breech at the time of birth (Tadmor *et al* 1994), a possibility many women may want to take into consideration as they are attending antenatal classes and considering their birth plans. The likelihood that babies will remain breech is stronger for primigravidas and multigravidas who have had previous term breech presentations (Westgren 1985, Fox & Chapman 2006, Ben-Meir et al 2007, Witkop et al 2008).

From a woman's perspective, the available data indicate that if her baby is presenting breech at any point in the third trimester, she has at least a 1:3 chance that the presentation will remain breech if she is a primigravida or mulipara with previous breech delivery, and an approximately 1:5 chance that it will remain breech if she is a multipara with previous cephalic deliveries. From 33 weeks, 66% of breech babies of primigravidae will remain breech at term (Fox and Chapman 2006) (Figure 1.)

However, from the institutional perspective, referral to consultant care prior to 36 weeks is inappropriate, as no evidenced-based intervention is available until that point.

In the 'Heads Up Clinic' model, developed by the first author, this gap in perspectives is bridged by offering simple presentation scans and specialist midwifery counselling to women whose babies are thought to be breech after 33 weeks. The counselling is usually conducted in groups so that women also benefit from peer support. Survey feedback has indicated that women appreciate the additional time and support in their decision-making process.

Guittier et al's (2011) study of women's experiences of breech presentation explored how women need caregivers to go beyond information on the risks and benefits, to spend time listening to women's expectations, creating spaces for dialogue and allowing additional time for reflection. The time such woman-centred care requires may be more than a referral after 36 weeks makes possible.

How important is diagnostic accuracy?

Because abdominal palpation is already a standard part of antenatal care, presentation is easily and inexpensively assessed in the community. Unfortunately, this method is also highly inaccurate. As with any screening process, this information should be made clear.

The sensitivity (true positive) rates and the specificity (true negative) rates of abdominal palpation vary among providers, and predictably, more experienced clinicians are more accurate (Thorp et al 1991, Lydon-Rochelle *et al* 1993, Flamm & Ruffini 1998, Watson *et al* 2004, Nassar *et al* 2006). At population level, approximately 70% of referrals for suspected breech presentation from the community are determined on ultrasound examination to be cephalic (Simpson, 2014). Approximately 25-30% of all breech presentations are missed, eg. thought to be cephalic – false negatives. As a result approximately 1:100 women go into labour with an undiagnosed breech presentation, and the false reassurance of having been assessed as head-down by their midwives (Vause et al 1998, Walker 2013). Unstable lie and late spontaneous podalic version account for a very small percentage of these cases (less than 1%, Fox & Chapman 2006).

In response to this general inaccuracy, universal third trimester ultrasound has been recommended by some (Vause et al 1998, Nassar *et al* 2006); however, the issues of cost, resources and the long-term effect on mother and baby of extra ultrasounds have not been fully evaluated (Macdonald 2006). Additionally, studies of outcomes for otherwise low-risk babies whose breech presentation remains undiagnosed until the start of labour have all shown an increased likelihood of vaginal birth (eg better outcome for mother) and similar outcomes for babies (Nwosu et al 1993), even when successful ECVs are factored into the equation (Leung 1999), reflecting what a recent Cochrane review describes as ‘uncertainty about the clinical value’ (Bricker *et al* 2008, p 4) of ensuring we detect all breech presentations.

The consequences of detection

In order to understand the purpose of palpation for presentation, a woman needs to know what will happen if her baby is found to be breech. The clinical value of detecting breech babies antenatally, in terms of improved outcomes, is highly dependent on whether external cephalic version (ECV) is offered, accepted and performed with a high degree of success, factors known to be highly variable (Kuku & Bewley 2006, Rosman *et al* 2013, Vlemmix et al 2013). In a hospital with a poorly performing or non-existent ECV service, which does not support the option of vaginal breech birth (VBB), antenatal detection offers minimal advantage. Women may just as well be informed they will be offered a caesarean section if their baby is found to be breech on arrival in labour. Waiting to go into labour will result in the maximum chance that the baby will turn head-down spontaneously (Ben-Meir *et al* 2012), and for mother and baby to experience the positive effects of labour (Sinha *et al* 2011). However, some women may have a strong preference for a CS and wish to know conclusively in order to plan one as soon as clinically appropriate (Say *et al* 2013). This approach should also be supported, and women should have access to bedside ultrasound confirmation if they wish. Such scans can be provided by midwives.

In contrast, in a hospital where a significant level of skill is maintained and vaginal breech births are well supported, an otherwise low-risk woman may wish to consider whether she would opt for an ECV or caesarean section (CS) before deciding whether she would like more than her midwife's opinion of her baby's presentation. If she would not accept an ECV and would prefer a vaginal birth, antenatal diagnosis of

breech presentation may increase her likelihood of having a CS without evidence of improving the outcome for the baby (Nwosu *et al* 1993, Leung 1999).

Antenatal detection of breech presentation is also associated with a significant level of anxiety for women (Founds 2007, Guittier 2011), and some may prefer to 'go with the flow' of events, although this approach may be more appropriate for a woman planning to give birth in a co-located midwifery-led unit than a woman planning to give birth at home. However, Founds (2007) and Guittier et al (2011) also observe that provider's ways of telling women about breech influenced women's experiences, and a more supportive stance to all three options (ECV, VBB, CS) for breech may result in less anxiety in the final weeks of a known breech pregnancy.

Rather than suggesting that breech presentations should be ignored until labour, the purpose of these examples is to illustrate why the clinical consequences of all antenatal screening activities should be made clear to women in advance. Women should also be informed of their hospital's rate of undiagnosed breech, and what the options will be should this occur in labour, for those who wish to consider this possibility in advance. The UK clinical collective has remained comfortable with a certain degree of uncertainty when it comes to diagnosing all breech presentations antenatally. Whether an individual woman will be comfortable with this uncertainty is likely to depend on her general approach to pregnancy and childbirth, as well as the approach of her providers.

Other risks and benefits

Women may desire knowledge of her baby's position for many other reasons throughout the third trimester. Many of the complementary therapies very popular among women, such as moxibustion, have a higher rate of success when used prior to 36 weeks (Manyande & Grabowska 2009, Tiran 2010, Guittier 2012). Additionally, recent research has suggested that teaching women to self-palpate themselves and identify their baby's position throughout the third trimester may positively influence the mother-infant relationship (Nishikawa 2013).

In their review of 'Women's experiences of abdominal palpation in pregnancy,' Blee & Dietsch (2012) found that the touching experienced during palpation has relational significance for both women and midwives that reaches well beyond fetal surveillance. Women reveal themselves physically for each abdominal examination, and the emotional and psychological effects of this exposure and vulnerability should not be underestimated. If women receive little information about the purposes of the procedure, if the midwife's manner is aloof, her touch rough and uncomfortable, her revelation of possible breech presentation anxiety-provoking, this will undermine the woman's confidence in her midwife, and possibly herself.

Olsen (1999) suggested some potential benefits of a 'woman-centred approach to palpation,' many of which are echoed in Lorna Davies' more recent exploration of midwifery knowledge and practice of abdominal palpation (2010):

- *Establishing trust between a woman and her midwife*
- *Promoting bonding between a woman and her baby*

- *Supporting a woman's belief in her ability to grow and nurture her baby, and in the normality of birth*
- *Encouraging a woman to respect, marvel at and delight in her own body*
- *Acknowledging a woman's expertise in her baby's health*
- *Showing respect for and further a woman's belief in herself as an independent, autonomous adult (Olsen, 1999:14)*

Olsen also noted that women often desire information about the baby's position: "It's nice to know which bump is what!" and "I always ask which way the baby is lying" (1999:14). These needs are not confined to a point in pregnancy considered clinically significant.

A midwifery model of breech antenatal care?

A woman-centred approach to abdominal palpation begins with offering a woman choice about whether she would like her abdomen palpated, when and for what reasons. In woman-centred care, the core midwifery skill of palpation is used mindfully and holistically, taking into consideration what knowing her baby's position will mean for this individual woman, and how this information can help her meet her needs, aspirations and expectations for this pregnancy.

In such relationally-oriented antenatal care, the process of abdominal palpation also includes the provision of consistent and balanced information about breech presentation and the effects this may have on the woman's birth choices, presented

in a supportive context. In the absence of other abnormalities, the majority of breech babies can be seen as ‘an unusual variation of normal,’ rather than a threat to fetal wellbeing (Cronk 1998, Evans 2012), and many women appreciate this reassuring perspective.

Nonetheless this variation is one that may eventually require collaborative care with obstetric colleagues in order to offer additional options to women, depending on their needs and expectations. Ensuring continuity of midwifery care and advocacy throughout this process, and facilitating a greater informed involvement of midwives in the care provided to women with breech-presenting babies, may help to keep the woman, rather than the perceived ‘abnormality,’ at the centre of care provision and ensure all women have a range of viable choices when their babies present breech at term.

Recommendations for Practice

- Women should have access to a midwife’s opinion of her baby’s position and presentation throughout the third trimester.
- All women should have access to bedside ultrasound confirmation of presentation from 36 weeks if they wish.
- Women should receive information about: the success rate of the local ECV service; the support available for vaginal breech birth locally or by referral to another Trust; the risk of breech presentation being diagnosed for the first time in labour, and the available options should this occur.

- Midwives should bear in mind the social and relational implications of antenatal palpation.
- Specialist midwifery care may help meet women's increased needs for counselling and reassurance, and provide continuity throughout the breech care pathway.

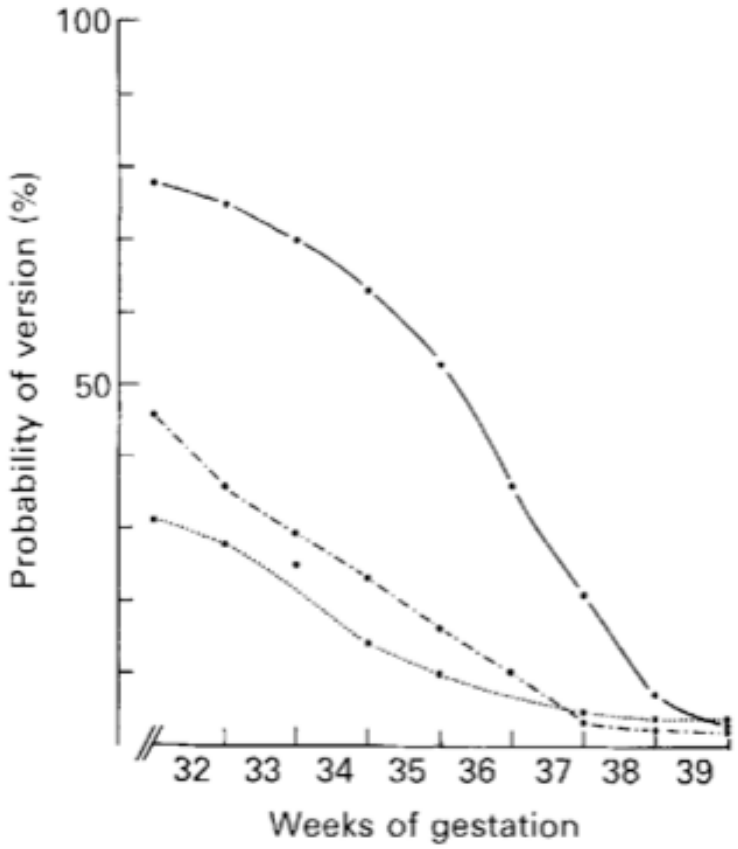

Fig. 1. Probability of spontaneous cephalic version during the last trimester for primiparae (•– – –•) and multiparae with (•· · · · ·•) and without (•——•) previous breech delivery.

References

Andersen GL, Irgens LM, Skranes J, Salvesen KA, Meberg A, Vik T (2009) Is breech presentation a risk factor for cerebral palsy? A Norwegian birth cohort study. Dev Med Child Neurol **51**(11):860-5

Ben-Meir A, Elram T, Tsafrir A, Elchalal U, Ezra Y (2012) The incidence of spontaneous version after failed external cephalic version. *Am J Obstet Gynecol* **196**(2):157 e1-3

Blee D, Dietsch E (2012) Women's Experience of the Abdominal Palpation in Pregnancy; A Glimpse into the Philosophical and Midwifery Literature. *N Z College of Midwives J* (46):21-5

Bricker L, Neilson JP, Dowswell T (2008) Routine ultrasound in late pregnancy (after 24 weeks' gestation). *Cochrane Database Syst Rev* (4):CD001451

Cronk M (1998) Hands off the breech. *Pract Midwife* **1**(6):13-5

Davies L (2010) Midwifery lore & abdominal assessment. *Essentially MIDIRS* **1**(4):38-42

Evans J (2012) Understanding physiological breech birth. *Essentially MIDIRS* **3**(2):17-21

Flamm BL, Ruffini RM (1998) Undetected breech presentation: impact on external version and cesarean rates. *Am J Perinatol* **15**(5):287-9

Founds SA (2007) Women's and providers' experiences of breech presentation in Jamaica: a qualitative study. *Int J Nurs Stud* 2007 **44**(8):1391-9

Fox AJ, Chapman MG (2006) Longitudinal ultrasound assessment of fetal presentation: a review of 1010 consecutive cases. *Australian N Z J Obstet Gynaecol* **46**(4):341-4

Glezerman M (2012) Planned Vaginal Breech Delivery: Current Status and the Need to Reconsider. *Exp Rev Obst & Gynecol* **7**(2):159-66

Guittier MJ, Bonnet J, Jarabo G, Boulvain M, Irion O, Hudelson P (2011) Breech presentation and choice of mode of childbirth: a qualitative study of women's experiences. *Midwifery* **27**(6):e208-13

Guittier MJ, Pichon M, Irion O, Guillemin F, Boulvain M (2012) Recourse to alternative medicine during pregnancy: motivations of women and impact of research findings. *J Altern Complement Medicine* **18**(12):1147-53

Hannah ME, Hannah WJ, Hewson SA, Hodnett ED, Saigal S, Willan AR (2000) Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial. Term Breech Trial Collaborative Group. *Lancet* **356**(9239):1375-83

Kotaska A (2004) Inappropriate use of randomised trials to evaluate complex phenomena: case study of vaginal breech delivery. *BMJ* **329**(7473):1039-42

Kuku S, Bewley S (2006) Clinical examination for non-cephalic presentation: external cephalic version should be a maternity service quality indicator. *BMJ* **333**(7570):705-6

Leap N (2009) Woman-centred or women-centred care: does it matter? Brit J *Midwifery* **17**(1):12-6

Leung WC, Pun TC, Wong WM (1999) Undiagnosed breech revisited. *Brit J Obstet Gynaecol* **106**(7):638-41

Lydon-Rochelle M, Albers L, Gorwoda J, Craig E, Qualls C (1993) Accuracy of Leopold maneuvers in screening for malpresentation: a prospective study. *Birth* 1993 **20**(3):132-5

Macdonald S (2006) Clinical examination for non-cephalic presentation: Royal College of Midwives' response to research. *BMJ* **333**(7570):705

Manyande A, Grabowska C (2009) Factors affecting the success of moxibustion in the management of a breech presentation as a preliminary treatment to external cephalic version. *Midwifery* **25**(6):774-80

Morken NH, Albrechtsen S, Backe B, Iversen OE (2010) Caesarean section does not prevent cerebral palsy in singleton term breech infants. *Dev Med Child Neurol* **52**(7):684-5

Mostello D, Chang JJ, Bai F, Wang J, Guild C, Stamps K, et al (2014) Breech presentation at delivery: a marker for congenital anomaly? *J Perinatol* **34**(1):11-5

Nassar N, Roberts CL, Cameron CA, Olive EC (2006) Diagnostic accuracy of clinical examination for detection of non-cephalic presentation in late pregnancy: cross sectional analytic study. *BMJ* **333**(7568):578-80

National Collaborating Centre for Women's and Children's Health (for NICE) (2008) *Antenatal care: Routine care for the healthy pregnant woman, NICE Clinical Guideline 62*. NICE, London

Nishikawa M, Sakakibara H (2013) Effect of nursing intervention program using abdominal palpation of Leopold's maneuvers on maternal-fetal attachment. *Reprod Health* **10**(12):e1-7

Nwosu EC, Walkinshaw S, Chia P, Manasse PR, Atlay RD (1993) Undiagnosed breech. *Brit J Obstet Gynaecol* **100**(6):531-5

O'Callaghan M and MacLennan A (2013) Cesarean Delivery and Cerebral Palsy: A Systematic Review and Meta-analysis. *Obstet Gynecol* **122**(6):1169-75

Olsen K (1999) 'Now just pop up here, dear...' Revisiting the art of antenatal abdominal palpation. *Pract Midwife* **2**(9):13-5

Royal College of Obstetricians and Gynaecologists (RCOG) (2006a) External Cephalic Version (ECV) and Reducing the Incidence of Breech Presentation. London: RCOG.

Royal College of Obstetricians and Gynaecologists (RCOG) (2006b) The Management of Breech Presentation. London: RCOG.

Rosman AN, Vlemmix FF, Fleuren MA, Rijnders ME, Beuckens AA, Opmeer BC, et al (2013) Patients' and professionals' barriers and facilitators to external cephalic version for breech presentation at term, a qualitative analysis in the Netherlands. *Midwifery*, http://dx.doi.org/10.1016/j.midw.2013.03.013

Say R, Thomson R, Robson S, Exley C (2013) A qualitative interview study exploring pregnant women's and health professionals' attitudes to external cephalic version. *BMC Pregnancy Childbirth* **13**(1):4

Simpson H (2014). *Upside Down What a To Do*. Presenting Breech Conference. Stevenage, 7 February 2014.

Sinha A, Bewley S, McIntosh T (2011) Myth: babies would choose prelabour caesarean section. *Semin Fetal Neonatal Med* **16**(5):247-53

Tadmor OP, Rabinowitz R, Alon L, Mostoslavsky V, Aboulafia Y, Diamant YZ (1994) Can breech presentation at birth be predicted from ultrasound examinations during the second or third trimesters? *Int J Gynaecol and Obstet* **46**(1):11-4

Taylor P, Robson S (2003) External cephalic version -- a new midwifery role. *Brit J Midwifery* **11**(4):207-10

Thorp JM, Jr., Jenkins T, Watson W (1991) Utility of Leopold maneuvers in screening for malpresentation. *Obstet Gynecol* **78**(3 Pt 1):394-6

Tiran D (2010) Complementary therapies in midwifery: a focus on moxibustion for breech presentation. In: Marshall J and Raynor M, eds. *Advancing Skills in Midwifery Practice*. Churchill Livingstone, Edinburgh: 19-28

Vause S, Hornbuckle J, Thornton JG (1997) Palpation or ultrasound for detecting breech babies? *Brit J Midwifery* **5**(6):318-9

Vlemmix F, Kuitert M, Bais J, Opmeer B, van der Post J, Mol BW, et al (2013) Patient's willingness to opt for external cephalic version. *J Psychosom Obstet Gynaecol* **34**(1):15-21

Walker S (2013) Undiagnosed breech: Towards a woman-centred approach. *Brit J Midwifery* **21**(5):244-9

Watson WJ, Welter S, Day D (2004) Antepartum identification of breech presentation. *Journal Reprod Med* **49**(4):294-6

Westgren M, Edvall H, Nordstrom L, Svalenius E, Ranstam J (1985) Spontaneous cephalic version of breech presentation in the last trimester. *Brit J Obstet Gynaecol* **92**(1):19-22

Whyte H, Hannah ME, Saigal S, Hannah WJ, Hewson S, Amankwah K, et al (2004) Outcomes of children at 2 years after planned cesarean birth versus planned vaginal birth for breech presentation at term: the International Randomized Term Breech Trial. *Am J Obstet Gynecol* **191**(3):864-71

Witkop CT, Zhang J, Sun W, Troendle J (2008) Natural history of fetal position during pregnancy and risk of nonvertex delivery. *Obstet Gynecol* **111**(4):875-80