



## Supplementary Material

10.1302/2633-1462.15.BJO-2020-0031

### Search strategy: OVID Medline

1	exp Fractures, Bone/ or exp Fracture Fixation/ or Fracture Healing/
2	fracture*.ab.
3	((physis or physeal or growth plate or salter harris) and (injur* or fracture*)).tw
4	1 or 2 or 3
5	exp Pediatrics/
6	exp Child/ or exp Infant/ or (Adolescent/ not Adult/)
7	(neonate* or newborn or baby or babies or infant* or child* or teenage* or teen* or adolescen* or schoolchild* or school age or preschool* or toddler* or boy* or girl* or minors or pubert* or pubescen* or prepubescent* or p?ediatric* or youth*).tw.
8	5 or 6 or 7
9	Randomized controlled trial.pt.
10	Controlled clinical trial.pt.
11	randomized.ab.
12	placebo.ab.
13	Drug therapy.fs.
14	randomly.ab.
15	trial.ab.
16	groups.ab.
17	or/9-16
18	exp Animals/ not Humans/
19	17 not 18
20	4 and 8 and 19

**Table i.** Characteristics of included trials.

<b>First author</b>	<b>Year</b>	<b>Design</b>	<b>Country</b>	<b>Injury area</b>	<b>Age range</b>	<b>Number</b>	<b>Primary outcome</b>	<b>Follow up duration</b>	<b>Follow up rate</b>
<b>Barnett<sup>1</sup></b>	2012	RCT	Australia	Ankle	5-15	45	Function	4 weeks	89%
<b>Boutis<sup>2</sup></b>	2007	RCT	Canada	Ankle	0-13	111	Function	4 weeks	98%
<b>Gleeson<sup>3</sup></b>	1996	RCT	UK	Ankle	Child	45	Composite	28 days	100%
<b>Lu<sup>4</sup></b>	2016	RCT	China	Calcaneum	8-15	50	Not stated	6 months	100%
<b>Saadatfar<sup>5</sup></b>	N/a	PRCT	Iran	Clavicle	2-15	N/a	Pain	2 weeks	N/a
<b>Hope<sup>6</sup></b>	1991	RCT	Australia	Elbow	Child	24	Not stated	6 months	100%
<b>Jin<sup>7</sup></b>	N/a	PRCT	China	Elbow	0-14	N/a	Radiographic	1 month	N/a
<b>Kolar<sup>8</sup></b>	2006	AB	Turkey	Elbow	2-13	96	Function	6 months	N/a
<b>Nan<sup>9</sup></b>	N/a	PRCT	China	Elbow	8-14	N/a	Pain	12 months	N/a
<b>Su<sup>10</sup></b>	N/a	PRCT	China	Elbow	0-18	N/a	Rom	6 months	N/a
<b>Zhang<sup>11</sup></b>	N/a	PRCT	China	Elbow	6-18	N/a	Function	4 weeks	N/a
<b>Ahmad<sup>12</sup></b>	2015	RCT	Pakistan	Femur	6-12	60	Union	Not stated	100%
<b>Bar-on<sup>13</sup></b>	1997	RCT	Israel	Femur	5-15	20	Not stated	Not stated	100%
<b>Dey<sup>14</sup></b>	2018	RCT	India	Femur	6-12	38	Not stated	3 months	95%
<b>Domb<sup>15</sup></b>	2002	QRCT	USA	Femur	6-11	60	Union	Not stated	100%
<b>Goyal<sup>16</sup></b>	2014	RCT	India	Femur	6-12	40	Not stated	6 months	88%

First author	Year	Design	Country	Injury area	Age range	Number	Primary outcome	Follow up duration	Follow up rate
Gyaneshwar <sup>17</sup>	2016	RCT	India	Femur	5-12	34	Function	12 months	85%
Hsu <sup>18</sup>	2009	RCT	Philippines	Femur	5-12	51	Resource use	12 weeks	100%
Imran <sup>19</sup>	2017	QRCT	Pakistan	Femur	6-12	60	Not stated	6 months	100%
Khaffaf <sup>20</sup>	2016	RCT	Iraq	Femur	4-12	60	Composite	6 months	100%
Kumar <sup>21</sup>	2014	RCT	India	Femur	6-14	52	Union	Not stated	100%
Leu <sup>22</sup>	2012	RCT	USA	Femur	2-6	52	Not stated	Cast removal	96%
Mahmood <sup>23</sup>	2017	RCT	Pakistan	Femur	4-15	136	Radiographic	3 months	100%
Mehdinasab <sup>24</sup>	2008	QRCT	Iran	Femur	6-11	70	Union	6 months	94%
Olivo <sup>25</sup>	2017	RCT	Mexico	Femur	5-16	20	Union	6 months	91%
Park <sup>26</sup>	2012	QRCT	Korea	Femur	10-adult	45	Union	12 months	100%
Shaikh <sup>27</sup>	2012	AB	Pakistan	Femur	2-10	60	Resource use	56 days	N/a
Shemshaki <sup>28</sup>	2011	RCT	Iran	Femur	6-12	46	Resource use	6 months	100%
Siddiqui <sup>29</sup>	2008	RCT	Pakistan	Femur	Child	42	Composite	42-56 days	100%
Soleimanpo <sup>30</sup>	2013	RCT	Iran	Femur	6-12	120	Not stated	12 months	100%
Ucar <sup>31</sup>	2013	AB	Turkey	Femur	Child	15	Resource use	2 years	N/a

First author	Year	Design	Country	Injury area	Age range	Number	Primary outcome	Follow up duration	Follow up rate
Wright <sup>32</sup>	2005	RCT	Canada	Femur	4-10	108	Radiographic	2 years	94%
Bae <sup>33</sup>	2017	RCT	USA	Forearm/wrist	4-16	202	Radiographic	4 weeks	62%
Baldwin <sup>34</sup>	2017	RCT	USA	Forearm/wrist	3-13	60	Complications	6 weeks	100%
Bohm <sup>35</sup>	2006	RCT	Canada	Forearm/wrist	4-12	102	Radiographic	6 weeks	96%
Boutis <sup>36</sup>	N/a	PRCT	Canada	Forearm/wrist	5-17	N/a	Function	3 weeks	N/a
Boutis <sup>37</sup>	2010	RCT	Canada	Forearm/wrist	5-12	100	Function	6 weeks	96%
Boyer <sup>38</sup>	2002	QRCT	USA	Forearm/wrist	Child	109	Radiographic	6 weeks	91%
Cai <sup>39</sup>	N/a	PRCT	China	Forearm/wrist	10-16	N/a	Complications	1 day	N/a
Colaris <sup>40</sup>	2013	RCT	Holland	Forearm/wrist	0-16	85	ROM	6 months	98%
Colaris <sup>41</sup>	2013	RCT	Holland	Forearm/wrist	0-16	127	ROM	6 months	98%
Colaris <sup>42</sup>	2013	RCT	Holland	Forearm/wrist	0-16	128	Radiographic	6 months	93%
Colaris <sup>43</sup>	2013	RCT	Holland	Forearm/wrist	0-16	24	ROM	9 months	100%
Colaris <sup>44</sup>	2012	RCT	Holland	Forearm/wrist	0-16	66	ROM	6 months	100%
Davidson <sup>45</sup>	2001	QRCT	UK	Forearm/wrist	Child	201	Not stated	3 weeks	89%
Derksen <sup>46</sup>	2001	RCT	Holland	Forearm/wrist	5-15	68	Satisfaction	4-5 weeks	100%
Giacalone <sup>47</sup>	2018	PRCT	Italy	Forearm/wrist	4-12	N/a	Pain	2 days	N/a
Hamilton <sup>48</sup>	2013	RCT	UK	Forearm/wrist	2-16	317	Function	5-6 weeks	74%
Inglis <sup>49</sup>	2013	RCT	Australia	Forearm/wrist	Child	199	Satisfaction	5 weeks	70%
Karimi <sup>50</sup>	2013	RCT	Iran	Forearm/wrist	0-17	142	Not stated	6 weeks	100%
Khan <sup>51</sup>	2010	RCT	USA	Forearm/wrist	Child	103	Resource use	6 weeks	93%

First author	Year	Design	Country	Injury area	Age range	Number	Primary outcome	Follow up duration	Follow up rate
Khan <sup>52</sup>	2007	QRCT	Ireland	Forearm/wrist	2-12	117	Satisfaction	5 weeks	100%
Korhonen <sup>53</sup>	2018	RCT	Finland	Forearm/wrist	5-15	33	ROM	24 months	89%
Kropman <sup>54</sup>	2010	RCT	Holland	Forearm/wrist	Child	90	Pain	6 weeks	98%
Levy <sup>55</sup>	2015	QRCT	USA	Forearm/wrist	4-12	71	Radiographic	8 weeks	97%
McLauchlan <sup>56</sup>	2002	RCT	UK	Forearm/wrist	4-14	68	ROM	3 months	82%
Miller <sup>57</sup>	2005	RCT	USA	Forearm/wrist	10- adult	34	Radiographic	6 months	100%
Oakley <sup>58</sup>	2008	RCT	Australia	Forearm/wrist	0-18	95	Pain	6 weeks	88%
Olivo <sup>59</sup>	N/a	PRCT	Mexico	Forearm/wrist	2-11	N/a	Radiographic	10 weeks	N/a
Paneru <sup>60</sup>	2010	RCT	Nepal	Forearm/wrist	4-12	89	Not stated	6 months	96%
Perry <sup>61</sup>	N/a	PRCT	UK	Forearm/wrist	Child	N/a	Pain	3 days	N/a
Plint <sup>62</sup>	2006	RCT	Canada	Forearm/wrist	5-15	99	Function	14 days	88%
Pountos <sup>63</sup>	2010	RCT	UK	Forearm/wrist	0-16	90	Not stated	4-6 weeks	88%
Sahin <sup>64</sup>	2017	RCT	Turkey	Forearm/wrist	8-16	40	Union	12 months	93%
Schulte <sup>65</sup>	2014	RCT	Switzerland	Forearm/wrist	0-16	100	Complications	4-6 weeks	99%
Scipper <sup>66</sup>	N/a	PRCT	USA	Forearm/wrist	4-12	N/a	Radiographic	6 weeks	N/a
Silva <sup>67</sup>	2017	RCT	USA	Forearm/wrist	5-14	26	Function	4 weeks	100%
Staubli <sup>68</sup>	N/a	PRCT	Switzerland	Forearm/wrist	4-16	N/a	Radiographic	28 days	N/a
Stevenson <sup>69</sup>	2013	RCT	Australia	Forearm/wrist	0-18	105	Satisfaction	6 weeks	100%
Symons <sup>70</sup>	2001	RCT	UK	Forearm/wrist	Child	87	Satisfaction	6 weeks	92%
Von Keyserlingk <sup>71</sup>	2011	RCT	Canada	Forearm/wrist	5-12	100	Resource use	6 weeks	90%

First author	Year	Design	Country	Injury area	Age range	Number	Primary outcome	Follow up duration	Follow up rate
Webb <sup>72</sup>	2006	RCT	USA	Forearm/wrist	Child	127	Radiographic	8-10 weeks	89%
West <sup>73</sup>	2005	RCT	UK	Forearm/wrist	Child	42	ROM	4 weeks	93%
Williams <sup>74</sup>	2013	RCT	USA	Forearm/wrist	2-17	94	Composite	21 days	100%
Davison <sup>75</sup>	2016	RCT	Canada	Hand	0-16	40	ROM	12 weeks	90%
Burgess <sup>76</sup>	N/a	PRCT	USA	Forearm/wrist	3-14	N/a	Complications	24 weeks	N/a
Abdel Karim <sup>89</sup>	2016	RCT	Egypt	Supracondylar	0-10	60	Not stated	6 months	100%
Anwar <sup>90</sup>	2011	RCT	India	Supracondylar	1-12	50	Function	24 weeks	100%
Cruz <sup>91</sup>	2017	RCT	USA	Supracondylar	0-18	100	Satisfaction	1 week	71%
Dučić <sup>92</sup>	2016	RCT	Serbia	Supracondylar	Child	138	ROM	Not stated	100%
Ensafdarān <sup>93</sup>	2005	RCT	Iran	Supracondylar	3-10	40	Not stated	6 months	100%
Foad <sup>94</sup>	2004	RCT	Malaysia	Supracondylar	1-12	66	Radiographic	Until full rom	83%
Gaston <sup>95</sup>	2010	QRCT	USA	Supracondylar	Child	104	Radiographic	28 days	86%
Gupta <sup>96</sup>	N/a	PRCT	USA	Supracondylar	0-13	N/a	Complications	6 weeks	N/a
Kaewpornawan <sup>97</sup>	2001	RCT	Thailand	Supracondylar	0-13	28	Radiographic	14-30 weeks	100%
Kao <sup>98</sup>	2014	QRCT	Taiwan	Supracondylar	Child	64	Complications	6 weeks	95%
Kocher <sup>99</sup>	2007	RCT	USA	Supracondylar	4-12	52	Radiographic	3 months	100%
Lu <sup>100</sup>	2017	RCT	China	Supracondylar	3-10	135	Complications	4-5 months	100%
Maity <sup>101</sup>	2012	RCT	India	Supracondylar	2-12	160	Radiographic	3 months	81%

First author	Year	Design	Country	Injury area	Age range	Number	Primary outcome	Follow up duration	Follow up rate
<b>Mulpuri</b> <sup>102</sup>	N/a	PRCT	Canada	Supracondylar	3-7	N/a	Radiographic	Wire removal	N/a
<b>Mulpuri</b> <sup>103</sup>	N/a	PRCT	Canada	Supracondylar	4-12	N/a	Pain	3 weeks	N/a
<b>Oakley</b> <sup>104</sup>	2009	RCT	Australia	Supracondylar	0-18	50	Pain	14 days	96%
<b>Pandey</b> <sup>105</sup>	2008	RCT	Nepal	Supracondylar	0-12	60	Not stated	6 months	77%
<b>Prashant</b> <sup>106</sup>	2016	RCT	India	Supracondylar	0-13	62	Radiographic	6 months	84%
<b>Schmale</b> <sup>107</sup>	2014	RCT	USA	Supracondylar	5-12	60	Function	9 weeks	97%
<b>Silva</b> <sup>108</sup>	N/a	PRCT	USA	Supracondylar	2-10	N/a	Satisfaction	8 weeks	N/a
<b>Zhu</b> <sup>109</sup>	2016	RCT	China	Supracondylar	4-12	68	Resource use	30 months	100%
<b>Beckish</b> <sup>110</sup>	N/a	PRCT	USA	Tibia	1-5	N/a	Function	12 weeks	N/a
<b>Bradman</b> <sup>111</sup>	N/a	PRCT	Australia	Tibia	1-5	N/a	Function	6 weeks	N/a
<b>Silva</b> <sup>112</sup>	2012	RCT	USA	Tibia	4-14	88	Union	12 weeks	92%

AB, published as abstract only; PRCT, protocol for a randomized controlled trial or a trial registration; RCT, randomized controlled trial; QRCT: quasi-randomized controlled trial.

Mapping of patient and surgeon reported outcomes onto second level WHO ICF domains.

Outcome tool	ICF second level domain for body function (b), activity and participation (d) and body structure (s)																																						
	b130	b134	b140	b152	b164	b180	b280	b710	b715	b730	d170	d230	d360	d410	d420	d430	d440	d445	d450	d455	d470	d510	d520	d530	d540	d550	d560	d570	d640	d750	d760	d820	d850	d920	s730	s750			
ABILHAND																X	X	X					X	X															
AOFAS		X					X	X		X																									X	X			
ASK-p											X				X	X							X		X	X	X	X	X	X						X			
C&C		X		X			X						X		X			X							X	X	X									X			
CHAQ							X							X				X	X				X		X	X													
Constant		X					X	X		X																									X	X			
EQ5D-Y				X			X												X				X		X								X		X				
Flynn-f							X																															X	
Flynn-s						X		X																													X		
Mayo							X	X	X														X		X	X													
PDS		X																					X		X	X								X	X				
PHBQ	X	X	X	X	X																								X	X									
PODCI				X			X				X			X		X			X	X					X	X										X			
Price								X				X																											
PROMIS UE																	X	X																					
RAND																X		X	X	X	X			X	X	X										X			
UEFI																X								X	X				X				X	X					

ASK-P, Activity Scale For Kids Performance Version; C&C, Care And Comfort; CHAQ, Child Health Assessment Questionnaire; Flynn-F, Flynn Score For Femur; Flynn-S, Flynn Score For Supracondylar; PDS, Pediatric Disability Score; PHBQ, Post Hospitalization Behavioral Questionnaire; PROMIS UE, Patient-Reported Outcomes Measurement Information System Pediatric Upper Extremity Score; PODCI, Pediatric Outcomes Data Collection Instrument; RAND, RAND Physical Health; UEFI Upper Extremity Functional Index.



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