



**Department  
of Health**  
Medicaid

# Acupuncture for Treatment of Nonspecific Chronic Low Back Pain in Adults

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## Health Technology Assessment

April 2026

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# Acupuncture for Treatment of Nonspecific Chronic Low Back Pain in Adults

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## List of Abbreviations

Center	Center for Evidence-based Policy
CI	confidence interval
CMS	Centers for Medicare & Medicaid Services
CoE	certainty of evidence
DALY	disability adjusted life year
ITT	intention-to-treat
MA	meta-analysis
MCID	minimal clinically important difference
MCO	managed care organization
RCT	randomized controlled trial
RoB	risk of bias
QALY	quality-adjusted life year
YLD	year lived with disability

## Executive Summary

### Background

Chronic nonspecific low back pain is pain affecting the lumbar region of the spine or the surrounding tissues that is not attributable to a particular pathology (such as infection, tumor, bone fracture, or pregnancy) and lasts more than 12 weeks.<sup>1</sup> Low back pain was the leading cause of years lived with disability (YLDs) in the US in 2021.<sup>2</sup> Chronic low back pain represents a significant personal health burden and health system cost burden across the US and in New York State.<sup>2,3</sup> According to the 2021 Global Burden of Disease Study, low back pain was the leading cause of YLDs in New York State, representing 9% of all-cause YLDs.<sup>2</sup> Low back pain was the 4th leading cause of disability-adjusted life years (DALYs) in New York State in 2021 (excluding COVID), representing 295,000 DALYs.<sup>2</sup>

Low back pain was a major driver of the opioid crisis in the US.<sup>4</sup> Although opioid prescribing has declined since 2010,<sup>5</sup> low back pain remains the most common reason for ambulatory opioid prescription.<sup>6</sup> Emphasizing nonpharmacologic approaches, such as acupuncture, for chronic low back pain was part of broader efforts to reduce unnecessary opioid use<sup>5</sup>; this emphasis also contributed to the Centers for Medicare and Medicaid Services' (CMS) January 2020 decision to cover needling therapies—both traditional acupuncture and dry needling—for Medicare patients with chronic low back pain.<sup>7,8</sup>

Acupuncture is a therapy derived from traditional Chinese medicine involving the insertion, manipulation, or stimulation of needles at specific points in the body.<sup>9</sup> The philosophical grounding of acupuncture lies in the concept of vital energy (qi) and the belief that blockage or an excess of basic elements disrupts the flow of vital energy through the body.<sup>10</sup> Small needles are placed into different acupuncture points (acupoints), which may be proximal or distal to the area of primary pain, to open blockages and restore the balance of vital energy flowing through specific channels in the body, referred to as meridians.<sup>10</sup>

There is some debate about the relationship between traditional acupuncture and a therapy known as dry needling that has gained popularity in the US over the past decade.<sup>11-13</sup> In dry needling, needles are placed along myofascial trigger points that are directly related to the areas causing pain and limiting movement.<sup>11</sup> In the US, dry needling is often performed by physical therapists, rather than acupuncturists, and physical therapists identify dry needling as distinct from acupuncture.<sup>11</sup> The practice of dry needling is similar to an acupuncture approach that focuses on Ashi, or pain points, and acupuncturists do not view dry needling as distinct from acupuncture.<sup>14</sup> Medicare Part B includes dry needling as a covered form of acupuncture for chronic low back pain.<sup>15</sup>

Human and animal research demonstrates a physiological therapeutic effect of acupuncture in stimulating endogenous opioid release and subsequent receptor binding, and in creating a response in the body's pain regulatory system.<sup>16</sup> The use of sham as a control in randomized controlled trials (RCTs) is contentious because any needling stimulates a physiological response.<sup>10,17,18</sup> Sham acupuncture is an active treatment and is not analogous to the use of a placebo in drug research.<sup>18,19</sup> Differences in approaches to sham treatment contribute to mixed results in systematic reviews on the effectiveness of acupuncture compared with sham.<sup>20</sup>

Acupuncture for chronic low back pain may follow standardized, semi-standardized, or individualized protocols. Standardized acupuncture protocols are often used for consistency in clinical research and typically specify the number and location of needles, placement and depth, and method of manipulation.<sup>21</sup> In semi-standardized acupuncture protocols, acupuncturists needle a specific pre-specified set of acupoints but may add a limited number of additional ear acupuncture points or Ashi points, which are tender or painful areas similar to the myofascial trigger points targeted in dry needling.<sup>14</sup> In individualized treatment protocols, acupuncturists select points and needling methods based on their initial assessment of the patient, which includes a combination of physical examination and conversation to understand the patient's history, physical symptoms, and mental and emotional state.<sup>9,22</sup>

## Methods

This review is based on key questions (KQs) identified by the New York State Department of Health.

### Key Questions

- KQ1. What is the clinical effectiveness of acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ2. What are the harms of acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ3. What are the results of relevant cost analysis studies related to providing acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ4. What are clinical practice guideline recommendations for the use of acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ5. What are relevant coverage policies for Medicare, Medicaid programs, and health plans for the use of acupuncture for treatment of chronic nonspecific low back pain in adults?

Researchers from the Center for Evidence-based Policy (Center) searched Ovid MEDLINE and other clinical evidence sources for RCTs, cost and cost-effectiveness studies, and clinical practice guidelines. Inclusion and exclusion decisions were made by consensus of dual screeners, with additional dual screening of risk of bias assessment. Accuracy of data abstracted from included clinical studies was verified by a second researcher. We applied the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) approach to rate the certainty of evidence for each primary and secondary outcome from the data we abstracted from trials. To identify relevant coverage policies, we searched 9 state Medicaid program websites, 8 private payer websites, and CMS for local and national coverage Medicare determinations of needling treatments for chronic nonspecific low back pain.

### Summary of Clinical Evidence and Guideline Recommendations

Our evidence review synthesized information from 16 RCTs reported in 19 publications, 10 clinical practice guidelines, 1 cost-effectiveness study, and a review of coverage policies from 9 state Medicaid program websites, 8 health plan websites, the Medicaid State Waivers List, and CMS. Of the 16 RCTs, 14 focused on acupuncture and 2 focused on dry needling. Of the 14 RCTs focused on acupuncture, 5 were conducted in Germany, 4 in the US, 3 in South Korea, and

1 each in Northern Ireland and Hong Kong. Four RCTs took a standardized approach, where all patients received the same number of needles at the same acupoints.<sup>23-26</sup> Five RCTs took a semi-standardized approach, in which all patients received needling at the same pre-identified acupoints, with freedom for acupuncturists to add a limited number of additional acupoints as they saw fit.<sup>27-31</sup> Four RCTs took an individualized approach, in which acupuncturists assessed each patient and devised a treatment plan customized to the individual and their particular needs.<sup>32-35</sup> The RCT by Cherkin and colleagues (2009) included both standardized and individualized acupuncture arms.<sup>36</sup> Manual stimulation of acupoints predominated, although 3 studies used electrical stimulation<sup>28,29,31</sup> and 2 used bee venom to stimulate acupoints (pharmacopuncture).<sup>25,26</sup>

With the exception of a study by Kerr and colleagues (2003), in which acupuncture was delivered by a physical therapist,<sup>23</sup> all acupuncture therapies were delivered by trained acupuncturists. The mean number of acupuncture treatments was 10.8 (standard deviation [SD], 3.7; range 6–20). Treatments were typically delivered twice per week over an average of 6 weeks (range 3–12). Five RCTs compared acupuncture to sham acupuncture,<sup>25-28,32</sup> 4 compared acupuncture to usual care (typically physiotherapy and analgesics),<sup>29,31,33,35</sup> and 4 included both sham and usual care arms.<sup>24,30,34,36</sup> The RCT by Kerr and colleagues (2003) was unique in comparing acupuncture to a non-acupuncture sham condition, with the control group receiving sham transcutaneous electrical nerve stimulation (TENS) treatment (although the authors noted in their discussion section that sham acupuncture may have been a better comparator).<sup>23</sup>

Only 2 RCTs focused on dry needling, and both were conducted in Spain. In the RCT by Lara-Palomo and colleagues (2024), participants received 1 session per week of dry needling delivered by a physiotherapist over 6 weeks, with comparison to usual care.<sup>37</sup> In the RCT by Martin-Corrales and colleagues (2020), participants received a single session of dry needling delivered by a physiotherapist in conjunction with a 4-week exercise program, with comparison to sham dry needling.<sup>38</sup>

### Effectiveness

Strength of evidence for functional status, pain intensity, and quality of life outcomes for acupuncture studies are summarized in Table ES1. Back-specific functional status was the primary clinical effectiveness outcome and was measured in various studies using the Oswestry Disability Index, Roland-Morris Disability Questionnaire, or Hanover Functional Ability Questionnaire. Because studies used different scales to measure functional status, we calculated standardized mean difference to measure treatment effect and facilitate comparison between studies. Meta-analyses and review of individual RCTs found improvement in functional status for acupuncture compared with usual care immediately following treatment and at short-term (1 week to 3 months after treatment) and intermediate follow-up (4 months to 1 year after treatment), with low certainty of evidence.<sup>29,31,33,34,36</sup> Though there appeared to be little difference between acupuncture and sham acupuncture, the methodological limitations of RCTs and high heterogeneity in study results lead to very low certainty of evidence.<sup>25-28,34,36</sup>

Pain intensity was an important outcome in review of clinical effectiveness. Evidence favored acupuncture over usual care at end of treatment, with potentially longer effect, although certainty of evidence was very low.<sup>24,29-31,33,34</sup> Evidence regarding superiority of acupuncture

over sham acupuncture was uncertain, with some RCTs showing superiority of acupuncture to sham for pain relief at end of treatment and others finding no difference between acupuncture and sham.<sup>23-27,30,32,34</sup> Evidence related to association of acupuncture to quality of life was similarly mixed, regardless of whether acupuncture was compared with usual care<sup>35,36</sup> or sham.<sup>23,25-27,32,34</sup>

Strength of evidence for functional status, pain intensity, and quality of life outcomes for dry needling studies are summarized in Table ES2. In the 2 RCTs assessing dry needling, there was low certainty of evidence for an effect in favor of dry needling on functional status compared with usual care but not sham.<sup>37,38</sup> Dry needling led to greater reduction in pain intensity compared with usual care at end of treatment, but there was no difference from sham.<sup>37,38</sup>

Table ES1. Summary of Findings (GRADE) for Acupuncture for Chronic Low Back Pain

Comparator Number of Studies (Participant N)	Outcome Findings End of Treatment Short-Term (1 week to 3 months) Intermediate (4 months to 1 year)	Minimal Clinically Important Difference	Certainty of Evidence	Rationale for Certainty of Evidence Rating
<b>Functional status</b>				
Usual Care 3 in MA (N = 1,119) <sup>31,34,36</sup> 2 individual RCTs (N = 855)	Improvement in functional status over usual care at all time points <ul style="list-style-type: none"> <li>In MA, <math>P &lt; .001</math> at end of treatment, short-term, and intermediate</li> <li>2 RCTs showed improvement over usual care at end of treatment,<sup>33</sup> short-term,<sup>29</sup> and intermediate<sup>33</sup></li> </ul>	Most measures reached MCID for the difference between acupuncture and usual care.	●●○○ Low	Most studies had moderate RoB (-1). Downgraded 1 level for imprecision due to lack of detail in other RCTs.
Sham 4 in MA <sup>25,27,34,36</sup> (N = 1,329) 3 individual RCTs (N = 311)	Little evidence for superiority of acupuncture over sham <ul style="list-style-type: none"> <li>In MA, <math>P = .55</math> at end of treatment; <math>P = .14</math> at short-term, and <math>P = .18</math> at intermediate</li> <li>RCTs by Cho<sup>32</sup> and Kong<sup>28</sup>: effect in favor of acupuncture over sham at end of treatment</li> <li>RCT by Shin<sup>26</sup>: no difference at end of treatment or intermediate</li> </ul>	Most studies did not find a MCID between acupuncture and sham at any time point.	●○○○ Very low	Downgraded for high RoB in most studies (-2). Downgraded 1 level for imprecision due to high heterogeneity in MA and lack of detail in other RCTs.
<b>Pain intensity</b>				
Usual Care 2 in MA <sup>30,31</sup> (N = 238) 4 individual RCTs (N = 2,405)	Evidence favored acupuncture over usual care at end of treatment and perhaps longer <ul style="list-style-type: none"> <li>In MA, <math>P &lt; .001</math> at end of treatment and short-term</li> <li>RCTs by DeBar,<sup>33</sup> Haake,<sup>34</sup> and Leibing<sup>24</sup> found significant pain reduction for acupuncture compared with usual care at end of treatment</li> <li>Haake found an effect in favor of acupuncture at intermediate FU (<math>P &lt; .001</math>), while DeBar<sup>33</sup> (<math>P = .05</math>) and Leibing<sup>24</sup> (<math>P = .19</math>) did not</li> <li>Meng<sup>29</sup> found no difference between acupuncture and usual care at end of treatment (<math>P = .1</math>), but effect in favor of acupuncture at short-term (<math>P = .02</math>)</li> </ul>	Difference in pain intensity for acupuncture and usual care met MCID in MA for short-term outcomes but not immediately after end of treatment. Inadequate information to assess MCID in individual RCTs.	●○○○ Very low	Downgraded 2 levels for high risk of bias in most studies, and 1 level for imprecision due to lack of outcome detail in individual RCTs.

Comparator Number of Studies (Participant N)	Outcome Findings End of Treatment Short-Term (1 week to 3 months) Intermediate (4 months to 1 year)	Minimal Clinically Important Difference	Certainty of Evidence	Rationale for Certainty of Evidence Rating
Sham 5 RCTs in MA <sup>23,25,27,30,32</sup> (N = 731) 3 individual RCTs (N = 1,372)	Unclear results. MA showed evidence in favor of acupuncture vs. sham, but individual RCTs with minimal detail showed no difference <ul style="list-style-type: none"> <li>In MA, lower pain intensity for acupuncture at end of treatment (<math>P &lt; .001</math>), short-term (<math>P &lt; .001</math>), and intermediate (<math>P &lt; .05</math>)</li> <li>RCTs by Haake,<sup>34</sup> Leibing,<sup>24</sup> and Shin<sup>26</sup> reported no difference at end of treatment or intermediate FU</li> </ul>	The difference in pain intensity between acupuncture and sham did not meet MCID at any time period.	●○○○ Very low	Downgraded for high RoB in most studies (-2), 1 level for inconsistency due to conflicting evidence (-1), and 1 level for imprecision due to lack of detail in individual RCTs (-1).
Quality of life				
Usual Care 2 RCTs (N = 801)	One RCT reported change from baseline and the other provided $P$ values only <ul style="list-style-type: none"> <li>Weiss RCT<sup>35</sup> reported no difference in mental QoL at end of treatment (<math>P = .85</math>) or short-term (<math>P = .20</math>), but effect in favor of acupuncture in physical QoL short-term (<math>P = .02</math>)</li> <li>Cherkin RCT<sup>36</sup> reported effect in favor of acupuncture and sham compared with usual care in physical (<math>P = .03</math>) and mental (<math>P &lt; .001</math>) QoL at end of treatment, with no difference at intermediate FU</li> </ul>	In Weiss RCT, the difference between acupuncture and usual care on the physical subscale met MCID at end of treatment and short-term measurements. Inadequate information to assess MCID in Cherkin RCT.	●○○○ Very low	Downgrade 2 levels for high risk of bias and 2 levels for imprecision due to 2 RCTs lacking detailed outcomes.
Sham 3 RCTs in MA <sup>26,27,34</sup> (N = 1,523) 4 individual RCTs (N = 885)	Mixed evidence on the relationship between acupuncture and QoL outcomes <ul style="list-style-type: none"> <li>MA with 3 RCTs showed no difference between acupuncture and sham in mental QoL at end of treatment (<math>P = .47</math>), short-term (<math>P = .82</math>), or intermediate (<math>P = .88</math>), but effect in favor of acupuncture on physical QoL at end of treatment (<math>P = .005</math>) and intermediate (<math>P = .002</math>)</li> <li>RCTs by Cho<sup>32</sup> (<math>P = .007</math>) and Seo<sup>25</sup> (<math>P = .02</math>) reported effect in favor of acupuncture at end of intervention, while RCT by Kerr<sup>23</sup> did not (<math>P = .33</math>)</li> </ul>	The difference between acupuncture and sham on the physical subscale of the SF-35 met MCID at end of treatment in MA, but not at short-term FU. The difference between acupuncture and sham on the mental subscale did not meet MCID at any time point in MA. Inadequate information to assess MCID in individual RCTs.	●○○○ Very low	Downgraded for high RoB in studies contributing to evidence (-2), 1 level for inconsistency in results, and 1 level for imprecision springing from lack of detailed outcomes in some RCTs (-1).

Note. <sup>a</sup> For methods and interpretation of GRADE ratings, see [Appendix E](#).

Abbreviations. CI: confidence interval; FU: follow-up; GRADE: Grading of Recommendations, Assessment, Development, and Evaluations approach; MA: meta-analysis; MCID: minimal clinically important difference; QoL: quality of life; RCT: randomized controlled trial; RoB: risk of bias.

Table ES2. Summary of Findings (GRADE) for Dry Needling

Outcome No. of Studies (Participant N)	Outcome Findings	MCID	Certainty of Evidence	Rationale for Certainty of Evidence Rating
<b>Functional status</b>				
2 RCTs (N = 110)	Functional improvement over usual care, but not sham <ul style="list-style-type: none"> <li>• Favored dry needling over <b>usual care</b> at end of treatment (<math>P = .001</math>) and short-term (<math>P = .001</math>)<sup>37</sup></li> <li>• No difference between dry needling and <b>sham</b> at end of treatment (<math>P &gt; .05</math>), but improvement over sham at short-term (<math>P &lt; .01</math>)<sup>38</sup></li> </ul>	The difference between dry needling and <b>usual care</b> , and dry needling and <b>sham</b> did not meet MCID at either time point.	●○○○ Very low	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.
<b>Pain intensity</b>				
2 RCTs (N = 110)	Greater change in pain intensity vs. <b>usual care</b> at end of treatment ( $P = .001$ ) and 2 months ( $P = .001$ ). <sup>37</sup> No difference from <b>sham</b> at end of treatment ( $P > .05$ ), but favored dry needling in short-term ( $P < .01$ ) <sup>38</sup>	The difference between dry needling and usual care met MCID at end of treatment and at short-term measurement. The difference between dry needling and sham did not meet MCID at end of treatment, but did at short-term measurement.	●○○○ Very low	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.
<b>Quality of life</b>				
1 RCT (N = 64)	No difference from <b>usual care</b> in physical or mental QoL at end of treatment or short-term follow-up <sup>37</sup>	N/A (no statistical difference)	●○○○ Very low	Downgraded 1 level due to moderate risk of bias and 2 levels due to single RCT with small sample size and lack of detailed outcomes.

Note. <sup>a</sup> For methods and interpretation of GRADE ratings, see [Appendix E](#).

Abbreviations. CI: confidence interval; GRADE: Grading of Recommendations, Assessment, Development, and Evaluations approach; MA: meta-analysis; MCID: minimal clinically meaningful difference; N/A: not applicable; No: number; QoL: quality of life; RCT: randomized controlled trial; RoB: risk of bias.

### Harms

Only 2 of 16 acupuncture trials reported serious adverse events. An RCT by Cherkin and colleagues (2009) reported that 1 participant had pain lasting more than 1 month, but it did not report whether that participant was in the acupuncture or sham group.<sup>36</sup> A study by DeBar and colleagues (2025) reported 1 incident of lower extremity cellulitis in the acupuncture group.<sup>33</sup> No studies related to dry needling provided any information on serious adverse events.<sup>37,38</sup> The study by Martin-Corrales and colleagues (2020), which involved a single session of dry needling, reported no difference between dry needling and sham in the proportion of participants reporting post-treatment soreness.<sup>38</sup> The most common non-serious adverse events in acupuncture groups were pain at the acupuncture site, temporarily worsened lower back pain, and reactions at the acupuncture site (bruising, rash).<sup>25,26,28,29,32,33,35</sup>

### Cost and Cost Effectiveness

We identified a single cost-effectiveness study that was published within the past 5 years and used US health care system data.<sup>39</sup> The study by Herman and colleagues (2026)<sup>39</sup> utilized data from a clinical trial described by DeBar and colleagues (2025),<sup>33</sup> which is included in the evidence review for clinical effectiveness and harms. The trial compared the effectiveness of adding standard acupuncture (up to 15 treatment sessions over 12 weeks) or enhanced acupuncture (standard acupuncture plus up to 6 additional sessions over the next 12 weeks) to usual medical care in individuals  $\geq 65$  years old with nonspecific chronic low back pain.<sup>39</sup> Using data from 672 participants enrolled at 3 study sites, the authors estimated cost utility (gain in quality-adjusted life years across the study year calculated using results from the EuroQol 5-Dimension questionnaire) and cost effectiveness (proportion of participants in each group who experienced a MCID in their Roland-Morris Disability score from baseline to 12 months).<sup>39</sup> Additionally, they used data from medical records to estimate allowable fee-for-service Medicare costs (health care sector perspective costs) and calculated Medicare-reimbursable costs (Medicare perspective) by subtracting patient copays and coinsurance for each service.<sup>39</sup> They found a non-significant increase in quality-adjusted life years compared to usual care for participants who received standard acupuncture but a statistically significant increase for those who received enhanced acupuncture.<sup>39</sup> Similarly, mean difference in the proportion of participants who achieved MCID in functional outcomes was not significant for the standard acupuncture group but was significantly improved for the enhanced acupuncture group.<sup>39</sup> The mean incremental cost per participant to the health care sector of standard acupuncture versus usual care was +\$759 (95% CI -755 to +2,439).<sup>39</sup> The mean incremental cost per participant of enhanced acupuncture versus usual care was -\$491 (95% CI -2,861 to +1,144) (i.e., a net saving of \$491), with most costs savings related to reductions in hospitalizations.<sup>39</sup> The authors concluded that enhanced acupuncture reduced back pain-related health care sector costs and reduced Medicare-reimbursed costs over one year versus usual care.<sup>39</sup> These cost savings came with a gain in quality-adjusted life years of 0.037—a clinically significant change and an increase in utility of 5.7% for the year—and an 18.5 percentage-point increase in participants achieving a MCID.<sup>39</sup>

### Ongoing Trials

We identified 3 ongoing trials that met inclusion criteria for this review, each of which explored a different form of acupuncture for treatment of chronic low back pain. We did not identify any ongoing trials that involved dry needling and met our definition of chronic pain duration:

12 weeks or more of low back pain. A US-based study (NCT02503475) with an estimated completion date of December 2026 is comparing traditional acupuncture with sham acupuncture using neuroimaging assessments immediately after treatment to characterize the neural mechanisms underlying traditional and sham acupuncture.<sup>40</sup> Researchers in Hong Kong are conducting a study in adults with chronic low back pain that compares electroacupuncture with peripheral nerve field stimulation, in which 2 electrode leads are implanted and connected to an external neurostimulator for electrical stimulation of the painful area (NCT04809909).<sup>41</sup> The study has an estimated completion date of December 31, 2025 in the clinicaltrials.gov record but is still classified as “recruiting.”<sup>41</sup> A South Korean study with an estimated completion date of November 2029 is recruiting adults aged 19 to 69 years who have experienced nonspecific low back pain for  $\geq 6$  months (NCT07304076) and will compare pharmacopuncture using injection of placenta extract with transcutaneous electrical nerve stimulation therapy.<sup>42</sup>

### *Clinical Practice Guideline Recommendations*

Our search identified 10 guidelines: 6 of these focused on acupuncture alone, 3 addressed both acupuncture and dry needling, and 1 solely focused on dry needling. No clear consensus emerged, with acupuncture recommended by the Hong Kong Task Force of Standardized Acupuncture Practice<sup>21</sup> and North American Spine Society<sup>43</sup> and conditionally recommended as an adjunct to other treatments by the Veterans Affairs Administration<sup>44</sup> and the American College of Occupational and Environmental Medicine.<sup>45</sup> The Canadian Pain Task Force<sup>46</sup> and Japanese Orthopaedic Association<sup>47</sup> both refrained from recommending for or against use of acupuncture for chronic low back pain, citing a lack of evidence. A guideline from NICE published in 2021 conditionally recommended acupuncture or dry needling as a treatment for chronic low back pain in conjunction with other treatments.<sup>48</sup> A guideline from the World Health Organization<sup>49</sup> similarly provided a conditional recommendation for needling therapies (acupuncture or dry needling), while a French guideline recommended against needling therapies.<sup>50</sup> The sole guideline to address dry needling, from the Academy of Orthopaedic Physical Therapy, independently concluded that dry needling could be considered as an adjunct to other treatments for chronic nonspecific low back pain.<sup>51</sup>

### *Summary of Policy Findings*

Medicare covers acupuncture services (both traditional acupuncture and dry needling service codes) for chronic lower back pain through a national coverage determination from CMS that became effective in 2020.<sup>15,52</sup> The policy only provides coverage for chronic lower back pain, and it covers 12 visits within 90 days and a maximum of 20 visits annually.<sup>15</sup>

Of the 8 reviewed health plans, 6 (Aetna,<sup>53</sup> Anthem BlueCross BlueShield,<sup>54</sup> Cigna,<sup>55</sup> Fidelis Care,<sup>56</sup> MetroPlus,<sup>57,58</sup> UnitedHealthcare<sup>59</sup>) appear to cover traditional acupuncture services for chronic low back pain (or no specified diagnosis) for at least some of their commercial offerings, and 3 of those plans cover acupuncture for broader indications. None of these 6 plans affirmatively cover dry needling services, and 2 (Aetna,<sup>53</sup> Cigna<sup>55</sup>) explicitly do not. An additional health plan (Molina Healthcare<sup>60</sup>) does not currently offer commercial plans in New York State, but does cover acupuncture services in certain other state commercial plans. The remaining health plan (Healthfirst<sup>61</sup>) does not show any indication of acupuncture coverage for commercial plans.

Most of the health plans also offer standard Medicare Advantage and Medicare-Medicaid dual-eligible plans. These plans all cover the core Medicare acupuncture benefit for chronic lower back pain,<sup>15</sup> and many also offer additional supplemental acupuncture visits for other conditions.<sup>62,63</sup> Among the 6 insurers that also offer New York Medicaid managed care organization (MCO) plans for non-elderly adults, none referenced any coverage of acupuncture services for New York Medicaid members.

Of the 9 reviewed state Medicaid agencies, 4 (California,<sup>64</sup> Massachusetts,<sup>65</sup> New Jersey,<sup>66,67</sup> Oregon<sup>68,69</sup>) cover traditional acupuncture services for chronic low back pain, and all of those states cover the services for broader indications (or no specified diagnosis); 2 of those states (California,<sup>64</sup> New Jersey<sup>66</sup>) also cover dry needling services. Of the 9 reviewed states, 2 (Florida,<sup>70</sup> Washington<sup>71</sup>) cover dry needling service codes but *not* traditional acupuncture codes on their fee schedule. The remaining 3 states (North Carolina,<sup>72</sup> Pennsylvania,<sup>73</sup> Texas<sup>74</sup>) do not cover either traditional acupuncture or dry needling services.

## Conclusions

Most of the evidence we identified was related to acupuncture, with only 2 RCTs and 1 clinical practice guideline specifically addressing dry needling. Evidence regarding comparative effectiveness of acupuncture and sham acupuncture was mixed, with many studies showing no difference between the 2 approaches for functional and pain outcomes. Evidence consistently showed an effect in favor of acupuncture compared with usual care for improvement of functional status and decrease in pain intensity immediately after treatment. While some studies showed improved functional and pain outcomes over short- and intermediate-term follow-up, others reported that the effects of acupuncture did not differ from usual care at follow-up time points. In the 2 RCTs assessing dry needling, there was low certainty of evidence for an effect in favor of dry needling on functional status compared with usual care but not with sham treatment.<sup>37,38</sup> Dry needling led to a greater reduction in pain intensity compared with usual care at end of treatment, but there was no difference from sham acupuncture.<sup>37,38</sup>

Evidence related to cost effectiveness was related to a single clinical trial that compared standard acupuncture (up to 15 treatment sessions over 12 weeks) or enhanced acupuncture (standard acupuncture plus up to 6 additional sessions over the next 12 weeks) with usual care in individuals  $\geq 65$  years of age with chronic nonspecific low back pain.<sup>39</sup> While cost utility and cost effectiveness for 672 participants included in analysis did not differ significantly for the standard acupuncture group compared to usual care, participation in the enhanced acupuncture group reduced health care costs by an average of \$491 per participant over one year versus usual care and reduced Medicare-reimbursed costs by an average of \$421 per participant.<sup>39</sup> These gains were accompanied by a significant improvement in quality-adjusted life years and a significant increase in the proportion of participants who achieved a minimal clinically important difference in functional outcomes.<sup>39</sup>

Clinical practice guidelines reflected the limitations of the evidence, much of which came from studies with small sample sizes and moderate-to-high risk of bias. Acupuncture was recommended or conditionally recommended in guidelines from the US Veterans Affairs Administration, the American College of Occupational and Environmental Medicine, and the North American Spine Society.<sup>43-45</sup> Guidelines from the Canadian Pain Task Force and Japanese

Orthopaedic Association did not recommend for or against acupuncture for treatment of chronic low back pain, citing a lack of evidence.<sup>46,47</sup> When needling interventions were considered generally (both acupuncture and dry needling), both NICE and the World Health Organization conditionally recommended needling interventions in conjunction with physiotherapy,<sup>48,49</sup> while the French National Authority for Health recommended against use of needling for management of low back pain.<sup>50</sup> In the sole guideline focused on dry needling alone, the American Physical Therapy Association suggested that physical therapists consider use of dry needling for treating chronic low back pain.<sup>51</sup>

In contrast to the robust Medicare coverage through the 2020 national coverage determination and fairly strong commercial coverage within health plans, Medicaid coverage of acupuncture generally and for chronic low back pain specifically remains inconsistent across the country,<sup>75</sup> with select fee-for-service programs covering the services and variability among Medicaid MCO plans in states that do not.<sup>76</sup> In New York, we found no evidence of Medicaid MCOs opting to cover the services in the absence of coverage by the fee-for-service program.<sup>77</sup> Among Medicaid fee-for-service programs covering acupuncture, we also identified variation in the services covered (e.g., traditional acupuncture vs. dry needling<sup>64-66,69</sup>), eligible conditions, and qualification requirements for treating providers. Medicaid agencies appear more likely to cover dry needling services than commercial plans among the reviewed private insurers.

## Background

### Description of the Condition

Low back pain is pain affecting the lumbar region of the spine or the surrounding tissues.<sup>78</sup> Nonspecific low back pain is defined as pain not attributable to a particular pathology, such as infection, tumor, bone fracture, or pregnancy.<sup>78</sup> Low back pain can be defined as acute (lasting less than 2 to 4 weeks), subacute (lasting from 4 to 12 weeks), or chronic (lasting more than 12 weeks).<sup>1</sup> In most cases, low back pain results from strain to muscles or tendons in the back and is a temporary condition that improves with rest, physical therapy, or over-the-counter nonsteroidal anti-inflammatory drugs.<sup>78</sup> In a significant number of adults, however, low back pain is a chronic condition, lasting 3 months or more.<sup>78</sup> Low back pain was the leading cause of years lived with disability (YLD) in the US in 2021.<sup>2</sup> The age-standardized rate of disability-adjusted life years (DALYs) for low back pain in the US in 2021 was 1,180 per 100,000 population.<sup>2</sup> In comparison, the age-standardized rate of DALYs for ischemic heart disease in the US in 2021 was 1,530 per 100,00 population.<sup>3</sup>

The US, which has the highest national health expenditure of industrialized countries, has the highest cost burden of chronic low back pain.<sup>79</sup> A 2024 review by Chang and colleagues found that high rates of surgery without first exploring nonpharmacological interventions and use of specialists (rather than primary care providers) were primary drivers of the high cost burden of low back pain in the US.<sup>79</sup> Chang and colleagues reported the prevalence of low back pain in the US as 20% of working age adults, with annual direct costs of \$79 million in 2023 dollars and indirect costs of \$446 million.<sup>79</sup>

### Prevalence of Chronic Nonspecific Low Back Pain in New York State

Chronic low back pain represents a significant personal health burden and health system cost burden across the US and in New York State.<sup>2,3</sup> While mean life expectancy in New York State was 80 years in 2021, healthy life expectancy was only 66.3 years.<sup>2</sup> According to the Global Burden of Disease Study for 2021, low back pain was the leading cause of YLD in New York State, representing 9% of all-cause YLDs.<sup>2</sup> The age-standardized rate of YLD related to low back pain per 100,000 population was 1,136.5 (95% CI 828.1 to 1491.6) in 2021.<sup>2</sup> Low back pain was the 4th leading cause of DALYs in New York State in 2021 (excluding COVID), representing 295,000 DALYs.<sup>2</sup>

### Treatment of Chronic Nonspecific Low Back Pain

The most commonly used treatments for chronic low back pain are self-management, exercise, spinal manipulation therapy, psychological therapies (such as cognitive behavior therapy), medication management, targeted interventional procedures, and education.<sup>80</sup> Self-management involves training and support to help people with chronic low back pain foster a positive mind set (believing that living an active life with low back pain is possible), develop coping strategies, overcome barriers (negative thinking, fear-avoidance of physical activity), and take an active role in partnership with health care providers in managing their condition.<sup>81,82</sup> In a joint guideline, the US Department of Veterans Affairs (VA) and Department of Defense (DoD) issued strong recommendations in favor of nonsteroidal anti-inflammatory drugs, with consideration of patient-specific risks, as well as cognitive behavior therapy, for treatment of chronic low back pain.<sup>44</sup> Weak recommendations were issued for use of exercise, mindfulness-based stress

reduction, spinal mobilization/manipulation, or acupuncture.<sup>44</sup> The VA/DoD issued strong recommendations against use of long-term opioid therapy, benzodiazepines, or systemic corticosteroids.<sup>44</sup>

### **Opioid Use and Chronic Low Back Pain**

Low back pain was a major driver of the opioid crisis in the US.<sup>4</sup> Opioid prescribing peaked in 2010, when 45% of Medicare patients with low back pain were prescribed opioids.<sup>5</sup> Although opioid prescribing has decreased dramatically overall, low back pain remains the most common reason for ambulatory opioid prescription.<sup>6</sup> A meta-analysis by Vowles and colleagues (2015) found that among patients who were prescribed opioids for chronic pain, up to 8% to 12% developed opioid use disorder, and rates of misuse were as high as 29%.<sup>83</sup>

Opioid use is not recommended for management of chronic low back pain<sup>44,49</sup> Emphasizing nonpharmacologic approaches, such as acupuncture for pain management in chronic low back pain, was part of broader efforts to reduce unnecessary opioid use<sup>5</sup>; this emphasis contributed to the Centers for Medicare and Medicaid Services' (CMS) January 2020 decision to cover needling therapies—both acupuncture and dry needling—for Medicare patients with chronic low back pain, defined as lasting 12 weeks or longer (national coverage determination 30.3.3).<sup>7,8,15</sup>

Medicare Part B will cover up to 12 acupuncture treatments in 90 days for chronic low back pain and an additional 8 sessions if the patient shows improvement, for a maximum of 20 acupuncture treatments in a 12-month period.<sup>84</sup> In the US, clinical acupuncturists are credentialed through the American Board of Medical Acupuncture and licensed by states.<sup>10</sup> However, CMS does not recognize licensed acupuncturists as Medicare providers, so their treatments will only be covered if delivered under appropriate supervision from a Medicare provider (physician or advanced practice provider).<sup>7,15</sup> No other indications for acupuncture are covered by Medicare.<sup>85</sup>

### **Description of the Intervention**

Acupuncture is a therapy derived from traditional Chinese medicine involving the insertion, manipulation, or stimulation of needles at specific points in the body.<sup>7</sup> The philosophical grounding of traditional acupuncture lies in the concept of vital energy (qi) and the belief that blockage or excess of basic elements disrupts the flow of vital energy through the body.<sup>10</sup> In Western (occidental) practice, acupuncturists may discuss the stimulation of neuroanatomical activities, rather than flow of qi.<sup>86</sup> Small needles are placed into any of approximately 350 different acupuncture points (acupoints) to open blockages and restore the balance of vital energy flowing through specific channels in the body, referred to as the 14 meridians.<sup>10</sup> Treatment focuses on energy flow, and needles are placed in areas considered to be out of balance.<sup>7,86</sup> As a result, placement of needles may not correspond to the location of pain—needles may be placed near the ears, for example, for treatment of low back pain.<sup>7,86</sup> Following initial interview and examination to identify physical symptoms and the patient's mental and emotional state, the acupuncturist positions sterile, stainless steel needles in identified acupoints, with needles generally remaining in position for 10 to 20 minutes.<sup>10</sup> The acupuncturist manipulates the needles until the patient reports an objective sensation known as de qi, which participants often describe as a dull ache, numbness, tingling, or feeling of pressure.<sup>9</sup>

Acupuncturists describe achievement of the de qi sensation as critical to the effectiveness of acupuncture treatment and a sign that qi has been activated.<sup>9</sup>

Acupuncture may be limited to needles alone or may include the addition of low-intensity electrical stimulation (electroacupuncture), heating of needles through burning of herbs (moxibustion), or injection of sterilized herbal extracts or diluted bee venom (pharmacopuncture).<sup>86</sup> Electroacupuncture is based on conventional acupuncture, with the additional application of an electric pulse to meridians and acupoints in order to strengthen the effect.<sup>28,29,31</sup> Needles are inserted by hand and then attached to a device that generates electrical current.<sup>28,31</sup> Acupuncturists generally use a commercially available unit developed specifically for electroacupuncture.<sup>28,29,31</sup> Low-frequency electroacupuncture involves electrical stimulation at a frequency of 1 to 4 Hz, with the intensity set at the level the patient can tolerate to achieve the de qi effect.<sup>28,31</sup> Needles are left in place, with stimulation being continuously delivered, for a 20 to 30 minute period.<sup>28,31</sup> Bee venom acupuncture is a traditional Korean technique in which diluted bee venom is injected into acupuncture points with a specialized needle to create an analgesic effect and stimulate de qi.<sup>25,26</sup>

There is some debate about the relationship between traditional acupuncture and a therapy known as dry needling that has gained popularity in the US over the past decade.<sup>11-13 7,10,86</sup> In dry needling, needles are placed in or along myofascial trigger points that are directly related to the areas causing pain and limiting movement.<sup>11</sup> In the US, dry needling is often performed by physical therapists, rather than acupuncturists, and physical therapists identify dry needling as distinct from acupuncture.<sup>11</sup> The National Certification Commission for Acupuncture and Oriental Medicine, on the other hand, considers dry needling to be a form of acupuncture and advises that dry needling should be delivered only by licensed acupuncturists.<sup>87</sup> New York State does not allow physical therapists or chiropractors to perform dry needling, and is 1 of 4 states that explicitly prohibits physical therapists (California, Hawaii, and Oregon are the others).<sup>88-91</sup> Medicare Part B includes dry needling as a covered form of acupuncture for chronic low back pain.<sup>84</sup>

Human and animal research demonstrates a physiological therapeutic effect of acupuncture in stimulating endogenous opioid release and opioid receptor binding, and by creating responses in the somatosensory cortex and limbic brain areas, which play a role in the body's pain regulation system.<sup>16</sup> While various studies have demonstrated the safety and effectiveness of acupuncture for several conditions, a significant placebo effect has also been identified<sup>10</sup> and there is limited comparative effectiveness evidence related to other pain management modalities.<sup>7</sup>

### Acupuncture Protocols

Clinical trials of acupuncture for chronic low back pain may follow standardized, semi-standardized, or individualized protocols for delivery of acupuncture. Traditional practice in China and South Korea identifies a series of acupoints along the bladder, gallbladder, kidney, and spleen meridians considered most efficacious for treatment of chronic low back pain, which is generally treated bilaterally.<sup>9,21</sup> Standardized acupuncture protocols typically specify the number and location of needles and provide instructions on needle type, placement and depth, and method of manipulation. These protocols are often used in clinical trials to ensure all patients assigned to an acupuncture treatment arm receive the same basic treatment.<sup>21</sup> In semi-

standardized acupuncture protocols, acupuncturists are asked to ensure that all patients receive needling at a specific pre-specified set of acupoints, but acupuncturists can add a limited number of additional ear acupuncture points, or include “Ashi” points, which are tender or painful areas similar to the myofascial trigger points targeted in dry needling.<sup>14</sup> In individualized treatment protocols, acupuncturists select points and needling methods based on their initial assessment of patient (a combination of physical examination and conversation to understand the patient’s history, experiences, and state of mind).<sup>9,22</sup> When an individualized approach to treatment is used in clinical trials, participants randomized to an acupuncture arm may receive acupuncture at varying sets of acupoints, potentially using different needling techniques (i.e., needles placed at different depths, or left in place for different lengths of time).

### *Use of Sham Treatment as a Comparator*

Sham acupuncture, which is often used as a comparator in clinical trials, is designed to mimic real acupuncture without stimulating true acupoints.<sup>17,92,93</sup> Sham acupuncture may take different forms, but most commonly involves the use of needles that touch the skin without penetrating it, or inserting needles at superficial depths in random, non-therapeutic areas.<sup>17,92,93</sup> Because any needling stimulates a physiological response, sham acupuncture is an active treatment and is not analogous to the use of a placebo in drug research.<sup>18,19</sup> Choice of acupoints for sham acupuncture raises questions of whether the study is evaluating the efficacy of acupuncture or the effectiveness of different needling techniques, particularly when the same acupoints are used for acupuncture and sham treatments, or when alternate acupoints outside of the traditional back pain-associated meridians are used.<sup>17</sup> Systematic reviews of acupuncture for treatment of chronic low back pain, including the most recent Cochrane review by Mu and colleagues (2020), generally find little to no difference between acupuncture and sham for back-specific function, back pain, or pain relief.<sup>20</sup> The problematic nature of sham acupuncture has led a number of researchers to assert that sham acupuncture should not be used as a placebo to evaluate the true efficacy of acupuncture and obscures the actual effect of acupuncture.<sup>17,18,93</sup>

### *Policy Context*

New York State’s fee-for-service Medicaid program does not currently cover acupuncture services for any indication, including both traditional acupuncture and dry needling.<sup>74</sup> In December 2020, the New York Medicaid agency submitted a state plan amendment (SPA) request to CMS seeking to add coverage of acupuncture services and chiropractor services to treat chronic lower back pain.<sup>95</sup> The request was based on a 2020 state law that authorized the state’s health commissioner to establish pilot programs for counties or regions in the state to promote nonpharmacologic alternatives to opioid treatment for patients with lower back pain, in response to the ongoing opioid crisis.<sup>95,96</sup> The SPA request to CMS proposed to phase in statewide coverage of acupuncture services over time, with initial coverage in certain regions.<sup>95</sup> The state requested early SPA submission to discuss the phased-in approach with CMS.<sup>95</sup> However, the SPA process was not finalized (New York State Medicaid, personal communication).<sup>97</sup> The only notable mention of acupuncture services in the State Plan is within a section on special care for members with HIV/AIDS.<sup>98</sup> A currently pending state legislative bill would require state private insurance plans to cover acupuncture services when prescribed.<sup>99</sup>

Medicare issued a national coverage determination for acupuncture services for chronic lower back pain in 2020, providing a strong and visible coverage decision that applies to the nearly

70 million Medicare members.<sup>15,100</sup> Communication from CMS around the determination heavily emphasized the importance of providing nonpharmacologic treatment options for pain in the context of the national opioid crisis.<sup>7,8</sup> The VA began covering acupuncture in 2018 for treatment of pain and other indications determined by the patient's care team.<sup>101</sup>

Medicaid coverage for acupuncture nationally appears inconsistent. A 2025 academic analysis on chronic pain and opioid use treatment reviewed 5 large state Medicaid programs (California, Illinois, New York, North Carolina, Texas) and found that only California and Illinois covered acupuncture services.<sup>75</sup> California recently considered cutting its acupuncture services during budget negotiations before opting to keep them,<sup>102-104</sup> and Washington State recently submitted a Medicaid SPA to add acupuncture coverage but rescinded the amendment request after receiving a state fiscal directive.<sup>105-107</sup>

The details and implementation of acupuncture coverage decisions may also differ across payer types in a state, including which services are covered, and the types of providers that can render them. For example, Medicare's national acupuncture policy for chronic low back pain covers both traditional acupuncture and dry needling service codes interchangeably, and most licensed acupuncturists are only allowed to provide services under the supervision of a physician, physician assistant, nurse practitioner, or clinical nurse specialist.<sup>15,52</sup> Standard Medicare Advantage and Medicare-Medicaid dual-eligible members may also receive additional acupuncture services outside of the Medicare benefit through their privately administered Medicare plan, but only from a licensed acupuncturist.<sup>62,63</sup> Alternatively, several reviewed private health plans and Medicaid agencies in this report do not cover dry needling services.<sup>53,65,108</sup>

Further, each state may have their own set of licensing and scope of practice regulations for traditional acupuncture and dry needling services.<sup>65,109</sup> In New York State, acupuncture services can be delivered by a licensed acupuncturist or a certified physician or dentist.<sup>110</sup>

To become *licensed* as an acupuncturist, individuals must<sup>111</sup>:

- Complete 60 pre-professional semester hours at an accredited college or university, including at least 9 bioscience hours
- Complete an approved professional acupuncture program that is a) registered as licensure qualifying by the New York State Education Department; b) accredited by the Accreditation Commission for Acupuncture and Herbal Medicine or another agency accepted by the Education Department; or c) considered an equivalent program
  - An equivalent program must include 4,050 hours of classroom instruction, supervised clinical experience, and out-of-clinic study assignments – including at least 200 classroom instructional hours in biosciences, 600 classroom instructional hours in acupuncture, and 650 hours of supervised clinical acupuncture experience
- Successfully complete the National Certification Board for Acupuncture and Herbal Medicine's Acupuncture with Point Location exam and Foundations of Oriental Medicine exam
- Meet an English proficiency requirement

If individuals have completed the education requirements and are waiting to pass the licensing examination, they may receive limited permits to practice acupuncture under the supervision of a

licensed and registered acupuncturist or physician/dentist certified in acupuncture.<sup>111</sup>

For physicians or dentists to become *certified* to provide acupuncture services, they must<sup>112</sup>:

- Be licensed and registered to practice as a physician or dentist in New York State
- Complete at least 200 instruction hours in acupuncture programs registered by the New York State Education Department (International College of Acupuncture & Electro-Therapeutics; SUNY Downstate Medical Center)
- Complete at least 100 hours of supervised experience acceptable to the Education Department under the supervision of an actively registered physician or dentist certified in acupuncture

Licensed acupuncturists and acupuncture-certified physicians and dentists may also provide dry needling services in New York State.<sup>89</sup> However, the state does not allow chiropractors and physical therapists to provide dry needling and has issued previous guidance on these limitations.<sup>89-91,113</sup> According to the American Physical Therapy Association, New York is one of 4 states that explicitly does not allow physical therapists to provide dry needling services.<sup>88</sup>

## Methods

This review is based on key questions (KQs) identified by the New York State Department of Health. Search parameters, KQs, and methodologies for identifying, assessing, and reporting evidence are described in the following sections. Additional details are available in the [Evidence Based Benefit Review Advisory Committee Methods Manual online](#).

## Key Questions

- KQ1. What is the clinical effectiveness of acupuncture for treatment of nonspecific chronic low back pain in adults?
- a. Does clinical effectiveness vary by patient characteristics (e.g., age, sex), acupuncture protocol (e.g., traditional, dry needling, moxibustion) or adjunct therapy (e.g., physiotherapy, aquatic therapy)?
  - b. Does clinical effectiveness vary by intervention characteristics, such as type of provider or setting?
  - c. Is there any lasting effect of acupuncture beyond immediate treatment?
- KQ2. What are the harms of acupuncture for treatment of nonspecific chronic low back pain in adults?
- a. Do harms vary by patient characteristics, acupuncture protocol, or adjunct therapy?
  - b. Do harms vary by intervention characteristics, such as type of provider, delivery method or setting?
- KQ3. What are the results of relevant cost analysis studies related to providing acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ4. What are clinical practice guideline recommendations for the use of acupuncture for treatment of nonspecific chronic low back pain in adults?
- KQ5. What are relevant coverage policies for Medicare, Medicaid programs, and health plans for the use of acupuncture for treatment of chronic nonspecific low back pain in adults?

## Study Eligibility Criteria

Table 1 summarizes the study inclusion and exclusion criteria. Further details on inclusion and exclusion criteria can be found in [Appendix B](#).

Table 1. Key Study Inclusion Criteria

Study Component	Inclusion Criteria
Populations	<ul style="list-style-type: none"> <li>Adults (<math>\geq 18</math> years of age) with nonspecific chronic low back pain (lasting 12 weeks or longer)</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>Any form of acupuncture involving needling for treatment of nonspecific chronic lower back pain, with or without the addition of electrical stimulation or use of herbal extracts</li> </ul>
Comparators	<ul style="list-style-type: none"> <li>No treatment</li> <li>Placebo or sham acupuncture</li> <li>Other non-pharmaceutical, non-surgical therapeutic interventions (e.g., physiotherapy, massage, yoga)</li> </ul>
Outcomes	<p><u>Critical</u></p> <ul style="list-style-type: none"> <li>Back-specific functional status (e.g., Roland-Morris Disability Scale, Oswestry Disability Scale)</li> </ul> <p><u>Important</u></p> <ul style="list-style-type: none"> <li>Pain intensity (e.g., visual analogue scale [VAS])</li> <li>Global measure of improvement or recovery (e.g., overall improvement, proportion of patients recovered, subjective improvement of symptoms)</li> <li>Work-relevant outcomes (e.g., return-to-work status, number of days off work or school, etc.).</li> <li>Reduction in opioid use</li> <li>Back pain-specific quality of life</li> <li>Adverse effects</li> </ul>
Timing and follow-up	<ul style="list-style-type: none"> <li>Short-term (1 week to 3 months after the end of acupuncture sessions) through long-term follow-up (1 year or longer after end of acupuncture sessions)</li> </ul>
Setting	<ul style="list-style-type: none"> <li>Studies conducted in countries categorized as <i>very high</i> on the Human Development Index (KQ1–KQ2)</li> <li>Studies conducted in the US or using US-based health systems data (KQ3)</li> </ul>
Study design	<p><u>KQ1–KQ2</u></p> <ul style="list-style-type: none"> <li>Randomized controlled trials published at any time since database inception</li> </ul> <p><u>KQ3</u></p> <ul style="list-style-type: none"> <li>Comparative studies and economic evaluations</li> <li>Cost-effectiveness analyses</li> <li>Economic modeling studies</li> <li>Published within past 5 years</li> </ul> <p><u>KQ4</u></p> <ul style="list-style-type: none"> <li>Evidence-based clinical practice guidelines that provide specific treatment recommendations</li> <li>Published, reviewed and reaffirmed, or updated within past 5 years</li> </ul>
Sample size	<ul style="list-style-type: none"> <li>Minimum of 20 participants per study arm</li> </ul>
Publication type	<ul style="list-style-type: none"> <li>Peer-reviewed publication of primary study results</li> <li>Published in the English language</li> <li>Ancillary publications with additional comparative follow-up or prespecified subgroup analysis</li> </ul>

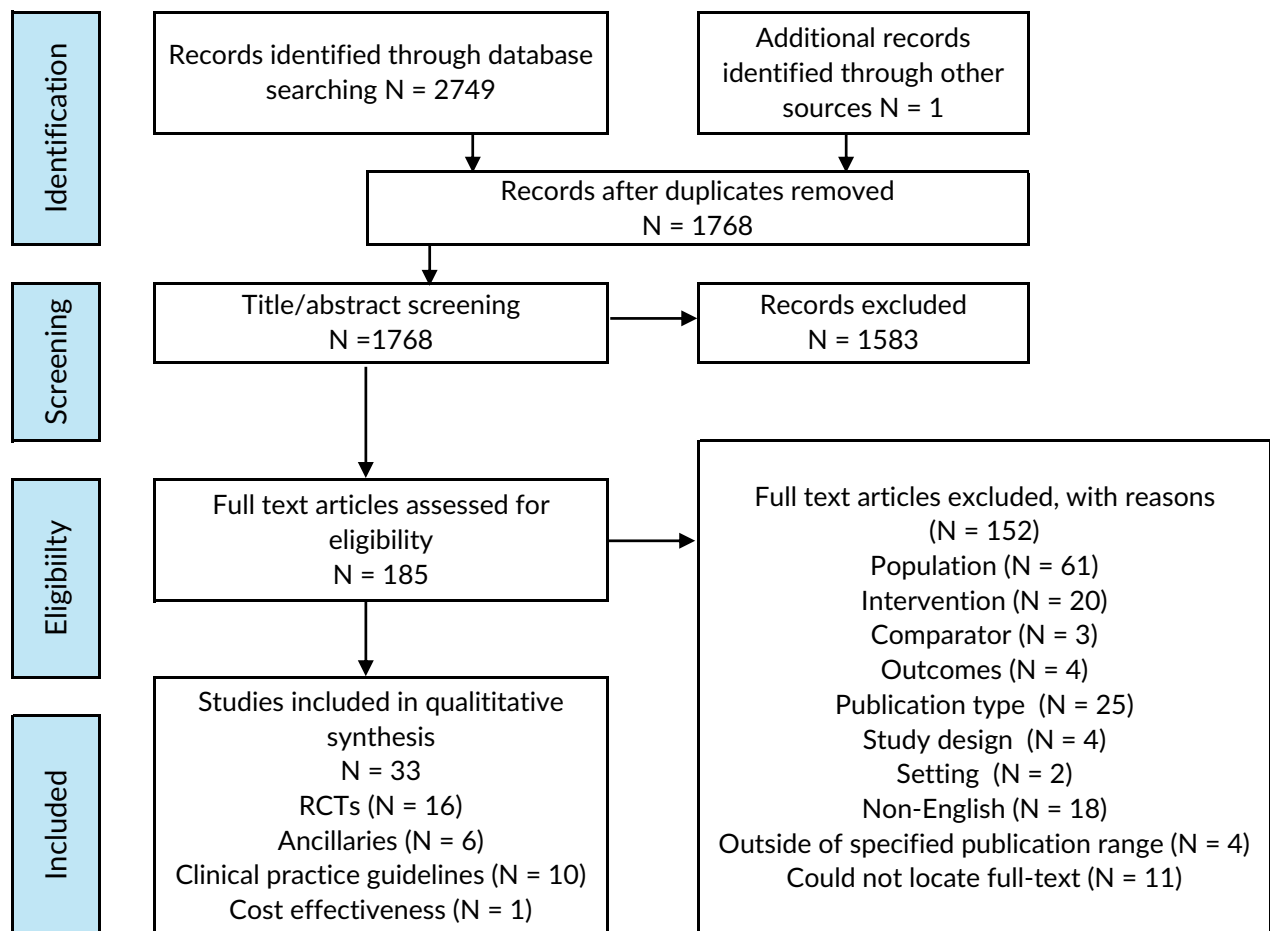
Abbreviations. KQ: key question; US: United States.

### Evidence and Policy Searches

A Center information specialist searched Ovid MEDLINE, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, CINAHL, Alt HealthWatch, and other information sources for randomized controlled trials (RCTs), cost and cost-effectiveness studies, and clinical practice guidelines. After removal of duplicates, a total of 1,767 potentially relevant publications were identified (Figure 1). A Center information specialist also searched trial registries for relevant ongoing trials. Searches were conducted October 28, 2025, through November 3, 2025, and January 13, 2026 (clinical trial registries). The Ovid MEDLINE search was updated on December 16, 2025. A full list of searched sources and search strategies is provided in [Appendix A](#).

Researchers from the Center for Evidence-based Policy (Center) searched 9 state Medicaid program websites, 8 health plan websites, the Medicaid State Waivers List, and CMS for local and national coverage determinations of acupuncture. [Appendix A](#) lists the search terms we used to identify relevant policies, as well as the sources we searched.

Figure 1. Prisma Diagram of the Study Selection Process



Abbreviation. RCT: randomized controlled trial.

## Screening and Inclusion

Two Center researchers used the DistillerSR systematic review software platform to screen publications identified in the searches using the detailed inclusion and exclusion criteria listed in [Appendix B](#). Disagreement about inclusion was resolved through discussion. [Appendix C](#) lists included studies, and [Appendix D](#) lists studies excluded during full text screening along with the primary reason each study was excluded. Figure 1 shows the numbers of studies screened, included, and excluded at each step.

## Risk of Bias Assessment

Two Center researchers assessed each included RCT for risk of bias using standard forms. [Appendix E](#) has detailed tables with criteria considered for assessing risk of bias or methodological quality. Disagreement between the researchers was resolved through discussion.

## Data Abstraction

One Center researcher used a standard form to extract all data presented in tables, and a second researcher verified each data point against the original publication to ensure accuracy. One Center researcher assessed the suitability of outcome data for meta-analysis, and a second researcher reviewed outcome data and confirmed final decisions regarding meta-analysis.

## Synthesis

Where sufficient data were available (i.e., same collection time points and method of measuring the specified outcome), we estimated pooled effect measures with meta-analyses of data abstracted from the included studies and reported the findings with figures, tables, and text. We used RevMan<sup>114</sup> (Review Manager) version 5.4 software to conduct meta-analyses. Figures generated during these meta-analyses appear throughout the report. For the meta-analyses, we used random effects models due to the methodological diversity in included studies, such as choice of needling sites (standardized across all patients or individualized by patient), type of manipulation (manual, electro, or bee venom), duration of treatment, and timepoints for outcomes measurement. Random effects models assume that the studies measured related, but different, effects of an intervention.<sup>115,116</sup>

Studies that reported outcomes only as mean change from baseline score, without providing absolute data for different time points, could not be included in meta-analysis and are described qualitatively. In meta-analysis, outcomes were classified as immediate (at end of intervention period), short-term, or intermediate (Table 2). No studies reported long-term (>1 year) outcomes. Where multiple timepoints were reported within a category (4 months and 6 months, for example), we used data from the last reported time point. We used adjusted values in meta-analysis, where reported. For continuous outcomes sharing the same scale, we calculated mean difference with 95% confidence intervals. For continuous outcomes using different scales (such as multiple scales used to capture functional outcomes), we calculated standardized mean difference with 95% confidence intervals and reversed direction of results where necessary to allow for comparison of outcomes across studies. For example, a lower score on the Roland-Morris Disability Questionnaire reflects a lower level of disability, while a lower score on the Hannover Functional Ability Questionnaire reflects a higher level of disability. We used the  $I^2$  statistic to assess heterogeneity of the results and the appropriateness of combining the studies

for meta-analysis, using the Cochrane Collaboration's guidelines for interpretation: low ( $I^2 = 0$  to 40%), moderate ( $I^2 = 30\%$  to 60%), or substantial ( $I^2 = 50\%$  to 90%).<sup>117</sup>

Table 2. Time Categories for Outcome Reporting

Category	Description
End of treatment	Within 1 week of end of intervention
Short-term	1 week to 3 months after end of intervention
Intermediate-term	4 months to 1 year after end of intervention
Long-term	> 1 year after end of intervention

We applied the Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) approach to rate the certainty of evidence for each outcome from the data we abstracted from the trials that compared acupuncture or dry needling with no treatment, sham treatment, or standard care. As described further in Appendix Table E3, the GRADE system defines the overall quality of a body of evidence for an outcome in the following manner:

- **High (RCTs start here):** Raters are very confident that the estimate of the effect of the intervention on the outcome lies close to the true effect. Typical sets of studies are RCTs with few or no limitations, and the effect estimate is likely stable.
- **Moderate:** Raters are moderately confident in the estimate of the effect of the intervention on the outcome. The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is different. Typical sets of studies include RCTs with some limitations or well-performed nonrandomized studies with additional strengths that guard against potential bias and have large estimates of effects.
- **Low (nonrandomized studies start here):** Raters have little confidence in the estimate of the effect of the intervention on the outcome. The true effect may be substantially different from the estimate of the effect. Typical sets of studies include RCTs with serious limitations or nonrandomized studies without special strengths.
- **Very low:** Raters have no confidence in the estimate of the effect of the intervention on the outcome. The true effect is likely to be substantially different from the estimate of the effect. Typical sets of studies include nonrandomized studies with serious limitations or inconsistent results across studies.
- **Not applicable:** Researchers did not identify any eligible studies.

### Measures of Treatment Effect

Statistical significance alone does not indicate the size of an effect or whether the difference is meaningful to patients or clinicians. Where applicable, we note clinically important change for individual outcomes in the GRADE tables, using commonly accepted cutoff values for minimal clinically important differences (MCID) for the primary tools used in the included RCTs.<sup>118-120</sup> The MCID is defined as the smallest change in an outcome that a patient would find meaningful or beneficial.<sup>121</sup>

Table 3. Minimal Clinically Important Difference

Measure	Outcome	Direction of Scale (Better Outcome)	MCID Used
Roland-Morris Disability Questionnaire	Function	Lower	Decrease of $\geq 3$ points
Oswestry Disability Index	Function	Lower	Decrease of $\geq 10$ points
Hannover Functional Ability Questionnaire	Function	Higher	Increase of $\geq 12\%$
Aberdeen Low Back Pain Scale	Function	Lower	No clear consensus
VAS	Pain	Lower	Decrease of $\geq 20$ on a 100-point scale or of $\geq 2$ on a 10-point scale
SF-36 Mental	QoL	Higher	Increase of $\geq 3.77$
SF-36 Physical	QoL	Higher	Increase of $\geq 3.29$

Abbreviations. MCID: minimal clinically important difference; QoL: quality of life; VAS: visual analog scale.

## Evidence Review

We identified 19 publications from 16 eligible trials with effectiveness outcomes; these publications also served as the source of information on harms related to treatment.<sup>23-38,122,123</sup> Additionally, we identified 3 ongoing clinical trials, 1 cost-effectiveness study, and 10 clinical practice guidelines.

### KQ1. Effectiveness

Of 16 identified RCTs, 14 (88%) focused on acupuncture<sup>23-36</sup> while only 2 (13%) focused on dry needling.<sup>37,38</sup> Of the 14 RCTs focused on acupuncture, 5 were conducted in Germany, 4 in the US, 3 in South Korea, and 1 each in Northern Ireland and Hong Kong. Both dry needling studies were conducted in Spain. With the exception of 2 acupuncture RCTs conducted in inpatient settings,<sup>30,35</sup> the studies took place in outpatient clinics. Table 4 provides a general overview of the approach to acupuncture taken by the various trials, while [Appendix F](#) provides detailed characteristics of included studies.

The majority of studies used a standardized ( $n = 4$ )<sup>23-26</sup> or semi-standardized ( $n = 5$ )<sup>27-31</sup> approach to placement of needles for acupuncture for treatment of low back pain. Four studies took an individualized approach to acupuncture, in which the sites and number of needles used varied based on individual assessments.<sup>32-35</sup> One study included both individualized and standardized acupuncture arms.<sup>36</sup> In both dry needling studies, treatment was provided by a physical therapist.<sup>37,38</sup>

Studies included a variety of comparators, including 5 RCTs that incorporated more than 1 comparator.<sup>24,27,30,34,36</sup> Ten studies compared acupuncture to sham treatment<sup>23-28,30,32,34,36</sup> and 1 compared dry needling to sham dry needling.<sup>38</sup> Sham acupuncture typically included superficial insertion of fine needles at predefined points, avoiding all known acupoints or meridians, without any manipulation of the needles. However, in the study by Cherkin and colleagues (2009) sham treatment involved quick tapping of the skin with a toothpick in a needle guide tube, using the same acupuncture points defined in the standardized treatment arm.<sup>36</sup> In the study by Kerr and colleagues (2003), patients in the control group received a sham transcutaneous electrical nerve

stimulation (TENS) treatment, in which electrodes connected to a nonfunctioning TENS machine were placed over the lumbar spine and the unit was switched on to give the illusion of treatment.<sup>23</sup> Eight studies compared acupuncture to usual care, which consisted of physical therapy combined with general education on pain management,<sup>24,29-31,33-36</sup> and 1 compared dry needling to usual care.<sup>37</sup> Only 1 study included a wait list arm, in which patients in the control group did not receive any treatment.<sup>27</sup> Acupuncture was provided by trained acupuncturists in all but 1 RCT.<sup>24-36</sup> While training and licensing requirements differ by country or by US state, study protocols generally specified that acupuncture was provided by licensed or certified acupuncturists with a minimum number of years of experience and training in traditional Chinese or Korean acupuncture techniques.<sup>24-36</sup> In the study by Kerr and colleagues (2003), which took place in Northern Ireland, treatment was provided by a “chartered physiotherapist trained in acupuncture.”<sup>23</sup>

Four RCTs included ancillary publications. The RCT by Cherkin and colleagues, which compared standardized or individualized acupuncture with sham or usual care, had 2 ancillary publications. Sherman and colleagues (2009) published a secondary analysis of data from the Cherkin study to identify characteristics of patients who were particularly receptive to acupuncture.<sup>124</sup> They found that benefit from acupuncture compared with usual care was greater with worse pre-treatment levels of back dysfunction but did not identify any other consistent interactions.<sup>124</sup> In another secondary analysis of data from the Cherkin study, Sherman and colleagues (2010) investigated whether patients' expectations predicted short and intermediate treatment outcomes.<sup>122</sup> They found that people with higher pretreatment expectations were more likely to report awareness of acupuncture, at least a modestly positive impression of acupuncture, and a preference for assignment to the acupuncture arm of the study.<sup>122</sup> However, pretreatment expectations and preferences for acupuncture were not found to be predictive of treatment outcomes for patients with chronic back pain.<sup>122</sup> Teets and colleagues (2025) published an ancillary to the RCT by DeBar and colleagues (2025), which compared individualized acupuncture and usual care. The ancillary's authors provided an overview of methods for successfully recruiting and retaining diverse participants at the study's New York City site. The publication stressed the importance of facilitating communication between acupuncturists and primary care providers to increase access to acupuncture for older adults, low income families, and Black and Spanish-speaking patients.<sup>123</sup> Finally, an ancillary to the RCT by Kong and colleagues (2020) provided a correction to one of the author's conflict of interest statements, but did not provide any secondary analysis or exploration of trial data.<sup>125</sup>

Table 4. Overview of Included Studies

Study (RoB) N	Country	Comparator(s)	Approach to Needle Placement	Stimulation	Practitioner
<b>Acupuncture</b>					
Brinkhaus, 2006 (Moderate) N = 301	Germany	Sham and waitlist	Semi-standardized	Manual	Trained acupuncturist
Cherkin, 2009 (Moderate) N = 641	US	Sham and usual care	Standardized, individualized arms	Manual	Trained acupuncturist
Cho, 2013 (High) N = 130	South Korea	Sham	Individualized	Manual	Trained acupuncturist
DeBar, 2025 (Low) N = 800 <i>Patients ≥65 years of age</i>	US	Usual care	Individualized	Manual	Trained acupuncturist
Haake, 2007 (High) N = 1162	Germany	Sham and usual care	Individualized	Manual	Trained acupuncturist
Kerr, 2003 (High) N = 60	Northern Ireland	Sham TENS	Standardized	Manual	Physical therapist
Kong, 2020 (Moderate) N = 121	US	Sham	Semi-standardized	Electrical	Trained acupuncturist
Leibing, 2002 (High) N = 150	Germany	Sham and usual care	Standardized	Manual	Trained acupuncturist
Meng, 2003 (High) N = 55	US	Usual care	Semi-standardized	Electrical	Trained acupuncturist
Molsberger, 2002 (High) N = 186 <i>Inpatient setting</i>	Germany	Sham and usual care	Semi-standardized	Manual	Experienced medical doctor who studied acupuncture in China
Seo, 2017 (Low) N = 54	South Korea	Sham	Standardized	Pharmaco- puncture (bee venom)	Trained acupuncturist
Shin, 2012 (Moderate) N = 60	South Korea	Sham	Standardized	Pharmaco- puncture (bee venom)	Trained acupuncturist
Weiss, 2013 (High) N = 160 <i>Inpatient setting</i>	Germany	Usual care	Individualized	Manual	Trained acupuncturist
Yeung, 2003 (High) N = 52	Hong Kong	Usual care	Semi-standardized	Electrical	Trained acupuncturist
<b>Dry needling</b>					
Lara-Palomo, 2024 (Moderate) N = 64	Spain	Usual care	NA	NA	Physical therapist
Martin-Corrales, 2020 (Moderate) N = 46	Spain	Sham	NA	NA	Physical therapist

Abbreviations. NA: not applicable; RoB: risk of bias; TENS: transcutaneous electrical nerve stimulation.

### Functional Status Outcomes

The included studies measured functional status using the Roland-Morris Disability Questionnaire, Oswestry Disability Index, Hannover Functional Ability Questionnaire, or the functional limitation subscale of the Aberdeen Low Back Pain Scale; in each, patient-reported measures assess ability to perform common daily activities in patients with chronic low back pain.<sup>126</sup> The Roland-Morris Disability Questionnaire is a 24-item scale with a series of yes or no questions, with a final score ranging from 0 (no disability) to 24 (extreme disability).<sup>127</sup> The Oswestry Disability Index is a 10-item scale that asks individuals to rate the impact of pain on a series of daily activities on a scale from 0 (no issue) to 5 (greatest impact).<sup>127</sup> The final Oswestry score is reported as a percentage.<sup>127</sup> The Hannover Functional Ability Questionnaire also asks individuals to rate the impact of pain on a series of daily activities, with a final score ranging from 0 (minimal function) to 100 (optimal function).<sup>126</sup> The Aberdeen Low Back Pain Scale consists of 18 questions about functional limitations related to low back pain, with a final score ranging from 0 (least impact) to 100 (most impact).<sup>126</sup> Detailed information on functional outcomes is provided in Table 5, including those not included in meta-analysis.

### Acupuncture Compared With Usual Care

Three RCTs with usual care controls included sufficient information for inclusion in meta-analysis,<sup>31,34,36</sup> while an additional 2 RCTs included general information on functional outcomes without the level of detail needed for MA.<sup>29,33</sup> In meta-analysis (Figures 2–4), improvement in functional status was significantly greater for acupuncture compared with usual care at end of treatment, short-term, and intermediate-term ( $P < .01$  at all time points). Results did not change in a sensitivity analysis that omitted the study involving electroacupuncture (Yeung et al. 2003). RCTs by DeBar and colleagues (2025) and Meng and colleagues (2003), which did not provide data sufficient for MA, both reported functional improvement for acupuncture compared with usual care at end of treatment and follow-up (Table 5).<sup>29,33</sup>

Figure 2. End of Treatment Functional Outcome Comparison for Acupuncture and Usual Care

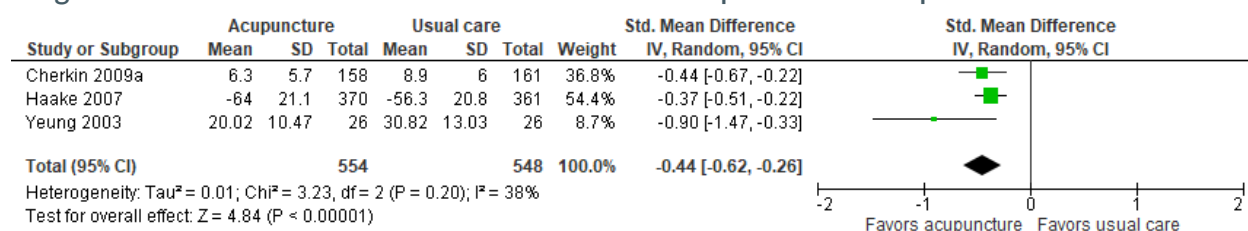


Figure 3. Short-Term Functional Outcome Comparison for Acupuncture and Usual Care

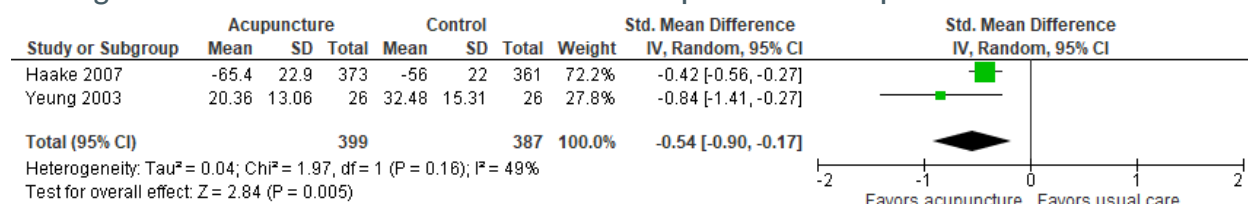
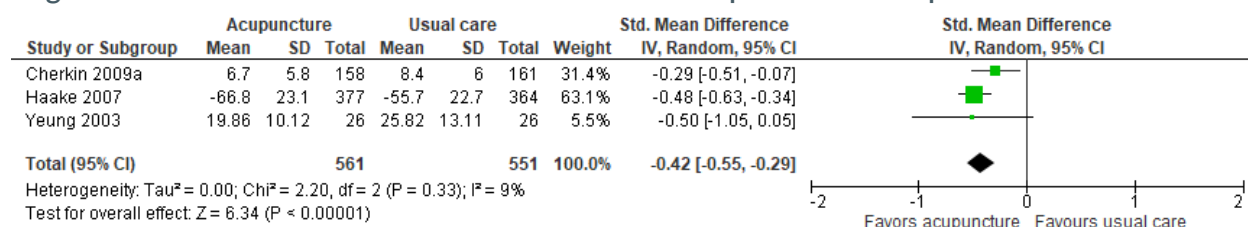


Figure 4. Intermediate-Term Functional Outcome Comparison for Acupuncture and Usual Care



**Acupuncture Compared With Sham**

Five RCTs with sham controls included sufficient information for inclusion in meta-analysis,<sup>25,27,31,34,36</sup> while an additional 5 RCTs included general information on functional outcomes without the level of detail needed for MA.<sup>26,28,29,32,33</sup> MA found no significant difference between acupuncture and sham immediately after treatment (P = .55) or at short-term (P = .14) or intermediate time points (P = .18) (Figures 5–7). The sole included study to show superior outcomes for acupuncture versus sham at end of treatment in MA was a study by Seo et al. (2017) that involved bee venom acupuncture and included only 54 participants (Figure 5).<sup>25</sup> Another RCT involving bee venom acupuncture, which did not include data sufficient for MA and included a similarly small number of participants (n = 60), found a significant difference between acupuncture and sham at end of treatment when analysis was limited to the subset of patients who completed all treatments (P = .02), but not when data was analyzed on an intention-to-treat basis, where all randomized participants were included in analysis, regardless of whether they completed the study (P > .05).<sup>26</sup> As the Cochrane Collaboration notes, analyzing all patients according to their assigned group provides a better reflection of real-world effectiveness relative to protocol approaches that consider only a subgroup of perfectly compliant participants.<sup>117</sup>

Two additional RCTs that did not include sufficient data for MA reported an improvement in functional status for electroacupuncture compared with sham (P = .01)<sup>28</sup> or usual care (P = .006)<sup>29</sup> at end of treatment. In a large RCT by DeBar and colleagues (2025) that recruited 800 individuals with chronic nonspecific low back pain for a comparison of individualized acupuncture and usual care, members of the acupuncture group were more likely to have a ≥ 30% reduction in Roland-Morris score from baseline at 3 months (relative risk, 1.40; 95% CI, 1.15 to 1.72) and 12 months (relative risk, 1.33; 95% CI, 1.06 to 1.66).<sup>33</sup>

Figure 5. End of Treatment Functional Outcome Comparison for Acupuncture and Sham

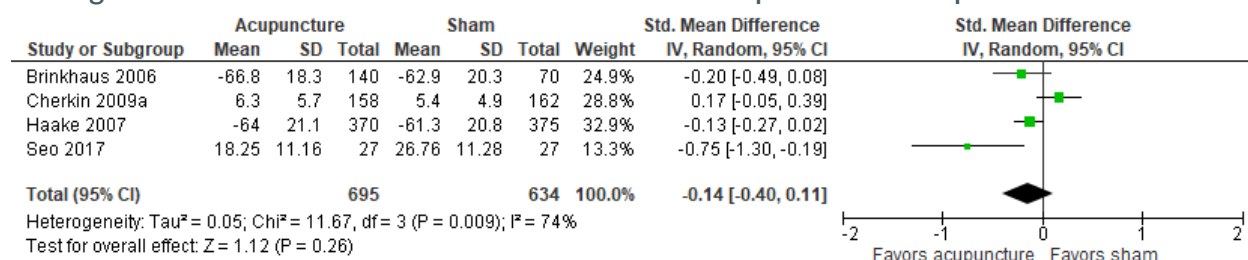


Figure 6. Short-Term Functional Outcome Comparison for Acupuncture and Sham

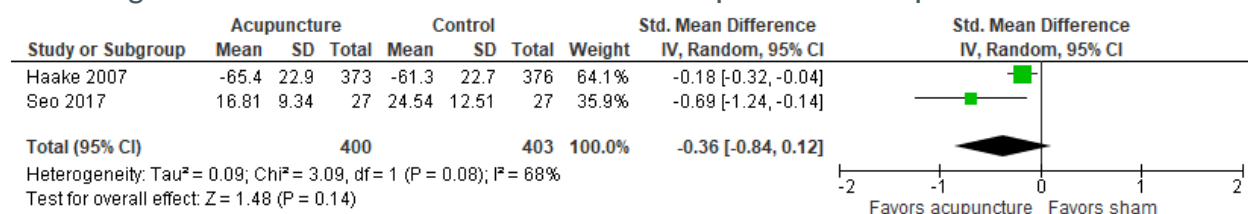
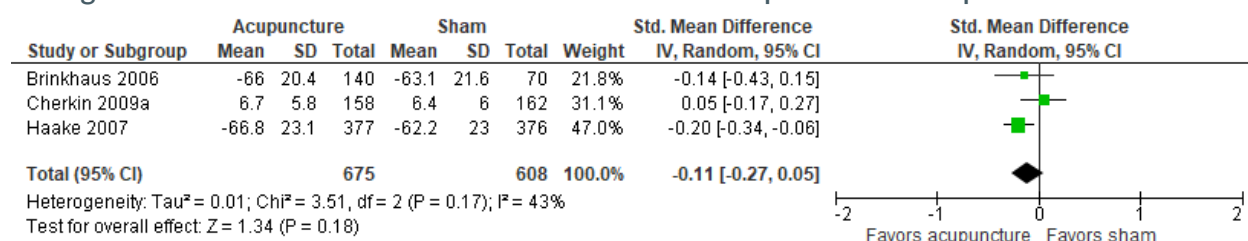


Figure 7. Intermediate-Term Functional Outcome Comparison for Acupuncture and Sham



### Dry Needling Interventions

Dry needling and traditional acupuncture both incorporate needling with thin monofilament needles, but whereas traditional acupuncture incorporates needling points based on energy meridians, dry needling aims to alleviate muscle tightness by restricting treatment to the myofascial trigger points that are directly related to the areas causing pain and limiting movement.<sup>11,13,128</sup> Only 2 RCTs were identified that included dry needling interventions for nonspecific chronic low back pain, and both were conducted in Spain.<sup>37,38</sup> Detailed outcomes are provided in Table 5. Lara-Palomo and colleagues (2024) compared dry needling to usual care over 6 weeks of treatment, while Martin-Corrales and colleagues (2020) compared a single session of dry needling to sham in conjunction with a 4-week exercise treatment. The Lara-Palomo study found a significant improvement in Roland-Morris score for dry needling compared with usual care immediately after treatment ( $P = .003$ ) and at 2-month follow-up ( $P < .001$ ).<sup>37</sup> The Martin-Corrales study, on the other hand, found no statistically significant difference in Roland-Morris scores for dry needling and sham at end of treatment or 3-month follow-up ( $P > .05$  at both time points).<sup>38</sup>

### Pain Intensity Outcomes

The majority of included studies utilized a visual analog scale completed by participants to measure their subjective experience of pain at different time points. Visual analog scales are typically 100-mm horizontal lines running from no pain (0) to worst imaginable pain (100) that participants use to report current pain intensity (or pain intensity in the last 24 hours).<sup>129</sup> Six RCTs provided data sufficient for MA of pain outcomes.<sup>23,25,27,30-32,129</sup> Participants assigned to acupuncture experienced greater pain relief compared with usual care at end of treatment and at short-term measurement ( $P < .001$ ), and also experienced significant reduction in pain compared with sham at end of treatment ( $P < .001$ ), short-term ( $P < .001$ ), and intermediate-term ( $P = .04$ ) (Figures 8–12). Detailed information on pain outcomes is provided in Table 5, including those not included in MA.<sup>24,26,29,33,34</sup> Results from the 5 RCTs not included in MA showed a general trend toward pain improvement for acupuncture compared with usual care across various time points, with mixed results on acupuncture versus sham.<sup>24,26,29,33,34</sup>

Acupuncture Compared With Usual Care

Figure 8. Comparison of Pain Intensity for Acupuncture and Usual Care at End of Treatment

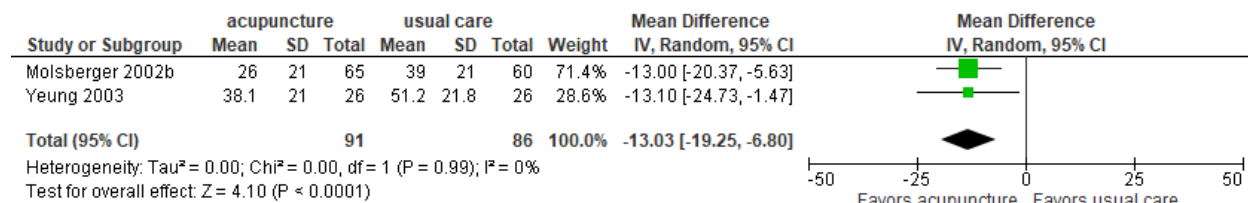
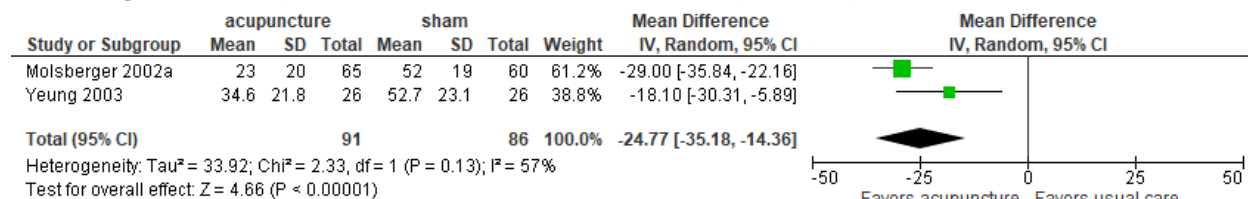


Figure 9. Comparison of Short-Term Pain Intensity for Acupuncture and Usual Care



Acupuncture Compared With Sham

Figure 10. Comparison of Pain Intensity for Acupuncture and Sham at End of Treatment

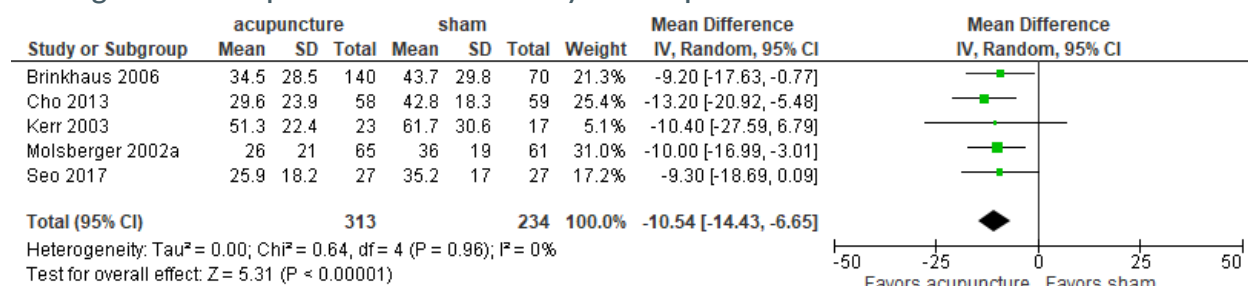


Figure 11. Short-Term Comparison of Pain Intensity for Acupuncture and Sham

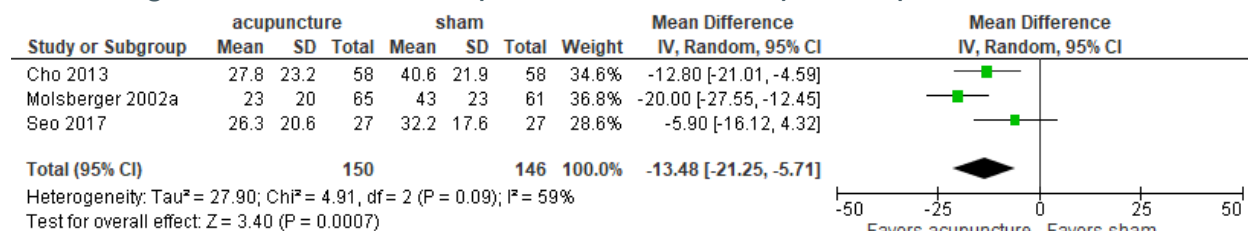
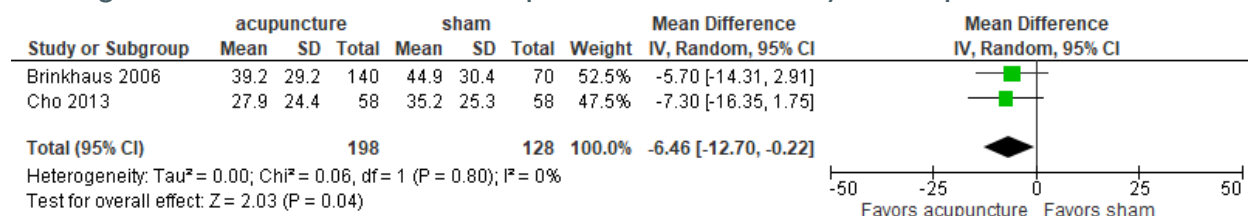


Figure 12. Intermediate-Term Comparison of Pain Intensity for Acupuncture and Sham



### Dry Needling Interventions

Only 2 RCTs were identified that included dry needling interventions for nonspecific chronic low back pain (Table 5).<sup>37,38</sup> Lara-Palomo and colleagues (2024) reported significant improvement in pain from baseline for dry needling compared with usual care at end of treatment and 8 weeks after end of treatment ( $P = .001$  at both time points).<sup>37</sup> Martin-Corrales and colleagues (2020) found no difference in change in pain from baseline between dry needling and sham at end of treatment ( $P > .05$ ), but participants in the dry needling group had significantly greater pain improvement from baseline compared with sham at 3 months after intervention ( $P < .01$ ).<sup>38</sup>

### Quality of Life Outcomes

Studies most commonly used the 36-Item Short Form Survey (SF-36), which is a validated measure of health-related quality of life in populations with chronic pain.<sup>130</sup> Some studies reported an overall SF-36 score, while others provided scores for mental and physical health subscales. Higher scores on the SF-36 reflect greater quality of life.<sup>130</sup> Only 3 RCTs provided information sufficient for MA, all of which compared acupuncture to sham.<sup>26,27,34</sup> Scores for acupuncture and sham groups on the mental subscale did not differ at any time point (end of treatment, short-term, intermediate) (Figures 13–18). On the physical subscale, however, members of the acupuncture groups had significantly higher scores than those assigned to sham interventions at end of treatment ( $P = .005$ ) and intermediate-term ( $P = .002$ ), but not at the short-term ( $P = .12$ ). Five RCTs reported only change from baseline in SF-36 scores and could not be included in MA (Table 5).<sup>23,25,32,35,36</sup> The only study comparing acupuncture with usual care found no difference in physical or mental scores at end of treatment; at short-term measurement, the change from baseline in SF-36 physical scores was greater with acupuncture ( $P = .02$ ), but mental scores did not differ ( $P = .20$ ).<sup>35</sup> A study by Cherkin and colleagues (2009) provided only a 3-way comparison of acupuncture, sham, and usual care, reporting a significant effect in favor of active treatment (acupuncture or sham) at the end of treatment ( $P = .03$  on the physical subscale and  $P < .001$  on the mental subscale), but no comparison of acupuncture and sham.<sup>36</sup> Studies comparing acupuncture to sham generally found greater improvement in quality of life from baseline for acupuncture.<sup>25,32,36</sup> The sole study that did not find any change between acupuncture and sham compared acupuncture to a sham transcutaneous electric nerve stimulation intervention, rather than a sham acupuncture intervention.<sup>23</sup>

### Acupuncture

Figure 13. Comparison of Acupuncture and Sham at End of Treatment, SF-36 Mental

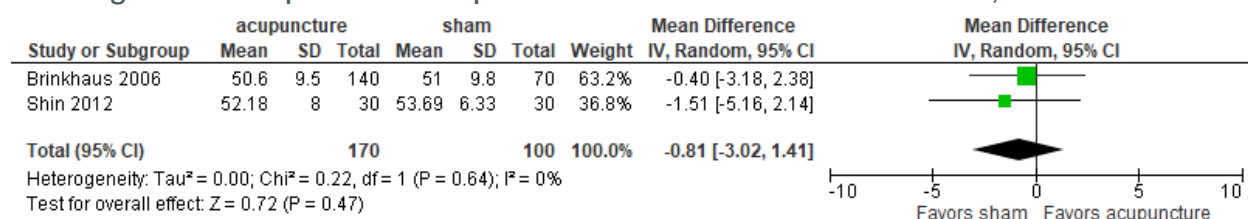


Figure 14. Comparison of Acupuncture and Sham at End of Treatment, SF-36 Physical

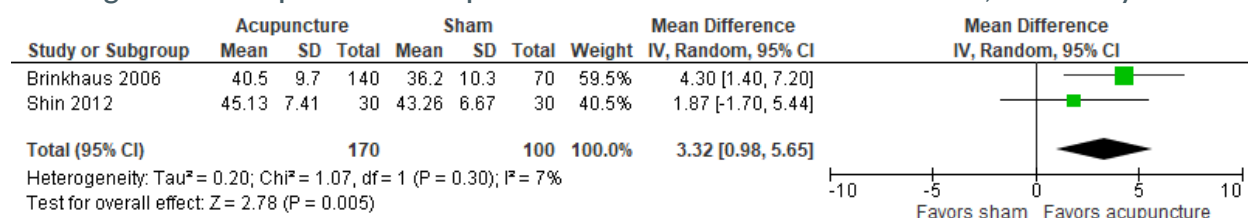


Figure 15. Short-Term Comparison of Acupuncture and Sham, SF-36 Mental

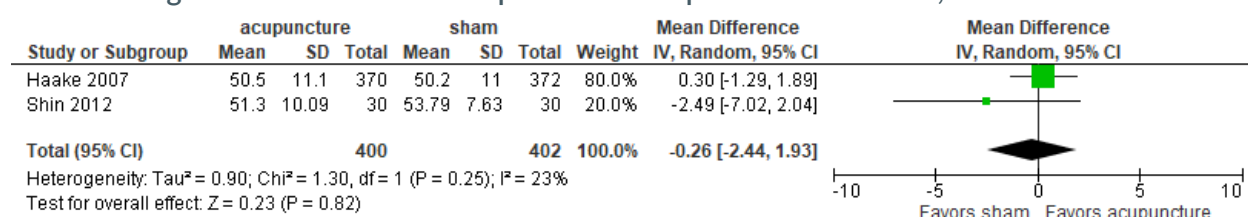


Figure 16. Short-Term Comparison of Acupuncture and Sham, SF-36 Physical

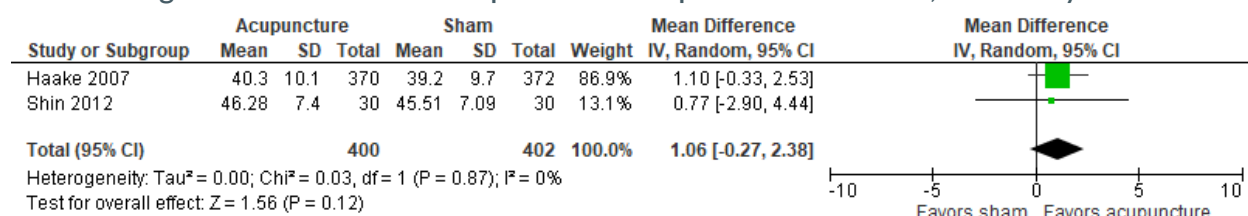


Figure 17. Intermediate-Term Comparison of Acupuncture and Sham, SF-36 Mental

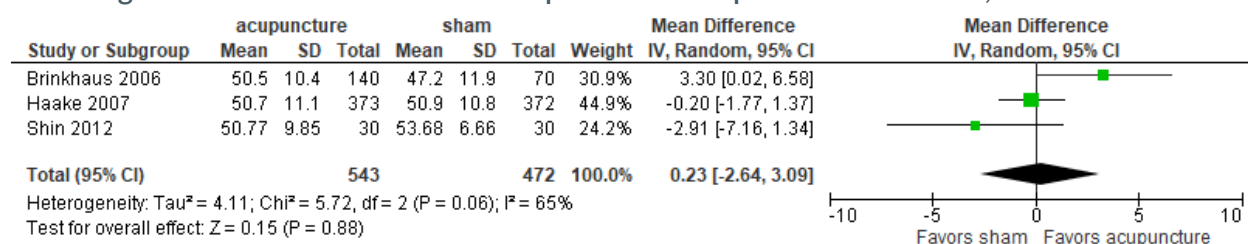
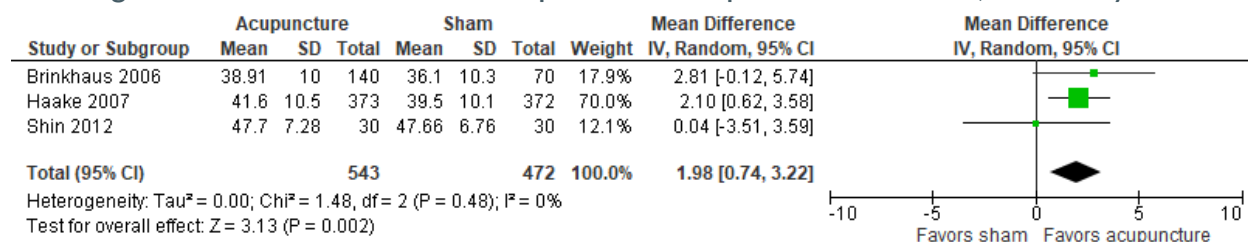


Figure 18. Intermediate-Term Comparison of Acupuncture and Sham, SF-36 Physical



**Dry Needling Interventions**

Only 1 RCT, a study by Palomo and colleagues (2024), reported quality of life outcomes for dry needling interventions (Table 5).<sup>37</sup> The authors reported no difference between dry needling and usual care in SF-36 mental or physical scores immediately after treatment or at 2 months after treatment.<sup>37</sup>

Table 5. Functional, Pain, and QoL Outcomes Meeting MCID at End of Treatment and Longest Follow-Up

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
<b>Acupuncture</b>			
Brinkhaus et al. 2006 <sup>27</sup> Germany Semi-standardized vs. sham vs. wait list N = 301 Moderate RoB	Hannover 2 months, MD (95% CI) • AC vs. sham 3.9 (-1.8 to 9.6); P = .17 • AC vs. wait list 9.1 (3.7 to 14.4); P = .001 Hannover 12 months, MD (95% CI) • AC vs. sham 2.9 (-3.2 to 9.0); P = .35	VAS 2 months, MD (95% CI) • AC vs. sham -9.1 (-17.5 to -0.8); P = .03 • <b>AC vs. wait list -24.1 (-3.9 to -1.63); P &lt; .001</b> VAS 12 months, MD (95% CI) • AC vs. sham -5.7 (14.4 to 3.0); P = .20	SF-36 physical 2 months, MD (95% CI) • <b>AC vs. sham 4.3 (1.4 to 7.2); P = .004</b> • <b>AC vs. wait list 6.6 (3.8 to 9.3); P &lt; .001</b> SF-36 physical 12 months, MD (95% CI) • AC vs. sham 2.8 (-0.2 to 5.7); P = .07 SF-36 mental 2 months, MD (95% CI) • AC vs. sham -0.4 (-3.2 to 2.4); P = .79 • AC vs. wait list 1.2 (-1.9 to 4.3); P = .46 SF-36 mental 12 months, MD (95% CI) • AC vs. sham 3.3 (0.1 to 6.5); P = .04
Cherkin et al. 2009 <sup>36</sup> US Standardized or individualized vs. sham or UC N = 641 Moderate RoB	Roland 8 weeks, MD (95% CI) • Standardized vs. individualized 0.16 (-0.90 to 1.22); P > .05 • Individualized vs. sham 0.45 (-0.61 to 1.5); P > .05 • Standardized vs. sham 0.29 (-0.76 to 1.33); P > .05 • Standardized vs. UC -2.63 (-3.69 to -1.56); P < .05 • Individualized vs. UC -2.47 (-3.53 to -1.40); P < .05 Roland 52-week, MD (95% CI) • Standardized vs. individualized -0.36 (-1.40 to 0.87); P > .05 • Individualized vs. sham -1.10 (-2.23 to 0.04); P > .05 • Standardized vs. sham -0.84 (-1.95 to 0.28); P > .05 • Standardized vs. UC -1.82 (-2.95 to -0.69); P < .05 • Individualized vs. UC -2.08 (-3.22 to -0.94); P < .05	NR	SF-36 physical 8 weeks • AC vs. sham vs. UC; P = .03 (favored AC and sham, no details) SF-36 mental 8 weeks • AC vs. sham vs. UC; P < .001 (favored AC and sham, no details) SF-36 at 52 weeks: NR

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
Cho et al. 2013 <sup>32</sup> South Korea Individualized vs. sham N = 130 High RoB	Oswestry, change from baseline at 6 weeks, MD (95% CI) • AC vs. sham -0.17 (-0.30 to -0.04); P = .01 Oswestry change from baseline at 26 weeks, MD (95% CI) • AC vs. sham -0.2 (-0.50 to 0.10); P = .20	VAS at 6 weeks, MD (95% CI) • AC vs. sham 1.32 (0.54 to 2.10); P = .001 VAS at 26 weeks, MD (95% CI) • AC vs. sham 0.73 (-0.18 to 1.64); P = .12	SF-36 combined, change from baseline at 6 weeks, MD (95% CI) • AC vs. sham -0.08 (-0.13 to -0.02); P = .007 SF-36 combined, change from baseline at 26 weeks, MD (95% CI) • AC vs. sham -.06 (-0.13 to 0.01); P = .093
DeBar et al. 2025 <sup>33</sup> US Individualized vs. usual care N = 800 Low RoB	Roland, change from baseline at 3 months, mean (95% CI) • AC vs. UC -1.4 (-2.2 to -0.7); P < .05 Roland, change from baseline at 12 months, mean (95% CI) • AC vs. UC -1.2 (-2.1 to -0.3); P < .05 Roland ≥ 30% reduction from baseline at 3 months, relative risk (95% CI) • AC vs. UC 1.40 (1.15 to 1.72); P < .05 Roland ≥ 30% reduction from baseline at 12 months, relative risk (95% CI) • AC vs. UC 1.33 (1.06 to 1.66); P < .05	VAS, change from baseline at 3 months, mean (95% CI) • AC vs. UC -0.9 (-1.2 to -0.6); P < .05 VAS, change from baseline at 12 months, mean (95% CI) • AC vs. UC -0.4 (-0.7 to 0); P = .05 VAS ≥ 30% reduction from baseline at 3 months, relative risk (95% CI) • AC vs. UC 1.95 (1.52 to 2.49); P < .05 VAS ≥ 30% reduction from baseline at 12 months, relative risk (95% CI) • AC vs. UC 1.26 (0.98 to 1.61); P > .05	NR
Haake et al. 2007 <sup>34</sup> Germany Individualized vs. sham vs. UC N = 1162 High RoB	Hannover at 6 weeks, MD (95% CI) • AC vs. sham -2.7 (-5.7 to 0.31); P = .08 • AC vs. UC -7.7 (-10.74 to -4.66); P < .001 Hannover at 26 weeks, MD (95% CI) • AC vs. sham -4.6 (-7.90 to -1.30); P = .006 • AC vs. UC -11.1 (-14.40 to -7.80); P < .001	Low Back Pain Rating Scale at 6 weeks, MD (95% CI) • AC vs. sham 2.4 (-0.28 to 5.08); P = .08 • AC vs. UC 8.5 (5.95 to 11.05); P < .001 Low Back Pain Rating Scale at 26 weeks, MD (95% CI)	SF-36 physical at 12 weeks, MD (95% CI) • AC vs. sham -1.1 (-2.53 to 0.33); P = .13 • AC vs. UC -4.2 (-5.58 to -2.82); P = .13 SF-36 physical at 26 weeks, MD (95% CI) • AC vs. sham -2.1 (-3.58 to -0.62); P = 0.06 • <b>AC vs. UC -5.8 (-7.25 to -4.35); P &lt; .001</b> SF-36 mental at 12 weeks, MD (95% CI) • AC vs. sham -0.3 (-18.9 to 1.29); P = .71

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
		<ul style="list-style-type: none"> <li>• AC vs. sham 3.1 (-0.16 to 6.36); P = .06</li> <li>• <b>AC vs. UC</b> <b>12.1 (8.94 to 15.26); P &lt; .001</b></li> </ul>	<ul style="list-style-type: none"> <li>• AC vs. UC -1.9 (-3.55 to -0.25); P = .02 SF-36 mental at 26 weeks, MD (95% CI)</li> <li>• AC vs. sham 0.2 (-1.38 to 1.78); P = .80</li> <li>• AC vs. UC -1.5 (-3.16 to 0.16); P = .08</li> </ul>
Kerr et al. 2003 <sup>23</sup> Northern Ireland Standardized vs. sham N = 60 High RoB	Not reported	VAS at 6 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham TENS 10.4 (-6.12 to 26.92); P = .21</li> </ul>	SF-36 combined score at 6 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham TENS -6.4 (-19.35 to 6.55); P = .33</li> </ul>
Kong et al. 2020 <sup>28</sup> US Semi-standardized AC vs. sham N = 121 Moderate RoB	Change from baseline in Roland-Morris score at 2 months, MD (95% CI) <ul style="list-style-type: none"> <li>• Electro AC vs. sham -2.11 (-3.75 to -0.47); P = .01</li> </ul>	Change from baseline in PROMIS pain intensity instrument, MD (95% CI) <ul style="list-style-type: none"> <li>• Electro AC vs. sham -2.09 (-4.27 to 0.09); P = .06</li> </ul>	NR
Leibing et al. 2002 <sup>24</sup> Germany Standardized vs. sham N = 150 High RoB	NR	VAS difference in mean change from baseline at 3 months, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham -0.6 (-1.65 to 0.45); P = .37</li> <li>• AC vs. UC -1.7 (-2.71 to -0.62); P &lt; .001</li> </ul> VAS difference in mean change from baseline at 9 months, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham -0.1 (-1.21 to 0.87); P = .92</li> </ul>	Hospital anxiety and depression scale, difference in mean change from baseline at 3 months, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham -4.2 (-9.99 to 1.71); P = .21</li> <li>• AC vs. UC -11.3 (-17.01 to -5.44); P &lt; .0001</li> </ul> Hospital anxiety and depression scale, difference in mean change from baseline at 9 months, MD (95% CI) <ul style="list-style-type: none"> <li>• AC vs. sham -0.5 (-6.33 to 5.35); P = .98</li> <li>• AC vs. UC -6.8 (-12.57 to -0.96); P = .02</li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
		<ul style="list-style-type: none"> <li>AC vs. UC -0.8 (-1.93 to 0.07); P = .19</li> </ul>	
<p>Meng et al. 2003<sup>29</sup> US Semi-standardized vs. UC N = 55 High RoB</p>	<p>Change from baseline in Roland-Morris score at 6 weeks, MD (SD)  <ul style="list-style-type: none"> <li>Electro AC vs. UC 2.6 (6.7); P = .006</li> </ul>                     Change from baseline in Roland-Morris score at 9 weeks, MD (SD)  <ul style="list-style-type: none"> <li><b>Electro AC vs. UC 3.1 (7.4); P = .007</b></li> </ul> </p>	<p>Change from baseline in VAS at 6 weeks, MD (SD)  <ul style="list-style-type: none"> <li>Electro AC vs. UC 0.6 (2.3); P = .1</li> </ul>                     Change from baseline in VAS at 9 weeks, MD (SD)  <ul style="list-style-type: none"> <li>Electro AC vs. UC 0.7 (2.2); P = .02</li> </ul> </p>	NR
<p>Molsberger et al. 2002<sup>30</sup> Germany Semi-standardized vs. sham vs. UC N = 186 High RoB <i>Note: Inpatient setting</i></p>	NR	<p>VAS at 1 month, MD (95% CI)  <ul style="list-style-type: none"> <li>AC vs. sham 10.00 (2.92 to 17.08); P = .01</li> <li>AC vs. UC 13.00 (5.56 to 20.44); P &lt; .001</li> </ul>                     VAS at 4 months, MD (95% CI)  <ul style="list-style-type: none"> <li><b>AC vs. sham 20.00 (12.41 to 27.59); P &lt; .001</b></li> <li><b>AC vs. UC 29.00 (22.08 to 35.92); P &lt; .001</b></li> </ul>                     Improvement of ≥ 50% on VAS at 1 month, MD (95% CI)  <ul style="list-style-type: none"> <li>AC vs. sham 31% (12.98 to 46.33); P &lt; .001</li> <li>AC vs. UC 22% (3.62 to 38.47); P = .02</li> </ul>                     Improvement of ≥ 50% on VAS at 4 months, MD (95% CI)  <ul style="list-style-type: none"> <li>AC vs. sham 48% (27.48 to 63.13); P &lt; .01</li> </ul> </p>	NR

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
		<ul style="list-style-type: none"> <li>AC vs. UC 63% (42.78 to 75.48); <math>P &lt; .001</math></li> </ul>	
Seo et al. 2017 <sup>25</sup> South Korea Standardized vs. sham N = 54 Low RoB	Oswestry at 3 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham 8.51 (2.38 to 14.64); <math>P = .007</math></li> </ul> Oswestry at 3 months, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham 7.73 (1.70 to 13.76); <math>P = .013</math></li> </ul>	VAS at 3 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham 0.93 (-0.32 to 1.89); <math>P = .06</math> (.049 when adjusted for baseline values)</li> </ul> VAS at 3 months, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham 0.59 (-0.46 to 1.64); <math>P = .26</math></li> </ul>	SF-36 combined at 3 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham -0.07 (-0.13 to -0.01); <math>P = .02</math> (.05 when adjusted for baseline values)</li> </ul> SF-36 combined at 3 months, MD (95% CI) <ul style="list-style-type: none"> <li>Bee venom AC vs. sham -0.022 (-0.10 to .05); <math>P = .55</math></li> </ul>
Shin et al. 2012 <sup>26</sup> South Korea Standardized vs. sham N = 60 Moderate RoB	Oswestry at 4 weeks <ul style="list-style-type: none"> <li>Bee venom AC vs. sham. No details provided; <math>P &gt; 0.05</math> in ITT analysis (<math>P = .02</math> in per protocol analysis)</li> </ul> Oswestry at 4 months <ul style="list-style-type: none"> <li>Bee venom AC vs. sham. No details provided; <math>P &gt; .05</math> in ITT analysis (<math>P = .17</math> in per protocol analysis)</li> </ul>	VAS at 4 weeks <ul style="list-style-type: none"> <li>Bee venom AC vs. sham. No details provided; <math>P = .09</math> in ITT analysis, <math>P = .01</math> in per protocol analysis</li> </ul> VAS at 4 months <ul style="list-style-type: none"> <li>Bee venom AC vs. sham. No details provided; <math>P &gt; .05</math> in ITT analysis; <math>P = .17</math> in per protocol analysis</li> </ul>	SF-36 physical at 4 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>AC vs. sham -1.87 (-5.51 to 1.77); <math>P = .31</math></li> </ul> SF-36 physical at 4 months, MD (95% CI) <ul style="list-style-type: none"> <li>AC vs. sham -0.04 (-3.67 to 3.59); <math>P = .98</math></li> </ul> SF-36 mental at 4 weeks, MD (95% CI) <ul style="list-style-type: none"> <li>AC vs. sham 1.51 (-2.22 to 5.24); <math>P = .42</math></li> </ul> SF-36 mental at 4 months, MD (95% CI) <ul style="list-style-type: none"> <li>AC vs. sham 2.92 (-1.44 to 7.26); <math>P = .18</math></li> </ul>
Weiss et al. 2013 <sup>35</sup> Germany Individualized vs. UC N = 160 High RoB <i>Inpatient setting</i>	NR	NR	MD in change from baseline (95% CI) SF-36 physical at 3 weeks <ul style="list-style-type: none"> <li>AC vs. UC -3.4 (-8.62 to 1.82); <math>P = .20</math></li> </ul> SF-36 physical at 3 months <ul style="list-style-type: none"> <li>AC vs. UC -8.2 (-14.96 to -1.44); <math>P = .02</math></li> </ul> SF-36 mental at 3 weeks <ul style="list-style-type: none"> <li>AC vs. UC 0.07 (-6.72 to 8.12); <math>P = .85</math></li> </ul> SF-36 mental at 3 months <ul style="list-style-type: none"> <li>AC vs. UC -4.6 (-11.65 to 2.45); <math>P = .20</math></li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Functional Status	Pain Intensity	Quality of Life
Yeung et al. 2003 <sup>31</sup> Hong Kong Semi-standardized vs. UC N = 52 High RoB	Aberdeen at 1 month, MD (95% CI) • Electro AC vs. UC 1.31 (0.12 to 2.50); P = .03 Aberdeen at 4 months, MD (95% CI) • Electro AC vs. UC 1.81 (0.56 to 3.06); P = .005	Pain Rating Index at 1 month, MD (95% CI) • Electro AC vs. UC 10.80 (4.22 to 17.38); P = .002 Pain Rating Index at 4 months, MD (95% CI) • Electro AC vs. UC 5.96 (-0.56 to 12.48); P = .07	NR
<b>Dry needling</b>			
Lara-Palomo et al. 2024 <sup>37</sup> Spain DN vs. UC N = 64 Moderate RoB	MD in change from baseline (95% CI) Roland-Morris score at 6 weeks • DN vs. UC -2.1 (-3.4 to -0.7); P = .003 Roland-Morris score at 2 months • DN vs. UC -2.9 (-4.3 to -1.5); P = .001 Oswestry at 6 weeks • DN vs. UC -5.2 (-10.9 to 0.4); P = .07 Oswestry at 2 months • <b>DN vs. UC -10.0 (-15.9 to -4.0); P = .001</b>	MD in change from baseline (95% CI) VAS at 6 weeks • <b>DN vs. UC -2.9 (-3.8 to -1.9); P = .001</b> VAS at 2 months • <b>DN vs. UC -3.2 (-4.1 to -2.3); P = .001</b>	MD at time point (95% CI) SF-36 physical at 6 weeks • DN vs. UC 0.3 (-7.4 to 8.1); P = .94 SF-36 physical at 2 months • DN vs. UC 2.2 (-5.8 to 10.2); P = .59 SF-36 mental at 6 weeks • DN vs. UC -2.1 (-9.0 to 4.8); P = .54 SF-36 mental at 2 months • DN vs. UC 0.2 (-6.3 to 6.8); P = .94
Martin-Corrales et al. 2020 <sup>38</sup> Spain DN vs. sham N = 46 Moderate RoB	MD in change from baseline (95% CI) Roland-Morris score at 4 weeks • DN vs. sham 0.31 (-1.25 to 1.86); P > .05 Roland-Morris score at 3 months • DN vs. sham -0.35 (-1.91 to 1.22); P > .05	MD in change from baseline (95% CI) VAS at 4 weeks • DN vs. sham -1.10 (-2.36 to 0.16); P > 0.05 VAS at 3 months • <b>DN vs. sham -2.38 (-3.62 to -1.13); P &lt; .01</b>	NR

Note: Statistically significant outcomes meeting MCID are **bolded**.

Abbreviations. AC: acupuncture; CI: confidence interval; DN: dry needling; Hannover: Hannover Functional Ability Questionnaire; ITT: intention to treat; MCID: minimal clinically meaningful difference; MD: mean difference; NR: not reported; Oswestry: Oswestry Disability Index; PROMIS: Patient-Reported Outcomes Measurement System; QoL: quality of life; RoB: risk of bias; Roland-Morris: Roland-Morris Disability Questionnaire score; TENS: transcutaneous electrical nerve stimulation; UC: usual care; VAS: visual analog scale.

### Global Measures of Improvement or Recovery

Only 4 of 14 RCTs describing acupuncture interventions<sup>23,29,33,34</sup> and neither of the 2 RCTs describing dry needling interventions included any global measures of improvement or recovery. Patient global impression of change was significantly higher for acupuncture compared with usual care or sham acupuncture at end of treatment<sup>29,33,34</sup> and at intermediate time points (Table 6).<sup>33,34</sup> The study by Kerr and colleagues (2003), which compared acupuncture to sham TENS, reported no difference at end of treatment in the proportion of patients who reported experiencing pain relief.<sup>23</sup>

Table 6. Global Measure of Improvement or Recovery

Author, Year Country Acupuncture Type Sample Size Risk of Bias	Outcomes
DeBar et al. 2025 <sup>33</sup> US Individualized N = 800 Low RoB	Patient global impression of change-general, baseline to 3 months, MD (95% CI) • AC vs. UC 1.0 (0.8 to 1.2); $P < .05$ Patient global impression of change-general, baseline to 12 months, MD (95% CI) • AC vs. UC 0.5 (0.2 to 0.8); $P < .05$
Haake et al. 2007 <sup>34</sup> Germany Individualized N = 1162 High RoB	Patient global assessment at 6 weeks, MD (95% CI) • AC vs. sham 0.3 (0.11 to 0.49); $P = .002$ • AC vs. UC 0.7 (0.52 to 0.88); $P < .001$ Patient global assessment at 26 weeks, MD (95% CI) • AC vs. sham 0.2 (0.01 to 0.39); $P = .04$ • AC vs. UC 0.7 (0.51 to 0.89); $P < .001$
Kerr et al. 2003 <sup>23</sup> Northern Ireland Standardized N = 60 High RoB	“Yes” response to the question “Did you experience pain relief?” • Acupuncture: 91% (n = 21) • Sham TENS: 75% (n = 13) • $P = .40$
Meng et al. 2003 <sup>29</sup> US Semi-standardized N = 55 High RoB	Mean score on global transition scale at 6 weeks (1 = much worse to 5 = much better) • Acupuncture 3.7 (SD, 1.2) • UC 2.5 (SD, 0.9) • MD 1.2 (95% CI, 0.57 to 1.82); $P < .001$ Percent of patients reporting that they were much better • Acupuncture: 7 (32%) • UC: 0

Abbreviations. AC: acupuncture; CI: confidence interval; MD: mean difference; RoB: risk of bias; TENS: transcutaneous electrical nerve stimulation; UC: usual care.

### **Work or School-Relevant Outcomes**

Only 1 of the 16 included RCTs reported any work or school-related outcome measures.<sup>36</sup> Cherkin and colleagues (2009) included 4 study arms: individualized acupuncture, standardized acupuncture, sham acupuncture, and usual care.<sup>36</sup> At 52 weeks, the proportion of participants reporting missing work or school for more than one day in the past month was 5% for the combined acupuncture groups, 10% for sham acupuncture, and 16% for usual care ( $P = .01$ ).<sup>36</sup>

### **Reduction in Opioid Use**

None of the 16 included RCTs reported opioid use or reduction in opioid use among study participants. Opioid use is not recommended for management of chronic low back pain.<sup>44,49</sup>

### **GRADE Summary of Effectiveness and Safety of Acupuncture Compared With Sham or Usual Care**

Tables 7 and 8 present a summary of the 3 most commonly reported effectiveness outcomes: functional status, pain intensity, and quality of life. Results are separated for acupuncture and dry needling interventions. Appendix Table E3 provides additional information on the use of the GRADE system for rating certainty of evidence, while [Appendix H](#) provides detailed information on GRADE ratings for critical and important outcomes included in evidence review.

Table 7. Summary of Findings (GRADE) for Acupuncture for Chronic Low Back Pain

Comparison No. of Studies (Participant N)	CoE	Relationship	Notes on Whether Change is Clinically Meaningful	Rational for CoE Rating
<b>Functional status</b>				
Acupuncture vs. usual care 3 in MA (N = 1,119) 2 individual RCTs (N = 855)	●●○○ Low	Improvement in functional status over usual care at all time points <ul style="list-style-type: none"> <li>In MA, <math>P &lt; .001</math> at end of treatment, short-term, and intermediate</li> <li>In DeBar RCT, <math>P &lt; .05</math> at end of treatment and intermediate<sup>33</sup></li> <li>In Meng RCT, <math>P = .01</math> at end of treatment and short-term<sup>29</sup></li> </ul>	Most measures reached MCID for their respective tools (Roland-Morris, Oswestry, Hannover) for the difference between acupuncture and usual care.	Average study had moderate risk of bias (-1). Downgraded 1 level for imprecision due to lack of detail in other RCTs.
Acupuncture vs. sham 4 in MA (N = 1,329) 3 individual RCTs (N = 311)	●○○○ Very low	Little evidence for superiority of acupuncture over sham <ul style="list-style-type: none"> <li>In MA, <math>P = .55</math> at end of treatment, .14 short-term, and .18 intermediate</li> <li>In Cho RCT, functional outcomes favor acupuncture at end of treatment (<math>P = .01</math>), but no difference by intermediate (<math>P = .20</math>)<sup>32</sup></li> <li>In Kong, functional status was better for acupuncture than sham at end of treatment (<math>P = .01</math>)<sup>28</sup></li> <li>In Shin, there was no difference between acupuncture and sham at end of treatment (<math>P &gt; .05</math>) or intermediate (<math>P = .17</math>)<sup>26</sup></li> </ul>	Most studies did not find a clinically meaningful difference between acupuncture and sham at any time points.	Downgraded for high RoB in most studies (-2). Downgraded 1 level for imprecision due to high heterogeneity in MA and lack of detail in other RCTs.
<b>Pain intensity</b>				
Acupuncture vs. usual care 2 in MA (N = 238) 4 individual RCTs (N = 2,405)	●○○○ Very low	Evidence favors acupuncture over usual care at end of treatment and perhaps longer <ul style="list-style-type: none"> <li>In MA, <math>P &lt; .001</math> at end of treatment and short-term</li> <li>In DeBar RCT, significant pain reduction in acupuncture vs. usual care at end of treatment (<math>P &lt; .05</math>) but not at intermediate (<math>P = .05</math>)<sup>33</sup></li> <li>In Haake RCT, <math>P &lt; .001</math> at end of treatment and intermediate<sup>34</sup></li> <li>In Leibing RCT, <math>P &lt; .001</math> at end of treatment but no difference at intermediate (<math>P = .19</math>)<sup>24</sup></li> <li>In Meng RCT, no difference between acupuncture and usual care at end of treatment (<math>P = .1</math>) but favors acupuncture at short term (<math>P = .02</math>)<sup>29</sup></li> </ul>	Difference in pain intensity for acupuncture and usual care met MCID in MA for short-term outcomes, but did not meet MCID immediately after treatment.	Downgraded 1 level for high risk of bias in most studies, and 1 level for imprecision due to lack of outcome detail in individual RCTs.

Comparison No. of Studies (Participant N)	CoE	Relationship	Notes on Whether Change is Clinically Meaningful	Rational for CoE Rating
Acupuncture vs. sham 5 RCTs in MA (N = 731) 3 individual RCTs (N = 1,372)	●○○○ Very low	Unclear results. MA shows evidence in favor of acupuncture vs. sham, but individual RCTs with minimal detail show no difference <ul style="list-style-type: none"> <li>In MA, lower pain intensity for acupuncture at end of treatment (<math>P &lt; .001</math>), short (<math>P &lt; .001</math>), and intermediate (<math>P &lt; .05</math>)</li> <li>In Leibing RCT, no difference from sham at end of treatment (<math>P = .37</math>) or intermediate (<math>P = .92</math>)<sup>24</sup></li> <li>In Haake RCT, no difference from sham at end of treatment (<math>P = .08</math>), but effect in favor of acupuncture intermediate (<math>P = .006</math>)<sup>34</sup></li> <li>In Shin RCT, no difference from sham at end of treatment (<math>P = .09</math>) or intermediate (<math>P = .17</math>)<sup>26</sup></li> </ul>	The difference in pain intensity between acupuncture and sham did not meet MCID at any time period.	Downgraded for high RoB in most studies (-2), 1 level for inconsistency due to conflicting evidence (-1), and 1 level for imprecision due to lack of detail in individual RCTs (-1).
Quality of life				
Acupuncture vs. usual care 2 RCTs (N = 801)	●○○○ Very low	One RCT reports change from baseline and the other provides P values only <ul style="list-style-type: none"> <li>Weiss RCT reports no difference in mental QoL at end of treatment (<math>P = .85</math>) or short-term (.20), but effect in favor of acupuncture in physical QoL short-term (<math>P = .02</math>)<sup>35</sup></li> <li>Cherkin RCT reports effect in favor of acupuncture and sham compared with usual care in physical (<math>P = .03</math>) and mental (<math>P &lt; .001</math>) QoL at end of treatment, with no difference at 52 weeks, but does not report on any comparison of acupuncture and sham<sup>36</sup></li> </ul>	In Weiss RCT, the difference between acupuncture and usual care on the physical subscale met MCID at end of treatment and short-term measurements. Differences on the mental subscale met MCID at 3 months, but not immediately after end of treatment. Unable to assess MCID in Cherkin RCT because it only provides P-values, without detailed outcomes.	Downgraded 2 levels for high risk of bias and 2 levels for imprecision due to 2 individual RCTs without detailed outcomes.
Acupuncture vs. sham 3 RCTs in MA (N = 1,523) 4 individual RCTs (N = 885)	●○○○ Very low	Mixed evidence on the relationship between acupuncture and QoL outcomes <ul style="list-style-type: none"> <li>MA with 3 RCTs shows no difference between acupuncture and sham in mental QoL at end of treatment (<math>P = .47</math>), short-term (<math>P = .82</math>), or intermediate (<math>P = .88</math>), but effect in favor of acupuncture on physical QoL at end of treatment (<math>P = .005</math>) and intermediate (<math>P = .002</math>)</li> <li>Cho RCT reports effect in favor of acupuncture for combined QoL at end of treatment (<math>P = .007</math>) but not at intermediate (<math>P = .09</math>)<sup>32</sup></li> </ul>	The difference between acupuncture and sham on the physical subscale of the SF-36 met MCID at end of treatment in MA, but not at short-term follow-up. The difference between acupuncture and sham on the mental subscale did not meet MCID at any time point in MA.	Downgraded for high RoB in studies contributing to evidence (-2), 1 level for inconsistency in results, and 1 level for imprecision springing from lack of detailed

Comparison No. of Studies (Participant N)	CoE	Relationship	Notes on Whether Change is Clinically Meaningful	Rational for CoE Rating
		<ul style="list-style-type: none"> <li>• Kerr RCT reports no difference from sham in combined QoL at end of treatment (<math>P = .33</math>)<sup>23</sup></li> <li>• Seo RCT reports improvement over sham at end of treatment (<math>P = .02</math>) but not short-term (<math>P = .55</math>)<sup>25</sup></li> </ul>		outcomes in some RCTs (-1).

Abbreviations. CoE: certainty of evidence; GRADE: Grading of Recommendations, Assessment, Development, and Evaluations; MA: meta-analysis; MCID: minimal clinically important difference; No. number; QoL: quality of life; RCT: randomized controlled trial; RoB: risk of bias.

Table 8. Summary of Findings (GRADE) for Effectiveness of Dry Needling Interventions

Outcome No. of Studies (Participant N)	CoE	Relationship	Note on Clinically Meaningful Change	Rational for CoE Rating
<b>Functional status</b>				
2 RCTs (N = 110)	●○○○ Very low	Functional improvement over usual care, but not sham <ul style="list-style-type: none"> <li>• Favored dry needling over usual care at end of treatment (<math>P = .001</math>) and short-term (<math>P = .001</math>)<sup>37</sup></li> <li>• No difference between dry needling and sham at end of treatment (<math>P &gt; .05</math>), but improvement over sham at short-term (<math>P &lt; .01</math>)<sup>38</sup></li> </ul>	Dry needling vs. sham: did not meet MCID at either time point. Dry needling vs. usual care: did not meet MCID at either time point.	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.
<b>Pain intensity</b>				
2 RCTs (N = 110)	●○○○ Very low	Greater change in pain intensity vs. usual care at end of treatment ( $P = .001$ ) and 2 months ( $P = .001$ ). <sup>37</sup> No difference from sham at end of treatment ( $P > .05$ ), but favors dry needling in short-term ( $P < .01$ ) <sup>38</sup>	Dry needling vs. usual care: met MCID at end of treatment and at short-term measurement. Dry needling vs. sham: did not meet MCID at end of treatment, but did at short-term measurement.	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.
<b>Quality of life</b>				
1 RCT (N = 64)	●○○○ Very low	No difference from usual care in physical or mental QoL at end of treatment or short-term follow-up. <sup>37</sup>	Dry needling vs. usual care: did not meet MCID at either time point.	Downgraded 1 level due to moderate risk of bias and 2 levels due to single RCT with small sample size and lack of detailed outcomes.

Abbreviations. CoE: certainty of evidence; GRADE: Grading of Recommendations, Assessment, Development, and Evaluations; MA: meta-analysis; MCID: minimal clinically important difference; No. number; RCT: randomized controlled trial; RoB: risk of bias.

## Relevant Ongoing Studies

We identified 3 ongoing trials that met inclusion criteria for this review, each exploring a different form of acupuncture to treat chronic low back pain (Table 9). We did not identify any ongoing trials involving dry needling that met our definition of chronic: 12 weeks or more of low back pain. A US-based study (NCT02503475) with an estimated completion date of December 2026 is comparing traditional versus sham acupuncture.<sup>40</sup> Researchers are conducting neuroimaging assessments immediately after treatment with the goal of characterizing the neural mechanisms underlying traditional and placebo acupuncture, in addition to measures of functional status, pain, and quality of life.<sup>40,131</sup> Researchers in Hong Kong are conducting a study comparing electroacupuncture with peripheral nerve field stimulation; 2 electrode leads will be implanted and connected to an external neurostimulator for electrical stimulation of the painful area (NCT04809909).<sup>41</sup> The study is recruiting adults aged  $\geq 18$  years with chronic intractable nonspecific, axial or radicular low back pain lasting for  $\geq 6$  months.<sup>41</sup> The study has an estimated completion date of December 31, 2025 in the clinicaltrials.gov record but is still classified as “recruiting.”<sup>41</sup> Finally, a South Korean study (NCT07304076) with an estimated completion date of November 2029 is recruiting adults aged 19 to 69 years who have experienced nonspecific low back pain for  $\geq 6$  months.<sup>42</sup> The study compares pharmacopuncture using injection with purified human placenta extract; participants in the acupuncture group will receive 2 sessions per week for 5 weeks using a standardized approach with 8–10 acupuncture points, with comparison to a control group receiving TENS therapy twice weekly for 5 weeks.<sup>42</sup>

Table 9. Characteristics of Ongoing Clinical Trials

Trial Identifier Intervention Est. Completion Date Location, Sponsor	Population Estimated N Comparison	Outcomes
NCT04809909 <sup>41</sup> Electroacupuncture December 31, 2025 [“recruiting” status in ct.gov] Hong Kong, The University of Hong Kong	Patients aged $\geq 18$ years with chronic nonspecific low back pain for at least 6 months N = 50 Acupuncture vs. peripheral nerve field stimulation	Pain intensity on 10-point scale at 2 weeks after procedure
NCT02503475 <sup>40</sup> Traditional acupuncture December 2026 US, Stanford University	Patients aged 21 to 65 years with chronic low back pain, with pain experienced on at least half of the days in the past 6 months N = 300 Acupuncture vs. sham	Changes in VAS pain severity at up to 12 months post-treatment Changes in pain symptom severity and well-being up to 12 months
NCT07304076 <sup>42</sup> Pharmacopuncture November 2029 South Korea, Jaseng Medical Foundation	Adults aged 19 to 69 years who have experienced low back pain for $\geq 6$ months N = 96 Human placental pharmacopuncture vs. TENS	Changes in VAS up to 25 weeks after procedure Functional status measured by ODI and RMDQ Patient global impression of change Health-related quality of life Analgesic consumption Work Productivity and Activity Impairment Questionnaire

Abbreviations: Est: estimated; NIH: National Institutes of Health; ODI: Oswestry Disability Index; RMDQ: Roland-Morris Disability Questionnaire; TENS: transcutaneous electrical nerve stimulation; VAS: visual analog scale.

**KQ2. Harms**

Serious and overall adverse events reported in the 16 included RCTs are summarized in Table 10. Only 2 trials reported serious adverse events that were potentially related to study treatment. An RCT by Cherkin and colleagues (2009) recruited 641 participants and reported that 1 participant had pain lasting 1 month, but the authors did not specify whether the individual was in the acupuncture or sham group.<sup>36</sup> A study by DeBar and colleagues (2025) reported only 1 serious adverse event that was adjudicated to be acupuncture-related: 1 case of lower extremity cellulitis that was successfully treated with antibiotics.<sup>33</sup> Most studies did not provide details on adverse events.<sup>23,24,27,30,31,34,36-38</sup> In studies that did provide more detailed outcomes, the most common adverse events in acupuncture groups were pain at the acupuncture site, temporarily worsened lower back pain, and reactions at the acupuncture site (bruising, rash, etc.).<sup>25,26,28,29,32,33,35</sup>

**Table 10. Safety Information Provided in Clinical Trials**

Author, Year Country Comparison Sample Size Risk of Bias	Serious Adverse Events	Adverse Events
<b>Acupuncture</b>		
Brinkhaus et al. 2006 Germany Semi-standardized vs. sham vs. wait list N = 301 Moderate RoB	9.2% (13) acupuncture 5.7% (4) sham 6.8% (5) wait list P = .37 acupuncture vs. sham P = .53 acupuncture vs. wait list No detail (beyond suicide in sham group) but “[a]ll considered unrelated to study treatment.”	10.7% (15) acupuncture) 17.1% (12) sham P = .20 No detail beyond “[t]he most commonly reported adverse effects were hematoma and bleeding.”
Cherkin et al. 2009 US Standardized or individualized vs. sham or UC N = 641 Moderate RoB	1 participant (unreported standardized or individualized) reported a severe experience: pain lasting 1 month 11 participants receiving real or sham acupuncture reported a moderate adverse event possibly related to treatment <ul style="list-style-type: none"> <li>• Primarily short-term pain</li> <li>• 1 dizziness</li> <li>• 1 back spasms</li> </ul>	Rates of adverse experiences <ul style="list-style-type: none"> <li>• Individualized 3.8% (6)</li> <li>• Standardized 3.8% (6)</li> <li>• Sham 0</li> <li>• P = .04</li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Serious Adverse Events	Adverse Events
Cho et al. 2013 South Korea Individualized vs. sham N = 130 High RoB	Authors report there were no serious adverse events.	16 participants reported 27 minor to moderate adverse events <ul style="list-style-type: none"> <li>• Most common events in acupuncture group: temporarily worsened lower back pain (4 events), pain at acupuncture site (2), shoulder pain (2)</li> <li>• Most common events in sham group: temporarily worsened lower back pain (82), pain at acupuncture site (2)</li> </ul>
DeBar et al. 2025 US Individualized vs. UC in patients ≥ 65 years of age N = 800 Low RoB	Hospitalizations for any reason <ul style="list-style-type: none"> <li>• 25 (9.4%) in primary acupuncture group</li> <li>• 23 (8.6%) in group offered an additional ~6 sessions of acupuncture</li> <li>• 18 (6.8%) UC</li> <li>• Note: hospitalization rates reflect an older (mean age 74 years) and more medically fragile population (20% of participants met frailty criteria at baseline) compared with other RCTs</li> </ul> Hospitalization adjudicated as acupuncture-related <ul style="list-style-type: none"> <li>• 1 lower extremity cellulitis treated successfully with intravenous antibiotics</li> </ul> Deaths <ul style="list-style-type: none"> <li>• &lt;5, with none identified as related or possibly related to intervention</li> </ul> Adjudicated acupuncture-related <ul style="list-style-type: none"> <li>• 1 lower extremity cellulitis treated successfully with intravenous antibiotics</li> </ul>	71 minor adverse events reported among 52 of 534 acupuncture-allocated participants <ul style="list-style-type: none"> <li>• Related to acupuncture: 29 (40.8%)</li> <li>• Possibly related to acupuncture: 21 (29.6%)</li> <li>• Most commonly pain or discomfort at needling sites</li> </ul>
Haake et al. 2007 Germany Individualized vs. sham N = 1162 High RoB	40 serious adverse events documented <ul style="list-style-type: none"> <li>• Acupuncture group: 12</li> <li>• Sham: 12</li> <li>• All deemed unrelated to intervention</li> </ul>	476 clinically relevant adverse effects reported by 257 patients (22.6%) <ul style="list-style-type: none"> <li>• No significant difference between groups (<math>P = .81</math>)</li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Serious Adverse Events	Adverse Events
Kerr et al. 2003 Northern Ireland Standardized vs. sham N = 60 High RoB	Not reported	Not reported
Kong et al. 2020 US Semi-standardized AC vs. sham N = 121 Moderate RoB	"No serious adverse events were reported by any participants in the study."	Acupuncture, n participants (%) <ul style="list-style-type: none"> <li>• Reaction to treatment (minor pain, bruising, skin rash, etc.): 24 (41%)</li> <li>• Back pain flairs: 5 (8%)</li> <li>• Reaction to assessments (pressure testing, heat testing, etc.): 10 (17%)</li> <li>• Other (cold, flu, migraine, allergic reaction, injury, etc.): 18 (31%)</li> </ul> Sham group, participants (%) <ul style="list-style-type: none"> <li>• Reaction to treatment (minor pain, bruising, skin rash, etc.): 10 (16%)</li> <li>• Back pain flairs: 6 (10%)</li> <li>• Reaction to assessments (pressure testing, heat testing, etc.): 11 (18%)</li> <li>• Other (cold, flu, migraine, allergic reaction, injury, etc.): 16 (26%)</li> </ul>
Leibing et al. 2002 Germany Standardized vs. sham N = 150 High RoB	Authors report there were no serious adverse events.	Drop out due to adverse events <ul style="list-style-type: none"> <li>• Painfulness of acupuncture: n = 2</li> <li>• Problems with circulation during acupuncture: n = 1</li> </ul> Minor unserious adverse events <ul style="list-style-type: none"> <li>• n = 3 in acupuncture group</li> </ul>
Meng et al. 2003 US Semi-standardized vs. UC N = 55 High RoB	Authors report there were no serious adverse events.	Acupuncture, n participants <ul style="list-style-type: none"> <li>• Minor aching: 5</li> <li>• Bruising: 3</li> <li>• Light-headedness: 1</li> <li>• Withdrew from study because of pain: 1</li> </ul> Sham, n participants <ul style="list-style-type: none"> <li>• Upset stomach: 2</li> <li>• Dry mouth: 1</li> <li>• Headache: 1</li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Serious Adverse Events	Adverse Events
Molsberger et al. 2002 Germany Semi-standardized vs. sham vs. UC N = 186 High RoB	Authors report there were no serious adverse events.	"No important adverse events or side effects in either of the intervention groups were observed."
Seo et al. 2017 South Korea Standardized vs. sham N = 54 Low RoB	Authors report there were no serious adverse events.	Bee venom pharmacopuncture group: adverse events reported by 6 patients (22.2%) <ul style="list-style-type: none"> <li>• Itching: 4</li> <li>• Headache: 1</li> <li>• Generalized myalgia: 1</li> </ul> Sham group: adverse events reported by 4 patients (14.8%) <ul style="list-style-type: none"> <li>• Headache: 2</li> <li>• Dizziness: 2</li> </ul>
Shin et al. 2012 South Korea Standardized vs. sham N = 60 Moderate RoB	Authors report there were no serious adverse events.	Bee venom pharmacopuncture group: adverse events reported in 17 participants (57%) <ul style="list-style-type: none"> <li>• Pruritus: 15</li> <li>• Skin flare: 5</li> <li>• Edema: 4</li> <li>• Skin rash: 2</li> </ul> Sham group: adverse events reported in 3 participants (1%) <ul style="list-style-type: none"> <li>• Skin rash (1)</li> <li>• Headache (1)</li> <li>• Hand-foot tingling (1)</li> </ul> Drop outs due to adverse events <ul style="list-style-type: none"> <li>• Acupuncture: 1 (itchiness)</li> <li>• Sham: 0</li> </ul>

Author, Year Country Comparison Sample Size Risk of Bias	Serious Adverse Events	Adverse Events
Weiss et al. 2013 Germany Individualized vs. UC N = 160 High RoB	Authors report there were no serious adverse events.	Minor adverse events in acupuncture group <ul style="list-style-type: none"> <li>• Pain at puncture site: 36.5%</li> <li>• “Urgency” (unexplained): 20.3%</li> <li>• Dizziness: 13.5%</li> <li>• Nausea: 2.7%</li> </ul> Drop out due to acupuncture pain: 1
Yeung et al. 2003 Hong Kong Semi-standardized vs. UC N = 52 High RoB	Authors report there were no serious adverse events.	None reported (“all patients tolerated electroacupuncture well without adverse effects.”)
<b>Dry needling</b>		
Lara-Palomo et al. 2024 Spain DN vs. UC N = 64 Moderate RoB	Not reported	Not reported
Martin-Corrales et al. 2020 Spain DN vs. sham N = 46 Moderate RoB	Not reported	Proportion of patients reporting post-treatment soreness <ul style="list-style-type: none"> <li>• DN: 73.91%</li> <li>• Sham: 52.17%</li> <li>• P = .13</li> </ul>

Abbreviations: DN: dry needling; RoB: risk of bias; UC: usual care.

### KQ3. Cost and Cost Effectiveness

A single cost-effectiveness analysis was identified that met inclusion criteria: published within the past 5 years and based on data from the US health care system. The study by Herman and colleagues (2026)<sup>39</sup> utilized data from the Back-in-Action clinical trial described by DeBar and colleagues (2025),<sup>33</sup> which is included in the evidence review for KQs 1 and 2. Back-in-Action compared the effectiveness of adding standard acupuncture (up to 15 treatment sessions over 12 weeks) or enhanced acupuncture (standard acupuncture plus up to 6 additional sessions over the next 12 weeks) to usual medical care in individuals  $\geq 65$  years old with nonspecific chronic low back pain.<sup>33,39</sup> No specific definition of usual care was provided in the cost-effectiveness publication by Herman and colleagues (2026),<sup>39</sup> the clinical effectiveness publication by DeBar and colleagues (2025),<sup>33</sup> or a protocol for Back-in-Action that was published in 2023.<sup>132</sup> The primary outcome of the trial was change from baseline to 6 months in back pain-related disability as measured by the 24-item Roland-Morris Disability Questionnaire.<sup>33</sup> The economic evaluation determined the cost utility and cost effectiveness over 12 months of standard and enhanced acupuncture compared to usual care from the health care sector and Medicare perspectives.<sup>39</sup>

Participants in the Back-in-Action trial were enrolled from August 12, 2021 through October 27, 2022 from 2 integrated care delivery systems (Kaiser Permanente Washington State and Kaiser Permanente Northern California), a fee-for-service system in Northern California (Sutter Health), and the Institute for Family Health network of Federally Qualified Healthcare Centers in New York City.<sup>39</sup> However, complete cost data was not available from the New York site and data for the economic evaluation was limited to 672 participants from the California and Washington sites.<sup>39</sup> Health care utilization was captured from electronic health records for each participant for 1 year before and 1 year after study enrollment, including hospital discharge, claims, outpatient pharmacy, and other administrative data sources.<sup>39</sup> Back-pain-related utilization was identified using back-pain-specific ICD-10 codes, medications commonly used to treat back pain (e.g., skeletal muscle relaxants, opioids), and back-specific procedures.<sup>39</sup> Any participants who disenrolled from the health plan in the study year were omitted from analysis.<sup>39</sup>

Cost utility was defined as gain in quality-adjusted life-years (QALYs) across the study year calculated using results from the EuroQol 5-Dimension (EQ-5D), which was administered to study participants at baseline and at 3, 6, and 12 months.<sup>33,39</sup> The EQ-5D measures 5 dimensions of health: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression.<sup>133</sup> Problems are rated on a 5-point scale from no issue to extreme and scores across dimensions can be summed to create a 'misery score.'<sup>133</sup> Mean QALY gains for standard acupuncture compared to usual care were 0.014 (95% CI, -0.014 to 0.043), while QALY gains for enhanced acupuncture compared to usual care were 0.037 (95% CI, 0.013 to 0.062).<sup>39</sup> While the difference between standard acupuncture and usual care was not significant, the addition of follow-up acupuncture visits in the enhanced group was associated with significant increase in QALY compared to usual care.<sup>39</sup>

Cost effectiveness was defined as the proportion of participants in each group who experienced an MCID in their Roland-Morris Disability score from baseline to 12 months.<sup>39</sup> Mean difference in the proportion of participants who achieved MCID in Roland-Morris score by 12 months were 0.069 (95% CI, -0.027 to 0.164) for standard acupuncture compared to usual care, which was not significant.<sup>39</sup> The mean difference in the proportion of participants who achieved MCID in

Roland-Morris score by 12 months for enhanced acupuncture compared to usual care was statistically significant: 0.185 (95% CI, 0.090 to 0.279).<sup>39</sup>

The authors utilized a resource cost algorithm that estimated allowable fee-for-service Medicare costs (health care sector perspective costs).<sup>39</sup> They calculated Medicare-reimbursable costs (Medicare perspective) by subtracting patient copays and coinsurance for each service.<sup>39</sup> Costs of acupuncture were estimated at \$90 per visit with no cost to the participant (i.e., no copay).<sup>39</sup> The study presented all back-related health care utilization and costs as net of baseline, defined as utilization and costs for the study year minus the year before enrollment.<sup>39</sup> Incremental average QALY gains and MCID per participant between groups were compared to incremental average costs per participant from each perspective (health care sector and Medicare).<sup>39</sup> All costs were reported in 2022 USD.<sup>39</sup>

The mean incremental cost per participant to the health care sector of standard acupuncture versus usual care was +\$759 (95% CI, -755 to +2,439) and the mean incremental cost per participant of enhanced acupuncture versus usual care was -\$491 (95% CI, -2,861 to +1,144) (i.e., a net saving of \$491).<sup>39</sup> Most costs savings were related to reductions in hospitalizations.<sup>39</sup> Results were similar when analyzed from the Medicare perspective: the mean incremental cost per participant was a cost savings of \$421 (95% CI, -2,707 to +1,249) for enhanced acupuncture versus usual care, but was a cost increase of \$843 (95% CI, -681 to +2,497) for standard acupuncture versus usual care.<sup>39</sup>

The authors concluded that enhanced acupuncture reduced back pain-related health care sector costs by an average of \$491 per participant over 1 year versus usual care, and reduced Medicare-reimbursed costs by \$421 per participant.<sup>39</sup> These cost savings came with a gain in QALYs of 0.037—a clinically significant change and an increase in utility of 5.7% for the year—and an 18.5 percentage-point increase in participants achieving a MCID.<sup>39</sup> While acupuncture carried a cost (\$90 per visit), the costs of non-acupuncture health care utilization were reduced with acupuncture in both the standard and enhanced arms.<sup>39</sup>

#### KQ4. Clinical Practice Guideline Recommendations

Our search identified 10 guidelines (Table 11): 6 focused on acupuncture alone,<sup>21,43-47</sup> 3 addressed both acupuncture and dry needling,<sup>48-50</sup> and only 1 focused solely on dry needling.<sup>51</sup> Appendix Table E2 details criteria for risk of bias assessment of clinical practice guidelines, while Appendix Table F2 provides detailed information on risk of bias assessment for the included guidelines.

Only 1 guideline, from the North American Spine Society, unequivocally recommended acupuncture for chronic low back pain.<sup>43</sup> Guidelines from the US Veterans Administration and the American College of Occupational and Environmental Medicine advised that acupuncture could be considered in conjunction with other therapies (primarily exercise), but stopped short of a direct recommendation.<sup>44,45</sup> Guidelines from the Canadian Pain Task Force and the Japanese Orthopaedic Association do not recommend for or against use of acupuncture for low back pain, both citing a lack of evidence.<sup>46,47</sup> A guideline from the Hong Kong Taskforce of Standardized Acupuncture Practice provides advice on use of acupuncture for treatment of nonspecific low back pain, advising that patients should first be assessed for any contraindications to the use of

acupuncture, such as bleeding disorder.<sup>21</sup> The systematic review conducted by the Hong Kong Taskforce is used to identify choice of acupoints and frequency of sessions, as well as recommendations for dealing with side effects, rather than weighing risks and benefits of acupuncture as a treatment for chronic low back pain.<sup>21</sup> A 2021 guideline from the National Institute for Health and Care Excellence that is underpinned by a systematic review addresses both dry needling and acupuncture and advises that physicians consider a single course of acupuncture or dry needling for management of chronic primary low back pain, while reporting that there was no evidence to inform a recommendation for repeated courses.<sup>48</sup> Only 1 guideline, a 2021 publication by the American Physical Therapy Association, focused solely on dry needling.<sup>51</sup> The group found weak evidence for use of dry needling in conjunction with other treatments for short-term treatment of patients with chronic low back pain.<sup>51</sup>

Table 11. Guidelines Published or Reaffirmed in the Last 5 Years

Organization Title Year Methodological Quality	Recommendations
<p>American College of Occupational and Environmental Medicine<sup>45</sup> Non-Invasive and Minimally Invasive Management of Low Back Disorders Published 2020</p> <p><b>Good</b></p>	<ul style="list-style-type: none"> <li>• Acupuncture is Recommended (C), Low Confidence for selective use to treat chronic moderate to severe LBP as an adjunct to more efficacious treatments as there is no quality evidence of lasting effects.</li> <li>• The Chinese meridian approach is not necessary, as either needling the affected area or sham needle insertion is sufficient.</li> <li>• Chronic LBP patients should have had NSAIDs and/or acetaminophen, strengthening and aerobic exercise instituted and have insufficient results.</li> <li>• Acupuncture may be considered as a treatment for chronic LBP as a limited course during which time there are clear objective and functional goals to be achieved and it is an adjunct to a conditioning program with aerobic and strengthening exercise components.</li> <li>• Objective improvements should be shown approximately halfway through the regimen to continue a treatment course.</li> </ul>
<p>Canadian Pain Task Force<sup>46</sup> PEER Simplified Chronic Pain Guideline Published 2022</p> <p><b>Good</b></p>	<ul style="list-style-type: none"> <li>• Does not offer any recommendation for or against acupuncture due to unclear benefit.</li> <li>• Suggests approaches like acupuncture, with unclear effect, should be discussed with patients when interventions with clear evidence of benefit have already been considered.</li> <li>• SR with meta-analysis found low evidence in support of acupuncture, with no lasting effect at follow-up (4–12 weeks or 12 weeks or more).</li> </ul>
<p>Hong Kong Taskforce of Standardized Acupuncture Practice<sup>21</sup> Acupuncture for Low Back Pain Published 2022</p> <p><b>Poor</b> <i>(Very limited information on methods and processes. References a supplemental file for additional information that is not English language.)</i></p>	<ul style="list-style-type: none"> <li>• Guideline to inform the treatment of LBP by acupuncture, rather than a guideline about appropriate use of acupuncture for chronic LBP.</li> <li>• Identifies appropriate main and supplemental acupoints, recommended frequency of sessions, and follow-up recommendations should LBP worsen.</li> <li>• Limited detail on the evidence base, as an English-language version of the supplemental file was not available.</li> </ul>

<b>Organization</b> <b>Title</b> <b>Year</b> <b>Methodological Quality</b>	<b>Recommendations</b>
<p>Japanese Orthopaedic Association<sup>47</sup>  Clinical Practice Guideline for the Management of Low Back Pain—the Revised 2019 Edition  Published 2022 (original version published in Japanese in 2019)</p> <p><b>Fair</b>  <i>(Diverges somewhat from formal SR methods but has clearly defined inclusion/exclusion and well-described processes for creating and formalizing recommendations.)</i></p>	<ul style="list-style-type: none"> <li>• Guideline committee notes a lack of high-quality studies of acupuncture therapies in the Japanese population. “Therefore, it is basically impossible to state their usefulness or recommendation in this guideline.”</li> <li>• Authors find no credible and consistent evidence for a sustained effect of acupuncture on LBP, and question whether the difference from controls is clinically significant.</li> <li>• Committee notes that patient heterogeneity and high risk of bias in research methods requires caution when interpreting study results.</li> <li>• No reference to dry needling.</li> </ul>
<p>North American Spine Society (US)<sup>43</sup>  Evidence-Based Clinical Guideline for the Diagnosis and Treatment of Low Back Pain  Published in 2020</p> <p><b>Good</b></p>	<ul style="list-style-type: none"> <li>• In patients with chronic LBP, addition of acupuncture to usual care is recommended for short-term improvement of pain and function compared with usual care alone. Grade of Recommendation: A (good evidence).</li> <li>• In patients with LBP, there is conflicting evidence regarding whether acupuncture provides improvements in pain and function compared with sham acupuncture. Grade of Recommendation: I (insufficient evidence).</li> <li>• There is insufficient evidence to draw conclusions regarding the comparative effectiveness of acupuncture techniques. Grade of Recommendation: I (insufficient).</li> </ul>
<p>US Department of Veterans Affairs/Department of Defense<sup>44</sup>  Clinical Practice Guideline for the Diagnosis and Treatment of Low Back Pain  Published 2022</p> <p><b>Good</b></p>	<ul style="list-style-type: none"> <li>• Suggests use of acupuncture for individuals with chronic LBP.</li> <li>• Strength of recommendation is weak, due to limitations of the evidence base.</li> </ul>
<p>Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association<sup>51</sup>  Interventions for the Management of Acute and Chronic Low Back Pain: Revision 2021</p> <p><b>Good</b></p>	<ul style="list-style-type: none"> <li>• Grade C (weak evidence). Physical therapists can consider the use of dry needling in conjunction with other treatments to reduce pain and disability in the short term for patients with chronic LBP.</li> <li>• An update of the guideline is currently in process.</li> </ul>

Organization Title Year Methodological Quality	Recommendations
French National Authority for Health <sup>50</sup> Clinical Guidelines and Care Pathway for Management of Low Back Pain With or Without Radicular Pain Published 2021  <b>Good</b>	<ul style="list-style-type: none"> <li>• Not recommended</li> <li>• 23.A. “Acupuncture, acupressure and dry needling have not been found effective in alleviating LBP.”</li> </ul>
National Institute for Health and Care Excellence (UK) <sup>48</sup> Chronic Pain (Primary And Secondary): Assessment of all Chronic Pain and Management of Chronic Primary Pain Published 2021  <b>Good</b>	<ul style="list-style-type: none"> <li>• 1.2.5. Consider a single course of acupuncture or dry needling, within a traditional Chinese or Western acupuncture system, for people aged 16 years and over to manage chronic primary pain, but only if the course is delivered in a community setting, is delivered by a health care professional with appropriate training, and is made up of no more than 5 hours of health care professional time.</li> <li>• No evidence was found to inform a recommendation for repeat courses of acupuncture.</li> </ul>
World Health Organization <sup>49</sup> Guideline for Non-Surgical Management of Chronic Primary Low Back Pain in Adults in Primary and Community Care Settings Published 2023  <b>Good</b>	<ul style="list-style-type: none"> <li>• Needling therapies (traditional Chinese medicine acupuncture and other dry needling modalities) may be offered as part of care to adults, including older people, with chronic nonspecific LBP.</li> <li>• Conditional recommendation in favor of use, with low certainty of evidence.</li> <li>• Needling therapies appear to provide short-term improvements in pain and function.</li> <li>• When needling therapies are offered to people with chronic nonspecific LBP, they should be considered as part of a broader suite of effective treatments (i.e., not offered as a single intervention in isolation), based on a biopsychosocial assessment.</li> <li>• Recommends caution for use in people taking anticoagulant medicines, especially older people, due to increased risk for bleeding at the needle insertion sites.</li> <li>• Therapy should only be provided by individuals with the proper training.</li> <li>• Care should be taken for infection prevention and control.</li> </ul>

Abbreviations: LBP: low back pain; NSAID: non-steroidal anti-inflammatory drug; PEER: Patients Experience Evidence Research; SR: systematic review.

## KQ5. Coverage Policies

In our review of coverage policies, we focused on the following services and associated Current Procedural Terminology (CPT) service codes (see Table J1 for full code descriptions)<sup>134</sup>:

- **Acupuncture (traditional):** 97810, 97811, 97813, 97814
- **Dry needling:** 20560, 20561

Where possible, we distinguish between different types of acupuncture covered under the health plans and state Medicaid policies. See Table I1 for more details and excerpts from specific policies.

### Medicare

*Medicare covers both traditional acupuncture and dry needling services for chronic lower back pain.*

After opting not to cover acupuncture services for fibromyalgia and osteoarthritis in 2004,<sup>135,136</sup> in 2020, CMS issued National Coverage Determination No. 30.3.3: “Acupuncture for Chronic Lower Back Pain (cLBP),” which became effective in January 2020.<sup>15</sup>

The decision provided coverage only for the indication of chronic lower back pain, which was defined as lasting at least 12 weeks with no identifiable systemic cause or association with surgery or pregnancy.<sup>15</sup> The policy covers 12 acupuncture visits within 90 days, an additional 8 sessions if patients are demonstrating improvement (no more than 20 treatments annually), and requires that treatment is discontinued if the condition is not improving or in regression.<sup>15</sup> The decision covers both traditional acupuncture and dry needling codes, and states that all types of acupuncture, including dry needling, are not covered for any condition outside of chronic lower back pain.<sup>15,52,137</sup>

The coverage determination specifies that physicians can provide acupuncture services in line with state requirements; additional eligible treating providers include physician assistants, nurse practitioners, clinical nurse specialists, and auxiliary personnel who meet state requirements and have a masters or doctoral degree in acupuncture or Oriental Medicine from an accredited school and a state or territorial license to practice acupuncture.<sup>15,52,137</sup> However, auxiliary personnel providing acupuncture services (e.g., a licensed acupuncturist) must operate under the supervision of a physician, physician assistant, or nurse practitioner or clinical nurse specialist.<sup>15,52,137</sup>

In 2023, CMS issued a notice clarifying that dry needling CPT codes are also covered alongside traditional acupuncture codes, specifying that reported dry needling codes equal one session counted toward the policy’s annual limit of 20, and stating that traditional acupuncture codes and dry needling codes are *not* allowed to be billed on the same date of service.<sup>52</sup> The 2026 Medicare physician fee schedule payment amounts for acupuncture and dry needling service CPT codes are listed in Table 12.<sup>138</sup>

Table 12. Acupuncture Service Prices From Medicare Physician Fee Schedule

CPT Code and Description	Non-Facility Price	Facility Price
Traditional acupuncture codes		
97810 (Initial 15 minutes, no electrical stimulation)	\$48.10	\$27.39
97811 (Additional 15 minutes, no electrical stimulation)	\$28.39	\$20.71
97813 (Initial 15 minutes, with electrical stimulation)	\$56.45	\$33.40
97814 (Additional 15 minutes, with stimulation)	\$28.72	\$21.04
Dry needling codes		
20560 (Needle insertion(s) without injection/s; 1 or 2 muscle/s)	\$24.72	\$12.36
20561 (Needle insertion/s without injection/s; 3 or more muscle/s)	\$38.08	\$19.71

Source. Medicare Physician Fee Schedule.<sup>138</sup>

Abbreviations. CPT: Current Procedural Terminology code.

### Health Plans

Of the reviewed 8 health plans, 6 (Aetna, Anthem BlueCross BlueShield, Cigna, Fidelis Care, MetroPlus, UnitedHealthcare) appear to cover traditional acupuncture services for chronic low back pain (or no specified diagnosis) for at least some of their commercial offerings, and 3 of those plans cover the services for broader indications. None of those 6 plans affirmatively cover dry needling services, and 2 explicitly do not. An additional health plan (Molina Healthcare) does not currently offer commercial plans in New York State, but does cover acupuncture services in certain other state commercial plans. The remaining health plan (Healthfirst) does not show any indication of acupuncture coverage for commercial plans.

Most of the insurers also offer standard Medicare Advantage and Medicare-Medicaid dual-eligible plans. These plans all cover the core Medicare acupuncture benefit for chronic low back pain, and many also offer additional supplemental acupuncture visits for other conditions.

Among the 6 insurers that also offer New York Medicaid managed care organization (MCO) plans for nonelderly adults, none referenced any coverage of acupuncture services for New York Medicaid members. See Table 13 for summary details.

Table 13. Acupuncture Service Coverage Among Comparator Commercial Health Plans

Traditional Acupuncture	Dry Needling	NY Medicaid MCO	Indications	Additional Notes
<b>Aetna</b> <sup>53,63,139</sup>				
Yes	No	N/A	Low back pain; chronic neck pain or headache lasting 12 or more weeks in duration; pregnancy-related nausea; knee or hip osteoarthritis pain; postoperative and chemotherapy-related nausea and vomiting; postoperative dental pain; temporomandibular disorders	Re-evaluation at 4 weeks if no benefit, must show improvement to continue  Medicare Advantage and dual-eligible plans may offer additional acupuncture services for non-CLBP indications
<b>Anthem BlueCross BlueShield</b> <sup>54,62,140</sup>				
Yes	No mention	No mention	Chronic back or neck pain; surgery-, chemotherapy- and pregnancy-related nausea or vomiting; knee or hip chronic osteoarthritis; cancer pain; chronic recurring tension headache; chronic recurring migraine headache	Must show persisting condition and documented ongoing benefit to continue  All related commercial policies may not cover services  Dual-eligible plans cover additional visits for non-CLBP indications
<b>Cigna</b> <sup>55,141-145</sup>				
Yes	No	N/A	Musculoskeletal joint and soft tissue pain resulting in a functional deficit; tension-type and migraine headaches, and pregnancy-associated, post-surgical, and chemotherapy-associated nausea	Must show progression toward goals through functional improvements to continue  Moxibustion also not covered
<b>Fidelis Care</b> <sup>56,146-148</sup>				
Yes	No mention	No mention	Not listed	Acupuncture service type not specified  Medicare Advantage plans may offer additional acupuncture services for non-CLBP indications
<b>Healthfirst</b> <sup>61,149-152</sup>				
No	No mention	No mention	N/A	Medicare Advantage and dual-eligible plans may offer additional acupuncture services for non-CLBP indications

Traditional Acupuncture	Dry Needling	NY Medicaid MCO	Indications	Additional Notes
MetroPlus <sup>57,58,77,153,154</sup>				
Yes	No mention	No mention	Not limited to a specific diagnosis	Dual-eligible plan offers additional acupuncture services for non-CLBP indications  PA required
Molina Healthcare <sup>60,155-159</sup>				
N/A	N/A	No mention	N/A	No commercial plans offered in NY (acupuncture covered in certain other states)  Dual-eligible plan offers additional acupuncture services for non-CLBP indications
UnitedHealthcare <sup>59,160-164</sup>				
Yes (likely)	No mention	No mention	Not listed	All related commercial policies may not cover services

Source. Health plan websites for Aetna, Anthem BlueCross BlueShield, Cigna, Fidelis Care, Healthfirst, MetroPlusHealth, Molina Healthcare, and UnitedHealthcare.

Note. Traditional acupuncture services are typically CPT codes 97810, 97811, 97813, and 97814. Dry needling services are typically CPT codes 20560 and 20561.

Abbreviations. CLBP: chronic low back pain; CPT: Current Procedural Terminology code; MCO: managed care organization; N/A: not applicable; NY: New York; PA: prior authorization.

### Aetna

Aetna's core commercial policy covers traditional acupuncture service codes for chronic low back pain through a specific service guideline, along with additional indications. It does not cover dry needling services.

### Commercial

Aetna's commercial acupuncture policy covers traditional acupuncture service codes delivered by a health care provider practicing within their scope of license, and it considers the services to be medically necessary for: chronic neck pain or headache lasting 12 or more weeks in duration, low back pain, pregnancy-related nausea, knee or hip osteoarthritis pain, postoperative and chemotherapy-related nausea and vomiting, postoperative dental pain, and temporomandibular disorders.<sup>53</sup> Aetna also has a complementary and alternative medicine policy that covers acupuncture and references the specific service policy.<sup>139</sup>

The acupuncture policy does not cover the services as maintenance treatment, requires that patients be re-evaluated if there is no clinical benefit after 4 weeks, and considers additional treatment not medically necessary if there is not meaningful symptom improvement.<sup>53</sup> The

treatment must demonstrate reasonable expectation of improvement, and results must demonstrate that acupuncture is contributing to a patient's improvement.<sup>53</sup>

Traditional acupuncture services for conditions other than those specifically covered, and dry needling services for *all* conditions, are considered experimental and therefore not covered; this also applies to certain specialized acupuncture techniques and adjunct services.<sup>53</sup> The Aetna policy on complementary and alternative medicine lists moxibustion as experimental.<sup>139</sup>

### Medicaid

Aetna does not offer a standard Medicaid managed care plan, but it does offer a managed long-term care plan. The member handbook for that plan does not mention acupuncture services.<sup>165</sup>

### Medicare Advantage

Aetna's Medicare Advantage plans within the state cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination, and some standard Medicare Advantage plans also cover an additional 12 visits each year for additional conditions by a licensed acupuncturist.<sup>63</sup> Certain Aetna plans for dually eligible Medicare-Medicaid members do the same.<sup>63</sup>

### *Anthem BlueCross BlueShield*

*Anthem BlueCross BlueShield's core commercial policy covers traditional acupuncture service codes for chronic low back pain through a specific service guideline, along with additional indications. Acupuncture is not mentioned within its New York Medicaid MCO plan.*

### Commercial

The core Anthem BlueCross BlueShield commercial acupuncture policy covers traditional acupuncture service codes, and it considers the services to be medically necessary for: back or neck pain persisting for more than 12 weeks despite medication and physical therapy; nausea or vomiting associated with surgery, chemotherapy, pregnancy; chronic knee or hip osteoarthritis significantly affecting daily activity; cancer pain; tension headache recurring for more than 12 weeks despite medication or behavioral therapy (such as biofeedback or relaxation therapy); or recurring migraine headache for more than 12 weeks despite medication treatment.<sup>54</sup>

To continue treatment, the patient must continue experiencing the condition and the physician must document ongoing benefit from the service.<sup>54</sup> Other conditions are considered not medically necessary, including acupuncture using anesthesia. The policy does not reference or cover codes for dry needling services.<sup>54</sup>

While the core commercial policy covers the service, certain individual Anthem commercial plans within New York State (for example, from New York's health insurance exchange) may not.<sup>166</sup>

### Medicaid MCO

Acupuncture services are not referenced within the Anthem BlueCross BlueShield New York Medicaid handbook or managed long-term care program handbook.<sup>140,167</sup>

### Medicare Advantage

Anthem Medicare Advantage plans available within the state cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination, and certain plans for dually eligible Medicare-Medicaid members also cover an additional 24 supplemental visits to treat illness and pain.<sup>62</sup>

### Cigna

*Cigna's core commercial policy covers traditional acupuncture service codes for chronic low back pain through a specific service guideline, along with additional indications. It does not cover dry needling services.*

### Commercial

Cigna's core commercial acupuncture policy covers traditional acupuncture service codes, and it considers the services to be medically necessary for: musculoskeletal joint and soft tissue pain resulting in a functional deficit; tension-type and migraine headaches, and pregnancy-associated, post-surgical, and chemotherapy-associated nausea.<sup>55</sup> The coverage specifies that treatment continuation is contingent on patient progress shown through objective functional improvements.<sup>55</sup> Nausea-related conditions require the patient to be co-managed by a physician.<sup>55</sup> The policy does not consider acupuncture to be medically necessary for improving or maintaining general physical condition, and it also does not cover acupuncture as maintenance therapy if significant therapeutic improvement is not expected.<sup>55</sup> It considers acupuncture point injection therapy to be experimental, investigational, and unproven.<sup>55</sup> A 2021 Cigna document on evidence-based treatment guidelines for lower back pain references acupuncture as an option for chronic situations.<sup>168</sup>

The Cigna acupuncture policy only lists the traditional acupuncture CPT codes as covered.<sup>55</sup> In its documentation guidelines, the policy states that "related passive modalities" such as indirect moxibustion may be included in an acupuncture treatment session<sup>55</sup>; however, the Cigna policy on complementary and alternative medicine lists moxibustion therapy itself as experimental, investigational, or unproven.<sup>144</sup> The Cigna policies for physical therapy, occupational therapy, and chiropractic care list the dry needling CPT codes as experimental, investigational, or unproven.<sup>142,143,145</sup>

### Medicare Advantage

Prior to selling off its Medicare Advantage business in 2025,<sup>169</sup> Cigna's Medicare Advantage plans in New York only covered the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination.<sup>141</sup> It did not appear to offer any dual-eligible plans in New York, and dual-eligible plans in another state (Texas) did not include any acupuncture coverage beyond the core Medicare benefit.<sup>141</sup>

### Fidelis Care

*Certain Fidelis Care commercial plan types cover up to 12 acupuncture visits per year, but no indication is specified. Acupuncture is not mentioned within its New York Medicaid MCO plan.*

### Commercial

Within listed Fidelis Care commercial plans, 2 individual plan products cover 12 acupuncture visits per year with copayments—the Gold Wellness and Silver One products.<sup>146,170,171</sup> The plan documentation does not indicate which conditions the services are covered for or other coverage criteria, including the specific acupuncture codes (e.g., traditional acupuncture codes vs. dry needling).<sup>170,171</sup> Other commercial plans offered by Fidelis do not appear to include acupuncture.<sup>172</sup>

### Medicaid MCO

Acupuncture services are not referenced within the Fidelis Care New York Medicaid handbook or managed long-term care program handbook.<sup>147,173</sup>

### Medicare Advantage

Fidelis Medicare Advantage plans available within the state cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination, and certain standard Medicare Advantage plans also cover additional supplemental visits for other conditions (between 12 and 24 visits).<sup>148</sup> Dual-eligible plans appear to only cover the core Medicare benefit for chronic lower back pain.<sup>148</sup>

### Healthfirst

*Acupuncture is not covered within Healthfirst commercial plan offerings. Acupuncture is not mentioned within its New York Medicaid MCO plan.*

### Commercial

Within listed Healthfirst commercial plans, acupuncture is listed under the “Likely not covered services” category within plan benefit summary documents.<sup>61</sup>

### Medicaid MCO

Acupuncture services are not referenced within the Healthfirst New York Medicaid handbook or managed long-term care program handbook.<sup>151,152,174</sup>

### Medicare Advantage

Healthfirst Medicare Advantage plans cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination, and also cover an additional 12 supplemental visits for other conditions.<sup>149</sup> Dual-eligible plans cover between 12 and 40 supplemental visits.<sup>150</sup>

### MetroPlusHealth

*For certain commercial plan types, MetroPlusHealth covers traditional acupuncture service codes for up to 8 visits a year for chronic low back pain through a specific service guideline (coverage is not limited to a specific diagnosis). Acupuncture is not mentioned within its New York Medicaid MCO plan.*

### Commercial

MetroPlus has a formal acupuncture medical policy that applies to its Medicare offerings and qualified health plan commercial plans on and off the New York State individual exchange.<sup>57</sup> For individual qualified health plans, it covers up to 8 acupuncture visits per plan year for Non-

Standard plan offerings at every metal level (e.g., Platinum or Gold plans) with applicable cost sharing-plans sold both on and off of the state's individual exchange.<sup>57,58,175</sup> The 8-visit limit does not apply to acupuncture services for the treatment of mental health conditions or substance use disorder.

The medical policy references the traditional acupuncture service CPT codes and does not provide guidance on dry needling service codes for plans outside of Medicare.<sup>57</sup> Treating providers must be licensed to provide the services.<sup>57</sup> Additionally, up to 10 acupuncture sessions a year are covered for certain versions of MetroPlus health plans for New York City employees.<sup>176</sup>

The MetroPlus commercial medical policy limits billing to only acupuncture services or Evaluation or Management (E/M) services on the same day, not both.<sup>57</sup> Prior authorization for the services is required.<sup>57</sup>

### Medicaid MCO

Acupuncture services are not referenced within the MetroPlus New York Medicaid handbook or managed long-term care plan member handbook.<sup>77,154,177,178</sup>

### Medicare Advantage

The MetroPlus acupuncture medical policy covers the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination and includes the CMS-eligible treating provider requirements.<sup>57</sup> The MetroPlus standard Medicare Advantage plan only covers the core benefit,<sup>153</sup> while the dual-eligible plan covers an additional 20 supplemental visits for other conditions.<sup>153</sup>

### Molina Healthcare

*Molina does not currently offer commercial plans in New York; its commercial marketplace plans cover acupuncture services for chronic lower back pain in certain other states. Acupuncture is not covered within its New York Medicaid MCO plan.*

### Commercial

Molina Healthcare is not currently participating in the New York commercial insurance market or individual marketplace, aside from the New York Essential Plan.

Molina did author 2025 benefit interpretation policies on complementary alternative medicine and pain management for its marketplace and commercial plans in other states (California, Florida, Idaho, Illinois, Kentucky, Michigan, Mississippi, Nevada, New Mexico, Ohio, South Carolina, Texas, Utah, Washington, Wisconsin).<sup>60,156</sup> That review listed some level of acupuncture coverage for the following states, including several policies that would presumably cover chronic low back pain<sup>60,156</sup>:

- **California:** Treatment of nausea or as part of a comprehensive pain management program for the treatment of chronic pain
- **Illinois:** Diabetes related
- **New Mexico:** Unspecified conditions (mentions pain and anesthesia, but not limited to those); 20 visits/year limit unless prescribed for habilitative or rehabilitative purposes

- **Washington:** Unspecified conditions; 12 visits/year limit without referral unless for treatment of chemical dependency (no limits)

Acupuncture is not covered in Florida, Idaho, Kentucky, Michigan, Mississippi, Nevada, Ohio, South Carolina, Texas, Utah, Wisconsin.<sup>60</sup>

A Molina clinical policy bulletin for plantar fasciitis also states that acupuncture and dry needling are experimental, investigational, and unproven for that indication.<sup>179</sup>

### Medicaid MCO

Acupuncture services are not referenced within Molina's New York Medicaid handbook or managed long-term care program handbook, aside from stating that acupuncturists are a provider type that requires credentialing.<sup>157,158</sup> The 2024 Molina provider manual for New York Medicaid stated that acupuncture services were not covered<sup>155</sup> (the 2026 version does not include the same summary list of covered benefits<sup>180</sup>).

### Medicare Advantage

The Molina dual-eligible plans available cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination, and also cover an additional 30 supplemental visits for a list of other conditions (but not for the treatment of asthma or addiction and smoking cessation).<sup>159</sup>

### UnitedHealthcare

*United appears to cover some level of traditional acupuncture service codes for commercial and individual marketplace plans, but it does not maintain a specific medical policy that lists covered indications. Acupuncture is not mentioned within the United New York Medicaid MCO plan.*

### Commercial

United maintains a reimbursement policy for billing acupuncture services that applies to its core commercial and individual exchange business line, implying some level of coverage.<sup>59</sup> However, the policy only addresses billing-related issues (e.g., maximum billing units for each acupuncture-related code) and does not list specific covered conditions.<sup>59</sup> The reimbursement guidance only addresses traditional acupuncture service CPT codes (97810, 97811, 97813, 97814) and Healthcare Common Procedure Coding System code S8930 for electrical stimulation of auricular acupuncture points.<sup>59</sup> The dry needling CPT codes (20560 and 20561) were removed from the reimbursement guidelines in 2023.<sup>59</sup>

No acupuncture medical policy appears in its documentation for the New York region.<sup>181</sup> A separate benefit interpretation policy focused on complementary and alternative medicine for its UnitedHealthcare West line (California plans) says that for California small-group plans, acupuncture services are typically only covered "as part of a comprehensive pain management program for the treatment of chronic pain" or for nausea; they are generally not covered otherwise.<sup>182</sup> However, this guidance appears to be specific to certain United geographic regions and business lines outside of New York.

While the core commercial reimbursement policy appears to cover acupuncture, certain United commercial plans offered within New York State (for example, from New York's health insurance

exchange) may not.<sup>183,184</sup> The United provider administrative guide for commercial and individual plans says that for the company's Oxford commercial line, acupuncture is covered only for members who have an alternative medicine plan rider section.<sup>162</sup> For those enrollees, acupuncture services must be delivered by an in-network licensed acupuncturist, naturopath, or credentialed physician acupuncturist.<sup>162</sup>

### Medicaid MCO

Acupuncture services are not referenced within the United New York Medicaid MCO handbook.<sup>160</sup>

### Medicare Advantage

United Medicare Advantage plans available within the state cover the core Medicare acupuncture benefit for chronic lower back pain detailed under the national coverage determination.<sup>164</sup> Plans for dually eligible Medicare-Medicaid beneficiaries also cover the core Medicare benefit but do not appear to offer additional supplemental visits.<sup>163</sup>

### Medicaid

Of the 9 reviewed state Medicaid agencies, 4 (California, Massachusetts, New Jersey, Oregon) cover traditional acupuncture services for chronic low back pain, and all of those states cover the services for broader indications or no specified diagnosis; 2 of those 4 states (California, New Jersey) also cover dry needling services. Of the 9 reviewed states, 2 (Florida, Washington) cover dry needling service codes on their fee schedule, but not traditional acupuncture codes. The remaining 3 states (North Carolina, Pennsylvania, Texas) do not cover acupuncture or dry needling services. See Table 14 for summary details.

Table 14. Acupuncture Service Coverage Among Comparator Medicaid Agencies

State	Traditional Acupuncture	Dry Needling	Indications	Guidance on Acupuncture Provider Type	Additional Notes
California <sup>64,185-187</sup>	Yes	Yes	Chronic pain	Acupuncture policy requires services to be performed by certified acupuncturists, physicians, dentists, podiatrists  Acupuncturists are eligible to enroll as Medicaid provider	2 services/month  Dry needling codes covered on fee schedule, but do not appear as part of acupuncture policy
Florida <sup>70,188-195</sup>	No	Yes	Not listed	Not listed	Acupuncture listed as expanded benefit option in MCO model contract; 6 of 8 MCOs appear to offer
Massachusetts <sup>65,196-202</sup>	Yes	No	Pain and detoxification <i>(anesthetic use included in other service manuals)</i>	Main acupuncture policy focuses on licensed acupuncturist provider type; other service manuals also include physicians  Acupuncturists are eligible to enroll as Medicaid provider (added in 2022)	1 visit/4 weeks; 20 per year before PA required
New Jersey <sup>66,67,203</sup>	Yes	Yes	Not listed	Not listed  Acupuncturists not included as a provider type option in Medicaid enrollment portal	
New York <sup>94,95,97</sup>	No	No	N/A	N/A	Submitted SPA to cover acupuncture for CLBP in 2020 through phased-in approach, but SPA was not finalized
North Carolina <sup>72,204,205</sup>	No	No	N/A	N/A	Certain MCOs appear to offer acupuncture as a value-added service

State	Traditional Acupuncture	Dry Needling	Indications	Guidance on Acupuncture Provider Type	Additional Notes
Oregon <sup>68,69,108,206,207</sup>	Yes	No	Back and spine pain, pregnancy, substance use disorder, tobacco dependence, cancer pain, chronic mental health, scoliosis, migraine and tension headaches, and osteoarthritis	Licensed acupuncturists included in State Plan and are eligible to enroll as Medicaid provider	Various annual visit limits, generally 6 to 12 but more for high-risk back pain  Oregon HERC recommended acupuncture as treatment for low back pain in 2012
Pennsylvania <sup>73</sup>	No	No	N/A	N/A	
Texas <sup>74</sup>	No	No	N/A	N/A	
Washington <sup>71,76,105,107,208</sup>	No	Yes	Not listed	Not listed	Proposed acupuncture benefit paused in 2024 after state finance directive (would have covered low back pain)  Certain MCOs appear to offer acupuncture as a value-added service  Washington HTA recommended acupuncture as treatment for chronic migraine headaches in 2021

Sources. State Medicaid agency websites and MCO plans for California, Florida, Massachusetts, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Texas, and Washington.

Notes. Traditional acupuncture services are typically CPT codes 97810, 97811, 97813, and 97814. Dry needling services are typically CPT codes 20560 and 20561.

Abbreviations. CLBP: chronic low back pain; HERC: Health Evidence Review Commission; HTA: health technology assessment; MCO: managed care organization; N/A: not applicable; PA: prior authorization; SPA: state plan amendment.

## California

*California Medicaid covers traditional acupuncture service codes for chronic low back pain through a specific service policy, along with additional pain-related indications. It also covers dry needling service codes.*

Through a standalone policy, California Medicaid covers traditional acupuncture service codes to “prevent, modify or alleviate the perception of severe, persistent chronic pain resulting from a generally recognized medical condition” that is also covered by other treatment modalities.<sup>64</sup> Outpatient acupuncture services are limited to 2 services per calendar month, or 2 total services per month among the following categories (acupuncture, audiology, chiropractic, occupational therapy, podiatry and speech therapy).<sup>64</sup>

No prescriptions or prior authorizations are required, and services must be provided by a Medicaid-enrolled physician, dentist, podiatrist or certified acupuncturist; they cannot be provided by a physician assistant, nurse practitioner, or certified nurse midwife.<sup>64</sup> Acupuncturists are designated as a provider type eligible to enroll in the Medicaid program.<sup>187</sup> All of the traditional acupuncture service CPT codes (97180, 97811, 97813, 97814) have a maximum allowance of \$20.00, following an SPA to increase the rates in 2023.<sup>185,209,210</sup>

The policy only references the traditional acupuncture CPT codes and does not mention dry needling or other acupuncture services<sup>64</sup>; however, the CPT codes for dry needling appear on the state fee schedule (\$23.08 reimbursement for 20560 and \$34.25 for 20561; only linked to primary surgeon and podiatrist provider types).<sup>209</sup> Those codes are not payable when administered by an assistant surgeon.<sup>209</sup>

In 2009, California Medicaid cut its acupuncture coverage services; they were eventually restored in 2016 through state legislation and a subsequent SPA.<sup>104,186</sup> Although the state has considered cutting them again during recent budgets, coverage has been preserved.<sup>102-104</sup>

## Florida

*The Florida Medicaid fee-for service program does not cover traditional acupuncture service codes but does cover dry needling service codes. The agency’s managed care contracts do include acupuncture services as an expanded benefit that Medicaid MCOs may cover, and a majority of plans offer some type of coverage typically focused on the treatment of pain.*

Florida Medicaid does not list traditional acupuncture service codes 97810, 97811, 97813, and 97814 on its fee schedule.<sup>70</sup> However, it does list dry needling service codes on the practitioner fee schedule (\$19.22 non-facility/\$10.34 facility payment for 20560; \$29.61/\$15.62 for 20561).<sup>70</sup> No specific covered indications were identified for the dry needling service codes.

Within the state’s model contract for Medicaid MCO plans, acupuncture is listed as an “expanded benefit” that plans may decide to cover for adults during contracting (already covered for children when medically necessary).<sup>189</sup> Based on a summary document prepared by the Florida Medicaid agency, 6 of its 8 MCO plans were covering acupuncture services as an expanded benefit in 2025.<sup>190</sup> A brief review of those state Medicaid MCO plans showed that coverage typically was focused broadly on treating pain, with frequency criteria ranging from unlimited to specific visit or time unit limits during the year.<sup>188,191-195</sup> One MCO plan limited the

coverage to HIV specialty plan members.<sup>192,211</sup> Prior authorization was typically required (see Table I1 for more details).<sup>188,191-195</sup>

### **Massachusetts**

*Massachusetts Medicaid covers traditional acupuncture service codes for the treatment of low back pain through a specific service policy, along with additional pain-related indications and for detoxification use. It does not cover dry needling service codes.*

Through an SPA and standalone policy released in 2022, Massachusetts Medicaid added coverage for traditional acupuncture service codes delivered by licensed acupuncturists for the treatment of pain and to address detoxification.<sup>65,196,197,199,212</sup> At that time, the agency also added acupuncturists as a provider type eligible for enrollment in the Medicaid program, which eliminated a prior requirement that acupuncturist services could only be reimbursed through a supervising physician.<sup>65,198,201</sup> The acupuncture services policy requires a re-evaluation of the treatment plan after 4 sessions if no clinical benefit is experienced, and further acupuncture treatment is not medically necessary if there is no meaningful symptom improvement.<sup>65</sup> The policy limits patients to 1 office visit every 4 weeks and 20 total treatments per calendar year; prior authorization is required for visits beyond the annual limit.<sup>65</sup> The Medicaid agency does not reimburse for dry needling or for acupuncture for purposes outside of the covered indications, including infertility.<sup>65</sup>

Medicaid-enrolled acupuncturists must be licensed as an acupuncture provider by the Massachusetts Board of Registration in Medicine (or in their own state if an out-of-state provider).<sup>65,196</sup> Acupuncturists are required to report results of the services to a Medicaid member's primary care provider in writing.<sup>65</sup> Massachusetts Medicaid also provides coverage of acupuncture services under other policy manuals (e.g., acute outpatient hospital, community health centers) for pain management, detoxification, and as an anesthetic, with both physicians and licensed acupuncturists listed as eligible provider types.<sup>200,202</sup>

The 4 traditional acupuncture CPT codes have the following reimbursement rates on the state fee schedule<sup>213</sup>:

- **97810:** \$22.72 facility, \$28.88 non-facility
- **97811:** \$19.20 facility, \$21.61 non-facility
- **97813:** \$24.75 facility, \$34.39 non-facility
- **97814:** \$20.96 facility, \$27.93 non-facility

### **New Jersey**

*New Jersey Medicaid covers traditional acupuncture and dry needling service codes. However, no policy information was found regarding eligible conditions or other coverage criteria.*

New Jersey Medicaid covers traditional acupuncture and dry needling service CPT codes and lists the following reimbursement rates on the state fee schedule (no prior authorization required)<sup>66</sup>:

- **97810:** \$22.83 specialist, \$19.41 nonspecialist (child provider rates \$29.98/\$25.48)
- **97811:** \$12.96 specialist, \$11.01 nonspecialist (child provider rates \$22.83/\$19.41)
- **97813:** \$26.27 specialist, \$22.33 nonspecialist (child provider rates \$31.68/\$26.93)

- **97814:** \$14.65 specialist, \$12.45 nonspecialist (child provider rates \$25.55/\$21.72)
- **20560:** \$12.59 specialist, \$10.70 nonspecialist
- **20561:** \$18.38 specialist, \$15.62 nonspecialist

On the state's Medicaid physician training manual, acupuncture is listed as a covered benefit for the core Medicaid program for adults and children.<sup>67</sup> For certain other types of plans, it is a covered benefit only when performed as a form of anesthesia in connection with covered surgery.<sup>214,215</sup> No explicit guidance was found for billing provider types, and acupuncturists are not a provider type option within the agency's Medicaid provider enrollment portal.<sup>203</sup>

The state's 5 Medicaid MCO plans all list acupuncture as a covered benefit, but do not include any coverage criteria.<sup>216-220</sup>

### **New York**

*New York Medicaid does not cover acupuncture services for any indications.*

Acupuncture service CPT codes 97810, 97811, 97813, and 97814 (traditional acupuncture), and 20560 and 20561 (dry needling) are not on the New York State fee schedule.<sup>94</sup>

In December 2020, the New York Medicaid agency submitted an SPA request to CMS seeking to add coverage of acupuncture services and chiropractor services to treat chronic lower back pain.<sup>95</sup> The request was based on a 2020 state law that authorized the state's health commissioner to establish pilot programs for counties or regions in the state to promote nonpharmacologic alternatives to opioid treatment for patients with lower back pain, in response to the ongoing opioid crisis.<sup>95,96</sup> The SPA request to CMS proposed to phase in statewide coverage of the services over time, with initial coverage in certain regions.<sup>95</sup> The state requested early SPA submission to discuss the phased-in approach with CMS.<sup>95</sup> However, the SPA was not finalized (New York State Medicaid, personal communication).<sup>97</sup> The only notable mention of acupuncture services in the State Plan is within a section on special care for members with HIV/AIDS.<sup>98</sup>

### **North Carolina**

*North Carolina Medicaid does not cover acupuncture services for any indications.*

Acupuncture service CPT codes 97810, 97811, 97813, and 97814 (traditional acupuncture), and 20560 and 20561 (dry needling) are not on the North Carolina state fee schedule.<sup>72</sup> The state's clinical coverage policy for chiropractic services also specifies that acupuncture is not a covered modality for a chiropractor,<sup>221</sup> and the clinical coverage policy for dental services specifies in its section on anesthesia that Medicaid does not cover acupuncture.<sup>222</sup>

Some of the state's Medicaid MCO plans appear to offer acupuncture services as a value-added benefit.<sup>204,205</sup>

### **Oregon**

*Oregon Medicaid covers traditional acupuncture service codes for chronic low back pain through specific clinical policies, along with additional indications. It does not cover dry needling service codes. The Oregon Health Evidence Review Commission (HERC) previously conducted a review of evidence*

*and treatment recommendations for nonpharmacologic and noninvasive interventions for low back pain, and recommended acupuncture as a treatment for coverage; traditional acupuncture was subsequently added into Oregon Medicaid's specific clinical coverage criteria.*

Oregon Medicaid covers traditional acupuncture service codes on its state fee schedule,<sup>68,223</sup> and acupuncture services are a listed category within the summary document for the Medicaid plan,<sup>224</sup> as well as overview pages for the program's medical and behavioral health benefits.<sup>225,226</sup>

The 4 CPT codes have the following reimbursement rates on the Medicaid fee schedules<sup>68,223</sup>:

- **97810:** \$24.48 facility, \$36.64 non-facility, \$21.30 behavioral health fee schedule (within addiction treatment program and facility)
- **97811:** \$18.70 facility, \$20.86 non-facility, \$10.66 behavioral health
- **97813:** \$29.56 facility, \$42.25 non-facility, \$21.30 behavioral health
- **97814:** \$18.97 facility, \$23.56 non-facility, \$10.66 behavioral health

Oregon Medicaid provides specific clinical coverage criteria for the use of acupuncture in the following areas<sup>69</sup>:

- **Scoliosis and back/spine conditions:** 4 total visits for low-risk patients, 30 total visits for medium or high-risk patients among a group of treatment types (acupuncture, physical/occupational therapy, osteopathic or chiropractic manipulative treatment)
- **Pregnancy:** Hyperemesis gravidarum (up to 12 sessions per pregnancy); breech presentation (6 sessions); back and pelvic pain (12 sessions)
- **Substance use disorder related:** As part of broader treatment plan
- **Tobacco dependence:** 12 sessions per quit attempt (2 attempts per year); more with medical authorization
- **Active cancer:** 12 sessions per year; more with medical authorization
- **Chronic organic mental disorders (including dementia):** 12 sessions per year, maximum of 30 minutes; more with medical authorization
- **Migraine headaches:** 12 sessions per year
- **Tension headaches:** 12 sessions per year
- **Osteoarthritis:** 12 sessions per year

Oregon's Medicaid State Plan includes acupuncturists as a licensed practitioner type,<sup>109</sup> and they are eligible to enroll as Medicaid provider.<sup>207</sup> The State Plan includes details about provider qualifications for delivering acupuncture services in a section on rehabilitative substance use disorder services.<sup>109</sup> Acupuncturists providing health care services under the State Plan must graduate from an accredited acupuncture program, have a current certification in acupuncture from the appropriate national commission, and be licensed by the Oregon Medical Board (or in certain cases have a minimum of 5 years of licensed practice elsewhere in the United States prior to obtaining their Oregon licensure).<sup>109</sup>

Oregon Medicaid does not cover dry needling service codes, and lists the codes within a group of services that are "unproven, have no clinically important benefit or have harms that outweigh benefits and should be excluded from coverage."<sup>68,69,108</sup> The agency added the codes to this category after a 2019 review within the HERC Value-based Benefits Subcommittee concluded there was a lack of evidence of effectiveness.<sup>227</sup> Moxibustion is mentioned once in the Medicaid

clinical coverage criteria alongside acupuncture for the treatment of breech presentation in pregnancy.<sup>69</sup>

In 2012, the Oregon HERC reviewed clinical practice guidelines and associated evidence from the American Pain Society and American College of Physicians on non-pharmacologic, non-invasive interventions for low back pain.<sup>206</sup> The Commission recommended acupuncture as a treatment for pain longer than 4 weeks in duration (among multiple therapeutic options), and the Oregon Medicaid Prioritized List of Health Services was subsequently edited to include acupuncture treatment for low back and neck pain diagnoses.<sup>206</sup> The Commission's recommendation was reaffirmed in 2014.<sup>206</sup>

### **Pennsylvania**

*Pennsylvania Medicaid does not cover acupuncture services for any indications.*

Acupuncture service CPT codes 97810, 97811, 97813, and 97814 (traditional), and 20560 and 20561 (dry needling) are not listed on the Pennsylvania Medicaid state fee schedule,<sup>73</sup> and the Medicaid State Plan explicitly says that acupuncture services are not covered through the program.<sup>228</sup>

A 2018 Medicaid agency bulletin stated that acupuncturists can enroll as providers in the Medicaid program to participate in Medicaid MCO plans—if the plans choose to cover some level of acupuncture services.<sup>229</sup> However, the bulletin affirms that acupuncture is not covered under the fee-for-service program.<sup>229</sup> A model Medicaid MCO contract from the agency highlights acupuncture services as something that cannot be compensated under the fee-for-service program, but it lists them as an exception category of services that MCOs can choose to reimburse.<sup>230</sup> Medicaid MCOs in the state do not appear to not offer the services as a value-added benefit.<sup>231</sup>

### **Texas**

*Texas Medicaid does not cover acupuncture services for any indications.*

The Texas Medicaid provider manual only mentions acupuncture once in its inpatient section, where it clarifies within the anesthesia policy that acupuncture is not a benefit.<sup>232</sup> Acupuncture service CPT codes 97810, 97811, 97813, and 97814 (traditional acupuncture), and 20560 and 20561 (dry needling) are all listed as “not covered” on the state fee schedule.<sup>74</sup> Medicaid MCOs in the state do not appear to not offer the services as a value-added benefit.<sup>233</sup>

### **Washington**

*Washington Medicaid does not cover traditional acupuncture service codes, but it does cover dry needling service codes. The Washington Health Technology Assessment program previously conducted an evidence review and recommended acupuncture as a covered benefit for adults with chronic migraine headache, but the recommendation has not yet been activated by the program.*

Traditional acupuncture service CPT codes 97810, 97811, 97813, and 97814 are all listed as “not covered” on the Washington state fee schedule.<sup>71</sup> The Medicaid provider billing guide states that the agency does not enroll provider types that are not explicitly listed in the state administrative code regulations, including acupuncturists, and that acupuncture is not a covered

benefit for the treatment of chronic migraine or chronic tension-type headache.<sup>234</sup> The Washington state administrative code also lists acupuncture as a noncovered service for the Medicaid program.<sup>235</sup> Washington's Medicaid fee-for-service billing guide for substance use disorder does state that acupuncture is allowed to be part of a billed group therapy session if it is written into the master treatment plan for the member and services are documented in progress notes.<sup>236</sup>

However, Washington Medicaid *does* list dry needling service codes on its fee schedule (\$14.95 non-facility/\$8.60 facility payment for 20560; \$21.87/ \$13.08 for 20561).<sup>71</sup> No specific covered indications were identified for the dry needling service codes.

In 2024, Washington Medicaid issued a notice and bulletin that it planned to add acupuncture services as a covered benefit for members 18 and older through an SPA, starting January 2025.<sup>106,237</sup> This decision was in alignment with state budget bills that had directed the agency to implement the benefit and allocated appropriations for the services.<sup>238,239</sup> The Medicaid agency proposed policy language to cover the services for chronic migraine, chemotherapy-induced nausea and vomiting, chronic musculoskeletal pain (e.g., low back pain), or acute postoperative pain, with a limit of 24 visits per year.<sup>107</sup> The draft policy also stated that dry needling (codes currently listed as "covered" on the fee schedule), Eastern medicine services other than acupuncture, and acupuncture for chronic tension-type or daily headaches were not covered services.<sup>107</sup> However, shortly after the proposed policy, the Medicaid agency issued a notice that it was pausing implementation of the adult acupuncture benefit because of a directive from the Office of Financial Management.<sup>105</sup> Certain Washington Medicaid MCO plans do offer acupuncture services as a value-added benefit (e.g., 7 acupuncture sessions per year or 20 total visits per year for various pain and stress treatments).<sup>76</sup>

The Washington State Health Technology Assessment program has previously reviewed acupuncture as part of an analysis on treatments for chronic migraine and chronic tension-type headache.<sup>208</sup> The original review was conducted in 2017 and did not recommend coverage of acupuncture for the treatment of either condition.<sup>240,241</sup> In 2021, the Washington State Health Care Authority director selected the topic for re-review based on published evidence for the use of acupuncture in the conditions that could change the original determination.<sup>208</sup> The follow-up review recommended acupuncture as a covered benefit for adults with chronic migraine headaches, but not for chronic tension-type or daily headaches.<sup>208,242,243</sup> The coverage recommendation proposed a limit of 24 sessions per year.<sup>243</sup> However, as noted earlier, the Medicaid program paused implementation of a new acupuncture benefit in 2024 that would have included the treatment of chronic migraine headaches.<sup>105,107</sup>

### Other

In our review of state Medicaid waivers, Colorado has an approved 1915(c) home and community-based services (HCBS) waiver that covers complementary and integrative health services in the HCBS setting, including chiropractic services, acupuncture, and massage services.<sup>244</sup> The services are capped at 408 total units per year (any of the service types), and acupuncturists delivering services must be approved Medicaid providers and licensed by the Colorado Department of Regulatory Agencies as required by the state Acupuncturists Practice Act.<sup>244</sup>

Connecticut also recently added Medicaid coverage of acupuncture services in 2021 through an SPA.<sup>245,246</sup>

## Discussion

Our evidence review synthesized information from 16 RCTs reported in 19 publications, 3 ongoing clinical trials, 10 clinical practice guidelines, 1 cost-effectiveness study, and a review of coverage policies from 9 state Medicaid program websites, 8 health plan websites, the Medicaid State Waivers List, and CMS. Acupuncture was the primary focus of the RCTs, with only 2 focused on dry needling interventions.<sup>37,38</sup> Acupuncture was delivered by trained acupuncturists in all but 1 case,<sup>23</sup> and the average course of treatment was 2 acupuncture sessions weekly over a mean of 6 weeks. The dry needling studies took different approaches, with one incorporating a single session of dry needling into an exercise intervention<sup>38</sup> and the other including 1 session of dry needling per week over 6 weeks.<sup>37</sup> In both cases, dry needling was delivered by physiotherapists.<sup>37,38</sup>

Functional status was the primary clinical effectiveness outcome in this evidence review. Meta-analyses and review of individual RCTs found improvement in functional status for acupuncture compared with usual care immediately following treatment and at short-term (1 week to 3 months after treatment) and intermediate follow-up (4 months to 1 year after treatment), with low certainty of evidence.<sup>29,31,33,34,36</sup> There was little evidence of the superiority of acupuncture over sham acupuncture, however, with methodological limitations of RCTs and higher heterogeneity in study results leading to very low certainty of evidence.<sup>25-28,34,36</sup>

Pain intensity was an important outcome in review of clinical effectiveness. Evidence favored acupuncture over usual care at end of treatment, with potentially longer effect, although certainty of evidence was very low.<sup>24,29-31,33,34</sup> Evidence regarding superiority of acupuncture over sham acupuncture was uncertain, with some RCTs showing superiority of acupuncture to sham for pain relief at end of treatment and others finding no difference between acupuncture and sham.<sup>23-27,30,32,34</sup> Evidence related to association of acupuncture to quality of life was similarly mixed, whether acupuncture was compared with usual care<sup>35,36</sup> or sham.<sup>23,25-27,32,34</sup>

In the 2 RCTs related to dry needling, there was low certainty of evidence for an effect in favor of dry needling on functional status compared with usual care but not sham.<sup>37,38</sup> Dry needling led to greater reduction in pain intensity compared with usual care at end of treatment, but there was no difference from sham.<sup>37,38</sup>

Only 4 of 16 acupuncture trials reported serious adverse events. An RCT by Cherkin and colleagues (2009) reported that 1 participant had pain lasting more than 1 month but did not report whether they were in the acupuncture or sham group.<sup>36</sup> A study by DeBar and colleagues (2025) reported 1 incident of lower extremity cellulitis in the acupuncture group.<sup>33</sup> Studies by Brinkhaus and colleagues (2006) and Hake and colleagues (2007) reported that no serious adverse events were treatment-related.<sup>27,34</sup> No studies related to dry needling provided any information on serious adverse events.<sup>37,38</sup> A study by Martin-Corrales and colleagues (2020), which involved a single session of dry needling, reported no difference between dry needling and sham in the proportion of participants reporting post-treatment soreness.<sup>38</sup> Few studies provided details on adverse events; for those that did, the most common adverse events in

acupuncture groups included pain at the acupuncture site, temporarily worsened lower back pain, and reactions at the acupuncture site (bruising, rash).<sup>25,26,28,29,32,33,35</sup>

Evidence related to cost effectiveness was related to a single clinical trial that compared standard acupuncture (up to 15 treatment sessions over 12 weeks) or enhanced acupuncture (standard acupuncture plus up to 6 additional sessions over the next 12 weeks) with usual care in individuals  $\geq 65$  years of age with chronic nonspecific low back pain.<sup>39</sup> While cost utility and cost effectiveness for 672 participants included in analysis did not differ significantly for the standard acupuncture group compared to usual care, participation in the enhanced acupuncture group reduced health care costs by an average of \$491 per participant over one year versus usual care and reduced Medicare reimbursed costs by an average of \$421 per participant.<sup>39</sup> These gains were accompanied by a significant improvement in quality-adjusted life years and a significant increase in the proportion of participants who achieved an MCID in functional outcomes.<sup>39</sup>

Our search identified 10 guidelines: 6 focused on acupuncture alone, 3 addressed both acupuncture and dry needling, and 1 solely focused on dry needling. No clear consensus emerged, with acupuncture recommended by the Hong Kong Task Force of Standardized Acupuncture Practice<sup>21</sup> and North American Spine Society<sup>43</sup> and conditionally recommended as an adjunct to other treatments by the VA<sup>44</sup> and the American College of Occupational and Environmental Medicine.<sup>45</sup> The Canadian Pain Task Force<sup>46</sup> and Japanese Orthopaedic Association<sup>47</sup> both refrained from recommending for or against use of acupuncture for chronic low back pain, citing a lack of evidence. A NICE guideline published in 2021 conditionally recommended acupuncture or dry needling as a treatment for chronic low back pain in conjunction with other treatments.<sup>48</sup> A guideline from the World Health Organization similarly provided a conditional recommendation for needling therapies (acupuncture or dry needling),<sup>49</sup> while a French guideline recommended against needling therapies.<sup>50</sup> The sole guideline to address dry needling independently concluded that dry needling could be considered as an adjunct to other treatments for chronic nonspecific low back pain.<sup>51</sup>

In contrast to the robust Medicare coverage through the 2020 national coverage determination and fairly strong commercial coverage within health plans, Medicaid coverage of acupuncture generally and for chronic low back pain specifically remains inconsistent across the country,<sup>75</sup> with select fee-for-service programs covering the services and variability among Medicaid MCO plans in states that do not.<sup>76</sup> In New York, we found no evidence of Medicaid MCOs opting to cover the services in the absence of coverage by the fee-for-service program.<sup>77</sup> Among Medicaid fee-for-service programs covering acupuncture, we also identified variation in the services covered (e.g., traditional acupuncture vs. dry needling<sup>64-66,69</sup>), eligible conditions, and qualification requirements for treating providers. Medicaid agencies appear more likely to cover dry needling services than commercial plans among the reviewed private insurers. Acupuncture services also appear vulnerable to budgetary pressure, as evidenced by recent Medicaid debates and decisions within the California<sup>102,104</sup> and Washington State<sup>105</sup> programs.

## References

1. Nicol V, Verdaguer C, Daste C, et al. Chronic low back pain: a narrative review of recent international guidelines for diagnosis and conservative treatment. *J Clin Med*. 2023;12(4):20. doi: 10.3390/jcm12041685
2. GBD 2021 US Burden of Disease Collaborators. Burden of disease scenarios by state in the USA, 2022-50: a forecasting analysis for the Global Burden of Disease Study 2021. *Lancet*. 2024;404(10469):2341-2370. doi: 10.1016/s0140-6736(24)02246-3
3. Waters H, Graf M. The costs of chronic disease in the US. Milken Institute. 2018. Accessed September 30, 2025. <https://milkeninstitute.org/sites/default/files/reports-pdf/ChronicDiseases-HighRes-FINAL.pdf>
4. Deyo RA, Von Korff M, Duhkoop D. Opioids for low back pain. *BMJ*. 2015;350:g6380. doi: 10.1136/bmj.g6380
5. Lin CC, Callaghan BC, Burke JF, et al. Prescription opioid initiation for neuropathy, headache, and low back pain: a US population-based medicare study. *J Pain*. 2023;24(12):2268-2282. doi: 10.1016/j.jpain.2023.07.011
6. Baxter AL, Etnoyer-Slaski JL, Williams JAR, Swartout K, Cohen LL, Lawson ML. Preventing opioid prescribing for low back pain using multimodal mechanical stimulation vs. TENS: a randomized-controlled trial. *Front Pain Res (Lausanne)*. 2025;6:1612572. doi: 10.3389/fpain.2025.1612572
7. Liou KT, Korenstein D, Mao JJ. Medicare coverage of acupuncture for chronic low back pain: does it move the needle on the opioid crisis? *J Gen Intern Med*. 2021;36(2):527-529. doi: 10.1007/s11606-020-05871-6
8. Centers for Medicare & Medicaid Services. CMS finalizes decision to cover acupuncture for chronic low back pain for Medicare beneficiaries. 2020. Accessed January 29, 2026. <https://www.cms.gov/newsroom/press-releases/cms-finalizes-decision-cover-acupuncture-chronic-low-back-pain-medicare-beneficiaries>
9. Park SH, Han YJ, Jang JE, Kim KH, SD L. A review of classical literatures on acupuncture points used for the treatment of low back pain. *Journal of Acupuncture Research*. 2024;41:197-208. doi: 10.13045/jar.24.0019
10. van Hal M, Dydyk AM, Green MS. Acupuncture. 2025. Accessed September 30, 2025. <https://www.ncbi.nlm.nih.gov/books/NBK532287/>
11. Cleveland Clinic. What's the difference between dry needling and acupuncture? 2024. Accessed September 30, 2025. <https://health.clevelandclinic.org/dry-needling-vs-acupuncture>
12. Fan AY, Xu J, Li YM. Evidence and expert opinions: Dry needling versus acupuncture (I) : The American Alliance for Professional Acupuncture Safety (AAPAS) White Paper 2016. *Chin J Integr Med*. 2017;23(1):3-9. doi: 10.1007/s11655-016-2630-y

13. Zhou K, Ma Y, Brogan MS. Dry needling versus acupuncture: the ongoing debate. *Acupunct Med*. 2015;33(6):485-490. doi: 10.1136/acupmed-2015-010911
14. Lee S, Lee IS, Chae Y. Similarities between Ashi acupoints and myofascial trigger points: Exploring the relationship between body surface treatment points. *Front Neurosci*. 2022;16:947884. doi: 10.3389/fnins.2022.947884
15. Centers for Medicare & Medicaid Services. National coverage determination 30.3.3: acupuncture for chronic lower back pain (cLBP). 2020. Accessed November 13, 2025. <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=373&ncdver=1>
16. Mao JJ, Davis RT, Coeytaux R, et al. Acupuncture for chronic low back pain: recommendations to Medicare/Medicaid from the Society for Acupuncture Research. *J Altern Complement Med*. 2019;25(4):367-369. doi: 10.1089/acm.2019.29067.jjm
17. Lee B, Kwon CY, Lee HW, et al. Concerns about the use of verum acupuncture points in sham acupuncture studies for pain conditions: findings and insights from network meta-analysis. *Integr Med Res*. 2025;14(1):101122. doi: 10.1016/j.imr.2025.101122
18. Ots T, Kandirian A, Szilagyi I, DiGiacomo SM, Sandner-Kiesling A. The selection of dermatomes for sham (placebo) acupuncture points is relevant for the outcome of acupuncture studies: a systematic review of sham (placebo)-controlled randomized acupuncture trials. *Acupunct Med*. 2020;38(4):211-226. doi: 10.1177/0964528419889636
19. Kim TH, Lee MS, Lee H. Sham acupuncture is not just a placebo. *J Acupunct Meridian Stud*. 2022;15(6):333-335. doi: 10.51507/j.jams.2022.15.6.333
20. Mu J, Furlan AD, Lam WY, Hsu MY, Ning Z, Lao L. Acupuncture for chronic nonspecific low back pain. *Cochrane Database Syst Rev*. 2020;12(12):CD013814. doi: 10.1002/14651858.CD013814
21. Chen HY, Yeung WF, Yang MX, et al. Guideline Acupuncture for low back pain: a clinical practice guideline from the Hong Kong taskforce of standardized acupuncture practice. *J Tradit Chin Med*. 2022;42(1):140-147. doi: 10.19852/j.cnki.jtcm.2022.01.009
22. Kim G, Kim D, Moon H, et al. Acupuncture and acupoints for low back pain: systematic review and meta-analysis. *Am J Chin Med*. 2023;51(2):223-247. doi: 10.1142/S0192415X23500131
23. Kerr DP, Walsh DM, Baxter D. Acupuncture in the management of chronic low back pain: a blinded randomized controlled trial. *Clin J Pain*. 2003;19(6):364-370. doi: 10.1097/00002508-200311000-00004
24. Leibing E, Leonhardt U, Koster G, et al. Acupuncture treatment of chronic low-back pain - a randomized, blinded, placebo-controlled trial with 9-month follow-up. *Pain*. 2002;96(1-2):189-196. doi: 10.1016/s0304-3959(01)00444-4

25. Seo BK, Han K, Kwon O, Jo DJ, Lee JH. Efficacy of bee venom acupuncture for chronic low back pain: a randomized, double-blinded, sham-controlled trial. *Toxins (Basel)*. 2017;9(11). doi: 10.3390/toxins9110361
26. Shin B-C, Kong JC, Park T-Y, Yang C-Y, Kang K-W, Choi S-m. Bee venom acupuncture for chronic low back pain: A randomised, sham-controlled, triple-blind clinical trial. *European Journal of Integrative Medicine*. 2012;4(3):e271-e280. doi: 10.1016/j.eujim.2012.02.005
27. Brinkhaus B, Witt CM, Jena S, et al. Acupuncture in patients with chronic low back pain: a randomized controlled trial. *Arch Intern Med*. 2006;166(4):450-457. doi: 10.1001/archinte.166.4.450
28. Kong JT, Puetz C, Tian L, et al. Effect of electroacupuncture vs sham treatment on change in pain severity among adults with chronic low back pain: a randomized clinical trial. *JAMA Netw Open*. 2020;3(10):e2022787. doi: 10.1001/jamanetworkopen.2020.22787
29. Meng CF, Wang D, Ngeow J, Lao L, Peterson M, Paget S. Acupuncture for chronic low back pain in older patients: a randomized, controlled trial. *Rheumatology (Oxford)*. 2003;42(12):1508-1517. doi: 10.1093/rheumatology/keg405
30. Molsberger AF, Mau J, Pawelec DB, Winkler J. Does acupuncture improve the orthopedic management of chronic low back pain--a randomized, blinded, controlled trial with 3 months follow up. *Pain*. 2002;99(3):579-587. doi: 10.1016/S0304-3959(02)00269-5
31. Yeung CK, Leung MC, Chow DH. The use of electro-acupuncture in conjunction with exercise for the treatment of chronic low-back pain. *J Altern Complement Med*. 2003;9(4):479-490. doi: 10.1089/107555303322284767
32. Cho YJ, Song YK, Cha YY, et al. Acupuncture for chronic low back pain: a multicenter, randomized, patient-assessor blind, sham-controlled clinical trial. *Spine (Phila Pa 1976)*. 2013;38(7):549-557. doi: 10.1097/BRS.0b013e318275e601
33. DeBar LL, Wellman RD, Justice M, et al. Acupuncture for chronic low back pain in older adults: a randomized clinical trial. *JAMA Netw Open*. 2025;8(9):e2531348. doi: 10.1001/jamanetworkopen.2025.31348
34. Haake M, Muller HH, Schade-Brittinger C, et al. German Acupuncture Trials (GERAC) for chronic low back pain: randomized, multicenter, blinded, parallel-group trial with 3 groups. *Arch Intern Med*. 2007;167(17):1892-1898. doi: 10.1001/archinte.167.17.1892
35. Weiss J, Quante S, Xue F, Muche R, Reuss-Borst M. Effectiveness and acceptance of acupuncture in patients with chronic low back pain: results of a prospective, randomized, controlled trial. *J Altern Complement Med*. 2013;19(12):935-941. doi: 10.1089/acm.2012.0338
36. Cherkin DC, Sherman KJ, Avins AL, et al. A randomized trial comparing acupuncture, simulated acupuncture, and usual care for chronic low back pain. *Arch Intern Med*. 2009;169(9):858-866. doi: 10.1001/archinternmed.2009.65

37. Lara-Palomo IC, Antequera-Soler E, Fernandez-Sanchez M, Castro-Sanchez AM, Garcia-Lopez H. Electrical dry needling versus a non-invasive multicomponent intervention in the treatment of myofascial trigger points in patients with chronic low back pain: A randomised clinical trial. *Clin Rehabil*. 2024;38(3):347-360. doi: 10.1177/02692155231201589
38. Martin-Corrales C, Bautista IV, Mendez-Mera JE, et al. Benefits of adding gluteal dry needling to a four-week physical exercise program in a chronic low back pain population. a randomized clinical trial. *Pain Med*. 2020;21(11):2948-2957. doi: 10.1093/pm/pnaa279
39. Herman PM, Mann S, DeBar LL, et al. Cost-Effectiveness of Acupuncture Needling for Older Adults With Chronic Low Back Pain. *Spine (Phila Pa 1976)*. 2026;51(3):E65-E75. doi: 10.1097/BRS.0000000000005549
40. ClinicalTrials.gov. Stanford Center for Back Pain (NCT02503475). 2026. Accessed January 13, 2026. <https://clinicaltrials.gov/study/NCT02503475?term=NCT02503475&rank=1>
41. ClinicalTrials.gov. Peripheral stimulation of acupuncture points for low back pain (NCT04809909). 2026. Accessed January 13, 2026. <https://clinicaltrials.gov/study/NCT04809909?term=NCT04809909&rank=1>
42. ClinicalTrials.gov. Clinical research on the comparative effectiveness and safety of JHG002 therapy for chronic low back pain: a multicenter randomized controlled trial (NCT07304076). 2026. Accessed January 13, 2026. <https://clinicaltrials.gov/study/NCT07304076?term=NCT07304076&rank=1>
43. Kreiner DS, Matz P, Bono CM, et al. Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of low back pain. *Spine J*. 2020;20(7):998-1024. doi: 10.1016/j.spinee.2020.04.006
44. The Diagnosis and Treatment of Low Back Pain Work Group. VA/DoD clinical practice guideline for the diagnosis and treatment of low back pain. Department of Veterans Affairs, Department of Defense. 2022. Accessed October 27, 2025. <https://www.healthquality.va.gov/HEALTHQUALITY/guidelines/Pain/lbp/VADODLBPCPGFinal508.pdf>
45. Hegmann KT, Travis R, Andersson GBJ, et al. Non-invasive and minimally invasive management of low back disorders. *J Occup Environ Med*. 2020;62(3):e111-e138. doi: 10.1097/JOM.0000000000001812
46. Korownyk CS, Montgomery L, Young J, et al. PEER simplified chronic pain guideline: Management of chronic low back, osteoarthritic, and neuropathic pain in primary care. *Can Fam Physician*. 2022;68(3):179-190. doi: 10.46747/cfp.6803179
47. Shirado O, Arai Y, Iguchi T, et al. Formulation of Japanese Orthopaedic Association (JOA) clinical practice guideline for the management of low back pain- the revised 2019 edition. *J Orthop Sci*. 2022;27(1):3-30. doi: 10.1016/j.jos.2021.06.024

48. National Institute for Health and Care Excellence. Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain. *National Institute for Health and Care Excellence (NICE)*. 2021;04:07.
49. World Health Organization. WHO guideline for non-surgical management of chronic primary low back pain in adults in primary and community care settings. 2023. Accessed October 27, 2025. <https://iris.who.int/handle/10665/374726>
50. Bailly F, Trouvin AP, Bercier S, et al. Clinical guidelines and care pathway for management of low back pain with or without radicular pain. *Joint Bone Spine*. 2021;88(6):105227. doi: 10.1016/j.jbspin.2021.105227
51. George SZ, Fritz JM, Silfies SP, et al. Interventions for the management of acute and chronic low back pain: Revision 2021. *J Orthop Sports Phys Ther*. 2021;51(11):CPG1-CPG60. doi: 10.2519/jospt.2021.0304
52. Centers for Medicare & Medicaid Services. Pub 100-04 Medicare claims processing, change request 13288: national coverage determination (NCD) 30.3.3 acupuncture for chronic low back pain revised frequency edits. 2023. Accessed November 13, 2025. <https://www.cms.gov/files/document/r12185cp.pdf>
53. Aetna. Acupuncture and dry needling (clinical policy bulletin No. 0135). 2025. Accessed December 18, 2025. [https://www.aetna.com/cpb/medical/data/100\\_199/0135.html](https://www.aetna.com/cpb/medical/data/100_199/0135.html)
54. Anthem BlueCross BlueShield. Acupuncture (clinical utilization guideline management No. CG-ANC-03). 2025. Accessed December 18, 2025. [https://www.anthem.com/medpolicies/abc/active/gl\\_pw\\_a050137.html](https://www.anthem.com/medpolicies/abc/active/gl_pw_a050137.html)
55. Cigna. Acupuncture (medical coverage policy No. CPG 024). 2025. Accessed December 18, 2025. [https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg024\\_acupuncture.pdf](https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg024_acupuncture.pdf)
56. Fidelis Care. Health maintenance organization contract: Gold Wellness Dep 25 2026 plan. 2026. Accessed January 12, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>
57. MetroPlusHealth. Acupuncture (medical policy No. UM-MP254). 2022. Accessed December 17, 2025. <https://metroplus.org/wp-content/uploads/2022/08/um-mp254-acupuncture.pdf>
58. MetroPlusHealth. PlatinumPlus (individual commercial plan). 2026. Accessed January 29, 2026. <https://metroplus.org/plans/individual-family/marketplace/platinumplus/>
59. UnitedHealthcare. Commercial and individual exchange reimbursement policy: acupuncture policy, professional (policy No. 2025R6006A). 2025. Accessed December 17, 2025. <https://www.uhcprovider.com/content/dam/provider/docs/public/policies/comm-reimbursement/COMM-Acupuncture-Policy.pdf>

60. Molina Healthcare. Complementary alternative medicine (Marketplace national regional benefit interpretation policy No. 0014). 2025. Accessed December 18, 2025. <https://www.molinahealthcare.com/providers/common/Policies/-/media/Molina/PublicWebsite/PDF/Providers/common/BI/2025/2025%20Complementary%20Alternative%20Medicine%20v4>
61. Healthfirst. Plan documents. 2026. Accessed March 13, 2026. <https://healthfirst.org/documents#docs-if>
62. Anthem BlueCross BlueShield. Medicare Advantage plans. 2026. Accessed March 13, 2026. <https://shop.anthem.com/medicare/quote/view-all-plans-ma?state=NY>
63. Aetna. 2026 Aetna Medicare plans available in your area. 2026. Accessed March 13, 2026. <https://enrollmedicare.aetna.com/s/shop?tfn=&ZipCode=10016&CountyFIPS=36061&PlanYear=2026&entry=PlansChoice&step=PlanList>
64. California Department of Health Care Services. Acupuncture services. 2026. Accessed March 6, 2026. [https://mcweb.apps.prd.cammis.medi-cal.ca.gov/assets/50FE1D59-6E0C-4741-8AA7-06000541C69D/acu.pdf?access\\_token=6UyVkRRfByXTZEWlh8j8QaYyIPyP5ULO](https://mcweb.apps.prd.cammis.medi-cal.ca.gov/assets/50FE1D59-6E0C-4741-8AA7-06000541C69D/acu.pdf?access_token=6UyVkRRfByXTZEWlh8j8QaYyIPyP5ULO)
65. Massachusetts Executive Office of Health and Human Services (MassHealth). Acupuncture services manual: program regulations. 2026. Accessed March 6, 2026. <https://www.mass.gov/doc/acupuncture-services-regulations/download>
66. New Jersey Department of Human Services (Division of Medical Assistance and Health Services). Medicaid fee-for-service fee schedule. 2026. Accessed January 30, 2026. <https://www.njmms.com/RateInformation.aspx>
67. New Jersey Department of Human Services (Division of Medical Assistance and Health Services). Physician training. 2026. Accessed March 6, 2026. <https://www.njmms.com/>
68. Oregon Health Authority. Medical-dental fee schedule, December 2025. 2026. Accessed March 6, 2026. <https://www.oregon.gov/oha/hsd/ohp/pages/fee-schedule.aspx>
69. Oregon Health Authority. Oregon Health Plan prioritized list of health services (Feb. 1, 2026). 2026. Accessed March 6, 2026. <https://www.oregon.gov/oha/hpa/dsi-herc/pages/prioritized-list.aspx>
70. Florida Agency for Health Care Administration (AHCA). Practitioner fee schedule. 2026. Accessed March 6, 2026. <https://ahca.myflorida.com/medicaid/rules/rule-59g-4.002-provider-reimbursement-schedules-and-billing-codes>
71. Washington State Health Care Authority. Physician-related services/professional healthcare services fee schedule. 2026. Accessed March 6, 2026. <https://www.hca.wa.gov/billers-providers-partners/prior-authorization-claims-and-billing/provider-billing-guides-and-fee-schedules>

72. North Carolina Department of Health and Human Services. Fee schedules. 2026. Accessed March 6, 2026. [https://ncdhhs.servicenowservices.com/fee\\_schedules](https://ncdhhs.servicenowservices.com/fee_schedules)
73. Pennsylvania Department of Human Services. Outpatient fee schedules. 2026. Accessed March 7, 2026. <https://www.humanservices.dhs.pa.gov/OutpatientFeeSchedule/Search>
74. Texas Medicaid and Healthcare Partnership. Fee schedules. 2026. Accessed March <https://public.tmhp.com/FeeSchedules/Default.aspx>
75. Adams MCB, Eller SM, McDonnell C, et al. Medicaid coverage policy variations for chronic pain and opioid use disorder treatment. *JAMA Netw Open*. 2025;8(8):e2526796-e2526796. doi: 10.1001/jamanetworkopen.2025.26796
76. Washington State Health Care Authority. 2026 Apple Health plans value-added benefits comparison chart. 2026. Accessed March 18, 2026. <https://www.hca.wa.gov/assets/free-or-low-cost/19-0084-apple-health-managed-care-plan-comparison-chart.pdf>
77. MetroPlusHealth. Medicaid managed care. 2026. Accessed January 29, 2026. <https://metroplus.org/plans/individual-family/medicaid-managed-care/details/>
78. Maher C, Underwood M, Buchbinder R. Non-specific low back pain. *Lancet*. 2017;389(10070):736-747. doi: 10.1016/s0140-6736(16)30970-9
79. Chang D, Lui A, Matsoyan A, Safaee MM, Aryan H, Ames C. Comparative Review of the Socioeconomic Burden of Lower Back Pain in the United States and Globally. *Neurospine*. 2024;21(2):487-501. doi: 10.14245/ns.2448372.186
80. Mauck MC, Aylward AF, Barton CE, et al. Evidence-based interventions to treat chronic low back pain: treatment selection for a personalized medicine approach. *Pain rep*. 2022;7(5):e1019. doi: 10.1097/pr9.0000000000001019
81. Stenner P, Cross V, McCrum C, et al. Self-management of chronic low back pain: four viewpoints from patients and healthcare providers. *Health Psychol Open*. 2015;2(2):2055102915615337. doi: 10.1177/2055102915615337
82. Feldman R, Pincus T, Reges O, Gorelik A, Buchbinder R, Ben Ami N. Implementation of a self-management approach for low back pain in a public health care system. *JAMA Netw Open*. 2026;9(1):e2552143. doi: 10.1001/jamanetworkopen.2025.52143
83. Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. *Pain*. 2015;156(4):569-576. doi: 10.1097/01.j.pain.0000460357.01998.f1
84. Medicare.gov. Acupuncture. 2025. Accessed September 29, 2025. <https://www.medicare.gov/coverage/acupuncture>
85. Centers for Medicare & Medicaid Services. National Coverage Determination: acupuncture. 2020. Accessed September 29, 2025. <https://www.cms.gov/medicare-coverage->

- [database/view/ncd.aspx?ncdid=11&ncdver=2&keywordtype=starts&keyword=acupun&bc=0](#)
86. Helms JM. An overview of medical acupuncture. 2020. Accessed September 30, 2025.
  87. National Certification Commission for Acupuncture and Oriental Medicine. NCCAOM Dry Needling Position Statement. Accessed September 30, 2025. <https://www.nccaom.org/wp-content/uploads/pdf/NCCAOM%20Dry%20Needling%20Position%20Statement.pdf>
  88. American Physical Therapy Association. State laws and regulations governing dry needling performed by PTs. 2025. Accessed January 29, 2026. <https://www.apta.org/contentassets/eef3804fb78c4c3a81e38b23e5ce5b01/apta-dry-needling-laws-state-2025.pdf>
  89. New York State Education Department Office of the Professions. Dry needling practice alert. 2026. Accessed March 18, 2026. <https://www.op.nysed.gov/professions/chiropractic/practice-alerts/Dry-Needling-Practice-Alert>
  90. New York State Education Department Office of the Professions. Alert 14: practice of alternative and complementary therapies by a physical therapist or physical therapist assistant. 2026. Accessed March 25, 2026. <https://www.op.nysed.gov/professions/physical-therapist-assistants/practice-alerts/alert-14>
  91. New York State Education Department Office of the Professions. Trigger point needling. 1992. Accessed March 25, 2026. <https://myopainseminars.com/wp-content/uploads/2026/02/Dry-Needling-Correspondence-State-Board.pdf>
  92. Dincer F, Linde K. Sham interventions in randomized clinical trials of acupuncture--a review. *Complement Ther Med*. 2003;11(4):235-242. doi: 10.1016/s0965-2299(03)00124-9
  93. Lee B, Kwon CY, Lee HW, et al. Needling point location used in sham acupuncture for chronic nonspecific low back pain: asystematic review and network meta-analysis. *JAMA Netw Open*. 2023;6(9):e2332452. doi: 10.1001/jamanetworkopen.2023.32452
  94. New York State Department of Health. Physician fee schedule. 2026. Accessed March 6, 2026. <https://www.emedny.org/providermanuals/physician/>
  95. New York State Department of Health. New York state plan amendment No. 21-0004, non-institutional services 2020. Accessed January 13, 2026. [https://www.health.ny.gov/regulations/state\\_plans/status/non-inst/original/docs/os\\_2020-12-30\\_spa\\_21-04.pdf](https://www.health.ny.gov/regulations/state_plans/status/non-inst/original/docs/os_2020-12-30_spa_21-04.pdf)
  96. New York State Senate. Senate Bill S7506B, 2019-2020 Legislative Session (NY 2020). 2020. Accessed January 14, 2026. <https://www.nysenate.gov/legislation/bills/2019/S7506>

97. New York State Department of Health. Non-institutional services - status, 2021 SPAs. 2021. Accessed January 13, 2026. [https://www.health.ny.gov/regulations/state\\_plans/status/non-inst/index\\_2021.htm](https://www.health.ny.gov/regulations/state_plans/status/non-inst/index_2021.htm)
98. New York State Department of Health. New York State Medicaid state plan. 2026. Accessed March 6, 2026. [https://www.health.ny.gov/regulations/state\\_plans/](https://www.health.ny.gov/regulations/state_plans/)
99. New York State Assembly. An act to amend the insurance law in relation to health insurance coverage for acupuncture services, AB A622B, 2026 Session (NY 2026). 2026. Accessed January 13, 2026. <https://www.nysenate.gov/legislation/bills/2025/A622/amendment/B>
100. Centers for Medicare & Medicaid Services. Medicare monthly enrollment. 2026. Accessed January 29, 2026. <https://data.cms.gov/summary-statistics-on-beneficiary-enrollment/medicare-and-medicaid-reports/medicare-monthly-enrollment>
101. US Department of Veteran Affairs. Acupuncture. 2026. Accessed January 29, 2026. <https://www.va.gov/WHOLEHEALTH/CIH/acupuncture.asp>
102. California Department of Health Care Services. Fact sheet: eliminate Medi-Cal optional benefit: acupuncture services. 2025. Accessed December 5, 2025. <https://www.dhcs.ca.gov/Budget/Documents/DHCS-TBL-Acupuncture-Fact-Sheet.pdf>
103. California State Senator Scott Wiener. Senate and assembly reach agreement to preserve acupuncture Medi-Cal benefit. 2025. Accessed December 5, 2025. <https://sd11.senate.ca.gov/news/senate-and-assembly-reach-agreement-preserve-acupuncture-medi-cal-benefit-0>
104. Acupuncture Today. Acupuncture in Medi-Cal: saved again. 2025. Accessed December 5, 2025. <https://acupuncturetoday.com/article/39701-medi-cal-keeps-acupuncture-again>
105. Washington State Health Care Authority. Supplemental notice regarding Medicaid state plan amendment (SPA) 24-0013 add adult chiropractic services and acupuncturists and certified behavioral health support specialists as Medicaid providers. 2024. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/24-0013%20-AddAcupuncturistsAdultChiroBHSS-SupplementalPublicNoticeWSR-24-23-054.pdf>
106. Washington State Health Care Authority. Medicaid state plan amendment (SPA) 24-0013 add adult chiropractic services and acupuncturists and certified behavioral health support specialists as Medicaid providers. 2024. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/24-0013-AddAcupuncAdultChiroBHSSPublicNoticeWSR-24-18-011.pdf>
107. Washington State Health Care Authority. Proposed rule making, CR-102 (June 2024) (implements RCW 34.05.320). 2024. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/102-24-19-096.pdf>
108. Oregon Health Authority. Oregon Health Plan prioritized list of health services, excluded services guideline 2: CPT codes 20560, 20561 dry needling. 2026. Accessed March 6,

2026. <https://www.oregon.gov/oha/HPA/DSI-HERC/SearchablePLdocuments/GL-E2-20560-20561-Dry-needling.docx>
109. Oregon Health Authority. State plan under Title XIX of the Social Security Act medical assistance program. 2026. Accessed March 6, 2026. <https://www.oregon.gov/oha/HSD/Medicaid-Policy/StatePlans/Medicaid-State-Plan.pdf>
110. New York State Education Department Office of the Professions. Consumer information for acupuncture. 2026. Accessed March 18, 2026. <https://www.op.nysed.gov/professions/acupuncture/consumer-information>
111. New York State Education Department Office of the Professions. License requirements for acupuncture. 2026. Accessed March 18, 2026. <https://www.op.nysed.gov/professions/acupuncture/license-requirements>
112. New York State Education Department Office of the Professions. Certification of physicians and dentists to use acupuncture. 2026. Accessed March 18, 2026. <https://www.op.nysed.gov/professions/dentists/certification-physicians-and-dentists-use-acupuncture>
113. New York Statutes. Education law Article 136: physical therapy and physical therapist assistants. 2026. Accessed March 25, 2026. <https://www.op.nysed.gov/title8/education-law/article-136>
114. Cochrane Collaboration. RevMan: systematic review and meta-analysis tool for researchers worldwide. 2024. Accessed March 25, 2024. <https://revman.cochrane.org/info>
115. DerSimonian R, Laird N. Meta-analysis in clinical trials. *Control Clin Trials*. 1986;7(3):177-188. doi: 10.1016/0197-2456(86)90046-2
116. Borenstein M, Hedges LV, Higgins JP, Rothstein HR. A basic introduction to fixed-effect and random-effects models for meta-analysis. *Res Synth Methods*. 2010;1(2):97-111. doi: 10.1002/jrsm.12
117. Higgins JPT, Thomas J, Chandler J, Cumpston M. Cochrane handbook for systematic reviews of interventions. 2019. Accessed January 9, 2026. <https://www.cochrane.org/authors/handbooks-and-manuals/handbook>
118. Ostelo RW, de Vet HC. Clinically important outcomes in low back pain. *Best Pract Res Clin Rheumatol*. 2005;19(4):593-607. doi: 10.1016/j.berh.2005.03.003
119. Díaz-Arribas MJ, Fernández-Serrano M, Royuela A, et al. Minimal clinically important difference in quality of life for patients with low back pain. *Spine (Phila Pa 1976)*. 2017;42(24):1908-1916. doi: 10.1097/brs.0000000000002298
120. Bombardier C, Hayden J, Beaton DE. Minimal clinically important difference. Low back pain: outcome measures. *J Rheumatol*. 2001;28(2):431-438.

121. Cook CE. Clinimetrics Corner: The Minimal Clinically Important Change Score (MCID): A Necessary Pretense. *J Man Manip Ther.* 2008;16(4):E82-83. doi: 10.1179/jmt.2008.16.4.82E
122. Sherman KJ, Cherkin DC, Ichikawa L, et al. Treatment expectations and preferences as predictors of outcome of acupuncture for chronic back pain. *Spine (Phila Pa 1976).* 2010;35(15):1471-1477. doi: 10.1097/BRS.0b013e3181c2a8d3
123. Teets RY, Nielsen A, Mah D, et al. Recruitment and retention for an acupuncture trial in an underrepresented 65 and older population with chronic low back pain. *Glob Adv Integr Med Health.* 2025;14:27536130251340921. doi: 10.1177/27536130251340921
124. Sherman KJ, Cherkin DC, Ichikawa L, et al. Characteristics of patients with chronic back pain who benefit from acupuncture. *BMC Musculoskelet Disord.* 2009;10:114. doi: 10.1186/1471-2474-10-114
125. Error in Conflict of Interest. *JAMA Netw Open.* 2022;5(4):e229687. doi: 10.1001/jamanetworkopen.2022.9687
126. Deyo RA, Dworkin SF, Amtmann D, et al. Report of the NIH Task Force on research standards for chronic low back pain. *J Pain.* 2014;15(6):569-585. doi: 10.1016/j.jpain.2014.03.005
127. Lauridsen HH, Hartvigsen J, Manniche C, Korsholm L, Grunnet-Nilsson N. Responsiveness and minimal clinically important difference for pain and disability instruments in low back pain patients. *BMC Musculoskelet Disord.* 2006;7:82. doi: 10.1186/1471-2474-7-82
128. Dach F, Ferreira KS. Treating myofascial pain with dry needling: a systematic review for the best evidence-based practices in low back pain. *Arq Neuropsiquiatr.* 2023;81(12):1169-1178. doi: 10.1055/s-0043-1777731
129. Hawker GA, Mian S, Kendzerska T, French M. Measures of adult pain: Visual Analog Scale for Pain (VAS Pain), Numeric Rating Scale for Pain (NRS Pain), McGill Pain Questionnaire (MPQ), Short-Form McGill Pain Questionnaire (SF-MPQ), Chronic Pain Grade Scale (CPGS), Short Form-36 Bodily Pain Scale (SF-36 BPS), and Measure of Intermittent and Constant Osteoarthritis Pain (ICOAP). *Arthritis Care Res (Hoboken).* 2011;63 Suppl 11:S240-252. doi: 10.1002/acr.20543
130. LoMartire R, Äng BO, Gerdle B, Vixner L. Psychometric properties of Short Form-36 Health Survey, EuroQol 5-dimensions, and Hospital Anxiety and Depression Scale in patients with chronic pain. *Pain.* 2020;161(1):83-95. doi: 10.1097/j.pain.0000000000001700
131. Mackey S, Gilam G, Darnall B, et al. Mindfulness-based stress reduction, cognitive behavioral therapy, and acupuncture in chronic low back pain: protocol for two linked randomized controlled trials. *JMIR Res Protoc.* 2022;11(9):e37823. doi: 10.2196/37823

132. DeBar LL, Justice M, Avins AL, et al. Acupuncture for chronic low back pain in older adults: Design and protocol for the BackInAction pragmatic clinical trial. *Contemp Clin Trials*. 2023;128:107166. doi: 10.1016/j.cct.2023.107166
133. Pickard AS, Law EH, Jiang R, et al. United States Valuation of EQ-5D-5L Health States Using an International Protocol. *Value Health*. 2019;22(8):931-941. doi: 10.1016/j.jval.2019.02.009
134. American Medical Association. Current procedural terminology (CPT) codes 2026. Accessed March 25, 2026. <https://www.ama-assn.org/practice-management/cpt>
135. Centers for Medicare & Medicaid Services. National coverage determination 30.3.1: acupuncture for fibromyalgia. 2020. Accessed November 13, 2025. <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=283&ncdver=2>
136. Centers for Medicare & Medicaid Services. National coverage determination 30.3.2: acupuncture for osteoarthritis. 2020. Accessed November 13, 2025. <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=284&ncdver=2>
137. Centers for Medicare & Medicaid Services. Medicare Learning Network Matters No. MM13288: national coverage determination 30.3.3 – acupuncture for chronic low back pain. 2023. Accessed November 13, 2025. <https://www.cms.gov/files/document/mm13288-national-coverage-determination-3033-acupuncture-chronic-low-back-pain.pdf>
138. Centers for Medicare & Medicaid Services. Medicare physician fee schedule. 2026. Accessed January 13, 2026. <https://www.cms.gov/medicare/physician-fee-schedule/search>
139. Aetna. Complementary and alternative medicine (clinical policy bulletin No. 0388). 2025. Accessed December 18, 2025. [https://www.aetna.com/cpb/medical/data/300\\_399/0388.html](https://www.aetna.com/cpb/medical/data/300_399/0388.html)
140. Anthem BlueCross BlueShield. New York Medicaid member handbook. 2026. Accessed March 13, 2026. <https://www.anthembluecross.com/ny/medicaid/benefits>
141. Cigna. Cigna Medicare plans. 2025. Accessed December 18, 2025. <https://www.cigna.com/medicare/member-resources/eoc>
142. Cigna. Physical therapy (coverage policy No. CPG 135). 2025. Accessed January 13, 2026. [https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg135\\_physical\\_therapy.pdf](https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg135_physical_therapy.pdf)
143. Cigna. Occupational therapy (coverage policy No. CPG 155). 2025. Accessed January 13, 2026. [https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg155\\_occupational\\_therapy.pdf](https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg155_occupational_therapy.pdf)

144. Evernorth (for Cigna). Complementary and alternative Medicine (coverage policy No. EN0086). 2025. Accessed March 13, 2026. [https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/en\\_mm\\_0086\\_coveragepositioncriteria\\_complementary\\_and\\_alternative\\_medicine.pdf](https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/en_mm_0086_coveragepositioncriteria_complementary_and_alternative_medicine.pdf)
145. Cigna. Chiropractic care (coverage policy No. CPG 278). 2025. Accessed January 14, 2026. [https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg278\\_chiropractic\\_care.pdf](https://static.cigna.com/assets/chcp/pdf/coveragePolicies/medical/cpg278_chiropractic_care.pdf)
146. Fidelis Care. Provider manual: qualified health plans and Essential plans. 2026. Accessed March 13, 2026. <https://www.fideliscare.org/Portals/0/Providers/ProviderManuals/FidelisCare-ProviderManual-QHPEP.pdf>
147. Fidelis Care. Medicaid managed care member handbook. 2026. Accessed January 29, 2026. [https://www.fideliscare.org/Portals/0/Members/NY5CADMHB75523E\\_0MMC\\_R.pdf](https://www.fideliscare.org/Portals/0/Members/NY5CADMHB75523E_0MMC_R.pdf)
148. Fidelis Care. Medicare resources. 2026. Accessed January 29, 2026. <https://www.fideliscare.org/WellcareMedicare/Medicare-Resources>
149. Healthfirst. 2026 Healthfirst 65 PLUS PLAN (HMO) summary of benefits. 2026. Accessed December 11, 2025. [https://assets.healthfirst.org/pdf\\_wua9MIDcLDUE/2026-65-plus-plan-summary-of-benefits-english](https://assets.healthfirst.org/pdf_wua9MIDcLDUE/2026-65-plus-plan-summary-of-benefits-english)
150. Healthfirst. 2026 Healthfirst CompleteCare (HMO D-SNP) summary of benefits. 2026. Accessed December 11, 2025. [https://assets.healthfirst.org/pdf\\_yixavjbBd5OE/2026-completerecare-plan-summary-of-benefits-english](https://assets.healthfirst.org/pdf_yixavjbBd5OE/2026-completerecare-plan-summary-of-benefits-english)
151. Healthfirst. Healthfirst Medicaid managed care plan: covered services. 2026. Accessed January 12, 2026. <https://healthfirst.org/medicaid-managed-care-plan>
152. Healthfirst. Medicaid managed care: 2026 member handbook. 2026. Accessed March 13, 2026. [https://assets.healthfirst.org/pdf\\_s4dEdrCfKrFE/2025-medicaid-managed-care-member-handbook-english](https://assets.healthfirst.org/pdf_s4dEdrCfKrFE/2025-medicaid-managed-care-member-handbook-english)
153. MetroPlusHealth. Medicare 2026 (all Medicare Advantage plans). 2026. Accessed December 17, 2025. <https://metroplus.org/plans/medicare-2025/>
154. MetroPlusHealth. New York state Medicaid managed care MetroPlusHealth member handbook. 2026. Accessed March 18, 2026. <https://metroplus.org/plans/individual-family/medicaid-managed-care/details/>
155. Molina Healthcare. 2024 provider manual: Medicaid managed care, Molina Healthcare Plus and Child Health Plus programs. 2024. Accessed December 18, 2025. <https://www.molinahealthcare.com/providers/ny/medicaid/manual/medical.aspx>
156. Molina Healthcare. Pain management (Marketplace national regional benefit interpretation policy No. 0042). 2025. Accessed December 18, 2025.

- <https://www.molinahealthcare.com/providers/common/Policies/-/media/Molina/PublicWebsite/PDF/Providers/common/BI/2025/2025%20Pain%20Management%20v5>
157. Molina Healthcare. New York state Medicaid managed care member handbook 2026. Accessed March 18, 2026. <https://www.molinahealthcare.com/members/ny/en-us/mem/medicaid/overvw/handbook.aspx>
  158. Molina Healthcare. Managed long-term care plan handbook. 2026. Accessed March 18, 2026. [https://www.molinahealthcare.com/members/ny/en-us/-/media/Molina/PublicWebsite/PDF/members/ny/en-us/2025-MLTC-Member\\_Handbook-Final-SenParHan45552.ashx](https://www.molinahealthcare.com/members/ny/en-us/-/media/Molina/PublicWebsite/PDF/members/ny/en-us/2025-MLTC-Member_Handbook-Final-SenParHan45552.ashx)
  159. Molina Healthcare. Senior Whole Health plan (Medicare dual eligible): member materials and forms. 2026. Accessed January 29, 2026. <https://www.molinahealthcare.com/members/ny/en-us/mem/SWH.aspx>
  160. UnitedHealthcare. UnitedHealthcare New York Community Plan Medicaid managed care member handbook. 2026. Accessed March 13, 2026. [https://www.uhc.com/communityplan/assets/plandocuments/handbook/en/NY\\_Medicaid\\_BH\\_Handbook\\_EN.pdf](https://www.uhc.com/communityplan/assets/plandocuments/handbook/en/NY_Medicaid_BH_Handbook_EN.pdf)
  161. UnitedHealthcare. 2026 New York Community Plan care provider manual: physician, care provider, facility and ancillary. 2026. Accessed March 18, 2026. <https://www.uhcprovider.com/content/dam/provider/docs/public/admin-guides/commplan/NY-UHCCP-Dual-LTC-CHIP-Care-Provider-Manual.pdf>
  162. UnitedHealthcare. UnitedHealthcare care provider administrative guide for commercial, individual exchange and Medicare Advantage. 2026. Accessed January 29, 2026. <https://www.uhcprovider.com/content/dam/provider/docs/public/admin-guides/2026-UHC-Administrative-Guide.pdf>
  163. UnitedHealthcare. Evidence of coverage 2026: UHC Dual Complete NY-S002 (HMO-POS D-SNP). 2026. Accessed December 17, 2025. [https://www.uhc.com/communityplan/alphadog/CSNY26HP0337866\\_000](https://www.uhc.com/communityplan/alphadog/CSNY26HP0337866_000)
  164. UnitedHealthcare. Evidence of coverage 2026: AARP® Medicare Advantage from UHC NY-0005 (HMO-POS). 2026. Accessed December 17, 2025. [https://www.uhc.com/medicare/alphadog/AANY26HP0337855\\_000](https://www.uhc.com/medicare/alphadog/AANY26HP0337855_000)
  165. Aetna Better Health of New York. Managed long term care (MLTC) program member handbook. 2025. Accessed December 18, 2025. [https://www.aetnabetterhealth.com/content/dam/aetna/medicaid/newyork/pdf/ny\\_member\\_handbook.pdf](https://www.aetnabetterhealth.com/content/dam/aetna/medicaid/newyork/pdf/ny_member_handbook.pdf)
  166. Anthem BlueCross BlueShield. Individual marketplace plan: Anthem Gatekeeper X, Platinum, ST, INN, Individual Network, Dep 25, Pediatric Dental. 2026. Accessed March 13, 2026. <https://www.sbc.anthem.com/dps/ccd92RT>

167. Anthem BlueCross BlueShield. Managed long-term care program member handbook. 2026. Accessed March 13, 2026. <https://www.anthembluecross.com/content/dam/digital/docs/anthembluecross/medical/new-york/member-handbook-managed-long-term-care-english.pdf>
168. Cigna. Evidence-based treatment guidelines for low back pain. 2021. Accessed January 13, 2025. <https://static.cigna.com/assets/chcp/pdf/resourceLibrary/prescription/opioid/evidence-based-treatment-guidelines-for-lower-back-pain.pdf>
169. Health Care Service Corporation. HCSC completes the acquisition of the Cigna Group's Medicare and CareAllies businesses. 2025. Accessed December 18, 2025. <https://www.hcsc.com/newsroom/news-releases/2025/completes-cigna-medicare-acquisition>
170. Fidelis Care. Health maintenance organization contract: Gold Wellness Dep 25 Zero 2026 plan. 2026. Accessed January 12, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>
171. Fidelis Care. Health maintenance organization contract: Silver One Dep 25 Zero 2026 plan. 2026. Accessed January 12, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>
172. Fidelis Care. Ambetter from Fidelis Care qualified health plans. 2026. Accessed January 14, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>
173. Fidelis Care. Fidelis Care at home: managed long term care plan member handbook. 2026. Accessed March 13, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Fidelis-Care-at-Home-Resources>
174. Healthfirst. 2026 senior health partners MLTC Medicaid plan. 2026. Accessed December 18, 2025. <https://healthfirst.org/senior-health-partners-plan>
175. MetroPlusHealth. GoldPrime (individual commercial plan). 2026. Accessed January 29, 2026. <https://metroplus.org/plans/individual-family/marketplace/goldprime/>
176. MetroPlusHealth. MetroPlusHealth Gold Plan (NYC employee plan). 2026. Accessed January 29, 2026. <https://metroplus.org/plans/nyc-employees/gold-plan/details/#documents>
177. MetroPlusHealth. MetroPlusHealth managed long term care member handbook. 2026. Accessed March 18, 2026. <https://metroplus.org/plans/other-plans/nyc-care/managed-long-term-care/>
178. MetroPlusHealth. Enhanced health and recovery plan (HARP). 2026. Accessed January 29, 2026. <https://metroplus.org/plans/other-plans/enhanced-harp-plan/enhanced-harp-plan-details/#plan-materials>
179. Molina Healthcare. Plantar fasciitis treatments (clinical policy No. 338). 2025. Accessed December 18, 2025. <https://www.molinaclinicalpolicy.com/molinaclinicalpolicy/>

- [/media/Molina/PublicWebsite/PDF/Common/Molina-Clinical-Policy/Plantar-Fasciitis-Treatment\\_R.pdf](#)
180. Molina Healthcare. 2026 provider manual: Medicaid managed care, Molina Healthcare PLUS and Child Health Plus programs 2026. Accessed January 14, 2026. <https://www.molinahealthcare.com/providers/ny/medicaid/manual/medical.aspx>
  181. UnitedHealthcare. Commercial policy benefits plans for providers. 2026. Accessed January 29, 2026. <https://www.uhcprovider.com/en/policies-protocols/commercial-policies.html>
  182. UnitedHealthcare. Complementary and alternative medicine: UnitedHealthcare West benefit interpretation policy No. BIP029.N. 2025. Accessed December 17, 2025. <https://www.uhcprovider.com/content/dam/provider/docs/public/policies/signatureval-ue-bip/complementary-alternative-medicine-ca.pdf>
  183. UnitedHealthcare. 2026 individual marketplace: New York summary of benefits and coverage (SBC) documents. 2026. Accessed January 29, 2026. <https://www.uhc.com/iex/ny/ny2026>
  184. UnitedHealthcare. 2026 New York small business health options program (SHOP) plan information. 2026. Accessed March 18, 2026. <https://www.uhc.com/employer/small-business/shop/ny/ny-2026>
  185. California Department of Health Care Services. Acupuncture services: billing codes and reimbursement rates. 2026. Accessed March 6, 2026. [https://mcweb.apps.prd.cammis.medi-cal.ca.gov/assets/6FD5642D-228C-403D-80F9-6600D8FB9E78/acucd.pdf?access\\_token=6UyVkRRfByXTZEWlh8j8QaYlPyP5ULO](https://mcweb.apps.prd.cammis.medi-cal.ca.gov/assets/6FD5642D-228C-403D-80F9-6600D8FB9E78/acucd.pdf?access_token=6UyVkRRfByXTZEWlh8j8QaYlPyP5ULO)
  186. Centers for Medicare & Medicaid Services. CMS approval of California state plan amendment No. 16-0025. 2016. Accessed January 14, 2026. <https://www.medicaid.gov/State-resource-center/Medicaid-State-Plan-Amendments/Downloads/CA/CA-16-025.pdf>
  187. California Department of Health Care Services. Provider enrollment options. 2026. Accessed March 18, 2026. <https://www.dhcs.ca.gov/provgovpart/Pages/Provider-Enrollment-Options.aspx>
  188. Community Care Plan. Florida Medicaid member handbook. 2026. Accessed March 6, 2026. <https://ccpcares.org/wp-content/uploads/Medicaid-Member-Handbook-2025-3-4-25.pdf>
  189. Florida Agency for Health Care Administration (AHCA). 2025-2030 model Medicaid managed care contract, Attachment I: scope of services. 2025. Accessed December 5, 2025. <https://ahca.myflorida.com/content/download/27247/file/Attachment%20I%20-%20Scope%20of%20Services%20Oct%202025%20.pdf>
  190. Florida Agency for Health Care Administration (AHCA). Health plan expanded benefits grid 2025. 2025. Accessed December 5, 2025.

- <https://ahca.myflorida.com/medicaid/statewide-medicaid-managed-care/2025-2030-smmc-plans/expanded-benefits>
191. Florida Community Care. Florida Medicaid member handbook. 2026. Accessed March 6, 2026. <https://fcchealthplan.com/wp-content/uploads/2025/01/FCC-Member-Handbook-September-2025.pdf>
  192. Molina Healthcare. Florida Medicaid member handbook. 2026. Accessed March 6, 2026. <https://www.molinahealthcare.com/members/fl/en-us/mem/medicaid/overvw/handbook.aspx>
  193. Simply Healthcare Plans. Florida Medicaid member handbook. 2026. Accessed March 6, 2026. [https://www.simplyhealthcareplans.com/florida-medicaid/flfl\\_smpl\\_caidltcmemberhandbook\\_eng.pdf](https://www.simplyhealthcareplans.com/florida-medicaid/flfl_smpl_caidltcmemberhandbook_eng.pdf)
  194. Sunshine Health. Florida Medicaid benefits overview. 2025. Accessed March 6, 2026. <https://www.sunshinehealth.com/members/medicaid/benefits-services.html>
  195. UnitedHealthcare. Community Plan Florida Medicaid member handbook. 2026. Accessed March 6, 2026. <https://www.uhc.com/communityplan/assets/plandocuments/handbook/en/FL-SMMC-Handbook-EN.pdf>
  196. Massachusetts Executive Office of Health and Human Services (MassHealth). Acupuncture services manual: service codes and descriptions. 2026. Accessed March 6, 2026. <https://www.mass.gov/doc/acupuncture-services-acu-subchapter-6-0/download>
  197. Centers for Medicare & Medicaid Services. CMS approval of Massachusetts state plan amendment No. 22-0004. 2022. Accessed January 14, 2026. <https://www.medicare.gov/medicaid/spa/downloads/MA-22-0004.pdf>
  198. Acupuncture Society of Massachusetts. Important MassHealth changes start Jan. 22, 2022. 2022. Accessed March 18, 2026. <http://acusocietyma.org/masshealth-changes-jan-22-2022/>
  199. Massachusetts Executive Office of Health and Human Services (MassHealth). Transmittal letter ALL-235: All provider manuals (coverage of acupuncture and urgent care clinic services for certain MassHealth members). 2022. Accessed December 5, 2025. <https://www.mass.gov/doc/all-235-coverage-of-acupuncture-and-urgent-care-clinic-services-for-certain-masshealth-members-0/download>
  200. Massachusetts Executive Office of Health and Human Services (MassHealth). Acute outpatient hospital manual (130 CMR 410.000: outpatient hospital services). 2026. Accessed March 18, 2026. <https://www.mass.gov/lists/acute-outpatient-hospital-manual-for-masshealth-providers>
  201. Massachusetts Executive Office of Health and Human Services (MassHealth). Acute outpatient hospital manual, updates to policy about acupuncture services (MassHealth transmittal letter AOH-50). 2022. Accessed March 18, 2026. <https://www.mass.gov/doc/aoh-50-updates-to-policy-about-acupuncture-services->

- [O/download?\\_ga=2.228375005.1356614452.1773846750-1844323572.1772813279&\\_gl=1\\*1nlw7hk\\*\\_ga\\*MTg0NDMyMzU3Mi4xNzcyODEzMjc5\\*\\_ga\\_MCLPEGW7WM\\*czE3NzM4NTcxMTMkbzMkZzEkdDE3NzM4NTcxMTMkajYwJGwwJGgw](https://www.mass.gov/doc/community-health-center-regulations/download?_ga=2.228375005.1356614452.1773846750-1844323572.1772813279&_gl=1*1nlw7hk*_ga*MTg0NDMyMzU3Mi4xNzcyODEzMjc5*_ga_MCLPEGW7WM*czE3NzM4NTcxMTMkbzMkZzEkdDE3NzM4NTcxMTMkajYwJGwwJGgw)
202. Massachusetts Executive Office of Health and Human Services (MassHealth). Community health center manual (130 CMR 405.000: community health center services). 2026. Accessed March 18, 2026. [https://www.mass.gov/doc/community-health-center-regulations/download?\\_ga=2.199735790.1356614452.1773846750-1844323572.1772813279&\\_gl=1\\*1f0jxbz\\*\\_ga\\*MTg0NDMyMzU3Mi4xNzcyODEzMjc5\\*\\_ga\\_MCLPEGW7WM\\*czE3NzM4NjI1NzQkbzQkZzEkdDE3NzM4NjI1NzQkajYwJGwwJGgw](https://www.mass.gov/doc/community-health-center-regulations/download?_ga=2.199735790.1356614452.1773846750-1844323572.1772813279&_gl=1*1f0jxbz*_ga*MTg0NDMyMzU3Mi4xNzcyODEzMjc5*_ga_MCLPEGW7WM*czE3NzM4NjI1NzQkbzQkZzEkdDE3NzM4NjI1NzQkajYwJGwwJGgw)
203. New Jersey Department of Human Services (Division of Medical Assistance and Health Services). Provider enrollment application. 2026. Accessed March 18, 2026. <https://www.njmmis.com/providerEnrollment.aspx>
204. WellCare of North Carolina. NC Medicaid managed care member handbook. 2026. Accessed January 13, 2026. <https://www.wellcarenc.com/members/medicaid/benefits/your-benefits.html>
205. North Carolina Department of Health and Human Services. Compare health plans. 2026. Accessed March 6, 2026. <https://ncmedicaidplans.gov/en/viewhealthplans>
206. Oregon Health Authority. Health Evidence Review Commission (HERC) coverage guidance: lower back pain, nonpharmacological/non-invasive interventions. 2014. Accessed December 10, 2025. <https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports-Blog.aspx?View={DE654D2C-76D6-4607-B754-C7862C05B54F}&SelectedID=36>
207. Oregon Health Authority. Oregon Health Plan (OHP) provider enrollment. 2026. Accessed March 18, 2026. <https://www.oregon.gov/oha/hsd/ohp/pages/provider-enroll.aspx>
208. Washington State Health Care Authority. Chronic migraine and chronic tension-type headache. 2022. Accessed December 11, 2025. <https://www.hca.wa.gov/about-hca/programs-and-initiatives/health-technology-assessment/chronic-migraine-and-chronic-tension-type-headache>
209. California Department of Health Care Services. Medi-Cal Rates. 2026. Accessed March 6, 2026. <https://mcweb.apps.prd.cammis.medi-cal.ca.gov/rates>
210. Centers for Medicare & Medicaid Services. CMS approval of California state plan amendment 22-0066. 2023. <https://www.medicaid.gov/medicaid/spa/downloads/CA-22-0066.pdf>
211. Molina Healthcare. Molina Healthcare of Florida 2026 provider manual: Medicaid. 2026. Accessed January 30, 2026. [https://www.molinahealthcare.com/-/media/Molina/PublicWebsite/PDF/Providers/fl/medicaid/01-05-26-MFL-Medicaid-Provider-Handbook-clean-20260105\\_remediated.ashx](https://www.molinahealthcare.com/-/media/Molina/PublicWebsite/PDF/Providers/fl/medicaid/01-05-26-MFL-Medicaid-Provider-Handbook-clean-20260105_remediated.ashx)

212. Centers for Medicare & Medicaid Services. CMS approval of Massachusetts state plan amendment No. 22-0009. 2022. Accessed January 14, 2026. <https://www.medicaid.gov/medicaid/spa/downloads/MA-22-0009.pdf>
213. Massachusetts Executive Office of Health and Human Services (MassHealth). 101 CMR 317.00: rates for medicine services. 2026. Accessed March 6, 2026. <https://www.mass.gov/regulations/101-CMR-31700-rates-for-medicine-services>
214. New Jersey Administrative Code. Services available and unavailable to beneficiaries eligible for NJ FamilyCare-Plan D and Plan D for adults, §10:49-5.7. 2026. Accessed March 6, 2026. <https://www.law.cornell.edu/regulations/new-jersey/N-J-A-C-10-49-5-7>
215. New Jersey Administrative Code. Services available to beneficiaries eligible for NJ FamilyCare-Plan I, §10:49-5.10. 2026. Accessed December 10, 2025. <https://www.law.cornell.edu/regulations/new-jersey/N-J-A-C-10-49-5-10>
216. Aetna Better Health of New Jersey. NJ FamilyCare plan member handbook. 2026. Accessed March 6, 2026. <https://www.aetnabetterhealth.com/content/dam/aetna/medicaid/new-jersey-medicaid/pdf/Covered-Services-Eng.pdf>
217. Horizon NJ Health. New Jersey Medicaid benefit grid. 2026. Accessed March 6, 2026. [https://www.horizonnjhealth.com/securecms-documents/604/Medicaid\\_Benefit\\_Grid\\_English.pdf](https://www.horizonnjhealth.com/securecms-documents/604/Medicaid_Benefit_Grid_English.pdf)
218. WellPoint. NJ FamilyCare Member Handbook. 2026. Accessed March 6, 2026. [https://www.wellpoint.com/content/dam/digital/wellpoint/documents/medicaid/new-jersey/njnj\\_caid\\_mhb\\_eng.pdf](https://www.wellpoint.com/content/dam/digital/wellpoint/documents/medicaid/new-jersey/njnj_caid_mhb_eng.pdf)
219. Fidelis Care. NJ FamilyCare member handbook. 2026. Accessed March 6, 2026. <https://www.fideliscarenj.com/members/medicaid/nj-familycare.html>
220. UnitedHealthcare. Community Plan NJ Family Care member handbook. 2026. Accessed March 6, 2026. <https://www.uhc.com/communityplan/assets/plandocuments/handbook/en/NJ-MemberHandbook-En.pdf>
221. North Carolina Department of Health and Human Services. Clinical coverage policy No 1F: chiropractic services. 2026. Accessed March 6, 2026. <https://medicaid.ncdhhs.gov/providers/program-specific-clinical-coverage-policies>
222. North Carolina Department of Health and Human Services. Clinical coverage policy No. 4A: dental services. 2026. Accessed March 6, 2026. <https://medicaid.ncdhhs.gov/providers/program-specific-clinical-coverage-policies>
223. Oregon Health Authority. Behavioral health fee schedule, February 2026. 2026. Accessed March 6, 2026. <https://www.oregon.gov/oha/hsd/ohp/pages/fee-schedule.aspx>

224. Oregon Health Authority. Oregon Health Plan summary of benefits and coverage. 2026. Accessed January 31, 2026. <https://www.oregon.gov/oha/hsd/ohp/pages/benefits.aspx>
225. Oregon Health Authority. Oregon Health Plan (OHP) behavioral health coverage. 2026. Accessed January 31, 2026. <https://www.oregon.gov/oha/HSD/OHP/Pages/Behavioral-Health.aspx>
226. Oregon Health Authority. Oregon Health Plan (OHP) medical benefits. 2026. Accessed January 31, 2026. <https://www.oregon.gov/oha/HSD/OHP/Pages/Medical-Care.aspx>
227. Oregon Health Authority. Health Evidence Review Commission's value-based benefits subcommittee meeting: November 14, 2019. 2019. Accessed January 13, 2026. <https://www.oregon.gov/oha/HPA/DSI-HERC/MeetingDocuments/VBBS-Materials-11-14-2019.pdf>
228. Pennsylvania Department of Human Services. Medicaid state plan, attachment 3.1a-b: amount, duration, and scope of medical and remedial care and services provided to the categorically and medically needy. 2026. Accessed March 7, 2026. <https://www.pa.gov/content/dam/copapwp-pagov/en/dhs/documents/docs/publications/documents/2023-medicaid-state-plan/0013-attachment-3-1a-3-1b.pdf>
229. Pennsylvania Department of Human Services. Medical assistance bulletin: acupuncturist enrollment in the medical assistance program 2018. Accessed December 11, 2025. [https://www.pa.gov/content/dam/copapwp-pagov/en/dhs/documents/docs/publications/documents/forms-and-pubs-omap/c\\_270699.pdf](https://www.pa.gov/content/dam/copapwp-pagov/en/dhs/documents/docs/publications/documents/forms-and-pubs-omap/c_270699.pdf)
230. Pennsylvania Department of Human Services. 2026 Physical Health Agreement (MCO model contract). 2026. Accessed January 31, 2026. <https://www.pa.gov/content/dam/copapwp-pagov/en/dhs/documents/providers/providers/documents/managed-care-information/2026-healthchoices-agreement-including-exhibits-and-non-rate-financial-appendices-draft.pdf>
231. AmeriHealth Caritas. Pennsylvania member handbook. 2026. Accessed January 31, 2026. <https://www.amerihealthcaritasp.com/content/dam/amerihealth-caritas/acpa/pdf/member/handbook/english.pdf.coredownload.inline.pdf>
232. Texas Medicaid and Healthcare Partnership. Texas Medicaid provider procedures manual. 2026. Accessed March 6, 2026. <https://www.tmhp.com/resources/provider-manuals/tmppm>
233. Community First. Texas STAR member handbook. 2026. Accessed January 31, 2026. [https://medicaid.communityfirsthealthplans.com/wp-content/uploads/sites/2/2025/09/STAR\\_MemberHandbook\\_ENG\\_2025.pdf](https://medicaid.communityfirsthealthplans.com/wp-content/uploads/sites/2/2025/09/STAR_MemberHandbook_ENG_2025.pdf)
234. Washington State Health Care Authority. Washington Apple Health (Medicaid) physician-related services/health care professional services billing guide. 2026. Accessed January

- 31, 2026. <https://www.hca.wa.gov/billers-providers-partners/prior-authorization-claims-and-billing/provider-billing-guides-and-fee-schedules>
235. Washington State Administrative Code. Health care coverage--Noncovered services, WAC 182-501-0070. 2026. Accessed March 6, 2026. <https://www.hca.wa.gov/free-or-low-cost-health-care/i-help-others-apply-and-access-apple-health/wac-182-501-0070-health-care-coverage-noncovered-services>
236. Washington State Health Care Authority. Washington Apple Health (Medicaid) fee-for-service substance use disorder billing guide. 2026. Accessed January 13, 2026. <https://www.hca.wa.gov/billers-providers-partners/prior-authorization-claims-and-billing/provider-billing-guides-and-fee-schedules>
237. Washington State Health Care Authority. Apple Health (Medicaid) provider alert: acupuncture services and chiropractic for adult services – effective January 1, 2025. 2024. Accessed December 11, 2025. <https://content.govdelivery.com/accounts/WAHCA/bulletins/3b956c6>
238. Washington State Senate. An act relating to fiscal matters, SB5693, 67th Leg (Wash 2022). 2022. Accessed January 31, 2026. <https://lawfilesexternal.wa.gov/biennium/2021-22/Pdf/Bills/Session%20Laws/Senate/5693-S.SL.pdf?q=20240917075513>
239. Washington State Senate. An act relating to fiscal matters, SB5187, 68th Leg (Wash 2023). 2023. Accessed January 31, 2026. <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/Senate/5187-S.SL.pdf?q=20240917075807>
240. Washington State Health Care Authority. Treatment of chronic migraine and chronic tension-type headache: final evidence report for Health Technology Assessment program. 2017. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/program/chronic-migraine-final-rpt-20170417.pdf>
241. Washington State Health Care Authority. Health technology clinical committee findings and decision: treatment of chronic migraine and chronic tension-type headache. 2017. Accessed 2017. <https://www.hca.wa.gov/assets/program/chronic-migraine-final-findings-decision-archived-20220520.pdf>
242. Washington State Health Care Authority. Acupuncture for chronic migraine and chronic tension-type headache: final evidence report for Health Technology Assessment program. 2022. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/program/acupuncture-hta-final-report-2022-02-23.pdf>
243. Washington State Health Care Authority. Health technology clinical committee findings and decision: acupuncture for chronic migraine and chronic tension-type headache. 2022. Accessed December 11, 2025. <https://www.hca.wa.gov/assets/program/chronic-migraine-final-findings-decision-20220520.pdf>
244. Centers for Medicare & Medicaid Services. Colorado complementary and integrative health (HCBS-CIH) waiver (0961.R03.00). 2026. Accessed January 31, 2026. <https://www.medicare.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/81166>

245. Centers for Medicare & Medicaid Services. CMS approval of Connecticut state plan amendment No. 21-0035 2021. Accessed January 14, 2026. <https://www.medicaid.gov/medicaid/spa/downloads/CT-21-0035.pdf>
246. Centers for Medicare & Medicaid Services. CMS approval of Connecticut state plan amendment No. 21-0036. 2021. Accessed January 14, 2026. <https://www.medicaid.gov/medicaid/spa/downloads/CT-21-0036.pdf>
247. Guyatt G, Oxman A, Vist G, et al. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. *BMJ*. 2008;336(7650):924-926. doi: 10.1136/bmj.39489.470347.AD
248. Schünemann H, Brozek J, Guyatt G, Oxman A. GRADE handbook for grading quality of evidence and strength of recommendations. 2013. Accessed December 15, 2015. <http://gdt.guidelinedevelopment.org/app/handbook/handbook.html>
249. Fidelis Care. Health maintenance organization contract: Gold Wellness Dep 25 FOEX 2026. 2026. Accessed January 12, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>
250. Fidelis Care. Health maintenance organization contract: Silver One Dep 25 FOEX 2026. 2026. Accessed January 12, 2026. <https://www.fideliscare.org/Member/Manage-Your-Plan/Ambetter-Resources>

## Appendix A. Search Methods

### Clinical Evidence Sources and Search Strategies

We searched selected bibliographic databases and grey literature sources using key words such as *acupuncture*, *needling*, *low back pain*, and *lumbar pain* to identify studies reporting effectiveness, harms, or cost effectiveness, as well as clinical practice guidelines. We did not use date limits, but we did limit search results to publications available in the English language. An information specialist constructed and executed all searches. A second information specialist peer reviewed the Ovid MEDLINE search strategy. Searches were conducted October 28, 2025, through November 3, 2025, and December 16, 2025 (clinical trial registries). The Ovid MEDLINE search was updated on December 16, 2025.

### Bibliographic Database Sources

- Alt HealthWatch
- Cochrane Central Register of Controlled Trials (CENTRAL)
- Cochrane Database of Systematic Reviews (CDSR)
- Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- Ovid MEDLINE

### Evidence Synthesis Sources

- Agency for Healthcare Research and Quality (AHRQ)
- Canada's Drug Agency
- Epistemonikos
- Health Quality Ontario
- Institute for Clinical and Economic Review (ICER)
- Institute for Health Quality and Efficiency in Health Care
- International Health Technology Assessment (HTA) Database
- National Institute for Health and Care Excellence (NICE)
- Oregon Health Evidence Review Commission (HERC)
- Veterans Administration Evidence Synthesis Program (ESP)
- Washington Health Technology Assessment

### Clinical Practice Guideline Sources

- American Academy of Neurology
- American Academy of Orthopedic Surgeons
- American Academy of Pain Medicine
- American College of Occupational and Environmental Medicine
- American College of Physicians
- American Medical Association (AMA)
- American Physical Therapy Associations
- American Society of Regional Anesthesia and Pain Medicine
- European Academy of Neurology
- European Pain Federation
- Guidelines International Network (GIN) International Guidelines Library
- International Association for the Study of Pain
- International Pain and Spine Interventional Society

- National Institute for Health and Care Excellence (NICE)
- North American Spine Society
- Scottish Intercollegiate Guidelines Network (SIGN)
- Veterans Administration/Department of Defense Clinical Practice Guidelines

### *Clinical Trial Sources*

- ClinicalTrials.gov
- International Clinical Trials Registry Platform (ICTRP)

### *MEDLINE Search Strategy*

1946 to October 31, 2025 (December 15, 2025)

Dates searched (number of results): November 3, 2025 (1,069); December 16, 2025 (23)

Platform: Ovid

- 1 low back pain/
- 2 sciatica/
- 3 ((coccyx or low\* back or lumbar or lumbosacr\* or sacral or sacroiliac or sacrum or sciatic\*) adj3 (ache? or backache? or neuralgia or pain\* or spondylo\*)).ti,ab,kf.
- 4 coccydyni\*.ti,ab,kf.
- 5 dorsalg\*.ti,ab,kf.
- 6 lumbago.ti,ab,kf.
- 7 lumbodyni\*.ti,ab,kf.
- 8 ischialgi\*.ti,ab,kf.
- 9 sacrocoxalgi\*.ti,ab,kf.
- 10 sciatica.ti,ab,kf.
- 11 or/1-10
- 12 acupuncture/
- 13 exp acupuncture therapy/
- 14 dry needling/
- 15 trigger points/
- 16 (acupoint? or acu point?).ti,ab,kf.
- 17 acupunctur\*.ti,ab,kf.
- 18 electroacupuncture.ti,ab,kf.
- 19 meridian\*.ti,ab,kf.
- 20 mox#bustion.ti,ab,kf.
- 21 needling.ti,ab,kf.
- 22 (pharmacopuncture or pharmaco puncture).ti,ab,kf.
- 23 (shu adj3 point?).ti,ab,kf.
- 24 trigger point?.ti,ab,kf.
- 25 or/12-24
- 26 consensus/
- 27 exp consensus development conferences as topic/
- 28 exp guidelines as topic/

- 29 consensus development conference.pt.  
30 consensus development conference, NIH.pt.  
31 guideline.pt.  
32 practice guideline.pt.  
33 guideline?.ti.  
34 ((committee or executive) adj2 (recommendation\* or statement\* or summar\*)).ti,kf.  
35 (consensus adj2 (document\* or paper\* or recommendation\* or report\* or statement\*)).ti,kf.  
36 (joint adj2 (document\* or recommendation\* or statement\*)).ti,kf.  
37 ((clinical or critical or evidence based or practice) adj2 (guideline? or path? or recommendation? or standard?)).ti,kf.  
38 or/26-37  
39 adaptive clinical trials as topic/  
40 clinical trials as topic/  
41 clinical trials, phase i as topic/  
42 clinical trials, phase ii as topic/  
43 clinical trials, phase iii as topic/  
44 clinical trials, phase iv as topic/  
45 comparative effectiveness research/  
46 controlled clinical trials as topic/  
47 cross-over studies/  
48 double-blind method/  
49 early termination of clinical trials/  
50 multicenter studies as topic/  
51 random allocation/  
52 exp randomized controlled trials as topic/  
53 single-blind method/  
54 adaptive clinical trial.pt.  
55 clinical trial.pt.  
56 clinical trial, phase i.pt.  
57 clinical trial, phase ii.pt.  
58 clinical trial, phase iii.pt.  
59 clinical trial, phase iv.pt.  
60 controlled clinical trial.pt.  
61 equivalence trial.pt.  
62 multicenter study.pt.  
63 pragmatic clinical trial.pt.  
64 randomized controlled trial.pt.  
65 random\*.ti,kf.  
66 ((clinical or controlled or crossover or cross-over or equivalence or noninferior\* or non-inferior\* or pragmatic or randomi#ed) adj3 (study or studies or trial\*)).ti,ab,kf.  
67 ((single\* or double\* or triple\* or treb\* or quad\*) adj3 (blind\* or mask\*)).ti,ab,kf.

68 (2 arm\* or two arm\* or 3 arm\* or three arm\* or 4 arm\* or four arm\* or 5 arm\* or five arm\*).ti,ab,kf.  
69 (phase 1\* or phase i\* or phase 2\* or phase ii\* or phase 3\* or phase iii\* or phase 4\* or phase  
iv\*).ti,ab,kf.  
70 (head to head or head-to-head).ti,ab,kf.  
71 (compar\* adj3 (effectiveness or efficacy)).ti,ab,kf.  
72 quasi\*.ti,ab,kf.  
73 placebo\*.ti,ab,kf.  
74 or/39-73  
75 exp meta-analysis as topic/  
76 scoping review as topic/  
77 systematic reviews as topic/  
78 exp technology assessment, biomedical/  
79 meta-analysis.pt.  
80 scoping review.pt.  
81 systematic review.pt.  
82 (metaanaly\* or meta analy\* or metaregression\* or meta regression\*).ti,kf.  
83 ((scoping or systematic\* or umbrella) adj2 (overview? or review?)).ti,kf.  
84 ((evidence or quantitative) adj2 (review? or synthes\*)).ti,kf.  
85 (technology adj (appraisal\* or assessment\*)).ti,kf.  
86 cinahl.ab.  
87 cochrane.ab.  
88 embase.ab.  
89 medline.ab.  
90 psyc?info.ab.  
91 pubmed.ab.  
92 scopus.ab.  
93 sociological abstracts.ab.  
94 web of science.ab.  
95 or/75-94  
96 and/11,25,74  
97 and/11,38  
98 limit 97 to yr="2020 -Current"  
99 and/11,25,95  
100 limit 99 to yr="2020 -Current"  
101 or/96,98,100  
102 (baboon? or bovine? or canine? or cat? or chimpanzee? or chinchilla? or cow? or dog? or feline? or ferret? or  
goat? or hens or macque? or mice or monkey? or (mouse adj2 model?) or murine? or ovine or pig? or porcine  
or (non-human adj2 primate?) or (nonhuman adj2 primate?) or sheep or rabbit? or rat or rats or rattus or  
rhesus or rodent? or swine or zebrafish).ti.  
103 101 not 102  
104 limit 103 to english language

**Cochrane Database of Systematic Reviews (CDSR) and Cochrane Central Register of Controlled Trials (CENTRAL) Search Strategy****CDSR: Issue 10 of 12, October 2025****CENTRAL: Issue 9 of 12, September 2025****Date searched (number of results): October 28, 2025 (CDSR, limited to past 5 years: 2; CENTRAL, English language, trial registry results removed: 826)****Platform: Cochrane Library (Wiley)**

- 1 [mh "low back pain"]
- 2 [mh sciatica]
- 3 ((coccyx:ti,ab,kw OR (low\* NEXT back):ti,ab,kw OR lumbar:ti,ab,kw OR lumbosacr\*:ti,ab,kw OR sacral:ti,ab,kw OR sacroiliac:ti,ab,kw OR sacrum:ti,ab,kw) NEAR/3 (ache?:ti,ab,kw OR backache?:ti,ab,kw OR pain\*:ti,ab,kw OR spondylo\*:ti,ab,kw))
- 4 coccydyni\*:ti,ab,kw
- 5 dorsalg\*:ti,ab,kw
- 6 lumbago:ti,ab,kw
- 7 lumbodyn\*:ti,ab,kw
- 8 ischialgi\*:ti,ab,kw
- 9 sacrocoxalgi\*:ti,ab,kw
- 10 sciatica:ti,ab,kw
- 11 (sciatic\*:ti,ab,kw NEAR/2 neuralgia:ti,ab,kw)
- 12 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11
- 13 [mh acupuncture]
- 14 [mh "acupuncture therapy"]
- 15 [mh "dry needling"]
- 16 [mh "trigger points"]
- 17 (acupoint?:ti,ab,kw OR (acu NEXT point?):ti,ab,kw)
- 18 acupuncture:ti,ab,kw
- 19 electroacupuncture:ti,ab,kw
- 20 meridian\*:ti,ab,kw
- 21 mox?bustion:ti,ab,kw
- 22 needling:ti,ab,kw
- 23 (pharmacopuncture:ti,ab,kw OR "pharmaco puncture":ti,ab,kw)
- 24 (shu:ti,ab,kw NEAR/3 point?:ti,ab,kw)
- 25 (trigger NEXT point?):ti,ab,kw
- 26 #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25
- 27 #12 AND #26

**CINAHL Plus With Full Text Search Strategy****Date searched (number of results): November 3, 2025 (602)****Platform: EBSCO**

- S1 (MH "low back pain")
- S2 (MH "low back pain")  
 (((TI coccyx OR AB coccyx OR SU coccyx) OR (TI "low\* back" OR AB "low\* back" OR SU "low\* back") OR (TI lumbar OR AB lumbar OR SU lumbar) OR (TI lumbosacr\* OR AB lumbosacr\* OR SU lumbosacr\*) OR (TI sacral OR AB sacral OR SU sacral) OR (TI sacroiliac OR AB sacroiliac OR SU sacroiliac) OR (TI sacrum OR AB sacrum OR SU sacrum) OR (TI sciatic\* OR AB sciatic\* OR SU sciatic\*)) N3 ((TI ache# OR AB ache# OR SU ache#) OR (TI backache# OR AB backache# OR SU backache#) OR (TI neuralgia OR AB neuralgia OR SU neuralgia) OR (TI pain\* OR AB pain\* OR SU pain\*) OR (TI spondylo\* OR AB spondylo\* OR SU spondylo\*)))
- S3 (TI coccydyni\* OR AB coccydyni\* OR SU coccydyni\*)
- S4 (TI dorsalg\* OR AB dorsalg\* OR SU dorsalg\*)
- S5 (TI lumbago OR AB lumbago OR SU lumbago)
- S6 (TI lumbodyn\* OR AB lumbodyn\* OR SU lumbodyn\*)
- S7 (TI ischialg\* OR AB ischialg\* OR SU ischialg\*)
- S8 (TI sacrocoxalg\* OR AB sacrocoxalg\* OR SU sacrocoxalg\*)
- S9 (TI sciatica OR AB sciatica OR SU sciatica)
- S10 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10
- S11 (MH "acupuncture+")
- S12 (MH moxibustion)
- S13 (MH "dry needling")  
 ((TI acupoint# OR AB acupoint# OR SU acupoint#) OR (TI "acu point#" OR AB "acu point#" OR SU "acu point#"))
- S14 (TI acupunctur\* OR AB acupunctur\* OR SU acupunctur\*)
- S15 (TI electroacupuncture OR AB electroacupuncture OR SU electroacupuncture)
- S16 (TI meridian\* OR AB meridian\* OR SU meridian\*)
- S17 (TI mox?bustion OR AB mox?bustion OR SU mox?bustion)
- S18 (TI needling OR AB needling OR SU needling)  
 ((TI pharmacopuncture OR AB pharmacopuncture OR SU pharmacopuncture) OR (TI "pharmaco puncture" OR AB "pharmaco puncture" OR SU "pharmaco puncture"))
- S19 ((TI shu OR AB shu OR SU shu) N3 (TI point# OR AB point# OR SU point#))
- S20 (TI "trigger point#" OR AB "trigger point#" OR SU "trigger point#")  
 S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24
- S21 (MH "crossover design")
- S22 (MH "clinical trials+")
- S23 (MH "community trials")
- S24 (MH "double-blind studies")
- S25 (MH "single-blind studies")
- S26 (MH "triple-blind studies")

- S31 (MH "quasi-experimental studies+")
- S32 (MH "multicenter studies")
- S33 (MH "random assignment")
- S34 (PT "randomized controlled trial")
- S35 (TI random\* OR SU random\*)  
 (((TI clinical OR AB clinical OR SU clinical) OR (TI controlled OR AB controlled OR SU controlled)  
 OR (TI crossover OR AB crossover OR SU crossover) OR (TI cross-over OR AB cross-over OR  
 SU cross-over) OR (TI equivalence OR AB equivalence OR SU equivalence) OR (TI noninferior\*  
 OR AB noninferior\* OR SU noninferior\*) OR (TI non-inferior\* OR AB non-inferior\* OR SU non-  
 inferior\*) OR (TI pragmatic OR AB pragmatic OR SU pragmatic) OR (TI randomi?ed OR AB  
 randomi?ed OR SU randomi?ed)) N3 ((TI study OR AB study OR SU study) OR (TI studies OR AB  
 studies OR SU studies) OR (TI trial\* OR AB trial\* OR SU trial\*))
- S36 (((TI clinical OR AB clinical OR SU clinical) OR (TI controlled OR AB controlled OR SU controlled)  
 OR (TI crossover OR AB crossover OR SU crossover) OR (TI cross-over OR AB cross-over OR  
 SU cross-over) OR (TI equivalence OR AB equivalence OR SU equivalence) OR (TI noninferior\*  
 OR AB noninferior\* OR SU noninferior\*) OR (TI non-inferior\* OR AB non-inferior\* OR SU non-  
 inferior\*) OR (TI pragmatic OR AB pragmatic OR SU pragmatic) OR (TI randomi?ed OR AB  
 randomi?ed OR SU randomi?ed)) N3 ((TI study OR AB study OR SU study) OR (TI studies OR AB  
 studies OR SU studies) OR (TI trial\* OR AB trial\* OR SU trial\*))
- S37 ((TI "2 arm\*" OR AB "2 arm\*" OR SU "2 arm\*") OR (TI "two arm\*" OR AB "two arm\*" OR SU "two  
 arm\*") OR (TI "3 arm\*" OR AB "3 arm\*" OR SU "3 arm\*") OR (TI "three arm\*" OR AB "three arm\*"  
 OR SU "three arm\*") OR (TI "4 arm\*" OR AB "4 arm\*" OR SU "4 arm\*") OR (TI "four arm\*" OR AB  
 "four arm\*" OR SU "four arm\*") OR (TI "5 arm\*" OR AB "5 arm\*" OR SU "5 arm\*") OR (TI "five  
 arm\*" OR AB "five arm\*" OR SU "five arm\*"))
- S38 ((TI "phase 1\*" OR AB "phase 1\*" OR SU "phase 1\*") OR (TI "phase i\*" OR AB "phase i\*" OR SU  
 "phase i\*") OR (TI "phase 2\*" OR AB "phase 2\*" OR SU "phase 2\*") OR (TI "phase ii\*" OR AB  
 "phase ii\*" OR SU "phase ii\*") OR (TI "phase 3\*" OR AB "phase 3\*" OR SU "phase 3\*") OR (TI  
 "phase iii\*" OR AB "phase iii\*" OR SU "phase iii\*") OR (TI "phase 4\*" OR AB "phase 4\*" OR SU  
 "phase 4\*") OR (TI "phase iv\*" OR AB "phase iv\*" OR SU "phase iv\*"))
- S39 ((TI "phase 1\*" OR AB "phase 1\*" OR SU "phase 1\*") OR (TI "phase i\*" OR AB "phase i\*" OR SU  
 "phase i\*") OR (TI "phase 2\*" OR AB "phase 2\*" OR SU "phase 2\*") OR (TI "phase ii\*" OR AB  
 "phase ii\*" OR SU "phase ii\*") OR (TI "phase 3\*" OR AB "phase 3\*" OR SU "phase 3\*") OR (TI  
 "phase iii\*" OR AB "phase iii\*" OR SU "phase iii\*") OR (TI "phase 4\*" OR AB "phase 4\*" OR SU  
 "phase 4\*") OR (TI "phase iv\*" OR AB "phase iv\*" OR SU "phase iv\*"))
- S40 ((TI compar\* OR AB compar\* OR SU compar\*) N3 ((TI effectiveness OR AB effectiveness OR SU  
 effectiveness) OR (TI efficacy OR AB efficacy OR SU efficacy)))
- S41 (TI quasi\* OR AB quasi\* OR SU quasi\*)
- S42 (TI placebo\* OR AB placebo\* OR SU placebo\*)
- S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36  
 S44 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43
- S45 S11 AND S24 AND S44  
 S11 AND S24 AND S44
- S46 Source Type: Academic Journals  
 S11 AND S24 AND S44
- S47 Source Type: Academic Journals; Language: English

**Alt Healthwatch****Date(s) searched: November 11, 2025****Number of results: 180****Platform: EBSCO**

- S1 (DE "lumbar pain")
- S2 (DE "sacrocoxalgia")
- S3 (DE "sciatica")
- S4 (DE "sciatica treatment")
- ((TI coccyx OR AB coccyx OR SU coccyx) OR (TI "low\* back" OR AB "low\* back" OR SU "low\* back") OR (TI lumbar OR AB lumbar OR SU lumbar) OR (TI lumbosacr\* OR AB lumbosacr\* OR SU lumbosacr\*) OR (TI sacral OR AB sacral OR SU sacral) OR (TI sacroiliac OR AB sacroiliac OR SU sacroiliac) OR (TI sacrum OR AB sacrum OR SU sacrum)) N3 ((TI ache# OR AB ache# OR SU ache#) OR (TI backache# OR AB backache# OR SU backache#) OR (TI pain\* OR AB pain\* OR SU pain\*) OR (TI spondylo\* OR AB spondylo\* OR SU spondylo\*))
- S5 pain\*) OR (TI spondylo\* OR AB spondylo\* OR SU spondylo\*))
- S6 (TI coccydyni\* OR AB coccydyni\* OR SU coccydyni\*)
- S7 (TI dorsalg\* OR AB dorsalg\* OR SU dorsalg\*)
- S8 (TI lumbago OR AB lumbago OR SU lumbago)
- S9 (TI lumbodyn\* OR AB lumbodyn\* OR SU lumbodyn\*)
- S10 (TI ischialgi\* OR AB ischialgi\* OR SU ischialgi\*)
- S11 (TI sacrocoxalg\* OR AB sacrocoxalg\* OR SU sacrocoxalg\*)
- S12 (TI sciatica OR AB sciatica OR SU sciatica)
- S13 ((TI sciatic\* OR AB sciatic\* OR SU sciatic\*) N2 (TI neuralgia OR AB neuralgia OR SU neuralgia))
- S14 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13
- S15 (DE "acupuncture")
- S16 (DE "acupuncture analgesia")
- S17 (DE "acupuncture anesthesia")
- S18 (DE "electroacupuncture")
- S19 (DE "dry needling")
- S20 (DE "moxibustion")
- ((TI acupoint# OR AB acupoint# OR SU acupoint#) OR (TI "acu point#" OR AB "acu point#" OR SU "acu point#"))
- S21 SU "acu point#"))
- S22 (TI acupuncture OR AB acupuncture OR SU acupuncture)
- S23 (TI electroacupuncture OR AB electroacupuncture OR SU electroacupuncture)
- S24 (TI meridian\* OR AB meridian\* OR SU meridian\*)
- S25 (TI mox?bustion OR AB mox?bustion OR SU mox?bustion)
- S26 (TI needling OR AB needling OR SU needling)
- ((TI pharmacopuncture OR AB pharmacopuncture OR SU pharmacopuncture) OR (TI "pharmacopuncture" OR AB "pharmacopuncture" OR SU "pharmacopuncture"))
- S27 puncture" OR AB "pharmacopuncture" OR SU "pharmacopuncture"))
- S28 ((TI shu OR AB shu OR SU shu) N3 (TI point# OR AB point# OR SU point#))
- S29 (TI "trigger point#" OR AB "trigger point#" OR SU "trigger point#")
- S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26
- S30 OR S27 OR S28 OR S29

- S31 S14 AND S30  
S14 AND S30
- S32 Source Type: Academic Journals  
S14 AND S30
- S33 Source Type: Academic Journals; Language: English

## Policy Sources and Search Terms

We searched the CMS website and the Medicare Coverage Database for Medicare local and national coverage determinations and coverage policies on acupuncture services for chronic low back pain. We also searched the Medicaid State Waivers List for states with approved, pending, or rejected section 1115a waivers that included coverage of acupuncture services. In addition, we searched the websites of the state Medicaid programs and health plans listed below using the terms “acupuncture,” “dry needling,” “low back pain” and the CPT codes 20560 and 20561 (dry needling), and 97810, 97811, 97813, and 97814 (traditional acupuncture). Searches were conducted November 13, 2025, and January 12, 2026, and updated March 6 to March 18, 2026.

### State Medicaid Programs

- California Medicaid
- Florida Medicaid
- Massachusetts Medicaid
- New Jersey Medicaid
- New York Medicaid
- North Carolina Medicaid
- Oregon Medicaid and the HERC coverage guidance (including topics under consideration)
- Pennsylvania Medicaid
- Texas Medicaid
- Washington Medicaid and the Washington Health Technology Assessment Program coverage determinations (including topics under consideration)

### Health Plans

- Aetna
- Anthem Blue Cross and Blue Shield
- Cigna
- Fidelis Care
- Healthfirst
- MetroPlusHealth
- Molina Healthcare
- UnitedHealthcare

## Appendix B. Detailed Inclusion and Exclusion Criteria

Table B1. Detailed Inclusion and Exclusion Criteria

Study Component	Inclusion	Exclusion
Populations	<ul style="list-style-type: none"> <li>Adults (<math>\geq 18</math> years of age) with nonspecific chronic low back pain (lasting 12 weeks or longer)</li> </ul>	<ul style="list-style-type: none"> <li>Studies combining populations with both (sub)acute and chronic low back pain where the results of acupuncture for different populations cannot be extracted separately</li> <li>Studies where the duration of lower back pain is not reported</li> <li>Studies where low back pain can be attributed to a known medical pathology, such as infection, tumor, osteoporotic fracture, or pregnancy</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>Any form of acupuncture involving needling for treatment of nonspecific chronic lower back pain, with or without the addition of electrical stimulation or use of herbal extracts</li> <li>Studies of acupuncture as an adjunct to other therapies included as long as there is a comparator that meets inclusion criteria</li> </ul>	<ul style="list-style-type: none"> <li>Studies that do not involve needling, such as acupressure or laser acupuncture</li> <li>Studies that do not specify the type of acupuncture used in the intervention (i.e., traditional, auricular, scalp, dry needling, etc.)</li> <li>Studies that combine different approaches to acupuncture where results for each specific approach cannot be extracted separately (i.e., traditional acupuncture with electrical stimulation and without)</li> </ul>
Comparators	<ul style="list-style-type: none"> <li>No treatment</li> <li>Placebo or sham acupuncture</li> <li>Other nonpharmaceutical, nonsurgical therapeutic interventions (e.g., physiotherapy, massage, yoga)</li> </ul>	<ul style="list-style-type: none"> <li>Comparison with pharmaceutical or surgical interventions</li> <li>Comparison of acupuncture techniques, without a control arm that did not receive acupuncture</li> </ul>
Outcomes	<p><u>Critical</u></p> <ul style="list-style-type: none"> <li>Back-specific functional status (e.g., Roland-Morris Disability Scale, Oswestry Disability Scale)</li> </ul> <p><u>Important</u></p> <ul style="list-style-type: none"> <li>Pain intensity (e.g., visual analogue scale [VAS])</li> <li>Global measure of improvement or recovery (e.g., overall improvement, proportion of patients recovered, subjective improvement of symptoms)</li> <li>Work-relevant outcomes (e.g., return-to-work status, number of days off work or school, etc.).</li> <li>Reduction in opioid use</li> <li>Back pain-specific quality of life</li> <li>Adverse effects</li> </ul>	<ul style="list-style-type: none"> <li>None of the identified critical or important outcomes reported</li> </ul>

Study Component	Inclusion	Exclusion
Timing and follow-up	<ul style="list-style-type: none"> <li>Short-term (1 week to 3 months after the end of acupuncture sessions) through long-term follow-up (1 year or longer after end of acupuncture sessions)</li> </ul>	<ul style="list-style-type: none"> <li>Outcomes measured only immediately after the acupuncture session, without a minimum of 1 week follow-up</li> </ul>
Setting	<ul style="list-style-type: none"> <li>Studies conducted in countries categorized as <i>very high</i> on the Human Development Index (KQ1–KQ2)</li> <li>Studies conducted in the US or using US-based health systems data (KQ3)</li> </ul>	<ul style="list-style-type: none"> <li>Studies conducted in countries not categorized as <i>very high</i> on the Human Development Index (KQ1–KQ2)</li> <li>Studies not conducted in US or not using US-based health systems data (KQ3)</li> </ul>
Study design	<p><u>KQ1–KQ2</u></p> <ul style="list-style-type: none"> <li>Randomized controlled trials</li> </ul> <p><u>KQ3</u></p> <ul style="list-style-type: none"> <li>Comparative studies and economic evaluations</li> <li>Cost-effectiveness analyses</li> <li>Economic modeling studies</li> <li>Published within past 5 years</li> </ul> <p><u>KQ4</u></p> <ul style="list-style-type: none"> <li>Evidence-based clinical practice guidelines that provide specific treatment recommendations</li> <li>Published, reviewed and reaffirmed, or updated within past 5 years</li> </ul>	<p><u>KQ1–KQ2</u></p> <ul style="list-style-type: none"> <li>Case reports or case series</li> <li>Retrospective studies</li> <li>Studies without extractable data</li> <li>Studies without a valid comparison group</li> <li>Uncontrolled studies</li> <li>Proof-of-principle studies (e.g., program or algorithm development)</li> </ul> <p><u>KQ3</u></p> <ul style="list-style-type: none"> <li>Cost-effectiveness studies published outside of the US</li> <li>Cost-effectiveness studies published prior to October 1, 2020</li> </ul> <p><u>KQ4</u></p> <ul style="list-style-type: none"> <li>Practice guidelines or recommendations published prior to October 1, 2020</li> </ul>
Sample size	<ul style="list-style-type: none"> <li>Minimum of 20 participants per study arm</li> </ul>	<ul style="list-style-type: none"> <li>Fewer than 20 participants per study arm randomized</li> <li>Fewer than 20 participants per study arm included in analysis</li> </ul>
Publication type	<ul style="list-style-type: none"> <li>Peer-reviewed publication of primary study results</li> <li>Published in the English language</li> <li>Ancillary publications with additional comparative follow-up</li> </ul>	<ul style="list-style-type: none"> <li>Abstracts, conference proceedings, posters, editorials, and letters</li> <li>Studies that have not been formally peer reviewed (i.e., preprint publications)</li> <li>Studies published in languages other than English</li> <li>Studies that cannot be found</li> <li>Duplicate publications of the same study that do not report different outcomes or follow-up times, or single-site reports from published multicenter studies</li> </ul>

Abbreviations. KQ: key question; US: United States.

## Appendix C. Included Studies

Table C1. Included Studies

Included Studies
Randomized controlled trials (KQs 1 to 3)
Brinkhaus B, Witt CM, Jena S, et al. Acupuncture in patients with chronic low back pain: a randomized controlled trial. <i>Arch Intern Med.</i> 2006;166(4):450-457. doi: 10.1001/archinte.166.4.450
Cherkin DC, Sherman KJ, Avins AL, et al. A randomized trial comparing acupuncture, simulated acupuncture, and usual care for chronic low back pain. <i>Arch Intern Med.</i> 2009;169(9):858-866. doi: 10.1001/archinternmed.2009.65
Cho YJ, Song YK, Cha YY, et al. Acupuncture for chronic low back pain: a multicenter, randomized, patient-assessor blind, sham-controlled clinical trial. <i>Spine (Phila Pa 1976).</i> 2013;38(7):549-557. doi: 10.1097/BRS.0b013e318275e601
DeBar LL, Wellman RD, Justice M, et al. Acupuncture for Chronic Low Back Pain in Older Adults: A Randomized Clinical Trial. <i>JAMA Netw Open.</i> 2025;8(9):e2531348. doi: 10.1001/jamanetworkopen.2025.31348
Haake M, Muller HH, Schade-Brittinger C, et al. German Acupuncture Trials (GERAC) for chronic low back pain: randomized, multicenter, blinded, parallel-group trial with 3 groups. <i>Arch Intern Med.</i> 2007;167(17):1892-1898. doi: 10.1001/archinte.167.17.1892
Kerr DP, Walsh DM, Baxter D. Acupuncture in the management of chronic low back pain: a blinded randomized controlled trial. <i>Clin J Pain.</i> 2003;19(6):364-370. doi: 10.1097/00002508-200311000-00004
Kong JT, Puetz C, Tian L, et al. Effect of Electroacupuncture vs Sham Treatment on Change in Pain Severity Among Adults With Chronic Low Back Pain: A Randomized Clinical Trial. <i>JAMA Netw Open.</i> 2020;3(10):e2022787. doi: 10.1001/jamanetworkopen.2020.22787
Lara-Palomo IC, Antequera-Soler E, Fernandez-Sanchez M, et al. Electrical dry needling versus a non-invasive multicomponent intervention in the treatment of myofascial trigger points in patients with chronic low back pain: A randomised clinical trial. <i>Clin Rehabil.</i> 2024;38(3):347-360. doi: 10.1177/02692155231201589
Leibing E, Leonhardt U, Koster G, et al. Acupuncture treatment of chronic low-back pain -- a randomized, blinded, placebo-controlled trial with 9-month follow-up. <i>Pain.</i> 2002;96(1-2):189-196. doi: 10.1016/s0304-3959(01)00444-4
Martin-Corrales C, Bautista IV, Mendez-Mera JE, et al. Benefits of Adding Gluteal Dry Needling to a Four-Week Physical Exercise Program in a Chronic Low Back Pain Population. A Randomized Clinical Trial. <i>Pain Med.</i> 2020;21(11):2948-2957. doi: 10.1093/pm/pnaa279
Meng CF, Wang D, Ngeow J, et al. Acupuncture for chronic low back pain in older patients: a randomized, controlled trial. <i>Rheumatology (Oxford).</i> 2003;42(12):1508-1517. doi: 10.1093/rheumatology/keg405
Molsberger AF, Mau J, Pawelec DB, et al. Does acupuncture improve the orthopedic management of chronic low back pain--a randomized, blinded, controlled trial with 3 months follow up. <i>Pain.</i> 2002;99(3):579-587. doi: 10.1016/S0304-3959(02)00269-5
Seo BK, Han K, Kwon O, Jo DJ, Lee JH. Efficacy of Bee Venom Acupuncture for Chronic Low Back Pain: A Randomized, Double-Blinded, Sham-Controlled Trial. <i>Toxins (Basel).</i> 2017;9(11). doi: 10.3390/toxins9110361
Shin B-C, Kong JC, Park T-Y, et al. Bee venom acupuncture for chronic low back pain: A randomised, sham-controlled, triple-blind clinical trial. <i>European Journal of Integrative Medicine.</i> 2012;4(3):e271-e280. doi: 10.1016/j.eujim.2012.02.005
Weiss J, Quante S, Xue F, et al. Effectiveness and acceptance of acupuncture in patients with chronic low back pain: results of a prospective, randomized, controlled trial. <i>J Altern Complement Med.</i> 2013;19(12):935-941. doi: 10.1089/acm.2012.0338

Included Studies
Yeung CK, Leung MC, Chow DH. The use of electro-acupuncture in conjunction with exercise for the treatment of chronic low-back pain. <i>J Altern Complement Med.</i> 2003;9(4):479-490. doi: 10.1089/107555303322284767
<b>Cost-effectiveness studies (KQ3)</b>
Herman PM, Mann S, DeBar LL, et al. Cost-effectiveness of acupuncture needling for older adults with chronic low back pain. <i>Spine (Phila Pa 1976).</i> 2026 Feb 1;51(3):E65-E75.
<b>Clinical practice guidelines (KQ4)</b>
Bailly F, Trouvin AP, Bercier S, et al. Clinical guidelines and care pathway for management of low back pain with or without radicular pain. <i>Joint Bone Spine.</i> 2021;88(6):105227. doi: 10.1016/j.jbspin.2021.105227
Chen HY, Yeung WF, Yang MX, et al. Guideline Acupuncture for low back pain: a clinical practice guideline from the Hong Kong taskforce of standardized acupuncture practice. <i>J Tradit Chin Med.</i> 2022;42(1):140-147. doi: 10.19852/j.cnki.jtcm.2022.01.009
George SZ, Fritz JM, Silfies SP, et al. Interventions for the Management of Acute and Chronic Low Back Pain: Revision 2021. <i>J Orthop Sports Phys Ther.</i> 2021;51(11):CPG1-CPG60. doi: 10.2519/jospt.2021.0304
Hegmann KT, Travis R, Andersson GBJ, et al. Non-Invasive and Minimally Invasive Management of Low Back Disorders. <i>J Occup Environ Med.</i> 2020;62(3):e111-e138. doi: 10.1097/JOM.0000000000001812
Korownyk CS, Montgomery L, Young J, et al. PEER simplified chronic pain guideline: Management of chronic low back, osteoarthritic, and neuropathic pain in primary care. <i>Can Fam Physician.</i> 2022;68(3):179-190. doi: 10.46747/cfp.6803179
Kreiner DS, Matz P, Bono CM, et al. Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of low back pain. <i>Spine J.</i> 2020;20(7):998-1024. doi: 10.1016/j.spinee.2020.04.006
National Institute for Health and Care Excellence. Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain. National Institute for Health and Care Excellence (NICE). 2021;04:07.
Shirado O, Arai Y, Iguchi T, et al. Formulation of Japanese Orthopaedic Association (JOA) clinical practice guideline for the management of low back pain- the revised 2019 edition. <i>J Orthop Sci.</i> 2022;27(1):3-30. doi: 10.1016/j.jos.2021.06.024
The Diagnosis and Treatment of Low Back Pain Work Group. VA/DoD clinical practice guideline for the diagnosis and treatment of low back pain. Department of Veterans Affairs, Department of Defense. 2022. Accessed October 27, 2025. <a href="https://www.healthquality.va.gov/HEALTHQUALITY/guidelines/Pain/lbp/VADODLBPCPGFinal508.pdf">https://www.healthquality.va.gov/HEALTHQUALITY/guidelines/Pain/lbp/VADODLBPCPGFinal508.pdf</a>
World Health Organization. WHO guideline for non-surgical management of chronic primary low back pain in adults in primary and community care settings. 2023. Accessed October 27, 2025. <a href="https://iris.who.int/handle/10665/374726">https://iris.who.int/handle/10665/374726</a>

## Appendix D. Excluded Studies

Citation	Reason for Exclusion
Alrawaili, S. M., Elshawi, A. M., Sulieman, A. Short-term effect of acupuncture dry needle in treatment of chronic mechanical low back pain: a randomized controlled clinical trial. <i>Eur Rev Med Pharmacol Sci.</i> 2024; 28(14):3973-3981.	Population. Did not meet 20 per arm minimum sample size requirement.
Alvarez, S. D., Velazquez Saornil, J., Sanchez Mila, Z. Effectiveness of Dry Needling and Ischemic Trigger Point Compression in the Gluteus Medius in Patients with Non-Specific Low Back Pain: A Randomized Short-Term Clinical Trial. <i>Int J Environ Res Public Health.</i> 2022; 19(19).	Population. Chronic was defined as low back pain of 6 weeks or more—did not meet our minimum duration of 12 weeks or more. Neither mean duration nor range were provided in the publication and results are not posted in <a href="https://clinicaltrials.gov">clinicaltrials.gov</a> .
National Institute for Health and Care Excellence. National Institute for Health and Care Excellence. 2020; 12:11.	Publication type. Duplicate.
National Institutes of Health Acupuncture. NIH Consensus Statement. 1997; 15(5):1-34.	Publication type.
Apeldoorn, A. T., Swart, N. M., Conijn, D. Management of low back pain and lumbosacral radicular syndrome: the Guideline of the Royal Dutch Society for Physical Therapy (KNGF). <i>Eur J Phys Rehabil Med.</i> 2024; 60(2):292-318.	Intervention. Recommendations related to exercise therapy and manipulation. Did not address acupuncture or dry needling.
Arnold, M. J. Management of Acute Pain from Non-Low Back Musculoskeletal Injuries: Guidelines from AAFP and ACP. <i>Am Fam Physician.</i> 2020; 102(11):697-698.	Intervention. Management of acute pain (not chronic) and excluded low back pain.
Barr, Michael, Carrasco, Steven, Zimmerman, Kimberly Neuromuscular etiologies of low back pain beyond the back: implications for acupuncturist training, study design, comparative effectiveness analyses and reimbursement by health insurance programs. <i>Integrative Medicine Research.</i> 2020; 9.	Publication type. Abstract only.
Bittar, M., Deodhar, A. A critical view of WHO guidelines on management of low back pain. <i>Nat Rev Rheumatol.</i> 2024; 20(4):201-202.	Publication type. Editorial.
Briggs, A. M., Sumi, Y., Banerjee, A. The World Health Organization guideline for non-surgical management of chronic primary low back pain in adults: implications for equitable care and strengthening health systems globally. <i>Glob Health Res Policy.</i> 2025; 10(1):26.	Publication type. This is a commentary on the WHO guideline (included) and a general discussion of the health systems changes that would be needed to see all of the recommendations through.
Brinkhaus, B., Witt, C. M., Jena, S. Interventions and physician characteristics in a randomized multicenter trial of acupuncture in patients with low-back pain. <i>J Altern Complement Med.</i> 2006; 12(7):649-57.	Outcomes. Results were presented at the physician level, not the participant level. This is an ancillary to Brinkhaus (2005), which is included, but it did not include any results we would report.
Buelt, A., McCall, S., Coster, J. Management of Low Back Pain: Guidelines From the VA/DoD. <i>Am Fam Physician.</i> 2023; 107(4):435-437.	Publication type. This is a summary of the VA guidelines for the American Family Physician website. Link to main publication on VA guidelines.

Citation	Reason for Exclusion
Carlsson, C. P., Sjolund, B. H. Acupuncture for chronic low back pain: a randomized placebo-controlled study with long-term follow-up. <i>Clin J Pain</i> . 2001; 17(4):296-305.	Intervention. Participants were randomized to manual acupuncture, electroacupuncture, or sham TENS. However, the study did not meet enrollment targets and they combined both acupuncture arms under the label of 'acupuncture' generally. Participants received 2 different interventions, but results were not reported separately by intervention type, so this study did not meet PICOTS criteria.
Ceccherelli, F., Gagliardi, G., Barbagli, P. Correlation between number of sessions and therapeutical effect in patients suffering from low back pain treated with acupuncture: a randomized controlled blind study. <i>Minerva Medica</i> . 2003; 94(1 Suppl 4):39-44.	Non-English. Article in Italian.
Chang, D. H., Bae, U. Y., Jung, J. H. The effects of burning acupuncture therapy with Chuna therapy for low back pain patients. <i>Journal of Oriental Rehabilitation Medicine</i> . 2012; 21(3):21-32.	Non-English.
Cherkin, D. C., Eisenberg, D., Sherman, K. J. Randomized trial comparing traditional Chinese medical acupuncture, therapeutic massage, and self-care education for chronic low back pain. <i>Arch Intern Med</i> . 2001; 161(8):1081-8.	Population. Minimum duration of pain was 6 weeks (did not meet our definition of chronic) and did not provide mean duration of low back pain or range.
Chou, R., Huffman, L. H., American Pain, Society Nonpharmacologic therapies for acute and chronic low back pain: a review of the evidence for an American Pain Society/American College of Physicians clinical practice guideline. <i>Ann Intern Med</i> . 2007; 147(7):492-504.	Study design.
Clark, N. G., Hill, C. J., Koppenhaver, S. L. The effects of dry needling to the thoracolumbar junction multifidi on measures of regional and remote flexibility and pain sensitivity: A randomized controlled trial. <i>Musculoskelet Sci Pract</i> . 2021; 53:102366.	Population. Chronicity was not a requirement for inclusion and was not reported in results.
Clauw, D. J., Harris, R. E. Is acupuncture more effective than sham acupuncture in relieving pain in patients with low back pain? <i>Nat Clin Pract Rheumatol</i> . 2006; 2(7):362-3.	Publication type. Synopsis of an Archives of Internal Medicine article.
Coan, R. M., Wong, G., Ku, S. L. The acupuncture treatment of low back pain: a randomized controlled study. <i>Am J Chin Med</i> . 1980; 8(1-2):181-9.	Population. More than half of participants had sciatica (so this study did not meet the nonspecific requirement).
Cohen, S. P., Bhaskar, A., Bhatia, A. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. <i>Reg Anesth Pain Med</i> . 2020; 45(6):424-467.	Intervention. Really a recommendation about facet joint interventions. Acupuncture is mentioned in passing and no specific recommendations about either acupuncture or dry needling are provided.

Citation	Reason for Exclusion
Dar, G., Goldberg, A. Dry needling of the gluteus-medius muscle, combined with standard care, for chronic low back pain - a pilot randomized sham-controlled trial. <i>J Man Manip Ther.</i> 2025; 33(5):392-400.	Population. With < 20 participants per study arm, this pilot RCT did not meet minimum sample size criteria.
Dascanio, Vivienne C., Birks, Yvonne, Torgerson, David. A pilot factorial randomized cohort trial of manual therapy or acupuncture for low back pain. <i>Journal of the Acupuncture Association of Chartered Physiotherapists.</i> 2012;139-140.	Publication type. Poster presentation, and only a protocol for an RCT.
Deer, T., Heros, R., Scarfo, K. A Cost Effectiveness Analysis of Spinal Cord Stimulation versus Conventional Medical Management for the Treatment of Low Back Pain Using Data from DISTINCT RCT and Medical Claims from a U.S. Commercial Payer Database. <i>J Pain Res.</i> 2025; 18:2823-2838.	Intervention. Treatment was spinal cord stimulation with electrodes, not acupuncture or dry needling.
Dionne, C. E., Rossignol, M., Deyo, R. A. Back to the Future: A Report From the 16th International Forum for Back and Neck Pain Research in Primary Care and Updated Research Agenda. <i>Spine (Phila Pa 1976).</i> 2022; 47(19):E595-E605.	Publication type. Not a guideline—review of a conference. Did not address acupuncture or dry needling.
D'Souza, R. S., McCormick, Z. L., Hurley, R. W. Evidence-based recommendations for sacroiliac joint complex pain management. <i>Reg Anesth Pain Med.</i> 2025; 29:29.	Population. Sacroiliac joint complex is distinct from nonspecific low back pain (SIJ can be a cause of low back pain).
Expert Panel on Neurological, Imaging, Hutchins, T. A., Peckham, M. ACR Appropriateness Criteria(R) Low Back Pain: 2021 Update. <i>J Am Coll Radiol.</i> 2021; 18(11S):S361-S379.	Population. Imaging guidelines, not related to treatment of chronic low back pain.
Farley, J., Taylor-Swanson, L., Koppenhaver, S. The Effect of Combining Spinal Manipulation and Dry Needling in Individuals With Nonspecific Low Back Pain. <i>J Pain.</i> 2024; 25(8):104506.	Population. Pain for 2 weeks or more.
Farsi, Reyhane, Meftahi, Narges, Mohamadi, Marzieh Comparison of Dry Needling and Sham on Nervous System Sensitization in Chronic Low Back Pain: a Randomized Clinical Trial. <i>SSRN.</i> 2025.	Setting. Not a high HDI country (Iran) and this is a preprint, not a peer-reviewed publication.
Fox, E. J., Melzack, R. Transcutaneous electrical stimulation and acupuncture: comparison of treatment for low-back pain. <i>Pain.</i> 1976; 2(2):141-8.	Population. Did not meet minimum sample size requirement (total of 12 patients).
Franke, A., Franke, K., Gebauer, S. Acupuncture massage vs. Swedish massage and individual exercises vs group exercises in low back pain sufferers: a randomized clinical trial in a 2x2 factorial design. <i>Focus on Alternative and Complementary Therapies.</i> 2000; 5(1):88-89.	Publication type. Abstract only. The full article is published in another journal in German.
Garvey, T. A., Marks, M. R., Wiesel, S. W. A prospective, randomized, double-blind evaluation of trigger-point injection therapy for low-back pain. <i>Spine (Phila Pa 1976).</i> 1989; 14(9):962-4.	Population. No measure of chronicity in inclusion criteria. Additionally, groups did not meet our minimum sample size requirements.
Giles, L. G., Muller, R. Chronic spinal pain syndromes: a clinical pilot trial comparing acupuncture, a nonsteroidal anti-inflammatory drug, and spinal manipulation. <i>J Manipulative Physiol Ther.</i> 1999; 22(6):376-81.	Population. Spinal pain generally (including neck and upper back).
Giles, L. G., Muller, R. Chronic spinal pain: a randomized clinical trial comparing medication, acupuncture, and spinal manipulation. <i>Spine (Phila Pa 1976).</i> 2003; 28(14):1490-502; discussion 1502-3.	Population. Inclusion criteria was spinal pain generally (albeit chronic), not low back pain specifically. There was no way to know how many people in either group met our inclusion criteria or how many had neck or thoracic spinal pain.

Citation	Reason for Exclusion
Glazov, G., Yelland, M., Emery, J. Low-dose laser acupuncture for non-specific chronic low back pain: a double-blind randomised controlled trial. <i>Acupunct Med.</i> 2014; 32(2):116-23.	Intervention. Laser acupuncture does not involve needles.
Griswold, D., Gargano, F., Learman, K. E. A randomized clinical trial comparing non-thrust manipulation with segmental and distal dry needling on pain, disability, and rate of recovery for patients with non-specific low back pain. <i>J Man Manip Ther.</i> 2019; 27(3):141-151.	Population. Included patients with a minimum of 6 weeks duration of low back pain. Did not meet our minimum 12-week requirement and did not include mean duration or range for randomized participants.
Gunn, C. C., Milbrandt, W. E., Little, A. S. Dry needling of muscle motor points for chronic low-back pain: a randomized clinical trial with long-term follow-up. <i>Spine (Phila Pa 1976).</i> 1980; 5(3):279-91.	Population. Chronic was defined as 12 weeks or longer, but the study did not distinguish between patients who had nonspecific back pain and those who had fractures or were postsurgery (spinal fusion, etc.).
Han, Jian Therapeutic effect analysis of low back pain treated by acupuncture and moxibustion. <i>Journal of Clinical Acupuncture and Moxibustion.</i> 2003; 19(8):20.	Non-English.
Hansson, Y., Carlsson, C., Olsson, E. Intramuscular and periosteal acupuncture in patients suffering from chronic musculoskeletal pain - a controlled trial. <i>Acupunct Med.</i> 2008; 26(4):214-23.	Population. Recruited people with neck pain OR low back pain (or both), but did not separately report results for the back pain group.
Harbach, H., Moll, B., Boedeker, R. H. Minimal immunoreactive plasma beta-endorphin and decrease of cortisol at standard analgesia or different acupuncture techniques. <i>Eur J Anaesthesiol.</i> 2007; 24(4):370-6.	Population. Did not meet minimum sample size requirement (only 15 patients total).
Heo, I., Hwang, M. S., Hwang, E. H. Electroacupuncture as a complement to usual care for patients with non-acute low back pain after back surgery: a pilot randomised controlled trial. <i>BMJ Open.</i> 2018; 8(5):e018464.	Population. Participants had all recently had back surgery and inclusion criteria was pain that persisted at least 3 weeks after back surgery.
Heo, I., Shin, B. C., Cho, J. H. Multicentre randomised controlled clinical trial of electroacupuncture with usual care for patients with non-acute pain after back surgery. <i>Br J Anaesth.</i> 2021; 126(3):692-699.	Population. Recruited people who had at least 3 weeks of lower back pain following back surgery. Did not meet our definition of chronic (12 weeks or more).
Herman, P. M., McBain, R. K., Broten, N. Update of Markov Model on the Cost-effectiveness of Nonpharmacologic Interventions for Chronic Low Back Pain Compared to Usual Care. <i>Spine (Phila Pa 1976).</i> 2020; 45(19):1383-1385.	Publication Date. Cost-effectiveness study that looks at nonpharmacological interventions for chronic low back pain generally. Only 2 studies of acupuncture were included, and neither was a US-based study published within the past 5 years: Cherkin 2009 (US) and Haake 2007 (Germany). Costs were provided in 2015 dollars.
Herman, P. M., Szczerko, O., Cooley, K. Cost-effectiveness of naturopathic care for chronic low back pain. <i>Altern Ther Health Med.</i> 2008; 14(2):32-9.	Population. Inclusion criteria were back pain for 6 weeks or more—does not meet our definition of chronic (12 weeks or more).

Citation	Reason for Exclusion
Hirota, S. Trigger point acupuncture treatment for chronic low back pain in elderly patients. <i>The Bulletin of Meiji University of Oriental Medicine</i> . 2007; 38:19-26.	Non-English.
Hodges, S., Li, Y., Wu, J. Novel avatar-based video-guided acupuncture imagery treatment for chronic low back pain: a randomised controlled trial in the USA. <i>EClinicalMedicine</i> . 2025; 89:103538.	Intervention. Neither group actually received acupuncture (just 2 different video-based interventions).
Hopton, A. K., Thomas, K. J., MacPherson, H. Willingness to try acupuncture again: reports from patients on their treatment reactions in a low back pain trial. <i>Acupunct Med</i> . 2010; 28(4):185-8.	Population. Ancillary of Thomas (2006) but parent study defined chronic as 4 weeks or more (did not meet our minimum 12-week criteria).
Hopton, A., Thomas, K., MacPherson, H. The acceptability of acupuncture for low back pain: a qualitative study of patient's experiences nested within a randomised controlled trial. <i>PLoS One</i> . 2013; 8(2):e56806.	Population. Ancillary of Thomas (2006) but parent study defined chronic as 4 weeks or more (did not meet our minimum 12-week criteria).
Hunter, R. F., McDonough, S. M., Bradbury, I. Exercise and Auricular Acupuncture for Chronic Low-back Pain: A Feasibility Randomized-controlled Trial. <i>Clin J Pain</i> . 2012; 28(3):259-67.	Population. Chronic ( $\geq 3$ months) OR recurrent (at least 3 episodes in the past year). Did not separately report results by group.
Inoue, M. The comparison of the effectiveness between acupuncture treatment and local injection for low back pain- a randomized controlled trial. <i>Journal of the Japanese Bio-Electrical and Physical Stimulation Research Society</i> . 2008; 22:1-6.	Population. Did not meet minimum sample size requirement (13 per study arm).
Inoue, M. Effect of acupuncture immediately after treatment in patients with low back pain - double blind randomized trial using sham needle. <i>The Bulletin of Meiji University of Oriental Medicine</i> . 2005; 36:156-157.	Unable to locate.
Inoue, M., Hojo, T., Nakajima, M. Comparison of the effectiveness of acupuncture treatment and local anaesthetic injection for low back pain: a randomised controlled clinical trial. <i>Acupunct Med</i> . 2009; 27(4):174-7.	Population. Did not meet 20 per arm minimum sample size requirement.
Inoue, M., Kitakoji, H., Ishizaki, N. Relief of low back pain immediately after acupuncture treatment--a randomised, placebo controlled trial. <i>Acupunct Med</i> . 2006; 24(3):103-8.	Population. Did not meet 20 per arm minimum sample size requirement.
Inoue, M., Kitakouji, H., Ikeuchi, R. Randomized controlled pilot study comparing acupuncture with sham acupuncture for lumbago. <i>Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2000; 50(2):356.	Non-English.
Inoue, M., Ktakouji, H., Ikeuchi, R. Randomized controlled pilot study comparing manual acupuncture with sham acupuncture for lumbago (2nd report). <i>The Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2001; 51(3):412.	Non-English.
Inoue, M., Ktakouji, H., Ikeuchi, R. Randomized controlled pilot study comparing manual acupuncture with sham acupuncture for lumbago (2nd report). <i>The Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2001; 51(3):412.	Non-English.
Inoue, M., Nakajima, M., Itoi, M. Comparison of the effectiveness of acupuncture treatment and local injection for low back pain -- a randomized controlled clinical trial. <i>Journal of the Japanese Association of Physical Medicine, Balneology &amp; Climatology</i> . 2008; 71(4):211-220.	Population. Did not meet our minimum sample size requirement (13 per study arm).

Citation	Reason for Exclusion
Ishimaru, K., Shinohara, S., Kitade, T. Clinical efficacy of electrical heat acupuncture (first report): effect on low back pain. <i>American Journal of Acupuncture</i> . 1993; 21(1).	Population. Did not meet minimum sample size requirements (total of 10 patients).
Itoh, K. Usefulness of the trigger point acupuncture treatment for aged patients with low back pain. <i>Journal of the Japanese Society for the Study of Chronic Pain</i> . 2004; 23(4):83-88.	Non-English.
Itoh, K. Effect of acupuncture treatment on chronic low back pain with leg pain in aged patients. <i>Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2005; 55(4):530-537.	Non-English.
Itoh, K., Katsumi, Y., Hirota, S. Effects of trigger point acupuncture on chronic low back pain in elderly patients--a sham-controlled randomised trial. <i>Acupunct Med</i> . 2006; 24(1):5-12.	Population. Did not meet minimum 20 per arm sample size requirement.
Itoh, K. Effect of trigger point acupuncture treatment in older patients with chronic low back pain. <i>Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2009; 59(1):13-21.	Non-English.
Itoh, K. Transcutaneous electrical nerve stimulation for non-acute low back pain. A randomized double-blind study of conventional, nu-wave, acupuncture-type and sham therapies. <i>American Academy of Orthopaedic Surgeons 1997 Annual Meeting - Scientific Program</i> . 1997.	Publication type.
Jarzem, Peter F., Harvey, Edward J., Arcaro, Nicholas Transcutaneous Electrical Nerve Stimulation [TENS] for Chronic Low Back Pain. <i>Journal of Musculoskeletal Pain</i> . 2005; 13(2):3-9.	Intervention. Acupuncture-like TENS treatment that did not appear to actually be acupuncture. Detail was lacking.
Justice, M., Piccorelli, A., Avins, A. L. Baseline sample characteristics for the BackInAction pragmatic trial of acupuncture for chronic low back pain in older adults. <i>Contemp Clin Trials</i> . 2025; 155:107981.	Outcomes. Main publication is DeBar (2025). Did not have abstractable outcome data (just additional baseline data).
Kalauokalani, D., Cherkin, D. C., Sherman, K. J. Lessons from a trial of acupuncture and massage for low back pain: patient expectations and treatment effects. <i>Spine (Phila Pa 1976)</i> . 2001; 26(13):1418-24.	Population. This is a secondary analysis of a trial that did not meet our definition of chronic (it included patients who had at least 6 weeks duration of back pain).
Kawase, Y., Ishigami, T., Nakamura, H. Acupuncture treatment for lower back pain: multi-center randomized controlled trial using sham acupuncture as a control. <i>Journal of the Japan Society of Acupuncture and Moxibustion</i> . 2006; 56(2):140-149.	Non-English.
Kern, A., Fischbach-Zieger, A., Witt, C. The association between perceived sensitivity to medicines, reported side effects and personal characteristics: A secondary analysis of an RCT. <i>PLoS One</i> . 2024; 19(10):e0308213.	Study design. All patients received the same acupuncture treatment but were randomized to different education groups.
Kizhakveettil, A., Rose, K. A., Kadar, G. E. Integrative Acupuncture and Spinal Manipulative Therapy Versus Either Alone for Low Back Pain: A Randomized Controlled Trial Feasibility Study. <i>J Manipulative Physiol Ther</i> . 2017; 40(3):201-213.	Population. Included patients with acute or chronic low back pain and did not separately report results for chronic group.

Citation	Reason for Exclusion
Kizhakkeveetil, A., Rose, K. A., Kadar, G. E. An Exploratory Analysis of Gender as a Potential Modifier of Treatment Effect Among Patients in a Randomized Controlled Trial of Integrative Acupuncture and Spinal Manipulation for Low Back Pain. <i>J Manipulative Physiol Ther.</i> 2019; 42(3):177-186.	Population. Included patients with acute or chronic low back pain and did not separately report results for chronic group.
Klassen, E., Wiebelitz, K. R., Beer, A. M. Classical Massage and Acupuncture in Chronic Back Pain - Non-Inferiority Randomised Trial. <i>Z Orthop Unfall.</i> 2019; 157(3):263-269.	Non-English. German language journal with English abstract.
Kong, J. T. Electroacupuncture for Treating Chronic Low-Back Pain: Preliminary Research Results. <i>Med Acupunct.</i> 2020; 32(6):396-397.	Publication type. Overview, without any detailed results presented.
Koppenhaver, S. L., Weaver, A. M., Randall, T. L. Effect of dry needling on lumbar muscle stiffness in patients with low back pain: A double blind, randomized controlled trial using shear wave elastography. <i>J Man Manip Ther.</i> 2022; 30(3):154-164.	Population. Most patients had chronic low back pain (mean duration > 60 months), but chronicity was not an inclusion criteria.
Kosakowski, H., Rone-Adams, S., Boissonnault, W. G. Financial impact associated with implementation of the low back pain clinical practice guideline in outpatient physical therapist practice at a large academic medical center. <i>Physiother Theory Pract.</i> 2024; 40(4):746-754.	Intervention. Did not address acupuncture or dry needling.
Kown, Y. D., Lee, S. G., Lee, C. W. The short-term efficacy of acupuncture for chronic low back pain: randomized sham controlled trial. <i>J Orient Rehab Med.</i> 2007; 17:123-132.	Unable to locate.
Kraft, K. Acupuncture massage vs. Swedish massage in chronic low back pain. <i>Focus on Alternative &amp; Complementary Therapies.</i> 2001; 6(2):111-112.	Publication type. This is just a summary of an article published in German.
Kreiner, D. S., Matz, P., Bono, C. M. Corrigendum to "Guideline summary review: an evidence-based clinical guideline for the diagnosis and treatment of low back pain" [The Spine Journal 20/7 (2020) p 998-1024]. <i>Spine J.</i> 2021; 21(4):726-727.	Intervention. Correction to the guideline by Kreiner (2020) but related only to the ultrasound section. Was not applicable to acupuncture or dry needling, so it is not linked here.
Kuzdzal, A., Olaniszyn, G., Clemente, F. M. Impact of Intramuscular Electrical Stimulation on Multifidus Muscle Function in Chronic Low Back Pain: A Randomized Controlled Trial. <i>Med Sci Monit.</i> 2025; 31:e949677.	Population. Did not meet minimum sample size requirement (15 intervention, 14 control).
Kwon, Y. D., Lee, S. G., Lee, C. W. The short-term efficacy of acupuncture for chronic low back pain: randomised sham controlled trial. <i>J Oriental Rehab Med.</i> 2007; 17(2):123-132.	Unable to locate.
Laitinen, J. Acupuncture and transcutaneous electric stimulation in the treatment of chronic sacrolumbalgia and ischialgia. <i>Am J Chin Med (Gard City N Y).</i> 1976; 4(2):169-75.	Unable to locate.
Lara-Palomo, I. C., Gil-Martinez, E., Antequera-Soler, E. Electrical dry needling versus conventional physiotherapy in the treatment of active and latent myofascial trigger points in patients with nonspecific chronic low back pain. <i>Trials.</i> 2022; 23(1):238.	Publication type. Protocol.
Lee, J. B., Im, J. G., Lee, H. G. Comparison of effectiveness between acupuncture and its cotreatment with foot acupuncture on low back pain. <i>The Journal of Korean Acupuncture &amp; Moxibustion Society.</i> 2011; 28(4):1-7.	Unable to locate.

Citation	Reason for Exclusion
Lee, J., Eun, S., Kim, J. Differential Influence of Acupuncture Somatosensory and Cognitive/Affective Components on Functional Brain Connectivity and Pain Reduction During Low Back Pain State. <i>Front Neurosci.</i> 2019; 13:1062.	Population. No measure of chronicity in inclusion criteria (just current low back pain).
Lehmann, T. R., Russell, D. W., Spratt, K. F. Efficacy of electroacupuncture and TENS in the rehabilitation of chronic low back pain patients. <i>Pain.</i> 1986; 26(3):277-290.	Population. Did not meet minimum sample size requirement.
Li, J., Chenard, J. R., Marchand, S. Acupuncture points and trigger-points: reactivity to pressure and skin response in patients with chronic low back pain. <i>Rhumatologie.</i> 1994; 46(1):11-19.	Non-English. French language journal. Did not meet minimum sample size requirement (70 people distributed across 5 groups).
Luites, J. W. H., Kuijjer, Pfm, Hulshof, C. T. J. The Dutch Multidisciplinary Occupational Health Guideline to Enhance Work Participation Among Low Back Pain and Lumbosacral Radicular Syndrome Patients. <i>J Occup Rehabil.</i> 2022; 32(3):337-352.	Intervention. Did not address acupuncture or dry needling.
MacPherson, H., Thorpe, L., Thomas, K. Acupuncture for low back pain: traditional diagnosis and treatment of 148 patients in a clinical trial. <i>Complement Ther Med.</i> 2004; 12(1):38-44.	Outcomes. Subanalysis of individuals in the intervention group only, and only focused on diagnostic process.
Magidoff, Avi Treatment of Low Back Pain with Kiiko Matsumoto Style Acupuncture. <i>California Journal of Oriental Medicine (CJOM).</i> 1999; 10(3):16.	Publication type. Description of the approach, not a clinical trial.
Maher, C. G., Archambeau, A., Buchbinder, R. Introducing Australia's clinical care standard for low back pain(1). <i>J Physiother.</i> 2023; 69(4):205-207.	Publication type. Editorial. The actual guideline ( <a href="https://www.safetyandquality.gov.au/sites/default/files/2022-08/low_back_pain_clinical_care_standard.pdf">https://www.safetyandquality.gov.au/sites/default/files/2022-08/low_back_pain_clinical_care_standard.pdf</a> ) did not address either acupuncture or dry needling. Only exercise and massage were addressed.
Maher, C. G., Archambeau, A., Buchbinder, R. Introducing Australia's clinical care standard for low back pain : A new clinical care standard provides evidence-based guidance to help clinicians deliver best care for people with low back pain. <i>Chiropr Man Therap.</i> 2023; 31(1):17.	Publication type. Editorial. The actual guideline( <a href="http://www.safetyandquality.gov.au/sites/default/files/2022-08/low_back_pain_clinical_care_standard.pdf">www.safetyandquality.gov.au/sites/default/files/2022-08/low_back_pain_clinical_care_standard.pdf</a> ) did not address either acupuncture or dry needling. Only exercise and massage were addressed.
Makary, M. M., Lee, J., Lee, E. Phantom Acupuncture Induces Placebo Credibility and Vicarious Sensations: A Parallel fMRI Study of Low Back Pain Patients. <i>Sci Rep.</i> 2018; 8(1):930.	Population. No measure of chronicity in inclusion criteria (just nonspecific low back pain).
Manchikanti, L., Knezevic, N. N., Navani, A. Epidural Interventions in the Management of Chronic Spinal Pain: American Society of Interventional Pain Physicians (ASIPP) Comprehensive Evidence-Based Guidelines. <i>Pain Physician.</i> 2021; 24(S1):S27-S208.	Intervention. Recommendations were regarding epidural injections, not acupuncture or dry needling.
Mao, Jun J., Davis, Robert T., Coeytaux, Remy Acupuncture for Chronic Low Back Pain: Recommendations to Medicare/Medicaid from the Society for Acupuncture Research. <i>Journal of Alternative &amp; Complementary Medicine.</i> 2019; 25(4):367-369.	Publication type. Response to call for public comments from CMS.

Citation	Reason for Exclusion
Marignan, Michel Auriculotherapy Treatment Protocol for Low-Back Pain: A Randomized Trial. <i>Medical Acupuncture</i> . 2014; 26(3):154-160.	Population. Did not meet minimum sample size requirement (6 people in each study arm).
Mazieres, B. Acupuncture treatment of chronic low back pain: a short term controlled trial. <i>Rev Rheum</i> . 1981; 48:447.	Unable to locate.
McCormick, Z. L., Hurley, R. W., Anitescu, M. Consensus practice guidelines on sacroiliac joint complex pain from a multispecialty, international working group. <i>Reg Anesth Pain Med</i> . 2025; 29:29.	Population. Sacroiliac joint complex pain is distinct from nonspecific low back pain (SIJ may be a cause of low back pain).
McCormick, Z. L., Hurley, R. W., Cohen, S. P. Sacroiliac joint complex pain consensus practice guidelines from a multispecialty, international working group: an infographic. <i>Pain Med</i> . 2025; 26(12):936-937.	Population. Sacroiliac joint complex is distinct from nonspecific low back pain (SIJ can be a cause of low back pain).
McDonough, S. M., Liddle, S. D., Hunter, R. Exercise and manual auricular acupuncture: a pilot assessor-blind randomised controlled trial. (The acupuncture and personalised exercise programme (APEP) trial). <i>BMC Musculoskelet Disord</i> . 2008; 9:31.	Publication type. Study protocol.
Mendelson, G., Kidson, M. A., Loh, S. T. Acupuncture analgesia for chronic low back pain. <i>Clin Exp Neurol</i> . 1978; 15:182-5.	Unable to locate.
Mendelson, G., Selwood, T. S., Kranz, H. Acupuncture treatment of chronic back pain. A double-blind placebo-controlled trial. <i>Am J Med</i> . 1983; 74(1):49-55.	Population. Patients required to have 'chronic low back pain' but chronic was never defined (unable to verify if study met our minimum 12-week criteria) and no inclusion/exclusion criteria were provided to confirm nonspecific low back pain.
International Clinical Trials Registry Platform Laser Acupuncture in the treatment of neck and low back pain - randomized clinical trial. <a href="https://trialssearch.who.int/Trial2.aspx?TrialID=RBR-8mfwcwf">https://trialssearch.who.int/Trial2.aspx?TrialID=RBR-8mfwcwf</a> . 2022.	Publication type. Neck or low back pain (not limited to chronic nonspecific low back pain).
Miyazaki, S., Hagihara, A., Kanda, R. Applicability of press needles to a double-blind trial: a randomized, double-blind, placebo-controlled trial. <i>Clin J Pain</i> . 2009; 25(5):438-44.	Population. Apparent convenience sample of university students. Neither presence of low back pain nor chronic pain were inclusion criteria.
Molsberger, A., Winkler, J., Schneider, S. Acupuncture and conventional orthopedic pain treatment in the management of chronic low back pain - a prospective randomised and controlled clinical trial. <i>ISSLS</i> . 1998; (June):87.	Unable to locate.
Nambi, Gopal, Alrawaili, Saud M. An Additional Effect of Electro-Acupuncture on Unspecified Chronic Low Back Pain Among University Employees in Al-kharj, Saudi Arabia: A Randomized Controlled Study. <i>Acupuncture &amp; Electro-Therapeutics Research</i> . 2023; 48(3):185-197.	Intervention. Stimulation with electrodes not acupuncture (although study referred to treatment as acupuncture).
National Institute for Health and Care Excellence Low back pain and sciatica in over 16s: assessment and management. . 2020.	Study design. Described as a guideline but did not have any referenced SR.

Citation	Reason for Exclusion
Norton, G., McDonough, C. M., Cabral, H. Cost-utility of cognitive behavioral therapy for low back pain from the commercial payer perspective. <i>Spine</i> (Phila Pa 1976). 2015; 40(10):725-33.	Publication date. Cost of acupuncture was added to the model but primary focus was cognitive behavior therapy and publication is > 5 years old.
Oh, M. J., Song, H. S. Effect of acupuncture treatment on Pyodoraku score of the patients with chronic low back pain. <i>The Journal of Korean Acupuncture &amp; Moxibustion Society</i> . 2012; 29(3):115-120.	Unable to locate.
Olivan, B. B., Perez, P. S., Gaspar, C. E. Effectiveness of the dry needling in the treatment of chronic low back pain. <i>Fisioterapia</i> . 2007; 29(6):270-277.	Non-English. Spanish language journal.
Papanikolaou, F., Bareka, M., Karatzaferi, C. Massage and electroacupuncture as a combined method versus epidural analgesia for chronic low back pain management. <i>Explore</i> (NY). 2025; 21(6):103279.	Comparator. Comparator was epidural injections.
Park, K. S., Kim, C., Kim, J. W. A Pragmatic Randomized Controlled Trial on the Effectiveness and Safety of Pharmacopuncture for Chronic Lower Back Pain. <i>J Pain Res</i> . 2023; 16:2697-2712.	Intervention. The type and content of pharmacopuncture varied across practitioners and results were not separately reported by type (i.e., placenta, bee venom, etc.).
Parsons, G. Acupuncture was better than no acupuncture but did not differ from minimal (sham) acupuncture for chronic low back pain at 8 weeks. <i>Evid Based Nurs</i> . 2006; 9(4):111.	Publication type. Summary of an <i>Archives of Internal Medicine</i> article.
Pecos-Martin, D., Romero-Morales, C., Barrero-Sanchez, A. Optimizing dry needling for chronic low back pain: A novel approach to treatment site selection: A randomized controlled trial. <i>J Bodyw Mov Ther</i> . 2024; 40:2113-2119.	Comparator. No non-needling control group.
Pérez-Palomares, S., Oliván-Blázquez, B., Magallón-Botaya, R. Percutaneous Electrical Nerve Stimulation Versus Dry Needling: Effectiveness in the Treatment of Chronic Low Back Pain. <i>Journal of Musculoskeletal Pain</i> . 2010; 18(1):23-30.	Unable to locate.
Prady, S. L., Thomas, K., Esmonde, L. The natural history of back pain after a randomised controlled trial of acupuncture vs usual care--long term outcomes. <i>Acupunct Med</i> . 2007; 25(4):121-9.	Population. Ancillary of Thomas (2006) but parent study defined chronic as 4 weeks or more (did not meet our minimum 12-week criteria).
Qaseem, A., McLean, R. M., O'Gurek, D. Nonpharmacologic and Pharmacologic Management of Acute Pain From Non-Low Back, Musculoskeletal Injuries in Adults: A Clinical Guideline From the American College of Physicians and American Academy of Family Physicians. <i>Ann Intern Med</i> . 2020; 173(9):739-748.	Population. Guideline was related to acute pain, not chronic, and excluded low back pain.
Qaseem, A., Wilt, T. J., McLean, R. M. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. <i>Ann Intern Med</i> . 2017; 166(7):514-530.	Publication date. More than 5 years old. No reference on ACP website to review or reaffirmation since then. This 2017 publication is an update of a 2007 review, indicating it may be a few more years before the ACP revisits this topic. "All ACP clinical practice guidelines are considered automatically withdrawn or invalid 5 years after publication."

Citation	Reason for Exclusion
Qaseem, Amir, Wilt, Timothy J., McLean, Robert M. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain. <i>Ann Intern Med.</i> 2017; 166(7):514-530.	Publication Date. Guideline was more than 5 years old (and has not been reaffirmed within the past 5 years).
Rajfur, J., Rajfur, K., Kosowski, L. The effectiveness of dry needling in patients with chronic low back pain: a prospective, randomized, single-blinded study. <i>Sci Rep.</i> 2022; 12(1):15803.	Population. Recruited patients with discopathy (did not meet nonspecific criterion).
Rajfur, J., Rajfur, K., Matusz, T. Dry Needling with the Use of FRSc Technique in Addition to Standard Rehabilitation Program for Chronic Low Back Pain: A Randomized Controlled Trial Using Both PROMs and Measurement Tools. <i>J Pain Res.</i> 2024; 17:1041-1053.	Population. With < 20 participants per study arm, this RCT did not meet inclusion criteria.
Sakai, T., Tsukayama, H., Amagai, H. Controlled trial on acupuncture for lumbago. <i>Journal of the Japan Society of Acupuncture And Moxibustion.</i> 1998; 48(1):110.	Non-English.
Sakai, T., Tsutani, K., Tsukayama, H. Multi-center randomized controlled trial of acupuncture with electric stimulation and acupuncture-like transcutaneous electrical nerve stimulation for lumbago (in Japanese). <i>J Jpn Soc Acupunct.</i> 2001; 51:175-184.	Non-English.
Sakai, T., Tsutani, K., Tsukayama, H. Multi-center randomized controlled trial of acupuncture with electric stimulation and acupuncture-like transcutaneous electrical nerve stimulation for lumbago. <i>Journal of the Japan Society of Acupuncture And Moxibustion.</i> 2001; 51:175-184.	Non-English.
Salim, M. Transcutaneous electrical nerve stimulation (TENS) in chronic pain 1254 3168. <i>Alternative Therapies in clinical Practice</i> 1996 Jul-Aug; 3(4): 33-5 (6 ref). 1996; (4):33-35.	Unable to locate.
Sator-Katzenschlager, S. M., Scharbert, G., Kozek-Langenecker, S. A. The short- and long-term benefit in chronic low back pain through adjuvant electrical versus manual auricular acupuncture. <i>Anesth Analg.</i> 2004; 98(5):1359-64, Table Of Contents.	Comparator. No study arm that didn't receive acupuncture (study compared with and without electrical stimulation).
Sayed, D., Deer, T. R., Tieppo Francio, V. American Society of Pain and Neuroscience Best Practice (ASPN) Guideline for the Treatment of Sacroiliac Disorders. <i>J Pain Res.</i> 2024; 17:1601-1638.	Intervention. Did not address acupuncture or dry needling.
Sayed, D., Grider, J., Strand, N. The American Society of Pain and Neuroscience (ASPN) Evidence-Based Clinical Guideline of Interventional Treatments for Low Back Pain. <i>J Pain Res.</i> 2022; 15:3729-3832.	Intervention. Did not address acupuncture or dry needling. Trigger point injection is distinct from acupuncture.
Sherman, K. J., Hogeboom, C. J., Cherkin, D. C. Description and validation of a noninvasive placebo acupuncture procedure. <i>J Altern Complement Med.</i> 2002; 8(1):11-9.	Intervention. Only experiment 2 was of interest, but outcomes were measured immediately after treatment and did not meet minimum 1-week follow-up requirement. Additionally, only measured 1 outcome of interest (pain) and asked only 1 question about amount of improvement.
Sotiropoulos, S., Mavrogenis, A., Papandreou, M. Multimodal Interventions for Chronic Low Back Pain: A Pilot Randomized Trial of Acupuncture, Stretching, and Qigong. <i>Cureus.</i> 2025; 17(9):e91535.	Population. With < 20 participants per study arm, this RCT did not meet inclusion criteria.

Citation	Reason for Exclusion
Szczurko, O., Cooley, K., Busse, J. W. Naturopathic care for chronic low back pain: a randomized trial. <i>PLoS One</i> . 2007; 2(9):e919.	Intervention. Multiple interventions in each arm and it is not possible to isolate any isolated effect of acupuncture.
Taniguchi, R., Noiprasert, S., Padungkiattiwong, W. The Effectiveness of Traditional Chinese Medicine Integrated with Self-Slump Stretching on Chronic Low Back Pain among Hill Tribe Farmers in Thailand: a pilot randomized controlled trial. <i>J Pharmacopuncture</i> . 2025; 28(3):211-218.	Population. With <20 participants per study arm, does not meet sample size inclusion criteria.
Thomas, K. J., MacPherson, H., Ratcliffe, J. Longer term clinical and economic benefits of offering acupuncture care to patients with chronic low back pain. <i>Health Technol Assess</i> . 2005; 9(32):iii-iv, ix-x, 1-109.	Population. Recruited people with pain of at least 4 weeks duration and less than 12 months.
Thomas, K. J., MacPherson, H., Thorpe, L. Randomized controlled trial of a short course of traditional acupuncture compared with usual care for persistent non-specific low back pain. <i>Journal of the Acupuncture Association of Chartered Physiotherapists</i> . 2007; (3):47-56.	Population. Defined chronic as 4 weeks or more (did not meet our minimum 12-week criteria).
Thomas, K., Macpherson, H., Ratcliffe, J. A short course of acupuncture is a cost-effective intervention for low back pain in primary care. Results from a pragmatic randomised controlled. <i>Complementary and Alternative Medicine</i> . 2004.	Population. Not all patients had chronic low back pain (inclusion criteria were 4 to 52 weeks duration).
Thomas, K., Thorpe, L., MacPherson, H. Preliminary findings from a pragmatic randomised controlled trial demonstrate acceptability of acupuncture as a treatment for low back pain. <i>Clin Acupunct Orient Med</i> . 2003; 4(1):56.	Publication type. Conference abstract.
Thomas, M., Lundberg, T. Importance of modes of acupuncture in the treatment of chronic nociceptive low back pain. <i>Acta Anaesthesiol Scand</i> . 1994; 38(1):63-9.	Population. Only 10 patients in the untreated control group.
Tonev, D., Radeva, S., Toncheva, A. Non-pharmacological treatment of subacute and chronic low back pain without radiculopathy: acupuncture versus physiotherapy. <i>Rheumatology</i> . 2010; 18(2):46-50.	Population. Included both chronic and subacute patients and did not separately report results for those with chronic low back pain.
Tsukayama, H., Yamashita, H., Amagai, H. Randomised controlled trial comparing the effectiveness of electroacupuncture and TENS for low back pain: a preliminary study for a pragmatic trial. <i>Acupunct Med</i> . 2002; 20(4):175-80.	Population. Did not meet 20 per arm minimum sample size (10 per arm).
Tsukayama, Hiro, Yamashita Hitoshi Amagai, Hito Randomised Controlled Trial Comparing the Effectiveness of Electroacupuncture and Tens for Low Back Pain: a Preliminary Study for A Pragmatic Trial. Abstract. <i>Journal of the Japan Acupuncture and Moxibustion Society</i> . 2004; 54(3):83.	Non-English.
Tu, Y., Ortiz, A., Gollub, R. L. Multivariate resting-state functional connectivity predicts responses to real and sham acupuncture treatment in chronic low back pain. <i>Neuroimage Clin</i> . 2019; 23:101885.	Outcomes. Did not provide detailed, reportable outcomes, and divided patients into groups of < 20.
Tuzun, E. H., Gildir, S., Angin, E. Effectiveness of dry needling versus a classical physiotherapy program in patients with chronic low-back pain: a single-blind, randomized, controlled trial. <i>J Phys Ther Sci</i> . 2017; 29(9):1502-1509.	Population. Sample size did not meet inclusion criteria (< 20 per arm).

Citation	Reason for Exclusion
van Wambeke, P., Desomer, A., Jonckheer, P. The Belgian national guideline on low back pain and radicular pain: key roles for rehabilitation, assessment of rehabilitation potential and the PRM specialist. <i>Eur J Phys Rehabil Med.</i> 2020; 56(2):220-227.	Intervention. No reference to acupuncture or needling.
Wasan, A. D., Kong, J., Pham, L. D. The impact of placebo, psychopathology, and expectations on the response to acupuncture needling in patients with chronic low back pain. <i>J Pain.</i> 2010; 11(6):555-63.	Population. Questionable because 1 arm had only 19 included in analysis (although more were randomized). Ultimately excluded because this was a crossover trial and outcomes were only measured directly after treatment (PICOT specifies at least a week later).
Westrom, K., Bronfort, G., Evans, R. Psychosocial outcomes from the chiropractic and integrative care low back pain randomized clinical trial. <i>BMC Complementary and alternative Medicine.</i> 2012; 12.	Publication type. Conference abstract.
Wiles, M. R. "Dry needling of muscle motor points for chronic low-back pain: a randomized clinical trial with long-term follow-up" ( <i>Spine</i> 1980;5: 279-291). <i>Spine.</i> 1982; 7(1):86.	Publication type.
Wilson, F., Thornton, J. S., Wilkie, K. 2021 consensus statement for preventing and managing low back pain in elite and subelite adult rowers. <i>Br J Sports Med.</i> 2021; 55(16):893-899.	Population. No reference to acupuncture or needling. Primary focus was on acute or near-acute episodes (not chronic low back pain).
Witt, C. M., Jena, S., Selim, D. Pragmatic randomized trial evaluating the clinical and economic effectiveness of acupuncture for chronic low back pain. <i>Am J Epidemiol.</i> 2006; 164(5):487-96.	Intervention. Notes 'variations in style and acupuncture technique.'
Xu, Fei, Jiao, Kai-qiong, Wang, Lin-peng Acupuncture for chronic nonspecific low back pain in middle-aged and older patients: A randomized controlled trial. <i>World Journal of Acupuncture - Moxibustion.</i> 2024; 34(4):300-305.	Setting. Not very high HDI (China).
Xu, J., Lin, R., Wu, Y. Effect of stimulating acupoint Guanyuan (CV 4) on lower back pain by burning moxa heat for different time lengths: a randomized controlled clinical trial. <i>J Tradit Chin Med.</i> 2015; 35(1):36-40.	Population. Not high HDI (China).
Yip, Y. B., Tse, H. M., Wu, K. K. An experimental study comparing the effects of combined transcutaneous acupoint electrical stimulation and electromagnetic millimeter waves for spinal pain in Hong Kong. <i>Complement Ther Clin Pract.</i> 2007; 13(1):4-14.	Population. Neck or low back pain, and results were not separately reported by diagnosis.
Young, I., Dunning, J., Butts, R. Spinal manipulation and electrical dry needling as an adjunct to conventional physical therapy in patients with lumbar spinal stenosis: a multi-center randomized clinical trial. <i>Spine J.</i> 2024; 24(4):590-600.	Population. Spinal stenosis (not nonspecific low back pain). Cause is generally osteoarthritis.
Yu, S., Ortiz, A., Gollub, R. L. Acupuncture Treatment Modulates the Connectivity of Key Regions of the Descending Pain Modulation and Reward Systems in Patients with Chronic Low Back Pain. <i>J Clin Med.</i> 2020; 9(6):1-16.	Population. Fewer than 20 people per study arm (range 13 to 14 across 4 arms).
Zhang, J., Malisali, E. Laser and electrical stimulation of acupuncture points on low back pain, a pilot study. <i>Journal of Chiropractic Education.</i> 2009; 23(1):119-120.	Publication type. Conference abstract (poster presentation).

Citation	Reason for Exclusion
Zieger, A., Kern, A., Barth, J. Do patients' pre-treatment expectations about acupuncture effectiveness predict treatment outcome in patients with chronic low back pain? A secondary analysis of data from a randomised controlled clinical trial. <i>PLoS One</i> . 2022; 17(5):e0268646.	Study design. All participants received acupuncture treatment—randomized to different types of education.

Abbreviations: ACP: American College of Physicians; HDI: Human Development Index; SR: systematic review; TENS: transcutaneous electrical nerve stimulation; VA: Veterans Administration; WHO: World Health Organization.

## Appendix E. Additional Methods

### Participant Characteristics and Association With Outcomes

When discussing risk and protective factors or variables in statistical models in Center research products, in almost all cases, we are referring to associations of participant characteristics with outcomes, and not causation of outcomes. This is important because participant characteristics, such as race and ethnicity, serve as proxy or surrogate measures for underlying etiological factors not measured or evaluated in analyses. Etiological factors that might cause differences in outcomes for subgroups of participants could include systemic racism or other forms of systemic discrimination, stress, poverty, housing instability, or epigenetics. For example, by describing any differences in outcomes by race and ethnic groups, we are noting observed associations; these associations are not caused by biological determinants of being Black, White, or Hispanic.

### Risk of Bias

Table E1. Risk-of-Bias Assessment: Randomized Controlled Trials

Domain	Domain Elements <sup>a</sup>
Randomization	<ul style="list-style-type: none"> <li>• An appropriate method of randomization is used to allocate participants or clusters to groups, such as a computer random number generator</li> <li>• Baseline characteristics between groups or clusters are similar</li> </ul>
Allocation concealment	<ul style="list-style-type: none"> <li>• An adequate concealment method is used to prevent investigators and participants from influencing enrollment or intervention allocation</li> </ul>
Intervention	<ul style="list-style-type: none"> <li>• Intervention and comparator intervention applied equally to groups</li> <li>• Co-interventions appropriate and applied equally to groups</li> <li>• Control selected is an appropriate intervention</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>• Outcomes are measured using valid and reliable measures</li> <li>• Investigators use single outcome measures and do not rely on composite outcomes, or outcome of interest can be calculated from composite outcome</li> <li>• The trial has an appropriate length of follow-up and groups are assessed at same time points</li> <li>• Outcome reporting of entire group or subgroups is not selective</li> </ul>
Masking (blinding) of investigators and participants	<ul style="list-style-type: none"> <li>• Investigators and participants are unaware (masked or blinded) of intervention status</li> </ul>
Masking (blinding) of outcome assessors	<ul style="list-style-type: none"> <li>• Outcome assessors are unaware (masked or blinded) of intervention status</li> </ul>
Intention-to-treat analysis	<ul style="list-style-type: none"> <li>• Participants are analyzed based on random assignment (intention-to-treat analysis)</li> </ul>
Statistical analysis	<ul style="list-style-type: none"> <li>• Participants lost to follow-up unlikely to significantly bias results (i.e., complete follow-up of <math>\geq 80\%</math> of participants overall and nondifferential, <math>\leq 10\%</math> difference between groups)</li> <li>• The most appropriate summary estimate (e.g., risk ratio, hazard ratio) is used</li> <li>• Paired or conditional analysis used for crossover RCT</li> <li>• Clustering appropriately accounted for in a cluster-randomized trial (e.g., use of an intraclass correlation coefficient)</li> </ul>

Domain	Domain Elements <sup>a</sup>
Other biases (as appropriate)	<ul style="list-style-type: none"> <li>List others in table footnote and describe, such as:</li> <li>Sample size adequacy</li> <li>Interim analysis or early stopping</li> <li>Recruitment bias, including run-in period used inappropriately</li> <li>Use of unsuitable crossover intervention in a crossover RCT</li> </ul>
Interest disclosure	<ul style="list-style-type: none"> <li>Disclosures of interest are provided for authors/funders/commissioners of study</li> <li>Interests are unlikely to significantly affect study validity</li> </ul>
Funding	<ul style="list-style-type: none"> <li>There is a description of source(s) of funding</li> <li>Funding source is unlikely to have a significant impact on study validity</li> </ul>

Note. <sup>a</sup> The elements included in each domain are assessed and rated as yes, no, unclear, or not applicable based on performance and documentation of individual elements in each domain. The overall risk of bias for a study is assessed as high, moderate, or low based on assessment of how well overall study methods and processes were performed to limit bias and ensure validity. Abbreviation. RCT: randomized controlled trial.

Table E2. Methodological Quality Assessment: Clinical Practice Guidelines

Domain	Domain Elements <sup>a</sup>
Rigor of development: evidence	<ul style="list-style-type: none"> <li>Systematic literature search meets quality standards for a systematic review (i.e., comprehensive search strategy with, at a minimum, 2 or more electronic databases)</li> <li>The criteria used to select evidence for inclusion is clear and appropriate</li> <li>The strengths and limitations of individual evidence sources is assessed and overall quality of body of evidence assessed</li> </ul>
Rigor of development: recommendations	<ul style="list-style-type: none"> <li>Methods for developing recommendations clearly described and appropriate</li> <li>There is an explicit link between recommendations and supporting evidence</li> <li>The balance of benefits and harms is considered in formulating recommendations</li> <li>The guideline has been reviewed by external expert peer reviewers</li> <li>The updating procedure for guideline is specified in guideline or related materials (e.g., specialty society website)</li> </ul>
Editorial independence	<ul style="list-style-type: none"> <li>There is a description of source(s) of funding and views of funder(s) are unlikely to have influenced content or validity of guideline</li> <li>Disclosures of interests for guideline panel members are provided and are unlikely to have a significant impact on overall validity of guideline (e.g., a process for members to recuse themselves from participating on recommendations for which a significant conflict is provided)</li> </ul>
Scope and purpose	<ul style="list-style-type: none"> <li>Objectives specifically described</li> <li>Health question(s) specifically described</li> <li>Target population(s) for guideline recommendations is specified (e.g., patients in primary care) and target users for guideline (e.g., primary care clinicians)</li> </ul>
Stakeholder involvement	<ul style="list-style-type: none"> <li>Relevant professional groups represented</li> <li>Views and preferences of target population(s) sought (e.g., clinicians and patients)</li> </ul>
Clarity and presentation	<ul style="list-style-type: none"> <li>Recommendations are specific and unambiguous</li> <li>Different management options are clearly presented</li> <li>Key recommendations are easily identifiable</li> </ul>
Applicability	<ul style="list-style-type: none"> <li>Provides advice and/or tools on how recommendation(s) can be put into practice</li> <li>Description of facilitators and barriers to its application</li> <li>Potential resource implications considered</li> <li>Criteria for implementation monitoring, audit, and/or performance measures based on guideline are presented</li> </ul>

Note. <sup>a</sup> The elements included in each domain are assessed and rated as yes, no, unclear, or not applicable based on performance and documentation of individual elements in each domain. The overall risk of bias for a study is assessed as high, moderate, or low based on assessment of how well overall study methods and processes were performed to limit bias and ensure validity.

## GRADE (Grading of Recommendations Assessment, Development and Evaluation)

Table E3. GRADE System for Rating the Certainty of Evidence for Outcomes

GRADE Rating	Plain Language Description	Detailed Category Description
High	New research is very unlikely to change our understanding of the relationship between this outcome and the health technology.	Center researchers are very confident that the estimate of the effect of the intervention on the outcome lies close to the true effect. Typical sets of studies are RCTs with few or no limitations, and the estimate of effect is likely stable.
Moderate	New research may change our understanding of the relationship between this outcome and the health technology.	Center researchers are moderately confident in the estimate of the effect of the intervention on the outcome. The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is different. Typical sets of studies are RCTs with some limitations or well-performed nonrandomized studies with additional strengths that guard against potential bias and have large estimates of effects.
Low	New research is likely to change our understanding of the relationship between this outcome and the health technology.	Center researchers have little confidence in the estimate of the effect of the intervention on the outcome. The true effect may be substantially different from the estimate of the effect. Typical sets of studies are RCTs with serious limitations or nonrandomized studies without special strengths.
Very low	New research is very likely to change our understanding of the relationship between this outcome and the health technology.	Center researchers have no confidence in the estimate of the effect of the intervention on the outcome. The true effect is likely to be substantially different from the estimate of effect. Typical sets of studies are nonrandomized studies with serious limitations or inconsistent results across studies.
Not applicable	There is no research to report.	Center researchers did not identify any eligible articles.

Source. Adapted from 2 publications about GRADE.<sup>247,248</sup>

Abbreviations. GRADE: Grading of Recommendations, Assessment, Development, and Evaluations; RCT: randomized controlled trial.

## Appendix F. Characteristics of Included Studies

Table F1. Characteristics of Included Studies

Study Details	Participant Demographics	Outcomes Measured
<b>Acupuncture, inpatient</b>		
Molsberger et al. 2002 Country: Germany Practitioner: Medical doctor who studied acupuncture in China Approach: Semi-standardized Stimulation: Manual Follow-up: 16 weeks Ancillary studies	N randomized: 186 Mean age, years (SD): 49 (8) acupuncture 28 (46) sham, 49 (7) UC Female, n (%): 29 (45) acupuncture 28 (46) sham 32 (53) UC Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (VAS) <u>Secondary</u> Global measure of improvement or recovery Serious adverse events
Weiss et al. 2013 Country: Germany Practitioner: Trained acupuncturist Approach: Individualized Stimulation: NR Follow-up: 12 weeks Ancillary studies	N randomized: 160 Mean age, years (SD): 49.8 (7.9) acupuncture 51.7 (7.4) UC Female, n (%): 20 (27) acupuncture 27 (39.1) UC Nonwhite, n (%): NR	<u>Primary</u> Back-specific QoL (SF-36) Serious adverse events <u>Secondary</u> <i>Study does not differentiate between primary and secondary outcomes</i>
<b>Acupuncture, outpatient</b>		
Brinkhaus et al. 2006 Country: Germany Practitioner: Trained acupuncturist Approach: Semi-standardized Stimulation: Manual Follow-up: 52 weeks Ancillary studies:	N randomized: 301 Mean age, years (SD): 59.1 (8.8) acupuncture 58.2 (9.4) sham 58.9 (9.5) wait list Female, n (%): 93 (63.7) acupuncture 55 (75.3) sham 54 (68.4) wait list Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (VAS) <u>Secondary</u> Functional status (HFAQ) Back-specific QoL (SF-36) Serious adverse events
Cherkin et al. 2009 Country: US Practitioner: Trained acupuncturist Approach: Standardized and individualized arms Stimulation: Manual Follow-up: 52 weeks Ancillary studies	N randomized: 641 Mean age, years (SD): 47 (13) individualized 49 (13) standardized 47 (14) sham 46 (13) UC Female, n (%): 107 (68) individualized 88 (56) standardized 97 (60) sham, 103 (64) UC	<u>Primary</u> Functional status (RMDS) <u>Secondary</u> Back-specific QoL (SF-36) Days off work or school Serious adverse events

Study Details	Participant Demographics	Outcomes Measured
	Nonwhite, n (%): 90 (57) individualized 89 (56) standardized 90 (56) sham 96 (60) UC	
Cho et al. 2013 Country: South Korea Practitioner: Licensed Korean Medicine Doctors specializing in Korean Rehabilitation Medicine (experts in acupuncture for LBP) Approach: Individualized Stimulation: Manual Follow-up: 26 weeks Ancillary studies	N randomized: 130 Mean age, years (SD): 49.4 (14.6) acupuncture 41.8 (13.6) sham Female, n (%): 47 (82.5) acupuncture 51 (86.4) sham Nonwhite, n (%): NR	<u>Primary</u> <i>No outcomes of interest for this KQ</i> <u>Secondary</u> Pain intensity (VAS) Functional status (ODS) Back-specific QoL (SF-36) Serious adverse events
DeBar et al. 2025 Country: US Practitioner: Trained acupuncturist Approach: Individualized Stimulation: Manual Follow-up: 52 weeks Ancillary studies	N randomized: 800 Mean age, years (SD): 73.4 (5.8) acupuncture (8–15 sessions) 73.8 (6.1) enhanced acupuncture (12 to 21 sessions) 73.7 (6.0) UC Female, n (%): 165 (61.3) acupuncture 165 (61.3) enhanced acupuncture 168 (63.2) UC Nonwhite, n (%): 114 (43) acupuncture 89 (33) enhanced acupuncture 87 (33) UC	<u>Primary</u> Functional status (RMDS) <u>Secondary</u> Pain intensity Global measure of improvement or recovery Adverse events
Haake et al. 2007 Country: Germany Practitioner: Trained acupuncturist Approach: Individualized Stimulation: Manual Follow-up: 26 weeks Ancillary studies	N randomized: 1162 Mean age, years (SD): 49.6 (14.6) acupuncture 49.2 (14.8) sham 51.3 (14.5) UC Female, n (%): 222 (57.4) acupuncture 247 (63.8) sham 223 (57.5) UC Nonwhite, n (%): NR	<u>Primary</u> Functional status (HFAQ) <u>Secondary</u> Pain intensity (LBPRS) Back-specific QoL (SF-36) Global measure of improvement or recovery Serious adverse events
Kerr et al. 2003 Country: Northern Ireland Practitioner: Physiotherapist Approach: Standardized	N randomized: 60 Mean age, years (SD): 42.6 (11.5) acupuncture 42.8 (12) sham TENS	<u>Primary</u> Pain intensity (VAS) Back-specific QoL (SF-36)

Study Details	Participant Demographics	Outcomes Measured
Stimulation: Manual Follow-up: 18 weeks Ancillary studies	Female, n (%): 13 (50) acupuncture 13 (65) sham TENS Nonwhite, n (%): NR	Global measure of improvement or recovery <u>Secondary</u> <i>Study did not differentiate between primary and secondary outcomes</i>
Kong et al. 2020 Country: US Practitioner: Trained acupuncturist Approach: Semi-standardized Stimulation: Electrical Follow-up: 8 weeks Ancillary studies	N randomized: 121 Mean age, years (SD): 46.8 (11.9) acupuncture 45.6 (12.8) sham Female, n (%): 36 (61.0) acupuncture 33 (53.2) sham Nonwhite, n (%): 22 (37.3) acupuncture 27 (43.5) sham	<u>Primary</u> Pain intensity (PROMIS-T) <u>Secondary</u> Functional status (RMDS) Serious adverse events
Leibing et al. 2002 Country: Germany Practitioner: Trained acupuncturist Approach: Standardized Stimulation: Manual Follow-up: 9 months Ancillary studies	N randomized: 150 Mean age, years (SD): 47.9 (11.1) acupuncture 49.0 (9.4) sham 47.5 (8.9) UC Female, n (%): 22 (55) acupuncture 27 (60) sham 27 (58.7) UC Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (VAS) <u>Secondary</u> Back-specific QoL (Pain Disability Index) Serious adverse events
Meng et al. 2003 Country: US Practitioner: Trained acupuncturist Approach: Semi-standardized Stimulation: Electrical Follow-up: 9 weeks Ancillary studies	N randomized: 55 Mean age, years (SD): 72 (5) acupuncture 70 (6) UC Female, n (%): 18 (58) acupuncture 15 (63) UC Nonwhite, n (%): 1 (3) acupuncture 4 (17) UC	<u>Primary</u> Functional status (RMDS) <u>Secondary</u> Pain intensity Global measure of improvement or recovery Adverse events
Seo et al. 2017 Country: South Korea Practitioner: Trained acupuncturist Approach: Standardized Stimulation: Pharmacological (bee venom) Follow-up: 12 weeks	N randomized: 54 Mean age, years (SD): 49.8 (14.4) acupuncture 50.1 (11.1) sham Female, n (%): 18 (66.7) acupuncture 23 (85.2) sham Nonwhite, n (%): NR	<u>Primary</u> Functional status (ODS) <u>Secondary</u> Pain intensity (VAS) Back-specific QoL (SF-36) Adverse events

Study Details	Participant Demographics	Outcomes Measured
Ancillary studies		
Shin et al. 2012 Country: South Korea Practitioner: Trained acupuncturist Approach: Standardized Stimulation: Pharmacological (bee venom) Follow-up: 16 weeks Ancillary studies	N randomized: 60 Mean age, years (SD): 49.9 (12.9) acupuncture 40.0 (12.4) sham Female, n (%): 17 (57) acupuncture 16 (53) sham Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (VAS) <u>Secondary</u> Functional status (ODS) Back-specific QoL (SF-36) Serious adverse events
Yeung et al. 2003 Country: Hong Kong Practitioner: Trained acupuncturist Approach: Semi-standardized Stimulation: Electrical Follow-up: 16 weeks Ancillary studies	N randomized: 52 Mean age, years (SD): 50.4 (16.3) acupuncture 55.6 (10.4) exercise Female, n (%): 22 (84.6) acupuncture 21 (80.8) exercise Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (PRI) Functional status (Aberdeen LBP disability score) <u>Secondary</u> Adverse events
<b>Dry needling, outpatient</b>		
Lara-Palomo et al. 2024 Country: Spain Practitioner: Physiotherapist Follow-up: 8 weeks Ancillary studies	N randomized: 64 Mean age, years (SD): 46.6 (10.1) dry needling 44.3 (10.4) exercise Female, n (%): 17 (53) dry needling 15 (47) exercise Nonwhite, n (%): NR	<u>Primary</u> Functional status (RMDS) Pain intensity (VAS) <u>Secondary</u> Pain intensity (VAS) Functional status (ODS)
Martin Corrales et al. 2020 Country: Spain Practitioner: Physiotherapist Follow-up: 12 weeks Ancillary studies	N randomized: 46 Mean age, years (SD): 49 (11.4) dry needling 47.6 (11.1) sham Female, n (%): 13 (56.5) dry needling 14 (60.9) sham Nonwhite, n (%): NR	<u>Primary</u> Pain intensity (VAS) <u>Secondary</u> Functional status (RMDS) Adverse events

*Individualized: sites and number of needles varied by individual; semi-standardized: prespecified treatment locations, with freedom to add additional sites; standardized: set number and location of acupoints for all participants.*

*Abbreviations: HFAQ: Hannover Functional Ability Questionnaire; LBP: low back pain; LBPRS: Low Back Pain Rating Scale; NR: not reported; ODI: Oswestry Disability Index; PRI: Pain Rating Index; RMDS: Roland-Morris Disability Questionnaire; SD: standard deviation; SF-36: short form-36 questions; UC: usual care (includes physiotherapy); VAS: visual analog scale.*

## Appendix G. Risk of Bias Assessment

Table G1. Risk of Bias in Randomized Controlled Trials, Part A

Lead Author, Year	Appropriate Randomization Method	Adequate Allocation Concealment	Researcher Blinding	Appropriate Length of Follow-Up	Single Outcome Measures	Intention-to-Treat	Appropriate Summary Statistic	Similar Groups at Baseline
Brinkhaus 2006	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Cherkin 2009	Yes	No	Unclear	Yes	Yes	Yes	Yes	Yes
Cho 2013	Yes	Yes	No	Yes	Yes	No	Yes	Yes
DeBar 2025	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Haake 2007	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Kerr 2003	Yes	No	No	Yes	Yes	Unclear	No	Yes
Kong 2020	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Lara-Palomo 2024	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Leibing 2002	Yes	No	No	Yes	Yes	No	Yes	Yes
Martin-Corrales 2020	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Meng 2003	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Molsberger 2002	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Seo 2017	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shin 2012	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Weiss 2013	No	No	No	Yes	No	No	No	Yes
Yeung 2003	No	No	No	Yes	yes	Yes	No	Yes

Table G1. Risk of Bias in Randomized Controlled Trials, Part B

Author, Year	Loss to Follow-Up Unlikely to Bias Results	Author Disclosures	Description of Funding	Results Applicable to Report Purpose	Overall Risk of Bias
Brinkhaus 2006	Yes	Yes	Yes	Yes	Moderate Appears that neither outcome assessors nor data analysts were blinded to group assignment. Loose definition of ITT, although number of people omitted is minimal.
Cherkin 2009	Yes	Yes	Yes	Yes	Moderate No information on allocation concealment and no reference to blinding of statisticians.
Cho 2013	Yes	Yes	Yes	Yes	High No ITT analysis and no reference to blinding of analysts.
DeBar 2025	Yes	Yes	Yes	Yes	Low Well designed and well described. Only issue is lack of blinding of outcome assessors but researchers are straightforward about it and went to lengths to ensure blinding of research team and data analysts.
Haake 2007	Yes	Yes	Yes	Yes	High Participants in conventional and sham acupuncture arms were blinded and outcome assessors were blinded, but no mention of blinding of data analysts. Participants could receive up to 5 additional sessions beyond the basic 10 sessions if they were responders, which is not controlled for in analysis. The primary outcome is an either/or measure (improvement in pain OR improvement in function) and ITT is used only for primary outcome (which does not have extractable data). All other outcomes are reported per-protocol.
Kerr 2003	No	No	Yes	No	High No ITT analysis, no clear primary outcome, lack of detail on number of individuals included in most analyses, no reference to allocation concealment or blinding of analysts. High attrition and no disclosure of interests. Severely underpowered based on their post-hoc sample size calculations, and authors note that sham acupuncture may have been a better comparator.
Kong 2020	Yes	Yes	Yes	Yes	Moderate Not a genuine ITT design and no reference to blinding of data analysts.

Author, Year	Loss to Follow-Up Unlikely to Bias Results	Author Disclosures	Description of Funding	Results Applicable to Report Purpose	Overall Risk of Bias
Lara-Palomo 2024	Yes	Yes	Yes	Yes	Moderate No major issues noted, but neither participants nor intervention providers could be blinded to group assignment, which creates risk of bias.
Leibing 2002	No	No	Yes	Yes	High Up to 20% of randomized participants were excluded from analysis (modified ITT used that limited analysis to randomized participants who had begun treatment). Attrition exceeded 20% at follow-up, even when limited to the per-protocol sample. No description of allocation concealment method, no reference to blinding of data analysts, and unclear blinding of outcome assessors. Authors do not provide a conflict of interest statement.
Martin-Corrales 2020	Yes	Yes	No	Yes	Moderate No reference to blinding of outcome assessors or data analysts. Apparent error in CONSORT diagram, but outcome tables do not report the study n included so impossible to confirm.
Meng 2003	No	Yes	Yes	Yes	High Participants were not blinded (no sham/placebo) and completed their own assessments. Unclear if the allowed cross-over happened after follow-up or after active treatment. Significant between group differential loss to follow-up.
Molsberger 2002	Unclear	No	Yes	Unclear	High No reference to blinding of analysts and no conflict of interest statement. Reasonable attrition at end of treatment (when participants were still inpatients) but >20% at follow-up. Reports ITT analysis, but it's really hard to tease out these numbers and piece this whole thing together. No test results or measures of dispersion are reported (only p values). Because results are reportedly adjusted for multiple testing, it is not possible for us to replicate their results given the information provided.
Seo 2017	Yes	Yes	Yes	Yes	Low Rare study to definitively provide triple blinding. ITT used with description of statistical handling of missing values. Dropout rates are reasonable and balanced between arms. Baseline

Author, Year	Loss to Follow-Up Unlikely to Bias Results	Author Disclosures	Description of Funding	Results Applicable to Report Purpose	Overall Risk of Bias
					characteristics are similar between groups. Small sample but meets sample size calculations. Well done and clearly described study. The biggest issue is that it's sham bee venom acupuncture but is it really sham acupuncture? Patients were still needled in the same way at the same acupoints. The only difference was whether they received bee venom or saline. This is something we'll address in GRADE.
Shin 2012	Yes	Yes	Unclear	Yes	Moderate Overall a well done study, with clearly defined methods, ITT analysis, and blinding of participants, practitioners, and outcome assessors (no mention to blinding of statisticians). Moderate RoB rating springs from lack of detail on primary outcome (VAS) and secondary functional outcome (Oswestry): only p values are provided, without any detailed outcomes.
Weiss 2013	Unclear	Yes	No	Unclear	High Very light on methodological detail. Only very basic reference to randomization and no reference to allocation concealment. No reference to blinding of anyone involved in the study. ITT is not used and outcome tables do not define the number of patients included in each test (can be inferred). No differentiation between primary and secondary outcomes (although power calculations were reported based on the SF-36). Potential for inclusion of massage and magnet lamp for some acupuncture patients that is not quantified or controlled for. No reference to manipulation techniques used (if any).
Yeung 2003	Yes	No	Yes	Yes	High Unclear randomization and allocation concealment processes, no reference to blinding of analysts (and patients could not be blinded), no conflict of interest statement, lacking detail on outcomes beyond p values (but provides enough data for readers to run their own tests).

Abbreviations: ITT: intention-to-treat; RoB: risk of bias.

Table G2. Risk of Bias in Clinical Practice Guidelines, Part A

Organization Lead Author, Year	Comprehensive SR	Clear and Appropriate Inclusion Criteria	Assessed Strengths and Limitations of Evidence	Clear Methods for Recommendation Development	Explicit Link Between Recommendations and Evidence	Balanced of Benefits and Harms
<b>Acupuncture</b>						
American College of Occupational and Environmental Medicine Hegmann 2021	Yes	Yes	Yes	Yes	Yes	Yes
Canadian Pain Task Force Korownyk 2022	Yes	Yes	Yes	Yes	Yes	Yes
Hong Kong Taskforce of Standardized Acupuncture Practice Chen 2022	Unclear	Unclear	Unclear	Unclear	No	Unclear
Japanese Orthopaedic Association Shirado 2022	No	Yes	Yes	Yes	Yes	Yes
North American Spine Society Kreiner 2020	Yes	Yes	Yes	Yes	Yes	Yes
VA/DoD Diagnosis and Treatment of Low Back Pain Work Group 2022	Yes	Yes	Yes	Yes	Yes	Yes
<b>Dry needling</b>						
American Physical Therapy Association George 2021	Yes	Yes	Yes	Yes	Yes	Yes

Organization Lead Author, Year	Comprehensive SR	Clear and Appropriate Inclusion Criteria	Assessed Strengths and Limitations of Evidence	Clear Methods for Recommendation Development	Explicit Link Between Recommendations and Evidence	Balanced of Benefits and Harms
<b>Both acupuncture and dry needling</b>						
National Institute for Health and Care Excellence 2021	Yes	Yes	Yes	Yes	Yes	Yes
French National Authority for Health Baily 2021	Yes	Yes	Yes	Yes	Yes	Yes
World Health Organization 2023	Yes	Yes	Yes	Yes	Yes	Yes

Table G2. Risk of Bias in Clinical Practice Guidelines, Part B

Organization Lead Author, Year	External Peer Review	Process for Guideline Updates	Editorial Independence	Panel Member Disclosures	Overall Methodological Quality Assessment
American College of Occupational and Environmental Medicine Hegmann, 2021	Yes	Unclear	Unclear	Yes	Good Overall well described and thorough. Not sure about the updating procedure but it may be covered on the website. Does not address funding or editorial independence but that was not considered a major issue, given the source.
Canadian Pain Task Force Korownyk, 2022	Yes	Yes	Yes	Yes	Good Systematic review is a separate publication. Process for guideline development well described.
Hong Kong Taskforce of Standardized Acupuncture Practice Chen, 2022	Unclear	Unclear	Unclear	Unclear (references a supplemental file that is not in English)	Poor References additional data in a supplemental file, but site is not English language and could not locate. Very general information on methods and processes. Unclear if a systematic review was conducted, or simply a general literature review.
Japanese Orthopaedic Association Shirado, 2022	Yes	No	Yes	Yes	Fair Diverges somewhat from formal SR methods but clearly defined inclusion/exclusion and well described processes for creating and formalizing recommendations.
National Institute for Health and Care Excellence 2020	No systematic review or methods for guideline development. Quality not assessed.				
North American Spine Society Kreiner, 2020	Yes	No	Yes	Yes	Good With the exception of a stated plan for updating the guideline (which may be on the Association's website), process is clearly and thoroughly described and meets all quality metrics.
VA/DoD	No	Yes	Yes	Yes	Good

Organization Lead Author, Year	External Peer Review	Process for Guideline Updates	Editorial Independence	Panel Member Disclosures	Overall Methodological Quality Assessment
Diagnosis and Treatment of Low Back Pain Work Group 2022					Does not appear to involve external peer review, but given that this is a VA/DoD document, that is not unexpected and was not seen as a downgrade.
American Physical Therapy Association George, 2021	Yes	No	Yes	Yes	Good Thorough methods section and details in appendices. Process for guideline updates is not specified but may be included on the website.
National Institute for Health and Care Excellence 2021	Unclear	Yes	Yes	Yes	Good Thorough and well documented.
French National Authority for Health Bailly, 2021	Yes	Unclear	Yes	Yes	Good Complete report of literature review is published in French. This publication does not touch on process for updating or reaffirming, which may be on the association's website (in French), but the process for conducting the SR and developing guidelines is thorough and well described.
World Health Organization 2023	Yes	Yes	Yes	Yes	Good Very thorough and well documented.

## Appendix H. GRADE Assessment

Table H1. GRADE Profile for Function, Pain, and Quality of Life Outcomes

Outcome and Comparison	Number of Participants and Studies	Factors that May Decrease Certainty of Evidence				Summary of Results	CoE
		Risk of Bias	Inconsistency	Indirectness	Imprecision		
Function acupuncture vs. usual care	3 RCTs in MA <sup>31,34,36</sup> N = 1,119  2 individual RCTs <sup>29,33</sup>  N = 855	Serious Majority of evidence comes from low to moderate RoB studies (although 3 of 5 are high RoB)	No serious	No serious	Serious (-1) I <sup>2</sup> is good in MA but individual RCTs only provide P values or change from baseline, without detailed results.	Average study had moderate risk of bias (-1). Downgraded 1 level for imprecision due to lack of detail in other RCTs.	●○○○ Low
Function acupuncture vs. sham	4 RCTs in MA <sup>25,27,34,36</sup> N = 1,329  3 individual RCTs <sup>26,28,32</sup>  N = 311	Very serious (-2) More than half of patients came from high RoB studies	No serious	No serious	Serious (-1) I <sup>2</sup> in MA vs. sham were relatively high (43%-76%). A number of RCTs not included in MA provided only P values or change from baseline, without detailed results.	Downgraded for high RoB in most studies (-2). Downgraded 1 level for imprecision due to high heterogeneity in MA and lack of detail in other RCTs.	●○○○ Very low
Function dry needling vs. sham or usual care	2 RCTs <sup>37,38</sup>  N = 110	Serious (-1) Both moderate RoB	No serious	No serious	Very serious (-1) Only 1 RCT for each comparison and both studies lack outcome detail.	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.	●○○○ Very low

Outcome and Comparison	Number of Participants and Studies	Factors that May Decrease Certainty of Evidence				Summary of Results	CoE
		Risk of Bias	Inconsistency	Indirectness	Imprecision		
Pain acupuncture vs. usual care	2 RCTs in MA <sup>30,31</sup> N = 218  4 individual RCTs <sup>24,29,33,34</sup> N = 2,167	Very serious (-2) Most evidence from high RoB studies	No serious	No serious	Serious (-1) I <sup>2</sup> = 0 at end of treatment, but most evidence comes from individual RCTs with limited outcome detail.	Downgraded 2 levels for high risk of bias in most studies, and 1 level for imprecision due to lack of outcome detail in individual RCTs	●○○○ Very low
Pain acupuncture vs. sham	5 RCTs in MA <sup>23,25,27,30,32</sup> N = 731  3 individual RCTs <sup>24,26,34</sup> N = 1,372	Very serious (-2) Most evidence from high RoB studies	Serious (-1) Conflicting evidence about pain outcomes	No serious	Serious (-1) I <sup>2</sup> is low, but 3 individual RCTs lack detail.	Downgraded for high RoB in most studies (-2), 1 level for inconsistency due to conflicting evidence (-1), and 1 level for imprecision due to lack of detail in individual RCTs (-1).	●○○○ Very low
Pain dry needling vs. sham or usual care	2 RCTs <sup>37,38</sup> N = 110	Serious (-1) Both moderate RoB	No serious	No serious	Very serious (-1) Only 1 RCT for each comparison and both studies lack outcome detail.	Downgraded 1 level for moderate RoB and 2 levels for limited number of studies (only 1 per comparison) and lack of outcome detail.	●○○○ Very low

Outcome and Comparison	Number of Participants and Studies	Factors that May Decrease Certainty of Evidence				Summary of Results	CoE
		Risk of Bias	Inconsistency	Indirectness	Imprecision		
QoL acupuncture vs. usual care	2 RCTs <sup>35,36</sup> N = 801	Serious (-1) Moderate RoB in larger study, high in smaller	No serious	No serious	Very serious (-2) 2 RCTs lacking detailed outcomes	Downgraded 2 levels for high risk of bias and 2 levels for imprecision due to 2 individual RCTs without detailed outcomes.	●○○○ Very low
QoL acupuncture vs. sham	3 RCTs in MA <sup>26,27,34</sup> N = 1,523  3 individual RCTs <sup>23,25,32</sup> N = 885	Very serious (-2) Most evidence from studies with high RoB	Serious (-1) Varied results on differences between sham and acupuncture in physical and mental QoL and significance at different time points.	No serious	Serious (-1) Low heterogeneity in most MA, but individual RCTs lack detailed outcomes.	Downgraded for high RoB in studies contributing to evidence (-2), 1 level for inconsistency in results, and 1 level for imprecision springing from lack of detailed outcomes in some RCTs (-1)	●○○○ Very low
QoL dry needling vs. usual care	1 RCT <sup>37</sup>	Serious (-1) Single RCT is moderate RoB	No serious	No serious	Very serious (-2) Single RCT with small sample size and lack of detailed outcomes.	Downgraded 1 level due to moderate risk of bias and 2 levels due to single RCT with small sample size and lack of detailed outcomes.	●○○○ Very low

Abbreviations. CoE: conflicts of interest; MA: meta-analysis; QoL: quality of life; RCT: randomized controlled trial; RoB: risk of bias.

Appendix I: Description of Coverage Policies

Table I1. Acupuncture Coverage Policies

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
Medicare		
<p>National coverage determination 30.3.3, “Acupuncture for Chronic Lower Back Pain (cLBP)”</p> <p>Effective 2020</p>	<p>Covered for chronic lower back pain</p>	<p><u>POLICY EXCERPTS:</u><sup>15</sup>  <b>Item/Service Description</b>  <b>A. General</b>                      Acupuncture is the selection and manipulation of specific acupuncture points by a variety of needling and non-needling techniques.</p> <p><b>Indications and Limitations of Coverage</b>  <b>B. Nationally Covered Indications</b>                      Effective for services performed on or after January 21, 2020, CMS will cover acupuncture for Medicare patients with chronic Lower Back Pain (cLBP). Up to 12 visits in 90 days are covered for Medicare beneficiaries under the following circumstance:</p> <ul style="list-style-type: none"> <li>• For the purpose of this decision, cLBP is defined as:                             <ul style="list-style-type: none"> <li>○ Lasting 12 weeks or longer;</li> <li>○ nonspecific, in that it has no identifiable systemic cause (i.e., not associated with metastatic, inflammatory, infectious, etc. disease);</li> <li>○ not associated with surgery; and,</li> <li>○ not associated with pregnancy.</li> </ul> </li> <li>• An additional 8 sessions will be covered for those patients demonstrating an improvement.</li> <li>• No more than 20 acupuncture treatments may be administered annually</li> <li>• Treatment must be discontinued if the patient is not improving or is regressing.</li> </ul> <p>Physicians (as defined in 1861(r)(1) of the Social Security Act (the Act) may furnish acupuncture in accordance with applicable state requirements.</p> <p>Physician assistants (PAs), nurse practitioners (NPs)/clinical nurse specialists (CNSs) (as identified in 1861(aa)(5) of the Act), and auxiliary personnel may furnish acupuncture if they meet all applicable state requirements and have:</p> <ul style="list-style-type: none"> <li>• a masters or doctoral level degree in acupuncture or Oriental Medicine from a school accredited by the Accreditation Commission on Acupuncture and Oriental Medicine (ACAOM); and,</li> <li>• a current, full, active, and unrestricted license to practice acupuncture in a State, Territory, or Commonwealth (i.e. Puerto Rico) of the United States, or District of Columbia.</li> </ul> <p>Auxiliary personnel furnishing acupuncture must be under the appropriate level of supervision of a physician, PA, or NP/CNS required by our regulations at 42 CFR §§ 410.26 and 410.27.</p> <p><b>C. Nationally Non-Covered Indications</b>                      All types of acupuncture including dry needling for any condition other than cLBP are non-covered by Medicare.</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
Health plans		
<p>Aetna</p> <p>Last reviewed 2025</p>	<p>Covered by core commercial policy for several indications, including low back pain (traditional CPT codes only; dry needling, moxibustion not covered)</p>	<p><u>COMMERCIAL POLICY EXCERPTS:</u><sup>53</sup></p> <p><b>Scope of Policy</b> This Clinical Policy Bulletin addresses acupuncture and dry needling.</p> <p><b>I. Medical Necessity</b> Aetna considers acupuncture (manual or electroacupuncture) medically necessary for <i>any</i> of the following indications:</p> <ul style="list-style-type: none"> <li>a. Chronic (minimum 12 weeks duration) neck pain; <i>or</i></li> <li>b. Chronic (minimum 12 weeks duration) headache; <i>or</i></li> <li>c. Low back pain; <i>or</i></li> <li>d. Nausea of pregnancy; <i>or</i></li> <li>e. Pain from osteoarthritis of the knee or hip (adjunctive therapy); <i>or</i></li> <li>f. Post-operative and chemotherapy-induced nausea and vomiting; <i>or</i></li> <li>g. Post-operative dental pain; <i>or</i></li> <li>h. Temporomandibular disorders (TMD).</li> </ul> <p>Maintenance treatment, where the member's symptoms are neither regressing or improving, is considered not medically necessary. If no clinical benefit is appreciated after four weeks of acupuncture, then the treatment plan should be reevaluated. Further acupuncture treatment is not considered medically necessary if the member does not demonstrate meaningful improvement in symptoms.</p> <p><b>II. Experimental, Investigational, or Unproven</b> The following procedures are considered experimental, investigational, or unproven because the effectiveness of these approaches has not been established:</p> <p>A. Acupuncture There is inadequate scientific research assessing the efficacy of acupuncture compared with placebo, sham acupuncture or other modalities of treatment in the following conditions (not an all inclusive list):</p> <ul style="list-style-type: none"> <li>• Abdominal obesity</li> <li>• Acne</li> <li>• Acute pancreatitis</li> <li>• Addiction</li> <li>• AIDS</li> <li>• Alcohol withdrawal syndrome</li> <li>• Allergies</li> <li>• Alzheimer's disease</li> <li>• Amblyopia</li> <li>• Anorexia</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Asthma</li> <li>• Attention deficit hyperactivity disorder (ADHD)</li> <li>• Autism spectrum disorders</li> <li>• Bell's palsy</li> <li>• Benign prostatic hypertrophy</li> <li>• Breast cancer-related hot flashes</li> <li>• Breast cancer-related lymphedema</li> <li>• Burning mouth syndrome</li> <li>• Cancer-induced bone pain</li> <li>• Cancer-related dyspnea</li> <li>• Cancer-related fatigue</li> <li>• Cardiovascular diseases (e.g., angina pectoris, heart failure, hypertension)</li> <li>• Carpal tunnel syndrome</li> <li>• Cerebral palsy</li> <li>• Chemotherapy-induced leukopenia</li> <li>• Chemotherapy-induced neuropathic pain</li> <li>• Chronic hepatitis B</li> <li>• Chronic ankle instability</li> <li>• Chronic pain syndrome (e.g., RSD, facial pain)</li> <li>• Chronic obstructive pulmonary disease (COPD)</li> <li>• Chronic constipation</li> <li>• Chronic fatigue syndrome</li> <li>• Cognitive impairment</li> <li>• Coronary heart disease</li> <li>• Diabetic gastroparesis</li> <li>• Diabetic peripheral neuropathy</li> <li>• Diminished ovarian reserve</li> <li>• Dry eyes</li> <li>• Dysmenorrhea</li> <li>• Endometriosis pain</li> <li>• Epilepsy</li> <li>• Erectile dysfunction</li> <li>• Facial spasm</li> <li>• Fetal breech presentation</li> <li>• Fibromyalgia</li> <li>• Fibrotic contractures</li> <li>• Gastric ulcer</li> <li>• Glaucoma</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Gout</li> <li>• Hypoxic ischemic encephalopathy</li> <li>• Induction of labor</li> <li>• Infantile colic</li> <li>• Infantile diarrhea</li> <li>• Infertility (e.g., to assist oocyte retrieval and embryo transfer during IVF treatment cycle)</li> <li>• Inflammatory bowel diseases (Crohn's disease and ulcerative colitis)</li> <li>• Insomnia (including cancer-related insomnia)</li> <li>• Intra-cerebral hemorrhage</li> <li>• Irritable bowel syndrome</li> <li>• Menopause-associated vasomotor symptoms</li> <li>• Menopausal hot flashes</li> <li>• Menstrual cramps/dysmenorrhea</li> <li>• Mild cognitive impairment</li> <li>• Multiple sclerosis</li> <li>• Mumps</li> <li>• Myofascial pain</li> <li>• Myopia</li> <li>• Neuropathic pain</li> <li>• Nocturnal enuresis</li> <li>• Non-alcoholic fatty liver disease</li> <li>• Obesity / weight reduction</li> <li>• Obstructive sleep apnea</li> <li>• Occipital neuralgia</li> <li>• Oligoasthenozoospermia</li> <li>• Oral ulcer</li> <li>• Osteoporosis</li> <li>• Painful neuropathies</li> <li>• Parkinson's disease</li> <li>• Parkinson's disease-related fatigue, depression</li> <li>• Peptic ulcer</li> <li>• Peripheral arterial disease (e.g., intermittent claudication)</li> <li>• Phantom leg pain</li> <li>• Plantar fasciitis</li> <li>• Polycystic ovary syndrome</li> <li>• Post-herpetic neuralgia</li> <li>• Post-operative ileus</li> <li>• Post-prandial distress syndrome</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Post-stroke hiccup</li> <li>• Post-stroke shoulder pain</li> <li>• Post-surgical neuropathic pain after breast cancer surgery</li> <li>• Post-traumatic stress disorder</li> <li>• Premature ejaculation</li> <li>• Premenstrual syndrome/premenstrual dysphoric disorder</li> <li>• Pruritus</li> <li>• Psoriasis</li> <li>• Psychiatric disorders (e.g., anxiety, depression, and schizophrenia)</li> <li>• Raynaud's disease pain</li> <li>• Renal colic</li> <li>• Respiratory disorders</li> <li>• Restless leg syndrome</li> <li>• Rheumatoid arthritis</li> <li>• Rhinitis</li> <li>• Sensorineural deafness</li> <li>• Sexual dysfunction</li> <li>• Shoulder bursitis</li> <li>• Sleep disturbance in individuals with cancer</li> <li>• Smoking cessation</li> <li>• Spasticity after stroke</li> <li>• Stroke rehabilitation (e.g., dysphagia)</li> <li>• Systemic lupus erythematosus</li> <li>• Tennis elbow / epicondylitis</li> <li>• Thoracic back pain</li> <li>• Tic disorders (e.g., Tourette syndrome)</li> <li>• Tinnitus</li> <li>• Urinary incontinence</li> <li>• Uterine fibroids</li> <li>• Vascular dementia</li> <li>• Xerostomia</li> <li>• Whiplash;</li> </ul> <p>B. Acupuncture point injection (also known as acupoint injection therapy, biopuncture) for the following conditions (not an all-inclusive list):</p> <ul style="list-style-type: none"> <li>• Amyotrophic lateral sclerosis</li> <li>• Cancer-related pain</li> <li>• Cervical spondylosis</li> <li>• Chronic daily headache</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Dysmenorrhea (menstrual pain)</li> <li>• Lateral elbow pain (tennis elbow);</li> </ul> <p>C. Acupotomy for the treatment of herpes zoster, low back/shoulder pain, paresthesia of skin, and trigger finger;</p> <p>D. Dry needling;</p> <p>E. Transcutaneous electronic acupoint stimulation for improvement of post-operative recovery after gynecologic surgery;</p> <p>F. Use of the Teding Dianci Pu (TDP) lamp as an adjunct to acupuncture.</p> <p><b>III. Policy Limitations and Exclusions</b></p> <p>Note: Standard Aetna plans extend coverage of acupuncture for medically necessary indications when administered by a health care provider practicing within the scope of his/her license. Some Aetna plans limit coverage of acupuncture to when it is used in a lieu of other anesthesia for a surgical or dental procedure covered under the health benefits plan, and the health care provider administering it is a legally qualified physician practicing within the scope of his/her license. Some other plans may extend coverage of acupuncture for medically necessary indications, but only when administered by a health care provider who is a legally qualified physician practicing within the scope of his/her license. Please check benefit plan descriptions for details.</p> <p><b>Appendix</b>  <u>Documentation Requirements</u></p> <p>Acupuncture should be provided in accordance with an ongoing, written plan of care. The purpose of the written plan of care is to assist in determining medical necessity and should include the following:</p> <p>The written plan of care should be sufficient to determine the medical necessity of treatment, including:</p> <p>I. The diagnosis along with the date of onset or exacerbation of the disorder/diagnosis:</p> <ul style="list-style-type: none"> <li>A. A reasonable estimate of when the goals will be reached;</li> <li>B. Long-term and short-term goals that are specific, quantitative and objective;</li> <li>C. Acupuncture evaluation;</li> <li>D. The frequency and duration of treatment; <i>and</i></li> <li>E. The acupuncture protocol to be used in treatment.</li> </ul> <p>II. Signatures of the patient's attending physician and/or acupuncturist</p> <p>The plan of care should be ongoing, (i.e., updated as the member's condition changes), and treatment should demonstrate reasonable expectation of improvement (as defined below):</p> <ul style="list-style-type: none"> <li>A. Acupuncture services are considered medically necessary only if there is a reasonable expectation that acupuncture will achieve measurable improvement in the member's condition in a reasonable and predictable period of time.</li> <li>B. The member should be reevaluated regularly, and there should be documentation of progress made toward the goals of acupuncture.</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
<p>Anthem (formerly Empire) BlueCross BlueShield</p> <p>Last reviewed 2025</p>	<p>Covered by core commercial policy for several indications, including back pain (traditional acupuncture CPT codes)</p> <p>No mention in NY Medicaid MCO policy</p>	<p>The treatment goals and subsequent documentation of treatment results should specifically demonstrate that acupuncture services are contributing to such improvement.</p> <p><u>COMMERCIAL POLICY EXCERPTS:</u><sup>54</sup></p> <p><b>Clinical indications</b> <i>Medically necessary:</i> The use of acupuncture is considered medically necessary when one or more of the following conditions is the target of therapy:</p> <ul style="list-style-type: none"> <li>A. Nausea or vomiting associated with surgery, chemotherapy, pregnancy; or</li> <li>B. Chronic osteoarthritis of the knee or of the hip that is significantly affecting daily activity; or</li> <li>C. Cancer pain; or</li> <li>D. Tension headache recurring for more than 12 weeks despite medication or behavioral therapy (such as biofeedback or relaxation therapy); or</li> <li>E. Migraine recurring for more than 12 weeks despite medication treatment; or</li> <li>F. Back or neck pain persisting for more than 12 weeks despite medication and physical therapy.</li> </ul> <p><i>Continuing treatment:</i> Continuing use of acupuncture therapy is considered medically necessary when both of the following are met (A and B):</p> <ul style="list-style-type: none"> <li>A. The individual to be treated continues to experience one or more of the conditions listed above; <b>and</b></li> <li>B. The requesting physician documents ongoing benefit from the use of acupuncture.</li> </ul> <p><i>Not Medically Necessary:</i> Acupuncture is considered not medically necessary when the criteria above are not met, and for any other indication.</p>
<p>Cigna</p> <p>Last reviewed 2025</p>	<p>Covered by core commercial policy for several indications, including low back pain (traditional acupuncture CPT codes; dry needling not covered)</p>	<p><u>COMMERCIAL POLICY EXCERPTS:</u><sup>55</sup></p> <p><b>Medically Necessary</b> If coverage for acupuncture services are available in the applicable benefit plan document, acupuncture may be provided as treatment for ANY of the following conditions when ALL of the medical necessity factors and ALL of the treatment planning /outcomes listed below are met:</p> <ul style="list-style-type: none"> <li>• Tension-type Headache; Migraine Headache with or without Aura</li> <li>• Musculoskeletal joint and soft tissue pain (e.g., hip, knee, spine) resulting in a functional deficit (e.g., inability to perform household chores, interference with job functions, loss of range of motion)</li> <li>• Nausea Associated with Pregnancy (only when co-managed)</li> <li>• Post-Surgical Nausea (only when co-managed)</li> <li>• Nausea Associated with Chemotherapy; (only when co-managed)</li> </ul> <p><b>Medical Necessity Factors:</b></p> <ul style="list-style-type: none"> <li>• Medically necessary services must be delivered toward defined reasonable and evidence-based goals;</li> <li>• Medical necessity decisions must be based on patient presentation including diagnosis, severity, and documented clinical findings;</li> <li>• Continuation of treatment is contingent upon progression towards defined treatment goals and evidenced by specific significant objective functional improvements (e.g., outcome assessment scales, range of motion)</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Certain conditions require that the patient is being co-managed by a medical physician in order to be considered medically necessary;</li> <li>• Medically necessary services including monitoring of outcomes and progress with a change in treatment or withdrawal of treatment if the patient is not improving or is regressing.</li> </ul> <p><b>Treatment Planning/Outcome Factors:</b></p> <ul style="list-style-type: none"> <li>• An individualized treatment plan (e.g., frequency and duration of service) is appropriately correlated with clinical findings and clinical evidence;</li> <li>• Treatment is expected to result in significant therapeutic improvement over a clearly defined period of time;</li> <li>• Therapeutic goals are functionally oriented, realistic, measurable, and evidence-based;</li> <li>• Proposed date of release/discharge from treatment is estimated;</li> <li>• Functional Outcome Measures (FOM)*, when used, demonstrates Minimal Clinically Important Difference (MCID) from baseline results through periodic reassessments;</li> <li>• Documentation substantiates practitioner’s diagnosis and treatment plan;</li> <li>• Demonstration of progression toward active home/self-care and discharge, and;</li> <li>• Maximum therapeutic benefit has not been reached.</li> </ul> <p>*Not all outcome measures have MCID’s determined and supported in the literature. Actual significance of these findings requires correlation with the overall clinical presentation, including updated subjective and objective examination findings</p> <p><b><u>Not Medically Necessary</u></b>                      Acupuncture is considered not medically necessary for any of the following indications:</p> <ul style="list-style-type: none"> <li>• Treatment intended to improve or maintain general physical condition</li> <li>• Maintenance acupuncture services, when significant therapeutic improvement is not expected</li> <li>• Services that do not require the skills of a qualified provider of acupuncture including but not limited to:                             <ul style="list-style-type: none"> <li>○ Activities and services that can be practiced independently and can be self-administered safely and effectively.</li> <li>○ Home exercise programs that can be performed safely and independently to continue therapy without skilled supervision.</li> </ul> </li> </ul> <p><b><u>Not Medically Necessary</u></b>                      Acupuncture for any other indication, including infertility and recurrent pregnancy loss, is considered not medically necessary.</p> <p><b><u>Experimental, Investigational, Unproven</u></b>                      Acupuncture point injection therapy is considered experimental, investigational or unproven</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
<p>Fidelis Care</p> <p>Last reviewed 2026</p>	<p>Covered for certain commercial plan offerings (no indication or acupuncture type listed)</p> <p>No mention in NY Medicaid MCO policy</p>	<p><u>PROVIDER MANUAL FOR QUALIFIED HEALTH PLANS AND ESSENTIAL PLANS EXCERPT:</u><sup>146</sup> Acupuncture (12 visits per year are covered for the Gold Wellness and Silver One products)</p> <p><u>COMMERCIAL PLAN CONTRACTS SUMMARY:</u><sup>56,170,171,249,250</sup></p> <ul style="list-style-type: none"> <li>Covers acupuncture services rendered by a Health Care Professional licensed to provide such services.</li> <li>All reviewed plans cover 12 visits per year; co-payment ranges from \$0 to \$40 for Gold Wellness plans, \$0 to \$60 for Silver One plans.</li> </ul>
<p>Healthfirst</p> <p>Last reviewed 2026</p>	<p>No coverage found for commercial policies or Medicaid MCO policy</p>	<p>N/A</p>
<p>MetroPlusHealth</p> <p>Last reviewed 2022</p>	<p>Covered for certain commercial plans for low back pain, not limited to diagnosis (traditional CPT codes)</p> <p>No mention in NY Medicaid MCO policy</p>	<p><u>MEDICAL POLICY EXCERPTS:</u><sup>57</sup></p> <ul style="list-style-type: none"> <li>Policy applies to Medicare Advantage plans and on/off-exchange commercial plans</li> <li>Prior authorization for acupuncture service codes is required</li> </ul> <p><b>1. POLICY DESCRIPTION:</b> MetroPlus Health Plan Medicare members are eligible for acupuncture when performed by an individual licensed by New York State to perform acupuncture and when performed for a diagnosis of chronic low back pain. Acupuncture is also a benefit for QHP Non-standard members for every metal level, for both on and off exchange, and is not specific to diagnosis. This policy is effective for services performed on or after 1/21/2020.</p> <p><b>2. RESPONSIBLE PARTIES:</b> Medical Management Administration, Utilization Management, Integrated Care Management, Pharmacy, Claim Department, Providers Contracting.</p> <p><b>3. DEFINITIONS:</b> <b>Acupuncture</b> is the practice of piercing the skin with needles at specific body sites to induce anesthesia, to relieve pain to alleviate withdrawal symptoms of substance users, or to treat various non-painful disorders. The placement of needles into the skin is dictated by the location of meridians. These meridians are thought to mark patterns of energy flow throughout the human body. Acupuncture has 4 components—the acupuncture needle(s), the target location defined by traditional Chinese medicine, the depth of insertion, and the stimulation of the inserted needle. Acupuncture may be performed with or without electrical stimulation <b>Acupuncture needles</b> are classified by the FDA as a class II device, subject to special controls, as outlined in 21 CFR 880.5580. An acupuncture needle is a device intended to pierce the skin in the practice of acupuncture.</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p>The device consists of a solid, stainless-steel needle and may have a handle attached to facilitate delivery of acupuncture. The device is subject to special controls with respect to labeling, biocompatibility and sterility and general controls, including but not limited to, labeling, good manufacturing practices, and registration and listing. <b>Chronic pain</b> has been defined as "persistent or episodic pain of duration or intensity that adversely affects the function or well-being of the patient, attributable to any nonmalignant etiology" ("Practice Guidelines for Chronic Pain Management: A Report by the American Society of Anesthesiologists Task Force on Pain Management, Chronic Pain Section"). In addition, the pain has been refractory to repeated attempts at medical management and usually has been present for at least three to six months.</p> <p><b>4. POLICY:</b>  <b>MetroPlusHealth will cover acupuncture as defined by the Centers for Medicare &amp; Medicaid Services (CMS) National Coverage Determination (NCD) policy; NCD 30.3.3, Acupuncture for Chronic Low Back Pain for Medicare enrollees as follows:</b></p> <ul style="list-style-type: none"> <li>a. Up to 12 visits in 90 days are covered for a diagnosis of chronic low back pain. For the purpose of making this decision, chronic low back pain (cLBP) is defined as:             <ul style="list-style-type: none"> <li>1. Lasting 12 weeks or longer.</li> <li>2. nonspecific, in that it has no identifiable systemic cause (i.e., not associated with metastatic, inflammatory, infectious, etc. disease).</li> <li>3. not associated with surgery; and</li> <li>4. not associated with pregnancy</li> </ul> </li> <li>b. An additional eight (8) sessions will be covered for those patients demonstrating an improvement             <ul style="list-style-type: none"> <li>1. Medical necessity documentation must be provided to the plan for review</li> <li>2. No more than 20 acupuncture treatments may be administered annually.</li> <li>3. Treatment must be discontinued if the patient is not improving or is regressing</li> </ul> </li> <li>c. Physicians (as defined in 1861(r)(1)) may furnish acupuncture in accordance with applicable New York State (NYS) requirements. To be certified to treat patients with acupuncture in New York State you must             <ul style="list-style-type: none"> <li>1. be a New York State licensed physician or dentist currently registered to practice</li> <li>2. meet additional education and training requirements</li> <li>3. The specific requirements for certification are contained in Parts 60.9 and 59.9(e) of the Commissioner's Regulations.</li> </ul> </li> <li>d. Physician assistants, nurse practitioners/clinical nurse specialists (as identified in 1861(aa)(5)), and auxiliary personnel may furnish acupuncture if they meet all applicable NYS requirements and have:             <ul style="list-style-type: none"> <li>1. A masters or doctoral level degree in acupuncture or Oriental Medicine from a school accredited by the Accreditation Commission on Acupuncture and Oriental Medicine (ACAOM); AND</li> <li>2. current, full, active, and unrestricted license to practice acupuncture in NYS</li> </ul> </li> <li>e. Auxiliary personnel furnishing acupuncture must be under the appropriate level of supervision of a physician, physician assistant, or nurse practitioner/clinical nurse specialist required by regulations at 42 CFR §§ 410.26 and 410.27</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p><b>MetroPlusHealth will cover acupuncture for QHP Non-Standard members at every metal level and for both on and off exchange as follows:</b></p> <ol style="list-style-type: none"> <li>a. Up to 8 visits per plan year.</li> <li>b. Coverage is not limited to a specific diagnosis.</li> </ol> <p><b>5. LIMITATIONS/ EXCLUSIONS:</b></p> <ol style="list-style-type: none"> <li>a. This policy and procedure applies only to MetroPlus Medicare plans and QHP Non-Standard members on every metal level and for both on and off exchange.</li> <li>b. For Medicare enrollees no more than 20 acupuncture treatments may be administered annually. The “annual” benefit period is defined as a calendar year.</li> <li>c. For Medicare enrollees, all types of acupuncture including dry needling for any condition other than cLBP are not covered.</li> <li>d. Limited to only acupuncture or Evaluation and Management (E/M) on the same day, but not both as follows:             <ol style="list-style-type: none"> <li>1. For acupuncture with a new patient E/M (including separately identifiable service modifier 25), MetroPlusHealth will reimburse only the E/M service.</li> <li>2. For acupuncture with established patient E/M (including separately identifiable service modifier 25), MetroPlusHealth will reimburse only the acupuncture service.</li> </ol> </li> </ol> <p><u>COMMERCIAL PLAN CONTRACTS SUMMARY:</u><sup>58,175,176</sup></p> <ul style="list-style-type: none"> <li>• Covers acupuncture services rendered by a Health Care Professional licensed to provide such services.</li> <li>• Gold and Platinum Non-Standard plans cover 8 visits per year (visit limit does not apply to acupuncture for a mental health condition or substance use disorder); co-payment ranges from \$35 after deductible for Gold to \$20 pre-deductible for Platinum</li> <li>• Certain MetroPlus plans for New York City employees cover up to 10 visits per year</li> </ul>
<p>Molina Healthcare</p> <p>Last reviewed in 2025</p>	<p>No commercial plans offered in NY (acupuncture covered in certain other states)</p> <p>No mention in NY Medicaid MCO policy</p>	<p><u>ACUPUNCTURE COVERAGE FROM OTHER MOLINA STATE COMMERCIAL PLANS:</u><sup>60,156</sup></p> <ul style="list-style-type: none"> <li>• <b>California:</b> Molina covers acupuncture services that are typically provided only for the treatment of nausea or as part of a comprehensive pain management program for the treatment of chronic pain.</li> <li>• <b>Illinois:</b> Molina covers the following diabetes related services: Acupuncture services</li> <li>• <b>New Mexico:</b> <i>Acupuncture/Acupressure Services:</i> Molina covers acupuncture services when furnished by licensed Participating Providers that is determined to be Medically Necessary and appropriate for the treatment of the Member’s conditions. Acupuncture is a treatment by means of inserting needles into the body to reduce pain or to induce anesthesia. It may also be used for other diagnoses as determined appropriate by the member’s provider. It is recommended that acupuncture be part of a coordinated plan of care approved by the member’s provider. The acupuncture/acupressure benefit is limited to 20 visits per plan year unless the service is prescribed by a provider for Habilitative or Rehabilitative purposes.</li> <li>• <b>Washington:</b> Acupuncture services are limited to 12 visits without referral per calendar year. Acupuncture services provided for the treatment of chemical dependency are not subject to any visit limits. (There are no limitations if there is a diagnosis of substance use disorder-PIG).</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• <b>Not covered:</b> Florida, Idaho, Kentucky, Michigan, Mississippi, Nevada, Ohio, South Carolina, Texas, Utah, Wisconsin</li> </ul> <p><u>SUPPLEMENTAL ACUPUNCTURE COVERAGE FROM DUAL-ELIGIBLE PLANS EXCERPTS:</u><sup>159</sup></p> <ul style="list-style-type: none"> <li>• Plan maximum of up to 30 medically necessary visits every calendar year for acupuncture services.</li> <li>• Supplemental acupuncture services are covered when determined as medically accepted standard of care for:                             <ul style="list-style-type: none"> <li>○ Headache; hip or knee joint pain associated with osteoarthritis (OA); or other extremity joint pain when chronic and unresponsive to standard medical care; pain syndromes involving the joints and associated soft tissues; musculoskeletal neck and back pain; nausea associated with chemotherapy; post-surgical nausea; and nausea associated with pregnancy</li> </ul> </li> <li>• Covered acupuncture services do not include services for the treatment of asthma or addiction (including without limitation, smoking cessation)</li> </ul>
UnitedHealthcare	<p>Appears to cover traditional CPT codes for commercial plans in some capacity (no indication listed)</p> <p>No mention in NY Medicaid MCO policy</p>	<p><u>ACUPUNCTURE REIMBURSEMENT BILLING POLICY FOR COMMERCIAL/INDIVIDUAL PLANS:</u><sup>59</sup></p> <ul style="list-style-type: none"> <li>• Guidance includes traditional acupuncture CPT codes (97810, 97811, 97813, 97814) and HCPCS Level II code for electrical stimulation of auricular acupuncture points (S8930)</li> </ul>
<b>Medicaid</b>		
<p>California</p> <p>Last reviewed in 2020</p>	<p>Covered for chronic pain, including lower back pain (traditional and dry needling CPT codes both on fee schedule, but only traditional codes on service policy)</p>	<p><u>COVERAGE POLICY EXCERPTS:</u><sup>64</sup></p> <p><b>Acupuncture Services</b> This section contains information about acupuncture services and program coverage (California Code of Regulations [CCR], Title 22, Section 51308.5). Senate Bill 833 (Committee on Budget and Fiscal Review, Chapter 30, Statutes of 2016) restored acupuncture as a Medi-Cal benefit for all eligible beneficiaries, effective July 1, 2016. For additional help, refer to the acupuncture services billing example section in this manual.</p> <p><b>Program Coverage</b> Acupuncture services are reimbursable only when:</p> <ul style="list-style-type: none"> <li>• Rendered by a physician, dentist, podiatrist or certified acupuncturist enrolled in the Medi-Cal program and who is eligible to provide Medi-Cal services.</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<ul style="list-style-type: none"> <li>• Limited to treatment performed to prevent, modify or alleviate the perception of severe, persistent chronic pain resulting from a generally recognized medical condition.</li> <li>• Used with or without electric stimulation of the needles.</li> <li>• Used to treat a condition also covered by other modalities.</li> </ul> <p><i>Note: Acupuncture services are subject to the two-services per month Medi-Service reservation limitation (CCR, Title 22, Section 51304[a]).</i></p> <p><b><u>Eligibility Requirements</u></b>                      Providers should verify the recipient’s Medi-Cal eligibility for the month of service</p> <p><b><u>Medi-Services and TAR Requirements</u></b>                      Outpatient acupuncture services require a Medi-Service reservation; additional services may be approved with a <i>Treatment Authorization Request (TAR)</i>. Outpatient acupuncture services are subject to a limit of two services in any one calendar month or any combination of two services per month from the following services: acupuncture, audiology, chiropractic, occupational therapy, podiatry and speech therapy.</p> <p>One Medi-Service reservation must be reserved for each visit provided. One Medi-Service reservation for acupuncture may include the following:</p> <ul style="list-style-type: none"> <li>• One of code 97810 <u>and</u> up to two of code 97811, <u>or</u></li> <li>• One of code 97813 <u>and</u> up to two of code 97814</li> </ul> <p>Information about how to reserve a Medi-Service is contained in the following documents:</p> <ul style="list-style-type: none"> <li>• If using the Automated Eligibility Verification System (AEVS), refer to the <i>AEVS: Transactions</i> section in the Part 1 manual.</li> </ul> <p>If using the Internet, refer to the Medi-Cal Web Site Quick Start Guide.</p> <p><b><u>Billing Acupuncture Services</u></b>                      An “Acupuncture Service” is any covered acupuncture procedure or combination of procedures performed on the same day for an eligible individual Medi-Cal recipient by an individual practitioner on one occasion. Acupuncture services must be billed using the following CPT® procedure codes:</p> <ul style="list-style-type: none"> <li>• 97810 (acupuncture, one or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient)</li> <li>• One of code 97813 <u>and</u> up to two of code 97814</li> <li>• 97811 (acupuncture, one or more needles; without electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s))</li> <li>• 97813 (acupuncture, one or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient) or</li> <li>• 97814 (acupuncture, one or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s))</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p>Reimbursement will be made for either 97810 and 97811 (without electrical stimulation) or 97813 and 97814 (with electrical stimulation) when billed for the same date of service, any provider.</p> <p>Code 97811 is an add-on and must be billed on the same claim with code 97810. Code 97814 is an add-on and must be billed on the same claim with code 97813.</p> <p><b>Prescription Requirements</b> No prescriptions are required for acupuncture services.</p> <p><b>Authorization</b> Authorization is not required for acupuncture services.</p> <p><b>Claim Information</b> To ensure accurate reimbursement for all acupuncture services, the following information must be submitted with each claim:</p> <ul style="list-style-type: none"> <li>• Diagnosis of the condition causing the pain</li> <li>• Other treatments given</li> <li>• Results of other treatments</li> </ul> <p><b>Non-Covered Services</b> Acupuncture services are not reimbursable when:</p> <ul style="list-style-type: none"> <li>• Billed as an emergency or inpatient service.</li> <li>• Rendered by a physician assistant, nurse practitioner or certified nurse midwife.</li> </ul> <p>Non-acupuncture services rendered by a certified acupuncturist are not reimbursable. In addition, if the only service rendered is an acupuncture treatment, physicians and podiatrists may not be reimbursed for an office or medical visit.</p>
Florida	<p>Traditional acupuncture codes not covered in fee-for service; dry needling CPT codes covered (no indication listed)</p> <p>Certain Medicaid MCO plans offer as</p>	<p><b>FEE-FOR-SERVICE PROGRAM<sup>70</sup></b> Traditional acupuncture CPT codes 97810, 97811, 97813, 97814 not listed on state fee schedule. Dry needling codes 20560 and 20561 covered on state fee schedule.</p> <p><b>MEDICAID MANAGED CARE PROGRAM</b> State model MCO contract includes acupuncture in list of “expanded benefits” that MCO plans may be required to cover, dependent on contracting; excerpts:<sup>189</sup></p> <p><i>D. Approved Expanded Benefits</i> The Managed Care Plan shall provide the following expanded benefits, in accordance with the provisions of Attachment II and its Exhibits and the coverage and limitations specified in Exhibit I-A of this Attachment, denoted by “X” in the Approved Expanded Benefits Table, Table 3, below, to enrollees of the applicable SMMC program(s) in the authorized region(s) specified in Table 1.</p> <p><i>Table 3: Expanded Benefits</i> Adult Expanded Benefits – These services are only available for adults because they are already covered for children on Medicaid when medically necessary</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
	expanded benefit	<p>- Acupuncture</p> <p>Medicaid agency summary shows that 6 of 8 MCO plans offered acupuncture services to adults as an expanded benefit in 2025.<sup>190</sup> Coverage details for available plans include:</p> <p><b>UnitedHealthcare<sup>195</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> Non-traditional pain management alternative</li> <li>• <i>Coverage:</i> One or more needles, without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient. Additional 15 minutes of personal one-on-one contact with the patient, with reinsertion of needles. One or more needles, with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient. For members ages 21 and older.</li> <li>• <i>Prior authorization:</i> Yes</li> </ul> <p><b>Sunshine Health<sup>194</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> Insertion of thin needles through skin to treat pain, stress and other conditions. Acupuncture is used to treat chronic pain, stress, and other physical and mental health conditions.</li> <li>• <i>Coverage:</i> Ages 21 years and older, unlimited as deemed medically necessary</li> <li>• <i>Prior authorization:</i> Yes</li> </ul> <p><b>Simply Healthcare<sup>193</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> Alternative to pain management therapy to ease physical, mental, and emotional conditions</li> <li>• <i>Coverage:</i> Ages 21 years and older, unlimited acupuncture visits based on medical necessity</li> <li>• <i>Prior authorization:</i> Yes</li> </ul> <p><b>Florida Community Care<sup>191</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> Form of alternative medicine in which thin needles are used</li> <li>• <i>Coverage:</i> A professional certified in Acupuncture can provide up to 48 units (15 minutes per unit) per year</li> <li>• <i>Prior authorization:</i> Yes</li> </ul> <p><b>Community Care Plan<sup>188</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> None</li> <li>• <i>Coverage:</i> Ages 21 years and older</li> <li>• <i>Prior authorization:</i> Yes; must get a referral from a plan pain specialist or cancer doctor</li> </ul> <p><b>Molina Healthcare<sup>192,211</sup></b></p> <ul style="list-style-type: none"> <li>• <i>Description/Indication:</i> Other form of medicine using needles to help your pain</li> <li>• <i>Coverage:</i> Only for HIV specialty plan members; ages 21 and older; up to four units (15 minutes x four = 60 minutes) per visit, up to 24 visits per year</li> <li>• <i>Prior authorization:</i> No</li> </ul>
Massachusetts	Main policy covers for pain,	<u>ACUPUNCTURE SERVICES COVERAGE POLICY EXCERPTS<sup>65</sup></u>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
<p>Last reviewed in 2022</p>	<p>including low back pain, and detoxification use (traditional CPT codes only, dry needling not covered)</p> <p>Other policies include use as anesthetic<sup>200,202</sup></p>	<p><u>447.402: Definitions</u>                      The following terms used in 130 CMR 447.000 have the meanings given in 130 CMR 447.402 unless the context clearly requires a different meaning. The reimbursability of services defined in 130 CMR 447.000 is not determined by these definitions, but by application of 130 CMR 447.000 and 130 CMR 450.000: <i>Administrative and Billing Regulations</i>.</p> <p><i>Acupuncture</i> – the insertion of metal needles through the skin at certain points on the body, with or without the use of herbs, with or without the application of an electric current, and with or without the application of heat to the needles, skin, or both.</p> <p><i>Dry Needling</i> – the use of solid needles to treat muscle pain by stimulating and breaking muscular knots and bands.</p> <p><i>Office Visit</i> – a visit by a MassHealth member to an acupuncturist’s office for evaluation and management services performed by a MassHealth-enrolled acupuncturist.</p> <p><u>447.404: Provider Eligibility</u>                      The MassHealth agency pays only acupuncturists who are participating in MassHealth on the date of service. Acupuncturists must meet the following eligibility requirements.</p> <p>(A) <i>In-state Providers</i>. To be eligible to participate in MassHealth, an in-state acupuncturist must</p> <ol style="list-style-type: none"> <li>1. be licensed as a provider of acupuncture by the Massachusetts Board of Registration in Medicine under 243 CMR 5.00: <i>The Practice of Acupuncture</i>; and</li> <li>2. be an active MassHealth provider.</li> </ol> <p>(B) <i>Out-of-state Providers</i>. To participate in MassHealth, an out-of-state acupuncturist must obtain a MassHealth provider number and meet the following criteria:</p> <ol style="list-style-type: none"> <li>1. be currently licensed as an acupuncturist in his or her own state, or for an acupuncturist in a state that does not license acupuncturists, be legally authorized to perform the services of an acupuncturist in that state;</li> <li>2. participate in his or her state’s Medicaid program (or the equivalent); and</li> <li>3. meet the conditions set forth in 130 CMR 450.109: <i>Out-of-state Services</i>.</li> </ol> <p><u>447.406: Reporting Requirements</u>                      Acupuncturists who furnish services to MassHealth members must report the results of these services to the member’s primary care provider or Primary Care Clinician (PCC) in writing. The acupuncturist may report the results of treatment initially by telephone, but he or she must then submit a written report of the initial consultation and subsequent periodic re-evaluations.</p> <p><u>447.413: Covered Services</u>                      (A) The MassHealth agency pays for medically necessary acupuncture for the treatment of pain and for use for detoxification as described in 130 CMR 418.406(D)(4): <i>Acupuncture Detoxification</i>. Services must address the patient’s condition and if no clinical benefit is appreciated after four sessions, then the treatment plan must be</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p>re-evaluated. Further acupuncture treatment is not considered medically necessary if the patient does not demonstrate meaningful improvement in symptoms.</p> <p>(B) The MassHealth agency will pay for one office visit per member every four weeks. A provider may bill the MassHealth agency for both an office visit and acupuncture treatment rendered to a member on the same day in accordance with these regulations.</p> <p><u>447.414: Noncovered Services</u>                      The MassHealth agency does not pay for the following:                      (A) dry needling;                      (B) acupuncture for purposes other than those identified in 130 CMR 447.413(A);                      (C) performing, administering, or dispensing any experimental, unproven, cosmetic, or otherwise medically unnecessary procedure or treatment;                      (D) the treatment of male or female infertility (including, but not limited to, laboratory tests, drugs, and procedures associated with such treatment); or                      (E) otherwise payable service codes when those codes are used to bill for circumstances that are not payable under 130 CMR 447.414.</p> <p><u>447.415: Service Limitations</u>                      The MassHealth agency limits payment for acupuncture services to a total of 20 treatments per member per calendar year, without prior authorization. Acupuncture treatments above these limits require prior authorization in accordance with 130 CMR 447.416.</p>
New Jersey	Covered, no indication listed (both traditional and dry needling codes)	<p>Acupuncture listed as covered on state Medicaid physician training manual<sup>67</sup></p> <p>State fee schedule covers all traditional acupuncture and dry needling codes<sup>66</sup></p> <p>No additional coverage criteria (e.g., eligible conditions) found for fee-for-service program or state Medicaid MCO plans</p>
New York	Not covered	<p>In December 2020, New York Medicaid submitted a state plan amendment (SPA) request to CMS to cover acupuncture and chiropractor services for chronic lower back pain.<sup>95</sup> The request was based on a 2020 state law that authorized the state’s health commissioner to establish pilot programs for counties or regions in the state to promote non-pharmacologic alternatives to opioid treatment for patients with lower back pain.<sup>95,96</sup> The state plan amendment request to CMS proposed to phase in statewide coverage of the services over time, with initial coverage in certain regions.<sup>95</sup> The state requested early SPA submission in order to discuss the phased-in approach with CMS.<sup>95</sup></p> <p>However, the SPA process was not finalized.<sup>97</sup></p> <p><u>EXCERPTS FROM 2020 SPA #21-0004 SUBMISSION (NOT ENACTED):<sup>95</sup></u></p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p><b>Summary:</b> This State Plan Amendment proposes to implement Medicaid coverage for acupuncture and chiropractor services for patients with chronic lower back pain. Statewide coverage will be phased in, with initial coverage offered in select regions of the State and will be expanded as the Program gains experience in service delivery and member access. Early SPA submission is requested so that the State has an opportunity to discuss with CMS the merits of a phased in approach for program implementation.</p> <p><b>Acupuncture services.</b> Provision of acupuncture services will be limited to Chronic Lower Back Pain (CLBP) recipients by medical necessity. Services will be provided to the extent that such services result from the referral of the recipient’s physician or primary care clinic.</p> <p><b>Acupuncture services.</b> Fee schedule developed by the Department of Health and approved by the Division of the Budget.</p>
North Carolina	Not covered	N/A
Oregon	Covered for many indications, including lower back pain (traditional CPT codes only, dry needling not covered)	<p><u>OREGON HEALTH PLAN PRIORITIZED LIST OF HEALTH SERVICES EXCERPTS:</u><sup>69</sup></p> <p>Guideline Note 92, Acupuncture  <i>Lines 1,4,5,62,65,92,111,112,114,125,129,133,135,157,158,190,198-200,207,209,213,214,228,233,236,237,256,257,260,269,274,284,285,292,311-313,326,339,358,393,394,399,407,416,432,461,534,552</i></p> <p>Inclusion of acupuncture (CPT 97810-97814) on the Prioritized List has the following limitations:</p> <p>Line 1 PREGNANCY                      Acupuncture pairs on Line 1 for the following conditions and codes.  <i>Hyperemesis gravidarum</i>                      ICD-10-CM: O21.0, O21.1                      Acupuncture pairs with hyperemesis gravidarum when a diagnosis is made by the maternity care provider and referred for acupuncture treatment for up to 12 sessions of acupressure/acupuncture per pregnancy.</p> <p><i>Breech presentation</i>                      ICD-10-CM: O32.1                      Acupuncture (and moxibustion) is paired with breech presentation when a referral with a diagnosis of breech presentation is made by the maternity care provider, the patient is between 33- and 38-weeks gestation, for up to 6 session per pregnancy.</p> <p><i>Back and pelvic pain of pregnancy</i>                      ICD-10-CM: O99.89                      Acupuncture is paired with back and pelvic pain of pregnancy when referred by maternity care provider/primary care provider for up to 12 sessions per pregnancy.</p> <p>Line 4 SUBSTANCE USE DISORDER, Line 62 SUBSTANCE-INDUCED MOOD, ANXIETY, DELUSIONAL AND OBSESSIVE-COMPULSIVE DISORDERS, Line 65 SUBSTANCE-INDUCED DELIRIUM; SUBSTANCE INTOXICATION AND WITHDRAWAL</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p>Acupuncture is included on these lines only when used as part of a documented broader treatment plan that offers patients a variety of evidence-based interventions including behavioral interventions, social support, and Medication Assisted Treatment (MAT), as appropriate.</p> <p>Line 5 TOBACCO DEPENDENCE Acupuncture is included on this line for a maximum of 12 sessions per quit attempt up to two quit attempts per year; additional sessions may be authorized if medically appropriate. Lines 92, 111, 112, 114, 125, 129, 133, 135, 157, 158, 190, 198, 199, 207, 209, 213, 214, 228, 233, 236, 237, 256, 257, 259, 260, 269, 274, 284, 285, 292, 311, 312, 313, 326, 339, 369, 393, 394, 416, 432 and 552 Acupuncture is paired only with the ICD-10 code G89.3 (Neoplasm related pain (acute) (chronic)) when there is active cancer and limited to 12 total sessions per year; patients may have additional visits authorized beyond these limits if medically appropriate.</p> <p>Line 200 CHRONIC ORGANIC MENTAL DISORDERS INCLUDING DEMENTIAS Acupuncture is paired with the treatment of post-stroke depression only (ICD-10-CM F06.31 or F06.32). Treatments may be billed to a maximum of 30 minutes face-to-face time and limited to 12 total sessions per year, with documentation of meaningful improvement; patients may have additional visits authorized beyond these limits if medically appropriate.</p> <p>Line 358 SCOLIOSIS Acupuncture is included on this line with visit limitations as in Guideline Note 56 NON-INTERVENTIONAL TREATMENTS FOR CONDITIONS OF THE BACK AND SPINE.</p> <p>Line 399 CONDITIONS OF THE BACK AND SPINE Acupuncture is included on this line with visit limitations as in Guideline Note 56 NON-INTERVENTIONAL TREATMENTS FOR CONDITIONS OF THE BACK AND SPINE.</p> <p>Line 407 MIGRAINE HEADACHES Acupuncture pairs on Line 407 for migraine (ICD-10-CM G43.0, G43.1, G43.5, G43.7, G43.8, G43.9), for up to 12 sessions per year.</p> <p>Line 461 OSTEOARTHRITIS AND ALLIED DISORDERS Acupuncture pairs on Line 461 for osteoarthritis of the knee only (ICD-10-CM M17), for up to 12 sessions per year.</p> <p>*Line 534 TENSION HEADACHES Acupuncture is included on Line 534 for treatment of tension headaches (ICD-10-CM G44.2), for up to 12 sessions per year.</p> <p>The development of this guideline note was informed by a HERC <a href="https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports.aspx">coverage guidance</a>. See <a href="https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports.aspx">https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports.aspx</a></p> <p>*Below the current funding line.</p>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		<p><u>Guideline Note 56, Non-Interventional Treatments for Conditions of the Back and Spine</u>  <i>Lines 358,399</i></p> <p>Patients seeking care for back pain should be assessed for potentially serious conditions (“red flag” symptoms requiring immediate diagnostic testing), as defined in Diagnostic Guideline D4. Patients lacking red flag symptoms should be assessed using a validated assessment tool (e.g. STarT Back Assessment Tool) in order to determine their risk level for poor functional prognosis based on psychosocial indicators.</p> <p>For patients who are determined to be low risk on the assessment tool, the following services are included on these lines:</p> <ul style="list-style-type: none"> <li>• Office evaluation and education,</li> <li>• Up to four total visits, consisting of the following treatments: OMT/CMT, acupuncture, and PT/OT. Massage, if available, may be provided as part of these four total visits.</li> <li>• First line medications: NSAIDs, acetaminophen, and/or muscle relaxers. Opioids may be considered as a second line treatment, subject to the limitations on coverage of opioids in Guideline Note 60 OPIOIDS FOR CONDITIONS OF THE BACK AND SPINE.</li> </ul> <p>For patients who are determined to be medium- or high risk on the validated assessment tool, as well as patients undergoing opioid tapers as in Guideline Note 60 OPIOIDS FOR CONDITIONS OF THE BACK AND SPINE, the following treatments are included on these lines:</p> <ul style="list-style-type: none"> <li>• Office evaluation, consultation and education</li> <li>• Cognitive behavioral therapy. The necessity for cognitive behavioral therapy should be re-evaluated every 90 days and coverage will only be continued if there is documented evidence of decreasing depression or anxiety symptomatology, improved ability to work/function, increased self-efficacy, or other clinically significant, objective improvement.</li> <li>• Prescription and over-the-counter medications; opioid medications subject to the limitations on coverage of opioids in Guideline Note 60 OPIOIDS FOR CONDITIONS OF THE BACK AND SPINE.</li> <li>• The following evidence-based therapies, when available, may be provided: yoga, massage when not billed under 97124 and limited to one session per week, Pilates, supervised exercise therapy, intensive interdisciplinary rehabilitation. HCPCS S9451 is only included on Line 399 for the provision of yoga or supervised exercise therapy.</li> <li>• A total of 30 visits per year of any combination of the following evidence-based therapies when available and medically appropriate. These therapies are only included on these lines if provided by a provider licensed to provide the therapy and when there is documentation of measurable clinically significant progress toward the therapy plan of care goals and objectives using evidence based objective tools (e.g. Oswestry, Neck Disability Index, SF-MPQ, and MSPQ).             <ol style="list-style-type: none"> <li>1. Rehabilitative therapy (physical and/or occupational therapy), if provided according to Guideline Note 6 REHABILITATIVE AND HABILITATIVE THERAPIES. Rehabilitation services provided under this guideline also count towards visit totals in Guideline Note 6. Massage billed under CPT 97124 is included in this category and is subject to the restrictions on massage in Guideline Note 6.</li> <li>2. Chiropractic or osteopathic manipulation</li> </ol> </li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts																																			
		<p>3. Acupuncture</p> <p>Mechanical traction (CPT 97012) is not included on these lines, due to evidence of lack of effectiveness for treatment of back and neck conditions.</p> <p>The development of this guideline note was informed by HERC coverage guidances on <a href="#">Low Back Pain Non-Pharmacologic, Non-Invasive Intervention</a>, <a href="#">Low Back Pain, Pharmacological and Herbal Therapies</a>. See <a href="https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports.aspx">https://www.oregon.gov/oha/HPA/DSI-HERC/Pages/Evidence-based-Reports.aspx</a></p> <p><u>Excluded Services Guideline E2: Interventions that are unproven, have no clinically important benefit or have harms that outweigh benefits for certain conditions</u>                      CPT codes 20560, 20561 Dry needling                      Rationale: Insufficient evidence of effectiveness</p> <p><u>OREGON HEALTH PLAN BEHAVIORAL HEALTH FEE SCHEDULE EXCERPT:<sup>223</sup></u></p> <table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Rate</th> <th>Unit</th> <th>Required Modifiers</th> <th>Allowed Modifiers</th> <th>Rendering Provider Types</th> </tr> </thead> <tbody> <tr> <td>97810</td> <td>Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient.</td> <td>\$21.30</td> <td>15 Minutes</td> <td>HF, HG</td> <td>TN, U9</td> <td>Licensed Acupuncturist</td> </tr> <tr> <td>97811</td> <td>Acupuncture, 1 or more needles; without electrical stimulation, additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of the needle(s).</td> <td>\$10.66</td> <td>15 Minutes</td> <td>HF, HG</td> <td>TN, U9</td> <td>Licensed Acupuncturist</td> </tr> <tr> <td>97813</td> <td>Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient.</td> <td>\$21.30</td> <td>15 Minutes</td> <td>HF, HG</td> <td>TN, U9</td> <td>Licensed Acupuncturist</td> </tr> <tr> <td>97814</td> <td>Acupuncture, 1 or more needles; with electrical stimulation, additional 15 minutes of personal one-on-one contact with the patient, with reinsertion of the needle(s).</td> <td>\$10.66</td> <td>15 Minutes</td> <td>HF, HG</td> <td>TN, U9</td> <td>Licensed Acupuncturist</td> </tr> </tbody> </table>	Code	Description	Rate	Unit	Required Modifiers	Allowed Modifiers	Rendering Provider Types	97810	Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient.	\$21.30	15 Minutes	HF, HG	TN, U9	Licensed Acupuncturist	97811	Acupuncture, 1 or more needles; without electrical stimulation, additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of the needle(s).	\$10.66	15 Minutes	HF, HG	TN, U9	Licensed Acupuncturist	97813	Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient.	\$21.30	15 Minutes	HF, HG	TN, U9	Licensed Acupuncturist	97814	Acupuncture, 1 or more needles; with electrical stimulation, additional 15 minutes of personal one-on-one contact with the patient, with reinsertion of the needle(s).	\$10.66	15 Minutes	HF, HG	TN, U9	Licensed Acupuncturist
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Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
Pennsylvania	Not covered	N/A
Texas	Not covered	N/A
Washington	Not covered	<p>In 2024, Washington Medicaid issued a notice and bulletin that it planned to add acupuncture services as a covered benefit for members 18 and older through a state plan amendment (SPA), starting January 2025.<sup>106,237</sup> This was done in alignment with state budget bills that had directed the agency to implement the benefit and allocated appropriations for the services.<sup>238,239</sup> The Medicaid agency proposed policy language to cover the services.<sup>107</sup> However, shortly after the proposed policy, the Medicaid agency issued a notice that it was pausing implementation of the adult acupuncture benefit because of a directive from the Office of Financial Management.<sup>105</sup></p> <p><u>EXCERPTS FROM PROPOSED 2024 COVERAGE POLICY (NOT ENACTED):<sup>107</sup></u></p> <p><b>WAC 182-556-0250 Acupuncture services.</b></p> <p>(1) The agency pays for acupuncture services for clients age 18 years and older when:</p> <ul style="list-style-type: none"> <li>(a) Services are medically necessary under WAC 182-500-0070 and are:             <ul style="list-style-type: none"> <li>(i) Safe;</li> <li>(ii) Effective; and</li> <li>(iii) Not experimental or investigational as defined in WAC182-501-0165.</li> </ul> </li> <li>(b) Services are provided by an acupuncturist or other qualified provider where acupuncture is within the practitioner's scope of practice; and</li> <li>(c) Services are provided in-state or in a border city according to WAC 182-501-0175 and are provided by an acupuncturist or practitioner who is licensed in the state where services are rendered.</li> </ul> <p>(2) Acupuncture services are limited to:</p> <ul style="list-style-type: none"> <li>(a) Twenty-four visits per year; and</li> <li>(b) Acupuncture needle treatment only, with or without electrical stimulation.</li> </ul> <p>(3) Covered diagnoses include:</p> <ul style="list-style-type: none"> <li>(a) Chronic migraine;</li> <li>(b) Chemotherapy induced nausea and vomiting;</li> <li>(c) Chronic musculoskeletal pain; or</li> <li>(d) Acute postoperative pain.</li> </ul> <p>(4) The following services are noncovered:</p> <ul style="list-style-type: none"> <li>(a) Dry needling;</li> <li>(b) Eastern medicine services other than acupuncture as defined in WAC 246-803-030; and</li> <li>(c) Acupuncture for the diagnosis of chronic tension-type headache or chronic daily headache.</li> </ul> <p>(5) If acupuncture is requested or prescribed under the EPSDT program, the agency evaluates it as a covered service under EPSDT's standard of coverage that requires the service to be:</p> <ul style="list-style-type: none"> <li>(a) Medically necessary;</li> </ul>

Health Plan or State	Coverage Status	Relevant Policy Information and Excerpts
		(b) Safe and effective; and (c) Not experimental or investigational as defined in WAC 182-501-0165.  (6) The agency evaluates requests for covered services that are subject to limitations or other restrictions and approves such services beyond those limitations or restrictions when medically necessary, under the provisions of WAC 182-501-0165 and 182-501-0169.

*Source. Health plan websites for Aetna, Anthem BlueCross BlueShield, Cigna, Fidelis Care, Healthfirst, MetroPlusHealth, Molina Healthcare, UnitedHealthcare. State Medicaid agency websites and MCO plans for California, Florida, Massachusetts, New Jersey, New York, North Carolina, Oregon, Pennsylvania, Texas, Washington.*

*Abbreviations. CPT: Current Procedural Terminology. MCO: managed care organization. N/A. Not applicable. NY: New York.*

## Appendix J: Relevant Codes

Table J1. Applicable Codes for Acupuncture Services

Code	Description
<b>ICD-10-CM codes included in CMS Medicare national coverage determination for CLBP<sup>15</sup></b>	
M40 select codes	Kyphosis and lordosis
M41 select codes	Scoliosis
M42 select codes	Spinal osteochondrosis
M43 select codes	Other deforming dorsopathies
M47 select codes	Spondylosis
M48 select codes	Other spondylopathies
M51 select codes	Other intervertebral disc disorders
M53 select codes	Other and unspecified dorsopathies, not elsewhere classified
M54 select codes	Dorsalgia
S32 select codes	Fracture of lumbar spine and pelvis
S33 select codes	Dislocations, sprains, and strains of the joints and ligaments of the lumbar spine and pelvis
S34 select codes	Injuries to the lumbar and sacral spinal cord and nerves at the abdomen, lower back, and pelvis level
S39 select codes	Other and unspecified injuries to the abdomen, lower back, pelvis, and external genitals
<b>CPT codes<sup>134</sup></b>	
<b>Traditional acupuncture</b>	
97810	Acupuncture, 1 or more needles, without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, 1 or more needles; without electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s)
97813	Acupuncture, 1 or more needles, with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97814	Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s)
<b>Dry needling</b>	
20560	Needle insertion(s) without injection(s); 1 or 2 muscle(s)
20561	Needle insertion(s) without injection(s); 3 or more muscle(s)

Notes. See Medicare national coverage determination 30.3.3 (acupuncture coverage for chronic lower back pain) to access full list of covered ICD-10 codes.<sup>15</sup>

Abbreviations. CLBP: chronic lower back pain. CPT: Current Procedural Terminology; HCPCS: Healthcare Common Procedure Coding System; ssICD-10-CM: International Classification of Diseases, Tenth Revision, Clinical Modification.