

Specific Question: In adults who have undergone a total hip replacement (THR) is there a difference in dislocation rates between those who have been advised about following hip replacement precautions verses those who have not?

Clinical bottom line

There is insufficient high-quality evidence to determine if there is a difference in dislocation rates. It seems there is very low quality evidence to support not issuing post-operative precautions in adults undergoing an anterolateral approach THR however this is not the case for following any other approach.

Clinicians should carry on giving out post-operative protocols unless instructed otherwise by the consultant.

Why is this important?

Total hip replacements are a common procedure and historically these have come with precautions post operatively to avoid dislocation of the prosthetic hip. About 3 out of 100 people who have this surgery will dislocate their hip. Standard precautions include avoiding flexing the hip greater than 90 degrees, crossing your legs and medially rotating the hip.

Inclusion Criteria

Adults who have undergone a total hip replacement due to osteoarthritis.

Search 2006-2016

Type of Study

	Description	Search terms
Population and Setting	Adults	Total hip replacement
Intervention or Exposure (ie what is being tested)	Not being advised on hip precautions	
Comparison, if any	Usual hip replacement precautions	Hip precautions Hip protocols Hip flexion above 90 degrees Medial rotation Crossing legs
Outcomes of interest	Dislocation rates	Dislocation rates
Types of studies	RCT, systematic reviews	

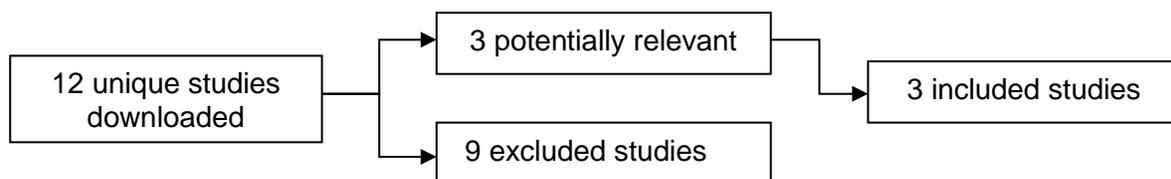
Routine Databases Searched

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discuss and Pub med

Date of search

Undertaken 30/03/16
Searched from 2006-2016

Results



First Author, year and type of study	Population and setting	Intervention or exposure tested	Study results	Assessment of quality and comments
Smith TO, 2016 Cochrane review	Adults undergoing Total Hip Replacement (THR). Three trials with a total of 492 participants who had received 530 THR.	To assess the effects of provision of equipment, education on hip precautions, environmental modifications and training in activities of daily living (ADL's) vs. none of the above on people undergoing THR	Study one concluded it was uncertain if there were any differences in outcomes measures of function, quality of life and dislocation rates between the 2 groups. There was no dislocation rates reported in either group. Study 2 compared provision of hip precautions with vs. without post-operative equipment and functional restrictions. Unable	Study 1 and 2 were both reported as very low evidence therefore unable to draw clear conclusions. Both were RCT's. The third study was published in 1990 and not an RCT.

			to establish if there was a difference. The third study did not include dislocation rates.	
Van der Weegan 2016 Systematic review	6 articles included (n=1122) 3 RCT's, 1 retrospective cohort study, 1 retrospective and 1 prospective cohort study.	Standard posterior and anterolateral surgical approaches. Comparing lifestyle restrictions and precautions on dislocation rates against those who were advised to follow the hip precautions (restricted) verses those that weren't (unrestricted).	There were 8 dislocations in the restricted group vs 6 dislocations in the unrestricted group. Patients in the unrestricted group resumed activities faster and were more satisfied overall. All 6 dislocations in the unrestricted group had undergone posterior approaches. There were no dislocations for the unrestricted anterolateral approach. For 3 studies the unrestricted approach did not allow the patient to sit crossed legged.	Study dates include some that go back to 2005. 3 RCT's, only 1 was blinded. The other 3 studies were comparative cohorts. Follow up duration was 6 weeks, 6 months, 12 months or 2 years.
Barnsley et al (2015) Systematic review	2 studies, (Peak et al/Ververeli et al). 265 and 81 participants, single centre hospital based	Anterolateral procedure THR. Precautions were given or not given	In both studies only 1 dislocation which was in the precaution group. Precautions lifted gave faster return to function and greater patient satisfaction	Comprehensive database search. Only looked at 2 RCT's, anterolateral procedure only. 6 month and 1 year follow up time periods.

Summary

The Cochrane review states due to a small number of events and low quality evidence it is unable to draw clear conclusions with regards to the difference in outcome measures and dislocation rates between issuing and not issuing post-operative precautions. In the systematic review by van der Weegan there were fewer dislocation rates in the groups given no restrictions versus those following the restrictions after undergoing a THR however it is important to note that those with no dislocations underwent an anterolateral approach.

In the systematic review by Barnsley there were also no dislocations in the unrestricted group however again it is important to note these also underwent an anterolateral approach.

Implications for Practice/research

There is insufficient high-quality evidence to support or refute the use of hip precautions. It seems there is very low quality evidence to support not issuing post-operative precautions in adults undergoing an anterolateral approach THR however this is not the case for following any other approach.

What would you tweet? (140 characters)

There isn't any good quality evidence to stop giving patient precautions following a THR.

References

Smith TO, Jepson P, Beswick A, Sands G, Drummond A, Davis ET, Sackley CM Assistive devices, hip precautions, environmental modifications and training to prevent dislocation and improve function after hip arthroplasty (Review). Cochrane Database of Systematic Reviews 2016, Issue 7.

Weegen W, Kornuijt A, Das D Do lifestyle restrictions and precautions prevent dislocation after total hip athroplasty? A systematic review and meta-analysis of the literature 2016 Clinical rehabilitation 30 (4) 329-339.

Barnsley L, Barnsley L, Page R Are Hip precautions necessary post total hip arthroplasty? A systematic review 2015 Geriatric Orthopaedic Surgery and Rehabilitation 1-6