



## GOOD PRACTICE STATEMENT

# Acupuncture for pregnancy-related low back pain and pelvic girdle pain

### Introduction

This statement is based on a synthesis of the best available current evidence. It will be subject to periodic review as the evidence base evolves. It should be noted that the statement offers guidance, and should not be regarded as prescriptive; such general advice will always require to be modified in line with the needs of any individual patient and the clinician's experience.

All acupuncture should be performed according to the guidelines of the British Acupuncture Council, the British Medical Acupuncture Society and the Acupuncture Association of Chartered Physiotherapists (AACP) ([www.acupuncturesafety.org.uk](http://www.acupuncturesafety.org.uk)).

### Background

The incidence of pregnancy-related low back pain (LBP) and pelvic girdle pain (PPGP) is reported to be approximately 20% (Wu *et al.* 2004; Kovacs *et al.* 2012; Malmqvist *et al.* 2012; Pennick & Liddle 2013). It is attributed to multifactorial changes in posture, hormones, joint laxity, muscle imbalance, asymmetrical mechanical dysfunction of the pelvis and the growing baby *in utero*.

In the general population, acupuncture has been shown to reduce pain levels and improve physical function in adults with LBP (Witt *et al.* 2006; Haake *et al.* 2007; Cherkin *et al.* 2009; Mayer *et al.* 2010). However, this cannot be extrapolated to pregnancy-related pain without consideration of the safety of this modality in this population.

### Safety of acupuncture in pregnancy

The AACP guidelines for safe practice (AACP 2012) state that there is a danger of miscarriage when treating patients in the first trimester of pregnancy. This has not been reported in supplementary literature, and may be considered to be based on historical practice (Betts & Budd 2011) rather than evidence (Carr 2015).

The AACP (2012) defines the forbidden points as Large Intestine (LI) 4, Spleen (SP) 6, and Bladder (BL) 60 and 67 because of the risk of uterine contractions (Betts & Budd 2011; Cummings 2011) since these points are used in traditional Chinese medicine to facilitate induction and turning breech babies. Furthermore, BL31, BL32, BL33 and BL34 (the sacral foramina) and abdominal points are to be specifically avoided because these may compromise circulation to the developing foetus (Betts & Budd 2011), or potentially approximate the uterus if the needle enters the foramen.

Cummings (2011) theorized that acupuncture is safe to use in pregnancy, and that forbidden points can be employed. Elden *et al.* (2005, 2008) found that forbidden points (i.e. LI4, BL32, BL33 and BL60) have not been found to cause serious adverse events, and no significant harmful effects were reported several randomized controlled trials (RCTs) (Wedenberg *et al.* 2000; Guerreiro da Silva *et al.* 2004; Kvorning *et al.* 2004). Carr (2015) stated that objective examination of the scientific literature does not reveal any suggestion of harm following needling at "forbidden" points during pregnancy, despite historical or theoretical concerns. However, it must be noted that the majority of this evidence is collated from research on generally healthy pregnancies. The efficacy and safety of acupuncture in pregnancies complicated by specific obstetric conditions has yet to be determined.

Langshaw (2011) identified some studies that have reported powerful recordable uterine contractions after strong acupuncture at LI4 and SP6 that never caused early delivery, but could cause patient distress. Bishop *et al.* (2016) reported some minor non-obstetric adverse effects during acupuncture treatment in pregnancy, including: light-headedness; fainting; mild bruising at the needle site; worsening of symptoms; vomiting; and pain at the needle site. All of the above might be found in acupuncture of the general population. Similarly, two recent systematic reviews highlighted a low incidence of adverse

events that were non-obstetric in nature (Park *et al.* 2014; Clarkson *et al.* 2015). In a systematic review, Clarkson *et al.* (2015) found that there was a 14–17% chance of being affected by an adverse event in the pregnancy acupuncture groups, as compared to one of 15–19% in the non-acupuncture intervention groups. Romer *et al.* (2013) demonstrated that there was no difference in the occurrence adverse events between an acupuncture and a control group.

Carr (2015, p. 418) advised clinicians “to treat only where necessary”, and carry out a thorough examination and risk assessment with individual patients. It must be remembered that the optimal dose for any intervention is the minimum required to be effective. There is a suggestion that, the greater the amount of needle stimulation applied, the greater the incidence of adverse events, although these remain mild to moderate (Wedenberg *et al.* 2000; Ternov *et al.* 2001; Kvorning *et al.* 2004; Elden *et al.* 2008). Auricular acupuncture resulted in the least number of adverse events (Wang *et al.* 2009).

### **Efficacy of acupuncture in pregnancy-related low back pain and pelvic girdle pain**

In a Cochrane Review, Pennick & Liddle (2013) identified interventions for preventing and treating pregnancy-related LBP and PPGP. These authors found moderate-quality evidence for the efficacy of acupuncture in the treatment of PPGP, which significantly reduced evening pain and improved function, especially after 26 weeks, in comparison to usual care or exercise. In a review of eight systematic reviews and nine RCTs, Selva Olid *et al.* (2013) reiterated that there is moderate evidence for acupuncture in pregnancy-related LBP and PPGP, and a low incidence of adverse events. Research often focuses on pain indicators, but other benefits that have been noted are increased psychological well-being (Guerreiro da Silva *et al.* 2004), and improved mobility and sleep (Ekdahl & Petersson 2010; Gutke *et al.* 2015).

Three RCTs differentiated pregnancy-related LBP and PPGP as part of the inclusion criteria (Elden *et al.* 2005, 2008; Lund *et al.* 2006), and all identified significant benefits as a result of using acupuncture. Six other studies researched women with both pregnancy-related LBP and PPGP, but did not stratify the women by diagnosis before randomization or during the analysis (Wedenberg *et al.* 2000; Ternov *et al.* 2001; Guerreiro da Silva *et al.* 2004; Kvorning *et al.*

2004; Wang *et al.* 2009; Ekdahl & Petersson 2010). This prevents a definitive statement being made regarding the response of individual conditions to acupuncture. However, each study showed positive benefits of acupuncture treatment in the sample combining pregnancy-related LBP and PPGP.

A recent systematic review by Gutke *et al.* (2015) found strong evidence for the use of acupuncture in pregnancy-related LBP. Foster *et al.* (2015) ran a pilot trial comparing acupuncture, non-penetrating acupuncture and standard care in pregnancy-related LBP. They found reductions in pain and disability in the two acupuncture arms of the trial that were significantly greater than those in the standard care group. Non-penetrating acupuncture or “sham” acupuncture may show benefits because of the effects of acupressure, contact with a therapist or a potential placebo effect. Elden *et al.* (2008) reported that sham acupuncture also provided positive benefits and that needling may not be necessary, but regular contact with a health professional may be just as beneficial.

The evidence supporting the use of acupuncture in the management of LBP and PPGP in pregnancy does seem to be encouraging, and there is an emphasis on individual patient examination and risk assessment in each case.

### **Good practice points**

The AACP (2012) defines the traditional forbidden points as LI4, SP6, BL60 and BL67, which should be used with caution given that these are historically contraindicated in pregnancy. The employment of traditionally forbidden points without any significant adverse outcomes was noted in all RCTs reviewed that had assessed for this outcome in pregnancy-related LBP and PPGP (Wedenberg *et al.* 2000; Kvorning *et al.* 2004; Elden *et al.* 2005, 2008; Lund *et al.* 2006). Bladder 31, BL32, BL33 and BL34 (the sacral foramina), abdominal points, the wall of the uterus, and strongly stimulating De Qi should be avoided.

A reduction in visual analogue scale pain scores has been seen in two, 30-min sessions (Ternov *et al.* 2001). Good outcomes with regard pain and functional ability have been found with an average of eight to 12 sessions on at least a weekly basis, and using at least 10 needles for 25–30 min (Wedenberg *et al.* 2000; Guerreiro da Silva *et al.* 2004; Kvorning *et al.* 2004; Elden *et al.* 2005, 2008; Lund *et al.* 2006; Ekdahl & Petersson 2010). Increasing the amount of

stimulation and the depth of needling did not appear to have a significant positive impact on the efficacy of the acupuncture; however, this did increase the number of mild to moderate adverse events.

## Conclusions

Bishop *et al.* (2016) reported a lower use of acupuncture by physiotherapists for the treatment of pregnant patients than for those with general musculoskeletal pain conditions. They suggested that this may indicate a lack of confidence, concerns about safety and a lack of specific guidelines for physiotherapists about the use of acupuncture in pregnancy. The evidence for the safety of acupuncture in pregnancy, including the use of traditional forbidden points, has increased (Romer *et al.* 2013; Park *et al.* 2014; Carr 2015; Clarkson *et al.* 2015), and should support it as an option in the treatment of PPGP (Pennick & Liddle 2013; Wild 2014) and pregnancy-related LBP (Gutke *et al.* 2015). Current evidence lacks the validity and reliability that is required to establish specific guidelines on precise treatment parameters, mainly because of a lack of comparability between the interventions used in RCTs. Overall, acupuncture for pregnancy-related LBP and PPGP is recommended since it can be a safe and efficacious treatment modality for reducing pain scores (Vleeming *et al.* 2008), improving sleep and mobility (Ekdahl & Petersson 2010), and increasing functional capacity (Guerreiro da Silva *et al.* 2004). It can also be combined effectively with other physiotherapy interventions.

The following recommendations are made:

- Following a thorough examination and risk assessment, acupuncture is a safe treatment modality for LBP and PPGP in uncomplicated pregnancies.
- Avoid abdominal points, or any approximation of the uterine wall and sacral foramina (BL31, BL32, BL33 and BL34).
- Avoid very strong stimulation of acupuncture points in pregnancy.
- Caution may be exercised in using traditional “forbidden points”, i.e. LI4, SP6, BL60 and BL67.
- Treatment parameters, such as frequency, duration, and the number of points used, may depend on individual patient assessment and local practice restrictions.
- Monitor for any adverse events, and record any such issues in your treatment documentation.

## Pelvic, Obstetric and Gynaecological Physiotherapy

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