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THE VALUE OF PREOPERATIVE EXERCISE AND EDUCATION FOR PATIENTS UNDERGOING TOTAL HIP AND KNEE ARTHROPLASTY. A SYSTEMATIC REVIEW AND META-ANALYSIS

http://dx.doi.org/10.2106/JBJS.RVW.17.00015

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Appendix

Detailed Search Strategy, MEDLINE

```
1 exp ARTHROPLASTY, REPLACEMENT/or exp ARTHROPLASTY, REPLACEMENT, KNEE/or exp ARTHROPLASTY/or exp ARTHROPLASTY, REPLACEMENT, HIP/(n = 14,994)

2 exp EDUCATION/(n = 392,755)

3 exp EXERCISE THERAPY/or exp EXERCISE/(n = 46,658)

4 exp PREOPERATIVE CARE/or exp PERIOPERATIVE CARE/(n = 84,126)

5 exp ANTERIOR CRUCIATE LIGAMENT/(n = 4,770)

6 1 and 3 and 4 (n = 52)

7 1 and 2 and 4 (n = 41)

8 1 and 2 and 3 and 4 (2)

9 2 and 4 and 5 (n = 4)

10 3 and 4 and 5 (n = 13)

11 from 6 keep 1-52 (n = 52)
```

OVID search engine for MEDLINE, AMED:

- 1- prehab\$.mp.
- 2- (preoperative or preoperative or pre-surgical or presurgical).mp.
- 3- preoperative care/
- 4- (rehabilitation or exercise or education or physiotherapy or physical therapy).mp.
- 5- physical therapy (specialty)"/or exp education/or exp rehabilitation/or exp exercise/or exp physical therapy modalities/or exp exercise movement techniques
- 6- arthroplasty replacement knee/or exp arthroplasty replacement hip/or exp joint prosthesis/
- 7- (joint arthroplasty or hip arthroplasty or knee arthroplasty or joint prosthesis or hip prosthesis or knee prosthesis or joint replacement or hip replacement or knee replacement).mp.
 - 8-2 or 3
 - 9-4 or 5
 - 10-6 or 7
 - 11-1 and 10
 - 12-8 and 9 and 10
 - 13-11 or 12

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TABLE E-1 Methodological Quality Assessment for Risk of Bias

THE E I WELL	lodolog		sessment for Risk		Blinded	C1 - + -	Selective	1
		Random Sequence	Allocation	Blinded Participants	Outcome	Complete Outcome	Outcome	
Study	No.	Generation	Concealment	& Personnel	Assessor	Data	Reporting	Other*
Doering et al.	100	— Generation	_	↑	ASSESSOI	Jala	1 Leporting	Groups
$(2000)^{33}$				·	·		·	dissimilar
Weaver et al. (2003) ³⁴	136	_	_	1	1	1	1	-
Gilbey et al. (2003) ³⁵	68	_	_	↑	1	1	1	-
Crowe et al. (2003) ³⁶	133	↓	↓	1	1	1	1	No ITT, groups dissimilar
Giraudet-Le Quintrec et al. (2003) ³⁷	100	↓	\	↑	1	1	1	-
McGregor et al. (2004) ³⁸	39	_	_	1	_	↑	Ţ	Groups dissimilar
Beaupre et al. (2004) ³⁹	131	1	↓	_	1	1	Ţ	_
Gocen et al. (2004) ⁴⁰	60	1	1	1	1	1	1	_
Berge et al. (2004) ⁴¹	44	1	1	1	_	1	1	_
Mitchell et al. (2005) ⁴²	160	1	1	1	1	1	1	Groups dissimilar
Siggeirsdottir et al. (2005) ⁴³	50	1	1	1	1	1	_	Groups dissimilar
Rooks et al. (2006) ⁴⁵	108	_	_	1	1	1	1	_
Johansson et al. (2007) ⁴⁴	123	_	_	1	_	_	1	Groups dissimilar
Pour et al. (2007) ⁴⁷	94	1	_	1	_	1	1	No ITT, financial interest
Williamson et al. (2007) ⁴⁸	121	1	↓	1	1	1	1	_
Larsen et al. (2008) ⁴⁶	90	1	1	1	1	1	1	_
Vukomanović et al. 2008) ⁴⁹	45	_	_	_	_	↓	1	_
Ferrara et al. (2008) ⁵⁰	23	1	_	1	1	1	1	_
Topp et al. (2009) ⁵¹	54	_	_	1	_	↓	1	_
Hoogeboom et al. 2010) ⁵²	21	_	↓	1	1	1	1	_
Walls et al. (2010) ⁵³	14	1	_	1	1	_	1	_
Bitterli et al. (2011) ⁵⁴	80	1	1	1	1	1	1	_
Gstoettner et al. (2011) ⁵⁵	38	1	↓	1	1	1	1	_
Oosting et al. (2012) ⁵⁶	30	1	↓	1	1	\	_	_
McKay et al. (2012) ⁵⁷	22	_	1	1	1	↓ ·	1	_

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rage 3								
Brown et al. (2012) ⁵⁸	32	1	1	1	1	1	1	_
Huang et al. (2012) ⁵⁹	243	1	_	↑	1	1	1	_
Tungtrongjit et al. (2012) ⁶⁰	60	1	1	1	1	1	1	No ITT
Villadsen et al. (2014) ⁶¹	165	1	1	1	1	1	1	_
Matassi et al. (2014) ⁶²	122	1	_	1	1	1	1	_
Biau et al. (2015) ⁶⁴	209	1	1	1	1	1	1	_
Cooke et al. (2016) ⁶³	91	1	1	1	1	1	1	_
Skoffer et al. (2016) ⁶⁵	59	1	1	1	1	1	1	_
Calatayud et al. (2016) ⁶⁶	50	1	1	1	1	1	1	_
Jepson et al. (2016) ⁶⁷	44	1	1	1	1	1	1	Groups dissimilar

^{*}All studies included participants who had the capacity to participate in the intervention. Patient criteria preventing participation in prehabilitation (e.g., comorbidities, excessive pain) excluded them from participating in the study. \uparrow = high risk of bias, — = unclear, and \downarrow = low. ITT = intention to treat.