

Supplemental Content Appendix S1. Search strategies for all databases

1) Ovid-MEDLINE

- 1 Neck Pain/
- 2 exp Brachial Plexus Neuropathies/
- 3 cervical pain.mp.
- 4 neckache.mp.
- 5 cervicodynia.mp.
- 6 cervicalgia.mp.
- 7 brachialgia.mp.
- 8 brachial neuritis.mp.
- 9 brachial neuralgia.mp.
- 10 neck pain.mp.
- 11 neck injur*.mp.
- 12 brachial plexus neuropath*.mp.
- 13 brachial plexus neuritis.mp.
- 14 thoracic outlet syndrome/ or cervical rib syndrome/
- 15 Torticollis/
- 16 exp brachial plexus neuropathies/ or exp brachial plexus neuritis/
- 17 cervico brachial neuralgia.ti,ab.
- 18 cervicobrachial neuralgia.ti,ab.
- 19 (monoradicul* or monoradicl*).tw.
- 20 or/1-19
- 21 neck/
- 22 neck muscles/
- 23 exp cervical plexus/
- 24 exp cervical vertebrae/
- 25 atlanto-axial joint/
- 26 atlanto-occipital joint/
- 27 Cervical Atlas/
- 28 spinal nerve roots/
- 29 exp brachial plexus/
- 30 (odontoid* or cervical or occip* or atlant*).tw.
- 31 axis/ or odontoid process/
- 32 Thoracic Vertebrae/
- 33 cervical vertebrae.mp.
- 34 cervical plexus.mp.
- 35 cervical spine.mp.
- 36 (neck adj3 muscles).mp.
- 37 (brachial adj3 plexus).mp.

38 (thoracic adj3 vertebrae).mp.
39 neck.mp.
40 (thoracic adj3 spine).mp.
41 (thoracic adj3 outlet).mp.
42 trapezius.mp.
43 or/21-42
44 exp pain/
45 exp injuries/
46 pain.mp.
47 ache.mp.
48 sore.mp.
49 stiff.mp.
50 discomfort.mp.
51 injur*.mp.
52 neuropath*.mp.
53 or/44-52
54 43 and 53
55 Radiculopathy/
56 exp temporomandibular joint disorders/ or exp temporomandibular joint dysfunction syndrome/
57 myofascial pain syndromes/
58 exp "Sprains and Strains"/
59 exp Spinal Osteophytosis/
60 exp Neuritis/
61 Polyradiculopathy/
62 exp Arthritis/
63 Fibromyalgia/
64 spondylitis/ or discitis/
65 spondylosis/ or spondylolysis/ or spondylolisthesis/
66 radiculopathy.mp.
67 radiculitis.mp.
68 temporomandibular.mp.
69 myofascial pain syndrome*.mp.
70 thoracic outlet syndrome*.mp.
71 spinal osteophytosis.mp.
72 neuritis.mp.
73 spondylosis.mp.
74 spondylitis.mp.
75 spondylolisthesis.mp.
76 or/55-75
77 43 and 76

78 exp neck/
79 exp cervical vertebrae/
80 Thoracic Vertebrae/
81 neck.mp.
82 (thoracic adj3 vertebrae).mp.
83 (thoracic adj3 spine).mp.
84 cervical spine.mp.
85 78 or 79 or 80 or 81 or 82 or 83 or 84
86 Intervertebral Disk/
87 (disc or discs).mp.
88 (disk or disks).mp.
89 86 or 87 or 88
90 85 and 89
91 herniat*.mp.
92 slipped.mp.
93 prolapse*.mp.
94 displace*.mp.
95 degenerat*.mp.
96 (bulge or bulged or bulging).mp.
97 or/91-96
98 90 and 97
99 intervertebral disk degeneration/ or intervertebral disk displacement/
100 intervertebral disk displacement.mp.
101 intervertebral disc displacement.mp.
102 intervertebral disk degeneration.mp.
103 intervertebral disc degeneration.mp.
104 or/99-103
105 85 and 104
106 20 or 54 or 77 or 98 or 105
107 (acupuncture or acupuncture or needling or acupressure).tw.
108 exp Acupuncture Points/
109 exp Acupuncture Therapy/ or exp Acupuncture/
110 exp Electroacupuncture/
111 (electric acupuncture or electroacupuncture or electroacupuncture).tw.
112 (warm needle or warming acupuncture or warmed electroacupuncture).tw.
113 warm acupuncture.tw.
114 fire needle.tw.
115 fire acupuncture.tw.
116 exp Catgut/
117 catgut implantation.tw.

- 118 catgut emb*.tw.
- 119 thread emb*.tw.
- 120 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119
- 121 106 and 120
- 122 randomized controlled trial.pt.
- 123 controlled clinical trial.pt.
- 124 randomized.ab.
- 125 placebo.ab.
- 126 randomly.ab.
- 127 trial.ab.
- 128 groups.ab.
- 129 122 or 123 or 124 or 125 or 126 or 127 or 128
- 130 exp animals/ not humans.sh.
- 131 129 not 130
- 132 121 and 131

2) EMBASE

- 1 'Neck Pain'/de
- 2 brachial plexus neuropathy'/de
- 3 cervical pain'
- 4 neckache'
- 5 cervicodynia'
- 6 cervicalgia'
- 7 brachialgia'/de
- 8 brachialgia'
- 9 brachial neuritis'
- 10 brachial neuralgia'
- 11 neck pain'
- 12 neck injur*'
- 13 brachial plexus neuropath*'
- 14 brachial plexus neuritis'
- 15 thoracic outlet syndrome'/de
- 16 Torticollis'/de
- 17 brachial plexus neuropathies'/exp OR 'brachial plexus neuritis'/exp
- 18 cervico brachial neuralgia':ab,ti
- 19 cervicobrachial neuralgia':ab,ti
- 20 monoradicul*' or 'monoradicl*'
- 21 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20
- 22 neck'/de

- 23 neck muscles'/de
- 24 cervical plexus'/de
- 25 cervical spine'/de
- 26 atlantoaxial joint'/de
- 27 atlantooccipital joint'/de
- 28 atlas'/de
- 29 spinal root'/de
- 30 brachial plexus'/de
- 31 odontoid*' or 'cervical' or 'occip*' or 'atlant*'
- 32 odontoid process'/de
- 33 cervical vertebra'
- 34 cervical vertebrae'
- 35 cervical plexus'
- 36 cervical spine'
- 37 neck NEAR/3 muscles
- 38 brachial NEAR/3 plexus
- 39 thoracic NEAR/3 vertebrae
- 40 neck'
- 41 thoracic NEAR/3 spine
- 42 thoracic NEAR/3 outlet
- 43 trapezius'
- 44 #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43
- 45 pain'/exp
- 46 injuries'/exp
- 47 pain'
- 48 ache'
- 49 sore'
- 50 stiff'
- 51 discomfort'
- 52 injur*'
- 53 neuropath*'
- 54 #45 OR #46 OR #47 OR #48 OR #49 OR #50 OR #51 OR #52 OR #53
- 55 #44 and #54
- 56 Radiculopathy'/de
- 57 temporomandibular joint disorder'/de
- 58 myofascial pain'/de
- 59 spondylosis'/de or 'cervical spondylosis'/de
- 60 Neuritis'/de
- 61 Arthritis'/exp

62 Fibromyalgia'/de
63 spondylitis'/exp
64 diskitis'/de
65 spondylolisthesis'/de
66 radiculopathy'
67 radiculitis'
68 temporomandibular'
69 myofascial pain syndrome*'
70 spinal osteophytosis'
71 neuritis'
72 spondylosis'
73 spondylitis'
74 spondylolisthesis'
75 #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63 OR #64 OR #65 OR #66 OR #67 OR #68
OR #69 OR #70 OR #71 OR #72 OR #73 OR #74
76 44 and 75
77 neck'/de
78 cervical spine'/de
79 neck'
80 thoracic NEAR/3 vertebrae
81 thoracic NEAR/3 spine
82 cervical spine'
83 #77 OR #78 OR #79 OR #80 OR #81 OR #82
84 Intervertebral Disk'/de
85 disc' or 'discs'
86 disk' or 'disks'
87 #84 OR #85 OR #86
88 #83 AND #87
89 herniat*'
90 slipped'
91 prolapse*'
92 displace*'
93 degenerat*'
94 bulge' or 'bulged' or 'bulging'
95 #89 OR #90 OR #91 OR #92 OR #93 OR #94
96 #88 and #95
97 intervertebral disk hernia'/de
98 intervertebral disk degeneration'/de
99 intervertebral disk displacement'
100 intervertebral disc displacement'

101 intervertebral disk degeneration'
102 intervertebral disc degeneration'
103 #97 OR #98 OR #99 OR #100 OR #101 OR #102
104 #83 and #103
105 #21 or #55 or #76 or #96 or #104
106 acupuncture'/exp
107 acupuncture needle'/exp
108 electroacupuncture'/exp
109 acupuncture' or 'acupuncture' or 'needling' or 'acupressure'
110 electric acupuncture' or 'electroacupuncture' or 'electroacupuncture'
111 warm needle' or 'warming acupuncture' or 'warmed acupuncture'
112 warm acupuncture'
113 fire needle'
114 fire acupuncture'
115 catgut embedding'/exp OR 'catgut'/exp
116 catgut implantation'
117 catgut emb*'
118 catgut emb*':ab,ti
119 #106 OR #107 OR #108 OR #109 OR #110 OR #111 OR #112 OR #113 OR #114 OR #115 OR #116 OR
#117 OR #118
120 #105 and #119
121 Clinical trial'/de
122 Randomized controlled trial'/de
123 Randomization'/de
124 Single blind procedure'/de
125 Double blind procedure'/de
126 Crossover procedure'/de
127 Placebo'/de
128 Randomi?ed controlled trial\$'
129 Rct'
130 Random allocation'
131 Randomly allocated'
132 Allocated randomly'
133 allocated NEAR/2 random
134 Single blind\$'
135 Double blind\$'
136 (('treble' or 'triple') NEAR/2 blind\$)
137 Placebo\$'
138 Prospective study'/de
139 #121 OR #122 OR #123 OR #124 OR #125 OR #126 OR #127 OR #128 OR #129 OR #130 OR #131 OR
#132 OR #133 OR #134 OR #135 OR #136 OR #137 OR #138

3) Cochrane

- 1 [mh ^"Neck pain"]
- 2 [mh "Brachial Plexus Neuropathies"]
- 3 cervical pain:ti,ab,kw
- 4 neckache:ti,ab,kw
- 5 cervicodynia:ti,ab,kw
- 6 cervicalgia:ti,ab,kw
- 7 brachialgia:ti,ab,kw
- 8 brachial neuritis:ti,ab,kw
- 9 brachial neuralgia:ti,ab,kw
- 10 neck pain:ti,ab,kw
- 11 neck injur*:ti,ab,kw
- 12 brachial plexus neuropath*:ti,ab,kw
- 13 brachial plexus neuritis:ti,ab,kw
- 14 [mh ^"thoracic outlet syndrome"]
- 15 [mh ^"cervical rib syndrome"]
- 16 [mh ^Torticollis]
- 17 [mh "brachial plexus neuropathies"]
- 18 [mh "brachial plexus neuritis"]
- 19 cervico brachial neuralgia:ti,ab,kw
- 20 cervicobrachial neuralgia:ti,ab,kw
- 21 monoradicul* or monoradicl*:ti,ab,kw
- 22 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21
- 23 [mh ^neck]
- 24 [mh ^"neck muscles"]
- 25 [mh "cervical plexus"]
- 26 [mh "cervical vertebrae"]
- 27 [mh ^"atlanto-axial joint"]
- 28 [mh ^"atlanto-occipital joint"]
- 29 [mh ^"Cervical Atlas"]
- 30 [mh ^"spinal nerve roots"]
- 31 [mh "brachial plexus"]
- 32 odontoid* or cervical or occip* or atlant*:ti,ab,kw
- 33 [mh ^"odontoid process"]
- 34 [mh ^"Thoracic Vertebrae"]
- 35 cervical vertebrae:ti,ab,kw
- 36 cervical plexus:ti,ab,kw

37 cervical spine:ti,ab,kw
38 neck muscles:ti,ab,kw
39 brachial plexus:ti,ab,kw
40 thoracic vertebrae:ti,ab,kw
41 neck:ti,ab,kw
42 thoracic spine:ti,ab,kw
43 thoracic outlet:ti,ab,kw
44 trapezius:ti,ab,kw
45 #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44
46 [mh pain]
47 [mh injuries]
48 pain:ti,ab,kw
49 ache:ti,ab,kw
50 sore:ti,ab,kw
51 stiff:ti,ab,kw
52 discomfort:ti,ab,kw
53 injur*:ti,ab,kw
54 neuropath*:ti,ab,kw
55 #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54
56 #45 and #55
57 [mh ^Radiculopathy]
58 [mh "temporomandibular joint disorders"]
59 [mh "temporomandibular joint dysfunction syndrome"]
60 [mh "myofascial pain syndromes"]
61 [mh "Sprains and Strains"]
62 [mh "Spinal Osteophytosis"]
63 [mh Neuritis]
64 [mh ^polyradiculopathy]
65 [mh arthritis]
66 [mh ^Fibromyalgia]
67 [mh ^spondylitis]
68 [mh ^discitis]
69 [mh ^spondylosis]
70 [mh ^spondylolysis]
71 [mh ^spondylolisthesis]
72 radiculopathy:ti,ab,kw
73 radiculitis:ti,ab,kw
74 temporomandibular:ti,ab,kw
75 myofascial pain syndrome*:ti,ab,kw

76 thoracic outlet syndrome*:ti,ab,kw
77 spinal osteophytosis:ti,ab,kw
78 neuritis:ti,ab,kw
79 spondylosis:ti,ab,kw
80 spondylitis:ti,ab,kw
81 spondylolisthesis:ti,ab,kw
82 #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81
83 #45 and #82
84 [mh neck]
85 [mh "cervical vertebrae"]
86 [mh ^"thoracic vertebrae"]
87 neck:ti,ab,kw
88 thoracic vertebrae:ti,ab,kw
89 thoracic spine:ti,ab,kw
90 cervical spine:ti,ab,kw
91 #84 or #85 or #86 or #87 or #88 or #89 or #90
92 [mh ^"Intervertebral Disk"]
93 disc:ti,ab,kw
94 #92 or #93
95 #91 and #94
96 herniat*:ti,ab,kw
97 slipped:ti,ab,kw
98 prolapse*:ti,ab,kw
99 displace*:ti,ab,kw
100 degenerat*:ti,ab,kw
101 bulge or bulged or bulging:ti,ab,kw
102 #96 or #97 or #98 or #99 or #100 or #101
103 #95 and #102
104 [mh ^"intervertebral disk degeneration"]
105 [mh ^"intervertebral disk displacement"]
106 intervertebral disk displacement:ti,ab,kw
107 intervertebral disc displacement:ti,ab,kw
108 intervertebral disk degeneration:ti,ab,kw
109 intervertebral disc degeneration:ti,ab,kw
110 #104 or #105 or #106 or #107 or #108 or #109
111 #91 and #110
112 #111 or #103 or #83 or #56 or #22
113 MeSH descriptor: [Acupuncture] explode all trees
114 MeSH descriptor: [Acupuncture Therapy] explode all trees

- 115 MeSH descriptor: [Acupuncture Points] explode all trees
- 116 MeSH descriptor: [Electroacupuncture] explode all trees
- 117 (acupuncture or acu-puncture or needling or acupressure):ti,ab,kw
- 118 (electric acupuncture or electro-acupuncture or electroacupuncture):ti,ab,kw
- 119 (warm needle or warming acupuncture or warmed acupuncture):ti,ab,kw
- 120 (warm acupuncture):ti,ab,kw
- 121 (fire needle):ti,ab,kw
- 122 (fire acupuncture):ti,ab,kw
- 123 MeSH descriptor: [Catgut] explode all trees
- 124 catgut emb*:ti,ab,kw
- 125 catgut implantation:ti,ab,kw
- 126 thread emb*:ti,ab,kw
- 127 #113 or #114 or #115 or #116 or #117 or #118 or #119 or #120 or #121 or #122 or #123 or #124 or #125 or #126
- 128 #112 and #127

4) CNKI

(SU='颈痛' OR SU='颈肩痛' OR SU='颈椎病' OR SU='颈肩部' OR SU='颈椎间盘突出症' OR SU='颈部' OR SU='神经根型颈椎病') AND (SU='火针' OR SU='电针' OR SU='温针' OR SU='穴位埋线' OR SU='针') AND (SU='随机' OR SU='对照')

5) OASIS

경항통 OR 경추 OR 頸 OR 項

6) NDSL

(경항통 OR 경추 OR 頸 OR 項 OR Neck pain) AND (침 OR 화침 OR 온침 OR 전침 OR 혈위)

7) KoreaMed

((((((("Neck pain"[ALL])) OR ("cervical pain"[ALL])) OR ("Brachial Plexus Neuropathies"[ALL])) OR ("neckache"[ALL])) OR ("thoracic outlet syndrome"[ALL])) OR ("cervicalgia"[ALL])) OR ("brachialgia"[ALL])) OR ("neck injur*"[ALL]))

8) KMBASE

((([ALL=경향통] OR [ALL=경추]) OR [ALL=頸]) OR [ALL=項]) OR [ALL=Neck pain]) AND (((([ALL=침] OR [ALL=화침]) OR [ALL=온침]) OR [ALL=전침]) OR [ALL=혈위])

9) KISS

(경향통 OR 경추 OR 頸 OR 項 OR Neck pain) AND (침 OR 화침 OR 온침 OR 전침 OR 혈위)

Supplemental Content Appendix S2. Details of GRADE assessment for all pairwise comparisons within the pain intensity network

Comparison	k	Prop	direct SMD [95% CI]	Quality of evidence	indirect SMD [95% CI]	Quality of evidence	NMA SMD [95% CI]	Quality of evidence	p-value
ACE:EA	0	0	-	-	-0.094 [-1.020;0.832]	Very low***†	-0.094 [-1.020;0.832]	Very low***†	-
ACE:FA	0	0	-	-	1.069 [-0.738;2.876]	Low**	1.069 [-0.738;2.876]	Low**	-
ACE:MA	4	1.00	-0.687 [-1.502;0.128]	Very low***†	-	-	-0.687 [-1.502;0.128]	Very low***†	-
ACE:NT	0	0	-	-	-1.458 [-2.700;-0.215]	Low**	-1.458 [-2.700;-0.215]	Low**	-
ACE:SA	0	0	-	-	-1.550 [-2.616;-0.483]	Low**	-1.550 [-2.616;-0.483]	Low**	-
ACE:UC	0	0	-	-	-1.268 [-2.305;-0.231]	Low**	-1.268 [-2.305;-0.231]	Low**	-
ACE:WA	0	0	-	-	0.374 [-0.668;1.417]	Very low***†	0.374 [-0.668;1.417]	Very low***†	-
ACE:WM	0	0	-	-	-0.627 [-1.723;0.469]	Very low***†	-0.627 [-1.723;0.469]	Very low***†	-
EA:FA	0	0	-	-	1.163 [-0.508;2.835]	Very low***†	1.163 [-0.508;2.835]	Very low***†	-
EA:MA	12	0.75	-0.825 [-1.334;-0.317]	Low**	0.095 [-0.781;0.971]	Very low***†	-0.593 [-1.033;-0.153]	Low**	0.0750
EA:NT	2	0.63	-1.008 [-2.207;0.192]	Very low***†	-1.983 [-3.565;-0.402]	Low**	-1.364 [-2.319;-0.408]	Low**	0.3354
EA:SA	1	0.22	-0.091 [-1.732;1.550]	Low†	-1.851 [-2.734;-0.967]	Moderate†	-1.456 [-2.234;-0.678]	Moderate†	0.0643
EA:UC	1	0.20	-0.752 [-2.416;0.911]	Very low***†	-1.278 [-2.104;-0.452]	Very low***†	-1.174 [-1.914;-0.434]	Very low***†	0.5791
EA:WA	3	0.49	0.614 [-0.348;1.576]	Very low***†	0.328 [-0.614;1.271]	Very low***†	0.468 [-0.205;1.141]	Very low***†	0.6773
EA:WM	0	0	-	-	-0.533 [-1.383;0.317]	Very low***†	-0.533 [-1.383;0.317]	Very low***†	-
FA:MA	1	1.00	-1.756 [-3.369;-0.144]	Low**	-	-	-1.756 [-3.369;-0.144]	Low**	-
FA:NT	0	0	-	-	-2.527 [-4.393;-0.662]	Moderate*	-2.527 [-4.393;-0.662]	Moderate*	-
FA:SA	0	0	-	-	-2.619 [-4.372;-0.866]	Low**	-2.619 [-4.372;-0.866]	Low**	-
FA:UC	0	0	-	-	-2.338 [-4.073;-0.602]	Low**	-2.338 [-4.073;-0.602]	Low**	-
FA:WA	0	0	-	-	-0.695 [-2.434;1.043]	Very low***†	-0.695 [-2.434;1.043]	Very low***†	-
FA:WM	0	0	-	-	-1.696 [-3.467;0.075]	Very low***†	-1.696 [-3.467;0.075]	Very low***†	-
MA:NT	2	0.54	-0.733 [-2.008;0.542]	Low†	-0.815 [-2.199;0.570]	Low†	-0.771 [-1.708;0.167]	Low†	0.9325

MA:SA	5	0.80	-1.141 [-1.910;-0.372]	Low**	0.259 [-1.285;1.802]	Very low**†	-0.862 [-1.551;-0.174]	Low**	0.1117
MA:UC	6	0.83	-0.594 [-1.298;0.110]	Very low**†	-0.519 [-2.066;1.029]	Very low**†	-0.581 [-1.222;0.060]	Low**	0.9305
MA:WA	4	0.63	0.956 [0.139;1.773]	Low**	1.242 [0.172;2.312]	Low**	1.061 [0.412;1.711]	Low**	0.6773
MA:WM	5	0.95	-0.001 [-0.751;0.749]	Very low**†	1.292 [-2.076;4.659]	Very low**†	0.060 [-0.672;0.793]	Very low**†	0.4628
NT:SA	1	0.42	0.450 [-1.207;2.106]	Very low**†	-0.477 [-1.874;0.920]	Very low**†	-0.092 [-1.160;0.976]	Very low**†	0.4021
NT:UC	0	0	-	-	0.189 [-0.936;1.315]	Very low**†	0.189 [-0.936;1.315]	Very low**†	-
NT:WA	0	0	-	-	1.832 [0.721;2.943]	Low**	1.832 [0.721;2.943]	Low**	-
NT:WM	0	0	-	-	0.831 [-0.358;2.020]	Very low**†	0.831 [-0.358;2.020]	Very low**†	-
SA:UC	0	0	-	-	0.281 [-0.654;1.217]	Very low**†	0.281 [-0.654;1.217]	Very low**†	-
SA:WA	0	0	-	-	1.924 [0.991;2.856]	Low**	1.924 [0.991;2.856]	Low**	-
SA:WM	0	0	-	-	0.923 [-0.082;1.927]	Very low**†	0.923 [-0.082;1.927]	Very low**†	-
UC:WA	0	0	-	-	1.643 [0.743;2.542]	Low**	1.643 [0.743;2.542]	Low**	-
UC:WM	1	0.29	1.358 [-0.367;3.083]	Very low**†	0.355 [-0.737;1.446]	Very low**†	0.642 [-0.281;1.564]	Very low**†	0.3357
WA:WM	0	0	-	-	-1.001 [-1.978;-0.024]	Low**	-1.001 [-1.978;-0.024]	Low**	-

Reasons for downgrading: †Imprecision (1 downgrade), ‡Severe imprecision (2 downgrades), *risk of bias (1 downgrade), **Severe risk of bias (2 downgrade). The p-value indicated that the findings between direct and indirect comparisons was not statistically significant and therefore no comparisons have been downgraded based on inconsistency. k: Number of studies providing direct evidence; prop: proportion of direct evidence; NMA (SMD): estimated treatment effect (SMD) in network meta-analysis; direct (SMD): estimated treatment effect (SMD) derived from direct evidence; indirect (SMD): estimated treatment effect (SMD) derived from indirect evidence; p: p-value of test for disagreement (difference between direct and indirect evidence).

ACE: acupoint catgut embedding; EA: electroacupuncture; FA: fire acupuncture; MA: manual acupuncture; NT: no treatment SA: sham acupuncture; UC: usual care; WA: warm acupuncture; WM: western medicine

Supplemental Content Appendix S3. Details of GRADE assessment for all pairwise comparisons within the pain-related disability network

Comparison	k	Prop	direct SMD [95% CI]	Quality of evidence	indirect SMD [95% CI]	Quality of evidence	NMA SMD [95% CI]	Quality of evidence	p-value
ACE:EA	0	0	-	-	0.751 [-0.546;2.049]	Very low**†	0.751 [-0.546;2.049]	Very low**†	-
ACE:FA	0	0	-	-	1.353 [-0.721;3.427]	Very low**†	1.353 [-0.721;3.427]	Very low**†	-
ACE:MA	2	1.00	-0.330 [-1.436;0.777]	Very low**†	-	-	-0.330 [-1.436;0.777]	Very low**†	-
ACE:NT	0	0	-	-	-0.163 [-2.120;1.793]	Very low**†	-0.163 [-2.120;1.793]	Very low**†	-
ACE:SA	0	0	-	-	0.005 [-1.450;1.460]	Low*†	0.005 [-1.450;1.460]	Low*†	-
ACE:UC	0	0	-	-	-0.744 [-2.126;0.638]	Very low**†	-0.744 [-2.126;0.638]	Very low**†	-
ACE:WA	0	0	-	-	0.592 [-0.871;2.055]	Very low**†	0.592 [-0.871;2.055]	Very low**†	-
ACE:WM	0	0	-	-	0.209 [-1.414;1.833]	Very low**†	0.209 [-1.414;1.833]	Very low**†	-
EA:FA	1	1.00	0.602 [-1.016;2.220]	Very low**†	-	-	0.602 [-1.016;2.220]	Very low**†	-
EA:MA	5	0.74	-1.475 [-2.260;-0.691]	Low**	0.071 [-1.269;1.411]	Low*†	-1.081 [-1.758;-0.404]	Moderate*	0.0510
EA:NT	1	0.80	-0.952 [-2.634;0.731]	Very low**†	-0.764 [-4.137;2.608]	Very low**†	-0.914 [-2.420;0.591]	Very low**†	0.9224
EA:SA	3	0.77	-0.353 [-1.286;0.579]	Low*†	-2.096 [-3.824;-0.367]	Moderate*	-0.746 [-1.567;0.075]	Low*†	0.0821
EA:UC	0	0	-	-	-1.495 [-2.564;-0.426]	Low**	-1.495 [-2.564;-0.426]	Low**	-
EA:WA	1	0.41	0.336 [-1.280;1.951]	Very low**†	-0.503 [-1.849;0.843]	Very low**†	-0.159 [-1.193;0.875]	Very low**†	0.4345
EA:WM	0	0	-	-	-0.542 [-1.909;0.825]	Very low**†	-0.542 [-1.909;0.825]	Very low**†	-
FA:MA	0	0	-	-	-1.682 [-3.436;0.071]	Very low**†	-1.682 [-3.436;0.071]	Very low**†	-
FA:NT	0	0	-	-	-1.516 [-3.726;0.694]	Very low**†	-1.516 [-3.726;0.694]	Very low**†	-
FA:SA	0	0	-	-	-1.348 [-3.162;0.466]	Very low**†	-1.348 [-3.162;0.466]	Very low**†	-
FA:UC	0	0	-	-	-2.097 [-4.036;-0.157]	Low**	-2.097 [-4.036;-0.157]	Low**	-

FA:WA	0	0	-	-	-0.761 [-2.681;1.159]	Very low***†	-0.761 [-2.681;1.159]	Very low***†	-
FA:WM	0	0	-	-	-1.144 [-3.262;0.974]	Very low***†	-1.144 [-3.262;0.974]	Very low***†	-
MA:NT	0	0	-	-	0.166 [-1.447;1.780]	Very low***†	0.166 [-1.447;1.780]	Very low***†	-
MA:SA	1	0.36	-0.775 [-2.342;0.792]	Moderate†	0.967 [-0.217;2.151]	Low*†	0.334 [-0.610;1.279]	Low*†	0.0822
MA:UC	4	1.00	-0.414 [-1.242;0.413]	Very low***†	-	-	-0.414 [-1.242;0.413]	Very low***†	-
MA:WA	2	0.71	0.676 [-0.461;1.813]	Very low***†	1.515 [-0.254;3.284]	Very low***†	0.922 [-0.035;1.878]	Very low***†	0.4345
MA:WM	2	1.00	0.539 [-0.649;1.726]	Very low***†	-	-	0.539 [-0.649;1.726]	Very low***†	-
NT:SA	1	0.81	0.132 [-1.531;1.796]	Very low***†	0.324 [-3.156;3.804]	Very low***†	0.168 [-1.332;1.669]	Very low***†	0.9224
NT:UC	0	0	-	-	-0.580 [-2.394;1.233]	Very low***†	-0.580 [-2.394;1.233]	Very low***†	-
NT:WA	0	0	-	-	0.755 [-1.049;2.559]	Very low***†	0.755 [-1.049;2.559]	Very low***†	-
NT:WM	0	0	-	-	0.373 [-1.631;2.376]	Very low***†	0.373 [-1.631;2.376]	Very low***†	-
SA:UC	0	0	-	-	-0.749 [-2.005;0.507]	Low*†	-0.749 [-2.005;0.507]	Low*†	-
SA:WA	0	0	-	-	0.587 [-2.005;0.507]	Low*†	0.587 [-2.005;0.507]	Low*†	-
SA:WM	0	0	-	-	0.205 [-1.313;1.722]	Moderate†	0.205 [-1.313;1.722]	Moderate†	-
UC:WA	0	0	-	-	1.336 [0.071;2.601]	Low**	1.336 [0.071;2.601]	Low**	-
UC:WM	0	0	-	-	0.953 [-0.494;2.401]	Low*†	0.953 [-0.494;2.401]	Low*†	-
WA:WM	0	0	-	-	-0.383 [-1.907;1.142]	Very low***†	-0.383 [-1.907;1.142]	Very low***†	-

Reasons for downgrading: †Imprecision (1 downgrade), ‡Severe imprecision (2 downgrades), *risk of bias (1 downgrade), **Severe risk of bias (2 downgrade). The p-value indicated that the findings between direct and indirect comparisons was not statistically significant and therefore no comparisons have been downgraded based on inconsistency. k: Number of studies providing direct evidence; prop: proportion of direct evidence; NMA (SMD): estimated treatment effect (SMD) in network meta-analysis; direct (SMD): estimated treatment effect (SMD) derived from direct evidence; indirect (SMD): estimated treatment effect (SMD) derived from indirect evidence; p: p-value of test for disagreement (difference between direct and indirect evidence).

ACE: acupoint catgut embedding; EA: electroacupuncture; FA: fire acupuncture; MA: manual acupuncture; NT: no treatment SA: sham acupuncture; UC: usual care; WA: warm acupuncture; WM: western medicine

Supplemental Content Appendix S4. Details of GRADE assessment for all pairwise comparisons within the efficacy rate

Comparison	k	Prop	direct RR [95% CI]	Quality of evidence	indirect RR [95% CI]	Quality of evidence	NMA RR [95% CI]	Quality of evidence	p-value
ACE:EA	1	0.12	1.120 [0.912;1.375]	Very low**†	1.007 [0.935;1.084]	Very low**†	1.019 [0.951;1.093]	Very low**†	0.3372
ACE:FA	0	0	-	-	0.864 [0.764;0.977]	Low**	0.864 [0.764;0.977]	Low**	-
ACE:MA	7	0.92	1.115 [1.049;1.184]	Low**	1.241 [1.006;1.529]	Low**	1.124 [1.061;1.191]	Low**	0.3372
ACE:SA	0	0	-	-	1.487 [0.805;2.747]	Very low**†	1.487 [0.805;2.747]	Very low**†	-
ACE:UC	0	0	-	-	1.233 [1.042;1.459]	Low**	1.233 [1.042;1.459]	Low**	-
ACE:WA	0	0	-	-	0.972 [0.889;1.063]	Very low**†	0.972 [0.889;1.063]	Very low**†	-
ACE:WM	0	0	-	-	1.180 [1.080;1.290]	Low**	1.180 [1.080;1.290]	Low**	-
EA:FA	1	0.24	0.821 [0.649;1.039]	Very low**†	0.857 [0.750;0.978]	Low**	0.848 [0.755;0.952]	Low**	0.7608
EA:MA	15	0.77	1.120 [1.067;1.175]	Low**	1.050 [0.962;1.145]	Very low**†	1.103 [1.058;1.150]	Low**	0.1992
EA:SA	1	1.00	1.459 [0.792;2.688]	Very low**†	-	-	1.459 [0.792;2.688]	Very low**†	-
EA:UC	1	0.42	1.174 [0.918;1.501]	Very low**†	1.237 [1.003;1.524]	Low**	1.210 [1.032;1.419]	Low**	0.7525
EA:WA	2	0.24	0.872 [0.748;1.017]	Very low**†	0.982 [0.900;1.071]	Very low**†	0.954 [0.885;1.029]	Very low**†	0.1878
EA:WM	2	0.43	1.165 [1.045;1.299]	Low**	1.153 [1.049;1.267]	Low**	1.158 [1.078;1.244]	Low**	0.8849
FA:MA	2	0.78	1.289 [1.137;1.462]	Low**	1.344 [1.058;1.707]	Low**	1.301 [1.164;1.454]	Low**	0.7608
FA:SA	0	0	-	-	1.721 [0.924;3.204]	Very low**†	1.721 [0.924;3.204]	Very low**†	-
FA:UC	0	0	-	-	1.427 [1.177;1.730]	Low**	1.427 [1.177;1.730]	Low**	-
FA:WA	0	0	-	-	1.125 [0.988;1.281]	Very low**†	1.125 [0.988;1.281]	Very low**†	-
FA:WM	0	0	-	-	1.366 [1.200;1.554]	Low**	1.366 [1.200;1.554]	Low**	-
MA:SA	0	0	-	-	1.323 [0.717;2.440]	Very low**†	1.323 [0.717;2.440]	Very low**†	-
MA:UC	1	0.60	1.120 [0.912;1.375]	Very low**†	1.063 [0.829;1.365]	Very low**†	1.097 [0.936;1.285]	Very low**†	0.7525
MA:WA	5	0.82	0.884 [0.820;0.953]	Low**	0.785 [0.669;0.921]	Low**	0.865 [0.808;0.926]	Low**	0.1878
MA:WM	2	0.66	1.046 [0.962;1.137]	Very low**†	1.057 [0.940;1.189]	Very low**†	1.050 [0.981;1.124]	Very low**†	0.8849

SA:UC	0	0	-	-	0.829 [0.441;1.558]	Very low**†	0.829 [0.441;1.558]	Very low**†	-
SA:WA	0	0	-	-	0.654 [0.353;1.210]	Very low**†	0.654 [0.353;1.210]	Very low**†	-
SA:WM	0	0	-	-	0.793 [0.429;1.467]	Very low**†	0.793 [0.429;1.467]	Very low**†	-
UC:WA	0	0	-	-	0.789 [0.664;0.936]	Low**	0.789 [0.664;0.936]	Low**	-
UC:WM	0	0	-	-	0.957 [0.807;1.135]	Very low**†	0.957 [0.807;1.135]	Very low**†	-
WA:WM	0	0	-	-	1.214 [1.104;1.335]	Low**	1.214 [1.104;1.335]	Low**	-

Reasons for downgrading: †Imprecision (1 downgrade), ‡Severe imprecision (2 downgrades), *risk of bias (1 downgrade), **Severe risk of bias (2 downgrade). The p-value indicated that the findings between direct and indirect comparisons was not statistically significant and therefore no comparisons have been downgraded based on inconsistency. k: Number of studies providing direct evidence; prop: proportion of direct evidence; NMA (RR): estimated treatment effect (RR) in network meta-analysis; direct (RR): estimated treatment effect (RR) derived from direct evidence; indirect (RR): estimated treatment effect (RR) derived from indirect evidence; p: p-value of test for disagreement (difference between direct and indirect evidence).

ACE: acupoint catgut embedding; EA: electroacupuncture; FA: fire acupuncture; MA: manual acupuncture; NT: no treatment SA: sham acupuncture; UC: usual care; WA: warm acupuncture; WM: western medicine