

Supplementary Appendix D: Literature Search Strategy Details

Database: **Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) <1948 to Present>**

Search Strategy:

-
- 1 exp Arthritis, Infectious/us [Ultrasonography]
 - 2 arthritis, psoriatic/us [Ultrasonography]
 - 3 exp arthritis, rheumatoid/us [Ultrasonography]
 - 4 exp osteoarthritis/us [Ultrasonography]
 - 5 Chondrocalcinosis/us [Ultrasonography]
 - 6 exp gout/us [Ultrasonography]
 - 7 peri-arthritis/us [Ultrasonography]
 - 8 sacroiliitis/us [Ultrasonography]
 - 9 exp spondylarthritis/us [Ultrasonography]
 - 10 exp Lupus Erythematosus, Systemic/us [Ultrasonography]
 - 11 exp arthritis/ and exp inflammatory bowel diseases/us [Ultrasonography]
 - 12 exp arthritis/us and exp inflammatory bowel diseases/
 - 13 exp Ankylosis/us [Ultrasonography]
 - 14 exp Arthralgia/us [Ultrasonography]
 - 15 Arthropathy, Neurogenic/us [Ultrasonography]
 - 16 exp Bursitis/us [Ultrasonography]
 - 17 Chondromatosis, Synovial/us [Ultrasonography]
 - 18 Hydrarthrosis/us [Ultrasonography]
 - 19 Joint Loose Bodies/us [Ultrasonography]
 - 20 Metatarsalgia/us [Ultrasonography]
 - 21 Shoulder Impingement Syndrome/us [Ultrasonography]
 - 22 exp Synovitis/us [Ultrasonography]
 - 23 exp Temporomandibular Joint Disorders/us [Ultrasonography]
 - 24 Fibromyalgia/us [Ultrasonography]
 - 25 Arthropathy, Neurogenic/us [Ultrasonography]
 - 26 exp Compartment Syndromes/us [Ultrasonography]
 - 27 Polymyalgia Rheumatica/us [Ultrasonography]
 - 28 exp tendinopathy/us
 - 29 Tennis Elbow/us [Ultrasonography]
 - 30 Carpal Tunnel Syndrome/us [Ultrasonography]
 - 31 exp Ulnar Neuropathies/us [Ultrasonography]
 - 32 exp Cartilage Diseases/us [Ultrasonography]
 - 33 exp Ligaments, Articular/us [Ultrasonography]
 - 34 Fasciitis, Plantar/us [Ultrasonography]
 - 35 ankle/us and pain/
 - 36 ankle joint/us and pain/
 - 37 wrist joint/us and pain/
 - 38 wrist/us and pain/
 - 39 elbow/us and pain/
 - 40 elbow joint/us and pain/
 - 41 (knee/us or knee joint/us) and pain/
 - 42 (hip/us or hip joint/us) and pain/
 - 43 (exp foot joints/us or exp foot/us) and pain/
 - 44 contracture/us and (arm/ or forearm/)
 - 45 contracture/ and (arm/us or forearm/us)
 - 46 or/1-45
 - 47 Bursa, Synovial/us [Ultrasonography]
 - 48 Cartilage, Articular/us [Ultrasonography]

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49 Elbow Joint/us [Ultrasonography]
50 exp Foot Joints/us [Ultrasonography]
51 Hip Joint/us [Ultrasonography]
52 exp Knee Joint/us [Ultrasonography]
53 exp Joint Capsule/us [Ultrasonography]
54 Sacroiliac Joint/us [Ultrasonography]
55 Shoulder Joint/us [Ultrasonography]
56 Sternoclavicular Joint/us [Ultrasonography]
57 exp Temporomandibular Joint/us [Ultrasonography]
58 Zygapophyseal Joint/us [Ultrasonography]
59 (or/47-58) and exp musculoskeletal diseases/
60 46 or 59
61 exp Arthritis, Infectious/
62 arthritis, psoriatic/
63 exp arthritis, rheumatoid/
64 exp osteoarthritis/
65 Chondrocalcinosis/
66 exp gout/
67 Hyperostosis, Sternocostoclavicular/
68 sacroiliitis/
69 exp spondylarthritis/
70 exp Lupus Erythematosus, Systemic/
71 exp arthritis/ and exp inflammatory bowel diseases/
72 exp Ankylosis/
73 exp Arthralgia/
74 Arthropathy, Neurogenic/
75 exp bursitis/
76 Chondromatosis, Synovial/
77 Hydrarthrosis/
78 Joint Loose Bodies/
79 Metatarsalgia/
80 Shoulder Impingement Syndrome/
81 exp Synovitis/
82 exp Temporomandibular Joint Disorders/
83 Fibromyalgia/
84 Arthropathy, Neurogenic/
85 exp Compartment Syndromes/
86 Polymyalgia Rheumatica/
87 exp tendinopathy/
88 Tennis Elbow/
89 exp Carpal Tunnel Syndrome/
90 exp Ulnar Neuropathies/
91 exp Cartilage Diseases/
92 exp Ligaments, Articular/
93 Fasciitis, Plantar/
94 ankle/ and pain/
95 ankle joint/ and pain/
96 wrist joint/ and pain/
97 wrist/ and pain/
98 elbow/ and pain/
99 elbow joint/ and pain/
100 (knee/ or knee joint/) and pain/
101 or/61-100

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102 exp ligaments, articular/
103 Elbow Joint/
104 exp Foot Joints/
105 Hip Joint/
106 exp Knee Joint/
107 exp Joint Capsule/
108 Sacroiliac Joint/
109 Shoulder Joint/
110 Sternoclavicular Joint/
111 exp Temporomandibular Joint/
112 Zygapophyseal Joint/
113 Bursa, Synovial/
114 contracture/ and (arm/ or forearm/)
115 (or/102-114) and exp musculoskeletal diseases/
116 ultrasonography/
117 Ultrasonography, Doppler/
118 exp Ultrasonography, Doppler, Duplex/
119 Ultrasonography, Doppler, Pulsed/
120 Ultrasonography, Interventional/
121 or/116-120
122 101 and 121
123 115 and 121
124 Bursa, Synovial/
125 Cartilage, Articular/
126 exp Synovial Membrane/
127 ((synovial or tenosynovial or bursal) adj2 fluid).tw.
128 exp synovial cysts/
129 (Baker\$ adj2 cyst\$).tw.
130 or/124-129
131 exp biopsy, needle/
132 aspirat\$.tw.
133 exp Drainage/
134 Punctures/
135 therapeutic irrigation/
136 arthrocentesis.tw.
137 or/131-136
138 130 and 137 and 121
139 exp abscess/us and exp musculoskeletal diseases/ and 137
140 exp tendons/
141 exp tendon injuries/
142 exp tendinopathy/
143 or/140-142
144 Tenotomy/
145 us.fs.
146 143 and 144 and (145 or 121)
147 ((calcium adj2 deposit\$) or calcification).tw.
148 exp calcinosis/
149 or/147-148
150 barbotage.tw.
151 percutaneous lavage.tw.
152 131 or 150 or 151
153 149 and 152 and (145 or 121)
154 (tophus or tophi or tophaceous).tw.

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155 154 and (137 or 152) and 121
156 soft tissue\$ structure\$.tw.
157 resect\$.tw.
158 156 and 157 and (145 or 121)
159 "A1 pulley release".tw.
160 "annular pulley release".tw.
161 (159 or 160) and (145 or 121)
162 (medication adj3 inject\$).tw.
163 (therapeutic adj3 inject\$).tw.
164 or/162-163
165 115 and 164 and (145 or 121)
166 exp injections, intra-articular/us
167 exp injections, intra-articular/ and 121
168 or/166-167
169 suprascapular.tw. and exp Nerve Block/
170 (suprascapular adj2 nerve adj2 block\$).tw.
171 (suprascapular and nerve ablat\$).tw.
172 or/169-171
173 172 and (145 or 121)
174 entrap\$.tw.
175 median nerve/ or radial nerve/ or ulnar nerve/ or peroneal nerve/ or tibial nerve/ or Morton\$ neuroma.tw.
176 174 and 175 and (145 or 121)
177 nerve compression syndromes/ or tarsal tunnel syndrome/ or exp ulnar compression syndromes/
178 177 and (145 or 121)
179 (synovial adj2 thicken\$).tw.
180 (osteophyte\$ adj2 formation).tw.
181 (cartilage adj2 loss).tw.
182 (menisc\$ adj2 extrusion\$).tw.
183 (or/179-182) and (145 or 121)
184 ((entheseal adj2 pain) or (enthesis and pain)).tw.
185 ((back adj2 pain) and (erosion\$ or erosive or hyperemia)).tw.
186 enthesitis.tw. and pain/
187 (or/184-186) and (145 or 121)
188 (regional adj2 (swelling or edema or oedema)).tw.
189 (periarticular adj2 (swelling or edema or oedema)).tw.
190 (or/188-189) and (145 or 121)
191 exp musculoskeletal diseases/us
192 exp soft tissue neoplasms/ and exp cysts/
193 191 and 192
194 (articular adj2 (swelling or edema or oedema)).tw. and (145 or 121)
195 ((menisc\$ or labrum) and (injur\$ or damage\$)).tw. and (145 or 121)
196 (articular adj2 pain).tw.
197 (or/194-196) and (145 or 121)
198 muscle weakness/us or (muscle weakness/ and 121)
199 (labrum/us or sternum/us or xiphoid bone/us) and pain/
200 exp tendons/us and injections/
201 (cervical vertebrae/us or lumbar vertebrae/us) and exp pain/
202 double contour sign.tw.
203 (clicking or snapping).tw. and (121 or 145)
204 60 or 122 or 123 or 138 or 139 or 146 or 153 or 155 or 158 or 161 or 165 or 168 or 173 or 176 or 178 or 183
or 187 or 190 or 193 or 194 or 195 or 197 or 198 or 199 or 200 or 201 or 202 or 203
205 exp animals/ not humans.sh.
206 204 not 205

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207 limit 206 to english language
208 limit 207 to yr="1990 -Current"
209 (letter or editorial or comment or review).pt.
210 208 not 209

Database: **Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations**

Search Strategy:

1 (ultrasound or ultrasonograph\$.tw.
2 MSUS.tw.
3 MSK US.tw.
4 or/1-3
5 arthritis.tw.
6 arthros#.s.tw.
7 degenerative joint disease\$.tw.
8 JIA.tw.
9 Caplan\$ syndrome.tw.
10 Felty\$ syndrome.tw.
11 Rheumatoid vasculitis.tw.
12 Still\$ disease.tw.
13 sjogren\$.tw.
14 chondrocalcinosis.tw.
15 gout\$.tw.
16 osteoarthritis.tw.
17 osteoarthros#.s.tw.
18 periartthritis.tw.
19 Sacroiliitis.tw.
20 Spondylarthritis.tw.
21 seronegative spondylarthropathy.tw.
22 spondylarthropathies.tw.
23 ankylosis.tw.
24 ankloysing spondylitis.tw.
25 (inflammatory bowel disease and arthritis).tw.
26 bursitis.tw.
27 (Crohn\$ and arthritis).tw.
28 Rheumatoid vasculitis.tw.
29 (ulcerative colitis and arthritis).tw.
30 synovial chondromatosis.tw.
31 (joint adj2 loose adj2 bod\$).tw.
32 Hydrarthrosis.tw.
33 Metatarsalgia.tw.
34 Shoulder Impingement Syndrome.tw.
35 Synovitis.tw.
36 Temporomandibular Joint Disorder\$.tw.
37 Fibromyalgia.tw.
38 Neurogenic Arthropathy.tw.
39 Compartment Syndrome\$.tw.
40 Polymyalgia Rheumatica.tw.
41 Tenosynovitis.tw.

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42 tendinopathy.tw.
43 tendonitis.tw.
44 tendinosis.tw.
45 Tendon Entrapment.tw.
46 De Quervain Disease.tw.
47 trigger finger.tw.
48 Tennis Elbow.tw.
49 Carpal Tunnel Syndrome.tw.
50 Ulnar Neuropath\$.tw.
51 Cubital Tunnel Syndrome.tw.
52 Ulnar Nerve Compression.tw.
53 Systemic Lupus Erythematosus.tw.
54 Lupus Nephritis.tw.
55 Lupus Vasculitis.tw.
56 Cartilage Disease\$.tw.
57 Chondromalacia Patellae.tw.
58 Osteochondritis.tw.
59 Plantar Fasciitis.tw.
60 Palmer fasciitis.tw.
61 Ankylosis.tw.
62 Arthralgia.tw.
63 Shoulder Pain.tw.
64 Synovial Chondromatosis.tw.
65 (ankle adj2 pain).tw.
66 (wrist adj2 pain).tw.
67 (elbow adj2 pain).tw.
68 (knee adj2 pain).tw.
69 or/5-68
70 4 and 69 (240)
71 synovial bursa.tw.
72 articular cartilage.tw.
73 elbow joint\$.tw.
74 foot joint\$.tw.
75 ankle joint\$.tw.
76 Metatarsophalangeal Joint\$.tw.
77 Tarsal Joint\$.tw.
78 Subtalar Joint\$.tw.
79 toe joint\$.tw.
80 Hand Joint\$.tw.
81 Carpal Joint\$.tw.
82 Carpometacarpal Joint\$.tw.
83 Finger Joint\$.tw.
84 Metacarpophalangeal Joint\$.tw.
85 Wrist Joint\$.tw.
86 Hip Joint\$.tw.
87 Joint Capsule\$.tw.
88 Synovial Membrane\$.tw.
89 Knee Joint\$.tw.
90 Tibial Menis\$.tw.
91 Patellofemoral Joint\$.tw.
92 Sacroiliac Joint\$.tw.
93 Shoulder Joint\$.tw.
94 Sternoclavicular Joint\$.tw.

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95 Sternocostal Joints.tw.
96 Temporomandibular Joint\$.tw.
97 Zygapophyseal Joint\$.tw.
98 or/71-97
99 98 and 4 and (injur\$ or damage\$).tw.
100 (synovial adj2 bursa).tw.
101 (articular adj2 cartilage).tw.
102 (synovial adj2 membrane\$).tw.
103 ((synovial or tenosynovial or bursal) adj2 fluid).tw.
104 (synovial adj2 cyst\$).tw.
105 (Baker\$ adj2 cyst\$).tw.
106 or/100-105
107 biopsy\$.tw.
108 aspirat\$.tw.
109 (drain or drainage).tw.
110 (irrigate\$ or irrigation).tw.
111 arthrocentesis.tw.
112 or/107-111
113 4 and 106 and 112
114 (abscess\$ and soft tissue\$).tw. and 4
115 tendon\$.tw.
116 tendinopathy.tw.
117 or/115-116
118 tenotomy.tw.
119 Achillotenotomy.tw.
120 or/118-119
121 4 and 117 and 118
122 ((calcium adj2 deposit\$) or calcification or calcinosis).tw.
123 barbotage.tw.
124 percutaneous lavage.tw.
125 107 or 123 or 124
126 4 and 122 and 125
127 (tophus or tophi or tophaceous).tw. and 4
128 soft tissue\$ structure\$.tw.
129 resect\$.tw.
130 128 and 129 and 4
131 "A1 pulley release".tw.
132 "annular pulley release".tw.
133 (131 or 132) and 4
134 (medication adj3 inject\$).tw.
135 (therapeutic adj3 inject\$).tw.
136 (or/134-135) and 4 and (muscle\$ or tendon\$ or ligament or cartilage).tw.
137 (intra-articular adj2 inject\$).tw. and 3
138 suprascapular.tw. and exp Nerve Block/
139 (suprascapular adj2 nerve adj2 block\$).tw.
140 (suprascapular and nerve ablat\$).tw.
141 (or/138-140) and 4
142 entrap\$.tw.
143 (((median or radial nerve or ulnar or peroneal or tibial) adj nerve) or Morton\$ neuroma).tw.
144 4 and 142 and 143
145 (nerve compression syndrome\$ or tarsal tunnel syndrome or ulnar compression syndrome\$).tw.
146 4 and 145
147 (synovial adj2 thicken\$).tw. and 4

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- 148 (osteophyte\$ adj2 formation).tw. and 4
- 149 (cartilage adj2 loss).tw. and 4
- 150 (menisc\$ adj2 extrusion\$).tw. and 4
- 151 synovitis.tw. and 4
- 152 ((enthesal adj2 pain) or (enthesis and pain)).tw.
- 153 ((back adj2 pain) and (erosion\$ or erosive or hyperemia)).tw.
- 154 (regional adj2 (swelling or edema or oedema)).tw.
- 155 (periarticular adj2 (swelling or edema or oedema)).tw.
- 156 or/152-155
- 157 4 and 156
- 158 (((cystic or solid) adj2 mass) and soft tissue).tw. and 4
- 159 double contour sign.tw.
- 160 70 or 99 or 113 or 114 or 121 or 126 or 127 or 130 or 133 or 136 or 137 or 141 or 144 or 146 or 147 or 148 or 149 or 150 or 157 or 158 or 159
- 161 limit 160 to english language

Database: **Embase**

Search Strategy:

-
- 1 exp arthritis/
 - 2 chondrocalcinosis/
 - 3 peri arthritis/
 - 4 bursitis/
 - 5 carpal tunnel syndrome/
 - 6 cubital tunnel syndrome/
 - 7 tarsal tunnel syndrome/
 - 8 sacroiliitis/
 - 9 monarthritis/
 - 10 spondylarthritis/
 - 11 ankylosing spondylitis/
 - 12 systemic lupus erythematosus/
 - 13 arthralgia/
 - 14 neuropathic joint disease/
 - 15 chondromatosis/
 - 16 joint effusion/
 - 17 joint destruction/
 - 18 metatarsalgia/
 - 19 shoulder impingement syndrome/
 - 20 synovitis/
 - 21 temporomandibular joint disorder/
 - 22 fibromyalgia/
 - 23 compartment syndrome/
 - 24 rheumatic polymyalgia/
 - 25 tendinitis/
 - 26 tennis elbow/
 - 27 chondropathy/
 - 28 anterior cruciate ligament/
 - 29 plantar fasciitis/
 - 30 ankle pain/
 - 31 wrist ganglion/

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32 elbow/
33 pain/
34 32 and 33
35 wrist/
36 33 and 35
37 knee pain/
38 hip pain/
39 shoulder pain/
40 foot pain/
41 hand/
42 33 and 41
43 sacroiliac joint/
44 33 and 43
45 synovial bursa/
46 articular cartilage/
47 zygapophyseal joint/
48 sternoclavicular joint/
49 juvenile rheumatoid arthritis/
50 ankylosis/
51 ligament calcinosis/
52 joint capsule/
53 or/1-31
54 34 or 36 or 37 or 38 or 39 or 40 or 42 or 44
55 or/45-52
56 53 or 54 or 55
57 synovial cyst/
58 popliteal cyst/
59 aspiration/
60 57 or 58
61 59 and 60
62 joint aspiration/
63 joint biopsy/
64 or/61-63
65 soft tissue calcification/ or calcification/ or calcinosis/ or soft tissue/
66 barbotage.tw.
67 percutaneous lavage.tw.
68 lavage/
69 or/66-68
70 65 and 69
71 trigger finger/
72 A1 pulley release.tw.
73 annular pulley release.tw.
74 intraarticular drug administration/
75 nerve block/
76 nerve compression/
77 75 and 76
78 enthesitis/
79 pain/
80 78 and 79
81 bone erosion/
82 regional swelling.tw.
83 knee meniscus rupture/ or knee meniscus/
84 (extrusion or extrude\$).tw.

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85 83 and 84
86 arthropathy/
87 Doppler flowmetry/
88 color ultrasound flowmetry/
89 ultrasound scanner/
90 56 or 61 or 64 or 70 or 71 or 72 or 73 or 74 or 77 or 80 or 81 or 82 or 85 or 86
91 or/87-89
92 90 and 91
93 exp animals/ not humans.sh.
94 92 not 93
95 limit 94 to english language
96 limit 95 to yr="1990 -Current"
97 (letter or editorial or comment or review).pt.
98 96 not 97

Cochrane Library:

ID	Search
#1	MeSH descriptor Arthritis explode all trees
#2	MeSH descriptor Ultrasonography, Doppler explode all trees
#3	MeSH descriptor Ultrasonography, Interventional explode all trees
#4	(#2 OR #3)
#5	(#1 AND #4)
#6	(arthriti* or joint* or tendon* or cartilage"):ti,ab,kw
#7	(ultrasound or ultrasonography or doppler or MSUS or MSK US)
#8	(#6 AND #7)
#9	(#5 OR #8), from 1990 to 2011