Optimal maternal positioning for fetal descent is achieved by creating positions where the mother is upright, has her upper leg as far as possible away from her lower leg (increasing the transverse diameter of the pelvis) and free space to allow the sacrum and coccyx to move back (increasing the anterior-posterior diameter of the pelvis) (Zwelling, 2010). Zwelling also states that maternal movement and position changes during labour assist with the progression of labour. However, upright positions and maternal mobility can be a problem for many women experiencing obstetric interventions such as an epidural.

There is an increasing trend for women in Australia to undergo labour induction with labour induced in 35% of first time labours in 2014 (Australian Institute of Health and Welfare [AIHW], 2016). The labour induction rate has increased from 25.4% in 2004 (Laws, Grayson, & Sullivan, 2006) to 28.4% in 2014 (AIHW, 2016). Labour dystocia appears to be more frequent after labour induction, and more epidural and non-epidural pain relief is used for induction regardless of parity (Boulvain, Marcoux, Bureau, Fortier, & Fraser, 2001). Australian data shows that in 2014, 34% of women chose regional (epidural/spinal) analgesia (AIHW, 2016). Epidural analgesia may impact the course of labour with an increase in fetal malposition, prolonged labour and an increased need for instrumental delivery (Anin-Somuah, Smyth, & Howell, 2005).

Midwives need to consider strategies to reduce the risk of fetal malposition and support women in labour when their mobility may be compromised due to an epidural, or they have an increased need for pain relief due to an induction of labour. Promoting the normality and physiology of birthing can be a challenge when the woman is experiencing obstetric intervention(s). One strategy to aid women’s comfort and reduce the length of labour if they are unable to mobilise out of bed would be the use of an elongated ball where the middle circumference is smaller than the circumference at either end (available commercially and often referred to as a ‘peanut ball’) (Figure 1: Source Heather Borradale 2017).

Evidence supporting the use of the commercially available peanut ball is limited. Tussey et al. (2015) also published a randomised control trial that was undertaken with only 200 participants (107 women used the peanut ball and 91 women received standard care) in one maternity unit. The intervention group used the peanut ball once an epidural was inserted and consent was obtained. The ball was placed between the legs of the labouring woman while on her side with a...
The peanut ball was left in position until the cervix was fully dilated and the woman was ready to push. The research did not specify how often the woman was turned or re-positioned. Standard care was offered to the non-intervention group and that was documented as turning the woman side to side or placing the woman in a semi- or high-Fowler position every 1–2 hours.

Tussey et al. (2015) stated that the group using the peanut ball had a decreased length of first and second stage of labour and a reduced rate of caesarean section. However, this study was limited due to its small size and it did not control for all factors (e.g. midwifery practice) that could have influenced the length of time a woman laboured and her likelihood of progressing to a vaginal or caesarean birth.

Furthermore, Tussey et al. (2015) argued that, while the commercially available peanut ball has the potential to decrease the length of time a woman labours and the likelihood of her requiring a caesarean section, there were no harmful effects noted. The peanut ball may prove to be very beneficial for women and further research may provide the evidence that would be required to demonstrate such benefits or disadvantages.

Roth, Dent, Parfitt, Hering and Bay (2016) argued that they may be of benefit for primiparous women who are undergoing induction of labour with an epidural insitu due to the peanut ball being a low-cost (approximately $90 per ball), non-pharmacologic and non-invasive tool to support women in lateral positions. However, they do not decrease pushing time or decrease the length of labour in multiparous women. Roth et al. (2016) concluded it was not possible from their randomised control trial to determine if using the peanut ball would decrease the number of women having a caesarean section.

Due to the variables in women, midwives and obstetricians, recognition of the value (or otherwise) of the peanut ball may be some time away. In Australia, individual hospitals using the peanut ball can collect data by adding the peanut ball to the non-pharmacological pain relief section in the perinatal data collection form. The hospital administrators of perinatal data can create a report that includes the peanut ball. It is important that if hospitals are using the peanut ball and including it in the perinatal data collection, that they educate midwives on sizing, positioning and timing of position changes.

The basic premise of opening the pelvis and repositioning women regularly during labour is the minimum that the implementation of the peanut ball into birth suites will achieve. A woman recently commented to me that she felt the midwife had not given up on her after she had an epidural as she implemented the peanut ball and regular position changes with the peanut ball in place.

Anecdotally, the peanut ball has been a very useful tool in the hospital I work in and there is definitely a positive buzz around the use of the ball. I have been surprised at the increase in progress once a peanut ball is used. The peanut ball is useful for all women in labour with and without an epidural. My experience is that many multiparous women progress quickly with short periods using the peanut ball without an epidural. If proven by large, well-conducted clinical trials to be effective, the cost saving for the hospital and women cannot be underestimated and options for subsequent births flows into this cost saving, long term (Keeler & Brodie, 1993; Gregory, Jackson, Korst, & Fridman, 2012; Woolhouse, Perlen, Garlant & Brown 2012). Using the peanut ball is one strategy midwives can use to support women in labour who are having an induction of labour and epidural analgesia. The active support of these women is rewarding for the midwife and woman.

### Outcome

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Peanut ball (107)</th>
<th>Control (94)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First stage labour length</td>
<td>268.8 min</td>
<td>356.2 min</td>
</tr>
<tr>
<td>Second stage labour length</td>
<td>21.3 min</td>
<td>43.5min</td>
</tr>
<tr>
<td>Caesarean section rate</td>
<td>11 (10.3%)</td>
<td>19 (21.1%)</td>
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References