

# Low Back Pain

## Summary Sheet

### Evidence-Based Assessment of Acupuncture Series

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#### Low Back Pain Overview

Chronic low back pain (cLBP) is a widespread condition. It is responsible for half of all workers compensation cases in the US,<sup>1</sup> and the annual prevalence ranges from 15% to 45%.<sup>2</sup> The annual cost of cLBP is estimated as high as \$26 billion,<sup>3</sup> with indirect costs greater than \$500 billion annually.<sup>4</sup>

Despite the high incidence, the causes of cLBP are poorly understood. Risk factors include: age (35-55), family history, sedentary lifestyle, heavy physical work, and prior LBP.<sup>5-7</sup>

Nonspecific LBP, which is pain not attributable to a recognizable issue, accounts for 85% of cases.<sup>8</sup> Current medical care for chronic cases often involve invasive procedures (e.g. corticosteroid injections), though there is inconclusive evidence that these therapies are more effective than less invasive options (e.g. physical therapy).<sup>9-11</sup> A recent guideline by the American College of Physicians recommends multidisciplinary, non-pharmacologic treatment for LBP, including acupuncture, as a first-line approach.<sup>12</sup> Not surprisingly, LBP is the #1 reason persons seek care with acupuncture.<sup>13</sup>



#### Low Back Pain in Traditional Chinese Medicine (TCM)

TCM practitioners view the body in terms of *Qi*-dynamics and use unique and specific terminology. This is best summarized by the axiom “one pattern many diseases, one disease many patterns;” suggesting that identification of the correct pattern (e.g. Kidney *Qi* deficiency) leads to improved patient care through the selection of pattern-specific acupuncture points.

Low back pain indicates a stagnation of the movement of *qi* and *blood*. The specific Chinese pattern differentiation of these imbalances is based on the nature and location of the pain, underlying internal disharmony or imbalance of the organ *Qi* (e.g. Kidney *Qi* deficiency) and other secondary symptoms (e.g. bowel movements, digestion, and sleep).

Generally speaking, patients can expect acupuncture performed both local to the area of pain and distally, with the goal of relaxing the muscles and opening the meridians.<sup>14</sup> In addition to acupuncture, treatments may also include local massage, moxibustion (heat therapy), and home therapies such as topical herbal analgesics.

*“Where there is free flow there is no pain, where there is pain there is no free flow.”*

#### Findings from the Acupuncture Research

Based on the evidence, acupuncture is beneficial and cost-effective for the treatment of chronic low back pain.

- The most recent systematic reviews conclude that acupuncture is beneficial when combined with usual medical care (e.g. physical therapy and medication).<sup>15-17</sup>
- A systematic review and meta-analysis concludes that acupuncture is cost-effective when included in addition to usual care.<sup>18</sup>
- Two large clinic trials suggest acupuncture is cost-effective when combined with other therapies.<sup>19,20</sup>



#### Summary and Commentary

Acupuncture for cLBP has been widely studied, with over 10 systematic reviews summarizing more than 80 RCTs. Despite the high prevalence of cLBP, its cause is poorly understood and debate continues regarding the most appropriate treatment strategy.<sup>8</sup> cLBP is the #1 condition that leads to chronic pain, a condition that affects 31% of the US population with annual costs as high as \$600 billion.<sup>21</sup> Although varying acupuncture treatment protocols have been studied, visit frequencies were similar across clinical trials. In general, participants most often received treatment twice per week for 1-3 months. The most recent evidence from clinical research suggests that acupuncture is beneficial and cost-effective for the treatment of cLBP,<sup>15-17</sup> and should be included in a first-line, multidisciplinary approach to treatment.<sup>12</sup>

## Scope and Purpose of Evidence-Based Assessment of Acupuncture Project

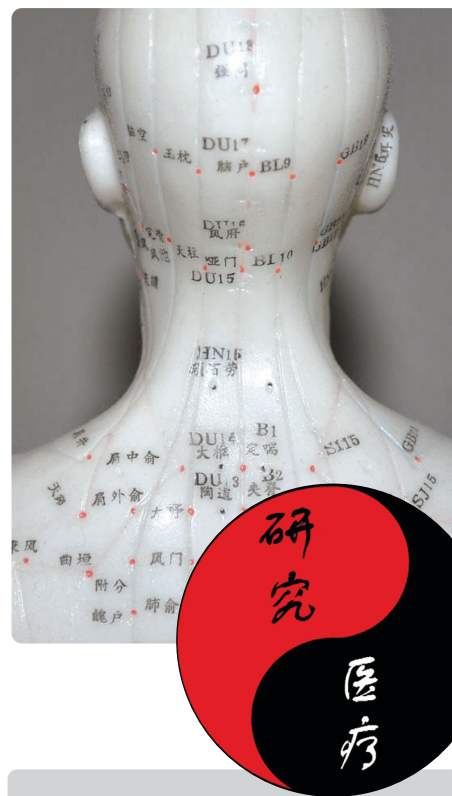
This project is supported by the Society for Acupuncture Research. It includes a growing library of condition specific assessments and summary sheets on topics such as dysmenorrhea, low back pain, neck pain, etc. Our aim is to evaluate the literature with a focus on systematic reviews and randomized controlled trials. When appropriate, other levels of evidence (e.g. case studies) are also referenced. The goal of the project is to inform policy-makers, clinicians, and the public of trends in the acupuncture literature and to provide expert commentary on the state of this evidence.

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