

# Non-pharmacological pain management in childbirth

Collated by **Dr John Schibeci**  
DRANZCOG

One of the triumphs of Western medicine has been in the areas of analgesia and anaesthesia. Think James Simpson, John Snow and Bayer Aspirin. The pain of childbirth is usually put down as a ten on the Richter scale of pain and hence modern medicine, with its pharmacology of analgesic choices, comes to the rescue and often succeeds.

To some women, the pain of labour and childbirth is seen as a rite of passage, whereas to other women, it is something which needs to be stopped dead in its tracks.

The following group of articles look at some of the alternatives to the pharmacological management of labour pain. Each modality is steeped in its own history and also triumphant in its contribution to managing labour pain for many more centuries than the epidural and nitrous oxide. After reading these articles, one will realise that there is more to managing the pain of labour than simply 'naming your poison'.

## Water and birth. Folklore or fad?

**Louise Homan**  
Registered Nurse/Endorsed Midwife

Since ancient times, women have used water for comfort, relaxation and as a means of easing the pain of labour. A study of the culture of childbirth demonstrates that the use of water has a significant role in the birth process, past and present.

On some islands in the South Pacific, women went down to the sea to give birth in the shallows. In New Zealand, the women of one Maori tribe in the hills gave birth in a sacred river. When labour is difficult in rural Greece, the midwife or the assisting woman may pour water through the sleeve of the husband's shirt or down the chimney. In Jamaica, the *nana* soaks a cloth in hot water and cocoons the birthing mother within it.<sup>2</sup>

It is somewhat surprising then that the use of water during labour and birth has been viewed with some trepidation in contemporary medical models of midwifery and obstetric practice.

*'...evidence suggests that water immersion and underwater birth potentially offer both physical and psychological benefits to labouring women.'*<sup>1</sup>

While the risks and benefits of water immersion in the second stage of labour requires further research, available evidence suggests that water immersion and underwater birth potentially offer both physical and psychological benefits to labouring women.<sup>1</sup>

These outcomes are easily overlooked in a healthcare system with a strong focus on the financial factors that determine how birth occurs.

With water birth, the mother's choice of birth place is met, enabling a feeling of privacy and ownership of her own body and labour. Her instinctive movements are unencumbered and a lower technology profile lessens fear and anxiety.

Women who experience water birth report, anecdotally, satisfaction with their birthing experience and a sense of pride, empowerment and achievement. What greater achievement for a mother than for her newborn baby to be welcomed by her own touch?

### References

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2. Kitzinger, S. *Rediscovering Birth*. Little, Brown and Company (UK). 2000 London.

## Intradermal injections of water

**Kimmy Brooks**  
Senior Midwife  
Royal Hobart Hospital, Tasmania

Since 2006, Royal Hobart Hospital has provided non-pharmacological pain relief in the form of intradermal injections (IDI) of sterile water for the relief of acute backache in labour. It is reported that 30 per cent of labouring women experience acute back pain. It is distressing for the women and all those involved if the pain cannot be relieved.

IDI is simple to learn and was originally used for relief of pain in renal colic and whiplash. Midwives in Scandinavia adopted and adapted the technique in 1987. IDI has been used in Canada and the United States since 1991 and was introduced into Australia around 2002 by Janice de Campo, a clinician from Colac, Victoria.

The general consensus is that this technique works either by the 'gate control theory' or through the release of endogenous opioid endorphins. The woman receives four injections with 0.2 to 0.5ml of sterile water just under the skin to produce a papule over the sacro-iliac joints. The exact injection sites are not crucial to its effectiveness. As the injections are very painful, it less traumatic

if two injections are administered by two people simultaneously. Most women report achieving rapid, dramatic and often complete relief of back pain in labour. The analgesic effect usually lasts 60 to 90 minutes.<sup>1</sup>

While this form of pain relief will not suit all women experiencing back pain, it does offer choice to those women not wishing to use narcotics or epidurals.

**Reference**

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**Acupuncture – not a new age treatment**

**Judy James**

CEO  
Australian Acupuncture and Chinese Medicine Association Ltd

Acupuncture has a long history of safe and effective use in pregnancy and childbirth, both in Australia and in China, as well as in other parts of East and South East Asia. Its use is based on a well-established coherent body of knowledge, known as Traditional Chinese Medicine (TCM), that forms the basis of its clinical practice. In addition to its documented traditional use, there is a growing body of sound research evidence supporting the safety and efficacy of acupuncture in the treatment of pregnant and birthing women. Acupuncturists are increasingly working alongside the supervising midwife and obstetrician in providing safe and effective support for pregnant and birthing women.

In pregnancy, acupuncture is primarily used for the treatment of morning sickness, threatened miscarriage and correction of breech position. The latter does not involve any manual manipulation of the fetus. Pregnant women may also seek acupuncture as a safe drug-free intervention for the treatment of a range of pregnancy-related conditions such as insomnia, back pain and mild depression, as well as for non-pregnancy related health conditions or for general wellness support.

In obstetrics, the use of acupuncture focuses on cervical ripening and induction in delayed or prolonged labour, as well as for pain management.

Various trials and reviews have found that there are no increased risks associated with the inclusion of acupuncture as an intervention in pregnancy and childbirth.

Nevertheless, it is recommended that acupuncture services be obtained only from persons who are suitably qualified and trained in its safe and competent use. The Australian Acupuncture and Chinese Medicine Association Ltd (AACMA) current entry requirement is a four to five-year approved bachelor degree program with a major in acupuncture.

More information can be obtained from AACMA at: [www.acupuncture.org.au](http://www.acupuncture.org.au)

**Transcutaneous Electrical Nerve Stimulation (TENS)**

**Heather Greer**  
Labour TENS

**What is TENS and how does it work?**

Transcutaneous Electrical Nerve Stimulation (TENS) is a small portable battery-powered device for relieving pain. It sends a pulsed electrical stimulus to the nerves via electrodes, which are adhered to the skin. TENS broadly works in two ways:

- Firstly, it exploits Melzack and Wall's<sup>6</sup> 'gate control theory' of pain. TENS stimulates the A-beta sensory nerves. This activity in the large nerve fibres activates the inhibitory interneuron, which blocks the projection neuron and therefore stops the ascending pain impulse. If the A-beta input continues to exceed the nociceptor input the virtual 'gate' remains closed to pain.
- Secondly, TENS also excites the higher centres causing the systemic release of endogenous opioids.<sup>1</sup>

**Why use a Labour TENS?**

TENS are often used by physiotherapists to treat pain and injury, however, these conventional or rehabilitative TENS are inadequate for childbirth. A Labour TENS is specifically designed for obstetrics with pre-set programs which manage the pain shifts and intensity of labour with a boost button. This boost automatically increases the amplitude by 20 per cent and switches the program to a boost mode (continuous high frequency) for intense pain relief needed during a contraction. After a contraction, the button is depressed again to switch back to rest mode (low frequency), a gentler program providing the 'gating' effect and maintaining the level of endorphins. Labour TENS is self-administered and the level is titrated according to need. The effects are immediate and long-lasting, with over 80 per cent of women achieving pain relief. There are virtually no side effects and no known potential for overdose.<sup>2</sup> TENS is low cost (A\$65 for five-week hire or \$195 to purchase) and can be rented or purchased without prescription with health fund rebates of up to 100 per cent.

**Precautions and side effects**

Skin irritation can occur under electrodes in two per cent of patients. TENS should not be used for patients with a pacemaker. TENS should not be used or submerged in water. For more information: [www.labourtens.com.au](http://www.labourtens.com.au)

**How is Labour TENS used?**

For optimum effect, Labour TENS is used at the onset of labour and for two to three hours afterwards.

Self adhesive electrodes are fixed to the lower back (the top pair of electrodes paravertebrally at T10-L1 and the lower pair at S2 to S4). Labour TENS is then switched on and set to the required amplitude. The level can be adjusted to maintain a strong yet comfortable level as required, with the ability to set each channel individually. The hand held boost button is used for switching between rest and boost mode.

During the early stages of labour and in between contractions, rest mode is used for mild pain relief. For strong contractions, the button is pressed to increase pain relief. The Labour TENS display indicates the selected mode and intensity.

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As TENS may vary, refer to the operator's manual for complete instructions.

Summary of the benefits of Labour TENS:

- It can be used alone in all stages for a drug-free birth or adjunct medication.<sup>3</sup>
- It relieves pain and speeds recovery from caesarean section.<sup>4</sup>
- Over 80 per cent of women achieve high levels of pain relief.<sup>7</sup>
- Women can manage their own pain with the dosage titrated according to need.
- It reduces post natal pain, vaginal and perinea trauma.<sup>5</sup>
- No drowsiness and few side effects for mum or baby.<sup>2</sup>
- It reduces the length of the first stage of labour.<sup>3</sup>
- 35 years research, experience and proven safety record.
- Cost-effective with health fund rebates of up to 100 per cent.
- Non invasive therapy that allows the mother full movement.<sup>1</sup>

#### References

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## HypnoBirthing®

**Susan Ross**

**HypnoBirthing® Practitioner**

Designed by a hypnotherapist, Maree Mongan, in the United States, this program is not just for labour and birth, but a powerful lifeskill which can be learned.

HypnoBirthing® is as much a philosophy as it is a technique. It is a rewarding, relaxing, stress-free method of birthing that is based on the belief that all babies should come into the world in an atmosphere of gentility, calm and joy. When a woman is properly prepared for birthing physically, mentally and spiritually, she can experience that sort of joy, birthing her baby in an easier, more comfortable and often pain-free manner. Through a well thought-out program of deep relaxation, self-hypnosis and education, HypnoBirthing® returns to a woman the art of birthing in a way that allows her to summon her natural birthing instincts and to birth her baby in safety and with ease.

HypnoBirthing® eliminates the fear-tension-pain syndrome before, during and after birthing.

Understanding the way in which the uterus functions naturally when unencumbered by fear, the concept of easier, more comfortable birthing immediately becomes obvious. This concept is the key to the entire HypnoBirthing® program.

- Hypnosis is a means of inducing a level of consciousness that is characterised by relaxation and suggestibility. The purpose of hypnosis is to provide a means of bypassing the critical mind and accessing the non-reasoning, suggestible subconscious.
- Hypnosis allows us to zoom in on limiting thoughts.
- Hypnosis releases thoughts that could interfere with birth.
- The mind determines what and when the body feels.

Following HypnoBirthing® principles means that birthing is returned to the safe, beautiful, peaceful experience that nature intended.

#### Reference

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## Calmbirth®

**Tracey Anderson Askew**

**Accredited Childbirth Educator**

**Registered Calmbirth® Facilitator**

Calmbirth prepares couples for birth and parenting from antenatal education through to birthing and parenting wisdom.

*'The Calmbirth® program assisted me greatly with the birth of my first child. Calmbirth® helped me relax during the birth and the breathing techniques were instrumental, I feel, in making the birth quick and easy. I strongly recommend the program as it encourages women to listen to, and assist their bodies, to birth their babies.'* Jenny

*'We couldn't have asked for a more relaxed and calm birth with medical support. While they were getting me ready for the caesarean section, I focused on my special place in nature and did the calm breathing. When it was time for me to have the spinal block, I increased my deep breathing and went even deeper into myself. John told me later that the anaesthetist made the comment that I would be a great case example for other women having a caesarean section on how to remain relaxed during a spinal block.'* Natasha

Jenny and Natasha, like a growing number of Australian women, used the Calmbirth® technique to facilitate a positive birth experience. Calmbirth® is a unique 12-hour antenatal Australian childbirth education program developed in 2005 by Australian midwife Peter Jackson to reduce pain during the birthing process by eliminating fear and tension. In his 30 years as a nurse, Peter witnessed many mothers whose experience of childbirth was one of fear, pain and trauma. As a result, he began to search for ways to help improve the experience of these mothers. His method promotes the use of the subconscious resources of

deep relaxation which centre around the normal physiological relaxation responses within the body. The techniques can be employed by women who have a vaginal birth or caesarean section.

*‘Calmbirth® helps women and their partners understand and address these fears and uses breathing, visualisation, mind-focusing techniques, massage and touch to relax the body and mind in preparation for birth and parenting.’*

During pregnancy and prior to the birth of their baby, many women experience a degree of fear or anxiety about becoming a parent. These fears can interfere with the body’s natural responses to the process of labour, birth, bonding and breastfeeding. Fear of childbirth has been linked with emergency caesarean section, dystocia and protracted labour.<sup>1</sup> Research has also demonstrated that women with antenatal fear of childbirth have an increased risk of developing perinatal depression, with possible implications for their relationship with their new baby.<sup>1</sup> Calmbirth® helps women and their partners understand and address these fears and uses breathing, visualisation, mind-focusing techniques, massage and touch to relax the body and mind in preparation for birth and parenting. Partners move from being observers of the experience to having a clear role in supporting, encouraging and assisting their partner in labour. When practised regularly, the skills that women and their partners acquire during the Calmbirth® course continue to support them during times of stress throughout their lives.

Although there has been no formal research to support the direct effect of Calmbirth® on labour and birth outcomes, responses collected on pre- and post-Calmbirth® course evaluations have clearly indicated a high level of satisfaction and usefulness with what participants experienced during the classes and an improved emotional state of pregnant women. Table 1 indicates that prior to completing the Calmbirth® course, only 14.7 per cent of women felt either confident or very confident with their impending birth, but at the completion of the course, this figure had risen to 83.8 per cent. Further research is warranted to explore the effects of Calmbirth® on labour and birth outcomes.

**Table 1.** Participants describe their thoughts about birth before and after completing the Calmbirth® course.

	Before Calmbirth® course		After Calmbirth® course	
	%	no.	%	no.
<b>Very frightened</b>	8.8%	(56)		(0)
<b>Frightened</b>	7.4%	(47)	0.2%	(1)
<b>Anxious</b>	38.8%	(247)	2.2%	(14)
<b>Neutral</b>	9.6%	(61)	1.4%	(9)
<b>Ok</b>	19.7%	(125)	9.3%	(59)
<b>Confident</b>	13.1%	(83)	48.0%	(305)
<b>Very confident</b>	1.6%		35.8%	(228)

To conclude, information alone will not significantly prepare a couple for the experience of birth and parenthood.<sup>3</sup> Creating changes in perception and behaviour, through understanding,

direct experience and the practising of new skills is required. The Calmbirth® course challenges participants’ fears and facilitates this process.

The Calmbirth® course is facilitated by registered practitioners, with qualifications in midwifery, childbirth education or health. For more information go to the website: <http://calmbirth.com.au>.

**References**

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**Doula**

**Susan Ross**  
Director, Birth Right

What is a doula? She is the key to a woman having a wonderful birthing experience. Professionally trained to provide emotional and physical support for a woman during pregnancy, labour, birthing and post-natally. Doula is a Greek word meaning ‘mothering the mother’.

Research shows that women who have a doula have decreased rates of medical intervention, higher satisfaction rates and increase in breastfeeding rates.<sup>1</sup>

A doula gets to know a couple on a different level. She has the time to understand what a woman wants for her birth and to advocate, support and encourage. She also provides a lot of support for the father. A doula allows the father to be involved to his own comfort level. Being able to reassure a couple and normalise the experience for them, eliminating any lingering fears and anxieties, allows labour to progress with grace and ease. Doula’s work closely with midwives and obstetricians.

**What some men say about having a doula:**

Nigel: *‘She was present without being a presence.’* This is such a powerful statement and highlights the essential qualities of a doula.

Jason: *‘Having a doula there gave us the confidence to stay at home for longer, rather than rushing in to hospital immediately. The support was amazing.’*

**What some women say about having a doula:**

Jacqui: *‘It is difficult to explain the power of having someone so strong and centered and experienced lending balance and authority during the extremes of labour – supporting your decisions, suggesting techniques to help with labour and reminding you of your own strength and capability.’*

Sarah: *‘Having such a positive birth experience was wonderful, but also incredibly valuable in leaving me emotionally and physically able to embrace the whirlwind of new motherhood. Having a doula made the difference.’*

Every Pregnant Woman Deserves a Doula.