Supplementary material 5. Risk of bias assessment for randomized controlled trials.

First author and year of publication,		**Random sequence generation**	**Allocation concealment**	**Blinding of participants and personnel. Assessments should be made for each main outcome (or class of outcomes).**	**Blinding of outcome assessment. Assessments should be made for each main outcome (or class of outcomes).**	**Incomplete outcome data. Assessments should be made for each main outcome (or class of outcomes).**	**Selective reporting**	**Other sources of bias**
Archer, 2016	**Assessment**	Low	Unclear	High	Low	Low	Low	-
	Explanation	A computer-generated scheme randomized patients to either the intervention or the control condition in a 1:1 ratio in blocks of assignments. Because preliminary data demonstrated that surgery type and fear of movement influenced patient-reported outcomes, these	No procedure for allocation concealment has been described	Participants nor personnel appeared to be blinded	Outcomes (quality of life and disability) were self-reported	Outcome complete for 93% of the participants	Only quality of life measured with SF-12 has not been mentioned in the study protocol at ClinicalTrials.gov.	

		assignments were frequency matched on type of surgery (fusion or no fusion) and screening score on the TSK (39–45, 46–49, 50–68), resulting in 6 strata.						
Donceel, 1999	**Assessment**	Low	Unclear	High	Unclear	Unclear	Unclear	-
	Explanation	A computer generated randomization was performed to randomise physicians..	No procedure for allocation concealment for patients has been described	Participants nor personnel appeared to be blinded	Way of outcome assessment is unclear (possibly self-reported)	No information is provided on selection or attrition.	No protocol is provided.	-
Hou, 2019	**Assessment**	Low	Low	High	High	High	Low	-
	Explanation	Participants were randomly allocated in a 1:1 ratio to the intervention or control group according to a computer-generated randomization list	Sequence of allocation was concealed from the researcher	Participants were not blinded to the randomization	Outcome was self-reported so not blinded by definition.	28% loss to follow-up in 12 months.	All outcomes described in registration seem to be reported on.	-
Levinger, 2017	**Assessment**	Low	Low	High	Low	High	Low	High
	Explanation	Randomization	In this study,	Participants nor	All outcomes	There was a	All measured	Selection bias

		was performed using an excel file	the randomization procedure seems to be sufficient to address allocation concealment	personnel appeared to be blinded	(functioning and quality of life) were obtained using self-reports.	rather substantial loss to follow-up (38% and 56% in the control and intervention group., respectively).	variables appear to be reported on.	due to small groups with 20 participants in each group.
Martinez-Rico, 2018	**Assessment**	Low	Unknown	High	High	Low	Unclear	-
	Explanation	Randomization was based on sequentially numbered opaque sealed envelopes opened at the time the sling was removed by an independent nurse who was not involved in the study.	No information provided	Patients were not blinded to the randomization	Outcome was self-reported so not blinded by definition.	1 participant lost to follow-up	No protocol and no trial registration	-
McGregor, 2010; McGregor, 2011; Morris, 2011	**Assessment**	Low	Low	High	Low	High	Low	High
	Explanation	Allocation with random permuted blocks within strata was used. This ensures that each	Treatment allocation will be concealed to avoid selection bias during recruitment. All patients will be	Participants nor personnel were blinded	Outcomes were self-reported and obtained from NHS data files	There were missing data at each follow-up point (EQ-5D data, 1%, 24%, 27%, 29%, 31%, and 8% of	Apart from return to work, all outcomes were reported	Poor compliance. In participants allocated to rehabilitation, 72 of 177 (41%)

		participating surgeon and both surgical procedures will have approximately equal numbers of patients allocated to the 4 groups	assessed for functional ability, pain, and satisfaction pre-operatively and then at 6 weeks, 3, 6 and 9 months and 1 year post-operatively.			patients had missing data at baseline, 6 weeks, and 3, 6, 9, and 12 months, respectively; any contact, 34%, 30%, 32%, 35%, and 23%, for weeks 1–6 and 7–12, and months 3–6, 7–9, and 10–12, respectively).		attended no classes (38 of whom were also in the booklet group), 29 (16%) attended less than half (18 of whom were also in the booklet group), and 76 (43%) attended at least half (35 of whom were also in the booklet group)
Oestergaard, 2015	**Assessment**	Unclear	Unclear	Unclear	Unclear	Unclear	Unclear	
	Explanation	No information provided on randomization procedure	No procedure for allocation concealment has been described	No information on blinding is provided (although it is unlikely that participants/personnel were blinded).	Way of outcome assessment is unclear (possibly self-reported)	No information is provided on selection or attrition.	No protocol is provided.	
Paxton, 2018	**Assessment**	Unclear	Unclear	Unclear	Low	Low	Unclear	Low
	Explanation	Not reported	Not reported	Not reported.	Not reported. However, data were objectively measured in both groups using Activity	>90% retention rate in both groups, and no drop outs	No protocol paper	-

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Sandell, 2008	**Assessment**	Low	Low	High	Low	High	Unclear	High
	Explanation	Randomisation was done using a randomisation table that was computer generated.	Participates were given a study number after they agreed to join the trial and this number corresponded to a numbered sealed envelope containing the group identification.	Participants nor personnel appeared to be blinded	Main outcomes were self-reported.	26 of 89 patients (29%) were not included in the final analysis (table 2 and 3)	No protocol is provided.	This trial lacked sufficient numbers of participants to be able to draw conclusions. The use of the Arthritis Impact Measurement Score was probably ill advised as the domains related to hand and finger functions etc are not that appropriate.
Szöts, 2016	**Assessment**	Low	Low	High	Low	Low	Low	-
	Explanation	Patients included in the trial were randomized 1:1 to the intervention group or the control group by a central web-based randomization	Just before discharge from the hospital, patients were randomized in blocks with a frequency of allocation unknown to the investigator,	Participants nor personnel were blinded	Main outcome (quality of life) was self-reported.	15% lost to follow-up after 3 months. 1 person actively withdrew, 1 died, 10 no data available	Outcome measures used as described in protocol paper	

		program.	orthopaedic staff, or others involved in the study.					
Vesterby, 2017	**Assessment**	Unclear	Low	High	Low	Low	Unclear	High
	Explanation	No procedure for randomisation was described	Randomisation was done by an external person who had no contact with the patients by drawing opaque and sealed envelopes.	Participants nor personnel appeared to be blinded	Main outcome (quality of life) was self-reported.	There is only missing data on 1 person from the control group	No protocol is provided.	Selection bias due to small sample
Wang, 2018	**Assessment**	Unclear	Unclear	High	High	Low	Unclear	-
	Explanation	Quota sampling and convenient sampling were performed and participants were randomized in any of the two groups using the random digital table method		Patients were not blinded to the randomization	Outcome was self-reported so not blinded by definition.	11 patients were excluded because they did not meet the inclusion criteria. These 11 patients comprised five in the intervention group who logged into the platform fewer than 10 times within 6 months after discharge, one in the intervention	No trial registration and/or protocol paper was present.	-

						group and three in the control group who were readmitted because of complications, and two in the control group who were lost to follow-up.		