

# BIOMECHANICS FOR BIRTH

Molly O'Brien, *RM BSc (hons)*



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# BIOMECHANICS FOR BIRTH

Always gain consent and document following explanation of positions. Advisable to check and document FH prior to and following postures (midwives only).

**Caution: Only use these positions and techniques if malposition is suspected or diagnosed. Always be guided by the pregnant or birthing woman. If she is uncomfortable stop using that position.**

## Topics covered

Page 2 • Pregnancy Advice

Page 3 • Sifting

Page 4 • Sidelying Release

Page 5 • Forward Leaning Inversion

Page 6 • Shaking the Apple Tree

Page 7 • Lunge

Page 8 • Exaggerated Lateral

Page 9 • Abdominal Lift and Tuck

Page 10 • Acknowledgements & References



# PREGNANCY ADVICE



**Walk** daily

**Swim**

**Yoga** or Pilates



**Wear** correct size bra.



**See** physio, osteopath, or other physical therapist, if known pelvic or spinal alignment problems – eg after a fall or accident.

**Avoid** reclining on soft sofas.

**Forward leaning inversion** and **Sifting** with a scarf or rebozo daily.

**A Sidelying release** can be done weekly or more if there are pelvic issues eg. history of an accident.

**Use** the **correct size** Birth ball to sit and to rotate hips to help mobilise and free sacrum. Kneel and lean forward using the ball for support.



- Your height 4'8" to 5'3" = 55cm ball
- Your height 5'4" to 5'10" = 65cm ball
- Your height 5'11" to 6'4" = 75cm ball



## Calf Stretches

Wearing shoes with a heel or sitting for long periods can cause calf muscles to shorten. They join the hamstrings at the knee – which attach to the pelvic floor at the other end. Lengthening and stretching these muscles can improve and maintain pelvic balance.





# Sifting

## When to use

**During Pregnancy.** Use a rebozo, shawl or scarf to gently sift (or rock) the abdomen. Can be used daily. This can soften the broad ligament and increases the likelihood of successful optimal positioning of the baby when used in conjunction with **sidelying release** and **forward leaning inversion**.

**Early Labour and first stage.** Also provides comfort in labour and promotes relaxation. It stimulates the parasympathetic response, ie. slows the heart rate and relaxes muscle. **Sift in-between contractions.** Can be done for as long as the woman wants.

**Caution: if anterior placenta or history of APH, be gentle, not vigorous.**



# Sidelying Release

A static stretch of deep pelvic muscles including Piriformis.

## When to use

**During Pregnancy.** Weekly as part of a sequence of positions to improve and maintain pelvic balance and stability. 5-10 minutes each side.

**Labour.** At any point in labour where malposition is suspected or confirmed, latent, especially if prolonged, first and second stage, where slow progress despite good pushing effort or when contractions space out. 5-10 minutes each side or for three contractions.

Suitable for women with an epidural. Repeat every 3- 4 hours if necessary.

Advisable to mobilise for several minutes following SLR.

**Always use on both sides.**  
**Position can be held during contraction if woman can manage this without too much discomfort.**







# Forward Leaning Inversion

*Stretches uterosacral ligaments.*

## **When to use**

**During Pregnancy.** Daily as part of improving and maintaining pelvic balance and stability. Remain in position for 30 seconds or 3 breaths.

**Labour.** In latent and first stage of labour. 2 FLI for 30 seconds each in quick succession. 2 long breaths to regain balance or if dizzy.

**Contraindications:** *Hypertension, polyhydramnios, glaucoma or any condition that increases risk of stroke.*





# Shaking the Apple Tree

*Releases tension in the large muscles attached to the pelvis eg. gluteus maximus.*

## **When to use**

**Pregnancy.** To encourage engagement of high head and to encourage spontaneous labour when induction has been advised. Do this when in **Forward leaning inversion** (see contraindications) position, 3 times for 30-60 seconds. Repeat several times a day. Works better if sifting with rebozo is done prior to position.

**Labour.** For comfort at any stage of labour. Aids flexion. For delay in second stage caused by malposition of the head, deflexion and asynclitism.







# Lunge

## When to use

**Labour.** Aids rotation and descent when OP or asynclitic. Opens the pelvis. Appropriate when head is midpelvis. Can help overcome a stall in both first and second stage. 10 contractions each side.

Woman faces forward with a chair at her side. Places one foot on the chair pointing away from her body (see photo) Her birth supporter can be near physically supporting her if necessary.

The woman rocks towards her knee for the duration of a contraction, avoid overextending the knee beyond her foot. She can put her foot down, resting her leg between contractions.

**Caution: Do not extend knee over the end of the foot as this may overstretch ligaments causing injury.**

7





# Exaggerated Lateral

## *Resting is important.*

This position aids relaxation and can help rotate baby.

If baby's spine is on left, ask woman to lie on her right side.

She rolls forward, supported by pillows under her abdomen and leg, almost like a nest.

Her hips should be in the oblique.

Remember to support the ankles too.

If you're not sure whether baby's spine is left or right alternate both sides.

Rest for 30 mins between mobilising and using other positions.





# Abdominal Lift and Tuck

## When to use

**Early Labour.** To aid flexion, engagement and descent. Works best in early labour prior and up to 5cms dilatation when high head 3cms above spines. On palpation may feel head sitting on pubic bone.

Woman does posterior pelvic tilt, flattening lower back, partner lifts abdomen a couple of cm.

Hold position during each contraction for 10 consecutive contractions.

It can work quickly, may be best to have a midwife nearby.

**Caution: Avoid if baby's head is not engaged well and the bag of water has been released. Stop if the baby moves excessively while using the technique.**





# ACKNOWLEDGEMENTS

I'm grateful for Gail Tully's work. You can find out more at:



Other interesting and helpful websites:



**Cover Photo:** "Galactic Baby", award winning image from Cat Fancote – all rights reserved.



**Molly O'Brien**

*RM BSc (hons)*

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# REFERENCES

## QR LINKS



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