

## Supplementary S1

### Search strategies run on 7 June 2021

**Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <1946 to June 04, 2021>**

- 1      Humeral Fractures/      7763
- 2      ((supracondylar or distal humer\* or elbow or gartland) and (fractur\* or trauma\* or injur\*)).ti,ab,kw.      14533
- 3      1 or 2      19185
- 4      Peripheral Nerve Injuries/      7132
- 5      exp Brachial Plexus/      24831
- 6      Brachial Artery/ 10327
- 7      (anterior interosseous nerve\* or AIN or posterious interosseous nerve\* or PIN or nerve injur\* or nerve palsy or nerve palsies or neuropraxia or median nerve\* or brachial arter\* or brachial plexus or ulnar nerve\* or radial nerve\* or neural or neurovascular injur\*).ti,ab,kw.      405155
- 8      exp Neural Conduction/ 32522
- 9      exp Magnetic Resonance Imaging/      477282
- 10      Electromyography/      80734
- 11      Nerve Transfer/ 2079
- 12      Tendon Transfer/      4243
- 13      (mri or ultrasound\* or nerve conduction stud\* or NCS or nerve conduction test\* or electromyography or EMG or electrophysiolog\* or nerve exploration\* or nerve graft\* or nerve transfer\* or tendon transfer\*).ti,ab,kw.      695295
- 14      4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13      1400976
- 15      exp Infant/      1170773
- 16      exp Child/      1973115
- 17      Adolescent/      2095394
- 18      Pediatrics/      55561
- 19      (infant\* or child\* or p?ediatric\* or adolescen\*).ti,ab,kw.      2105986

20	15 or 16 or 17 or 18 or 19	4224658
21	3 and 14 and 20	2211
22	limit 21 to english language	1846

**Embase (Ovid) <1974 to 2021 June 04>**

1	humerus fracture/	9638
2	((supracondylar or distal humer* or elbow or gartland) and (fractur* or trauma* or injur*)).ti,ab,kw.	17504
3	1 or 2	24839
4	peripheral nerve injury/	8911
5	exp brachial plexus/	30697
6	brachial artery/	15596
7	(anterior interosseous nerve* or AIN or posterious interosseous nerve* or PIN or nerve injur* or nerve palsy or nerve palsies or neuropraxia or median nerve* or brachial arter* or brachial plexus or ulnar nerve* or radial nerve* or neural or neurovascular injur*).ti,ab,kw.	512057
8	exp nerve conduction/	58643
9	exp nuclear magnetic resonance imaging/	1031057
10	electromyography/	81505
11	nerve transplantation/	4523
12	tendon transfer/	3979
13	(mri or ultrasound* or nerve conduction stud* or NCS or nerve conduction test* or electromyography or EMG or electrophysiolog* or nerve exploration* or nerve graft* or nerve transfer* or tendon transfer*).ti,ab,kw.	1092729
14	4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13	2149036
15	exp infant/	1024152
16	exp child/	2740054
17	adolescent/	1589390
18	pediatrics/	81844
19	(infant* or child* or p?ediatric* or adolescen*).ti,ab,kw.	2584276
20	15 or 16 or 17 or 18 or 19	4214761
21	3 and 14 and 20	2528
22	limit 21 to english language	2208

## EBM Reviews - Cochrane Central Register of Controlled Trials (Ovid) <May 2021>

- 1      Humeral Fractures/      169
- 2      ((supracondylar or distal humer\* or elbow or gartland) and (fractur\* or trauma\* or  
injur\*)).ti,ab,kw.      1165
- 3      1 or 2      1254
- 4      Peripheral Nerve Injuries/      103
- 5      exp Brachial Plexus/      929
- 6      Brachial Artery/ 1152
- 7      (anterior interosseous nerve\* or AIN or posterious interosseous nerve\* or PIN or nerve  
injur\* or nerve palsy or nerve palsies or neuropraxia or median nerve\* or brachial arter\* or  
brachial plexus or ulnar nerve\* or radial nerve\* or neural or neurovascular injur\*).ti,ab,kw.  
20091
- 8      exp Neural Conduction/ 656
- 9      exp Magnetic Resonance Imaging/      8748
- 10      Electromyography/      3523
- 11      Nerve Transfer/ 17
- 12      Tendon Transfer/      62
- 13      (mri or ultrasound\* or nerve conduction stud\* or NCS or nerve conduction test\* or  
electromyography or EMG or electrophysiolog\* or nerve exploration\* or nerve graft\* or  
nerve transfer\* or tendon transfer\*).ti,ab,kw.      66266
- 14      4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13      88632
- 15      exp Infant/      32372
- 16      exp Child/      57412
- 17      Adolescent/      107543
- 18      Pediatrics/      656
- 19      (infant\* or child\* or p?ediatric\* or adolescen\*).ti,ab,kw. 216986
- 20      15 or 16 or 17 or 18 or 19      303257
- 21      3 and 14 and 2098

Search strategies updated from 1 June 2021 – 23 May 2022

**Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <1946 to May 20, 2022>**

- 1      Humeral Fractures/      8108
- 2      ((supracondylar or distal humer\* or elbow or gartland) and (fractur\* or trauma\* or  
injur\*)).ti,ab,kw.      15470
- 3      1 or 2    20254
- 4      Peripheral Nerve Injuries/      7612
- 5      exp Brachial Plexus/      25732
- 6      Brachial Artery/ 10617
- 7      (anterior interosseous nerve\* or AIN or posterior interosseous nerve\* or PIN or nerve  
injur\* or nerve palsy or nerve palsies or neuropraxia or median nerve\* or brachial arter\* or  
brachial plexus or ulnar nerve\* or radial nerve\* or neural or neurovascular injur\*).ti,ab,kw.  
437958
- 8      exp Neural Conduction/ 32965
- 9      exp Magnetic Resonance Imaging/      511448
- 10     Electromyography/      83175
- 11     Nerve Transfer/ 2348
- 12     Tendon Transfer/      4428
- 13     (mri or ultrasound\* or nerve conduction stud\* or NCS or nerve conduction test\* or  
electromyography or EMG or electrophysiolog\* or nerve exploration\* or nerve graft\* or  
nerve transfer\* or tendon transfer\*).ti,ab,kw.    744100
- 14     or/4-13 1493658
- 15     exp Infant/      1219468
- 16     exp Child/      2077323
- 17     Adolescent/      2176182
- 18     Pediatrics/      57474
- 19     (infant\* or child\* or p?ediatric\* or adolescen\*).ti,ab,kw. 2219626
- 20     or/15-19      4395306
- 21     3 and 14 and 202335
- 22     limit 21 to english language      1966

- 23 (202106\* or 202107\* or 202108\* or 202109\* or 202110\* or 202111\* or 202112\* or 2022\*).dt,ez,da. 2188448
- 24 22 and 23 162

# **Embase <1974 to 2022 May 20>**

- 1 humerus fracture/ 10005
- 2 ((supracondylar or distal humer\* or elbow or gartland) and (fractur\* or trauma\* or injur\*)).ti,ab,kw. 18232
- 3 1 or 2 25861
- 4 peripheral nerve injury/ 9472
- 5 exp brachial plexus/ 32518
- 6 brachial artery/ 16275
- 7 (anterior interosseous nerve\* or AIN or posterious interosseous nerve\* or PIN or nerve injur\* or nerve palsy or nerve palsies or neuropraxia or median nerve\* or brachial arter\* or brachial plexus or ulnar nerve\* or radial nerve\* or neural or neurovascular injur\*).ti,ab,kw. 538690
- 8 exp nerve conduction/ 60733
- 9 exp nuclear magnetic resonance imaging/ 1113911
- 10 electromyography/ 85783
- 11 nerve transplantation/ 4779
- 12 tendon transfer/ 4215
- 13 (mri or ultrasound\* or nerve conduction stud\* or NCS or nerve conduction test\* or electromyography or EMG or electrophysiolog\* or nerve exploration\* or nerve graft\* or nerve transfer\* or tendon transfer\*).ti,ab,kw. 1150151
- 14 or/4-13 2286481
- 15 exp infant/ 1071565
- 16 exp child/ 2882743
- 17 adolescent/ 1669811
- 18 pediatrics/ 86124
- 19 (infant\* or child\* or p?ediatric\* or adolescen\*).ti,ab,kw. 2732063

20 or/15-19 4424894  
 21 3 and 14 and 202641  
 22 limit 21 to english language 2319  
 23 limit 22 to dc=20210601-20220523 203

# EBM Reviews - Cochrane Central Register of Controlled Trials <April 2022>

1 Humeral Fractures/ 180  
 2 ((supracondylar or distal humer\* or elbow or gartland) and (fractur\* or trauma\* or injur\*)).ti,ab,kw. 1285  
 3 1 or 2 1382  
 4 Peripheral Nerve Injuries/ 105  
 5 exp Brachial Plexus/ 1031  
 6 Brachial Artery/ 1232  
 7 (anterior interosseous nerve\* or AIN or posterious interosseous nerve\* or PIN or nerve injur\* or nerve palsy or nerve palsies or neuropraxia or median nerve\* or brachial arter\* or brachial plexus or ulnar nerve\* or radial nerve\* or neural or neurovascular injur\*).ti,ab,kw. 21526  
 8 exp Neural Conduction/ 669  
 9 exp Magnetic Resonance Imaging/ 9303  
 10 Electromyography/ 3648  
 11 Nerve Transfer/ 20  
 12 Tendon Transfer/ 64  
 13 (mri or ultrasound\* or nerve conduction stud\* or NCS or nerve conduction test\* or electromyography or EMG or electrophysiolog\* or nerve exploration\* or nerve graft\* or nerve transfer\* or tendon transfer\*).ti,ab,kw. 70277  
 14 or/4-13 94015  
 15 exp Infant/ 34086  
 16 exp Child/ 60650  
 17 Adolescent/ 111127  
 18 Pediatrics/ 681

19 (infant\* or child\* or p?ediatric\* or adolescen\*).ti,ab,kw. 226728  
20 or/15-19 315275  
21 3 and 14 and 20 105  
22 limit 21 to yr="2021 -Current" 8