

# Novel Approaches to Improving Outcomes following Elective Orthopaedic Surgery

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# Aims for the talk



- Examine novel outcome measures following joint replacement.
- Discuss novel interventions to improve outcomes following joint replacement.

# What are the patients saying



Whilst many people post-THA or TKA wish to **return to pre-pathological physical activity status**, there **limited interest** in actually undertaking greater levels of physical activity post-arthroplasty either for pleasure or health gains. Improvement in education and awareness of this may be key drivers to improve habitualisation of physical activity post-arthroplasty.

(Smith et al. 2015)

# What are the patients saying



Participants aim to undertake activities “they had been capable of doing” before the disease progressed “such as housework, gardening and walking the dog.”

Patients therefore see surgery as a way to “enable them to return to their active lives, thereby reinforcing the perceived necessity of surgical intervention.

(Smith et al. 2015)

# IRISH SUN

*Named after newspaper first published in 1880*

Friday 6th October, 2017

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VOLUME 1

## Physical activity does not improve after hip surgery: Study

 **14.9** °C

Article

 **CLINICAL  
REHABILITATION**

# Is there a difference in physical activity levels in patients before and up to one year after unilateral total hip replacement? A systematic review and meta-analysis

Clinical Rehabilitation  
2017, Vol. 31(5) 639–650  
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DOI: 10.1177/0269215516673884  
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 SAGE

# What does the data say?

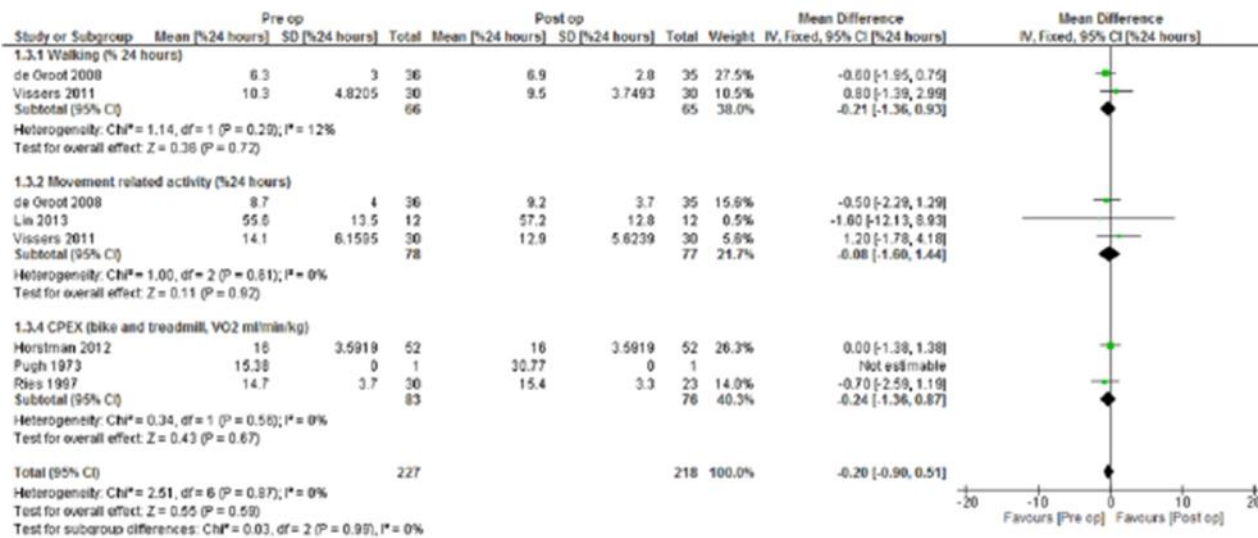


- 17 studies, 1030 participants.
- No significant difference in physical activity pre-, post-operatively.
- The quality of the evidence was rated as poor to moderate.

# Pre-, post-operative physical activity

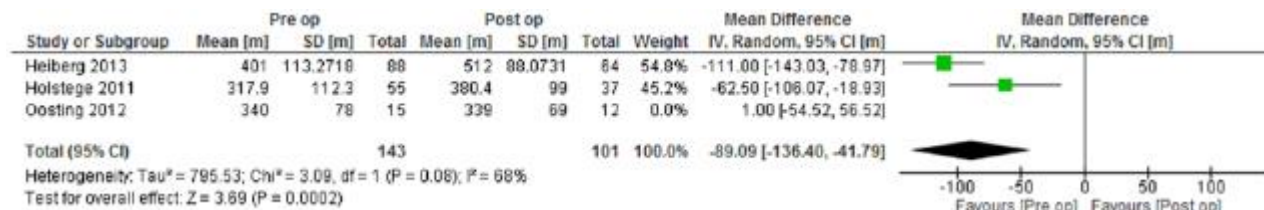
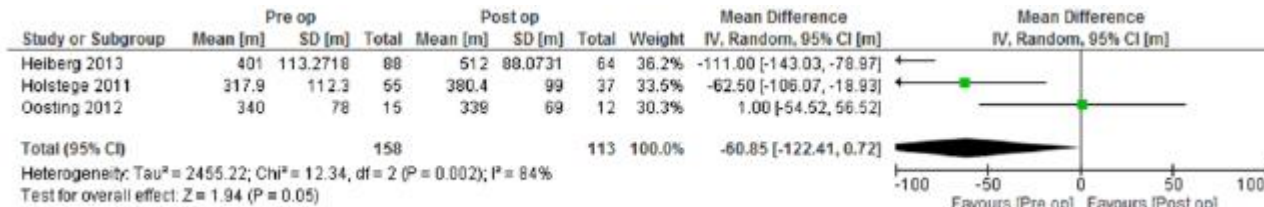


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# An interesting aside.



# Osteoarthritis and Cartilage

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Changes in social isolation and loneliness following total hip and knee arthroplasty: longitudinal analysis of the English Longitudinal Study of Ageing (ELSA) cohort



- 393 participants included in the analysis.
- Significant difference in social isolation pre compared to the recovery phase ( $p=0.001$ ).
- No significant difference in loneliness.

# Removing hip precautions as a method of improving post-operative recovery.

Smith and Sackley *BMC Musculoskeletal Disorders* (2016) 17:228  
DOI 10.1186/s12891-016-1092-x

BMC Musculoskeletal  
Disorders

RESEARCH ARTICLE

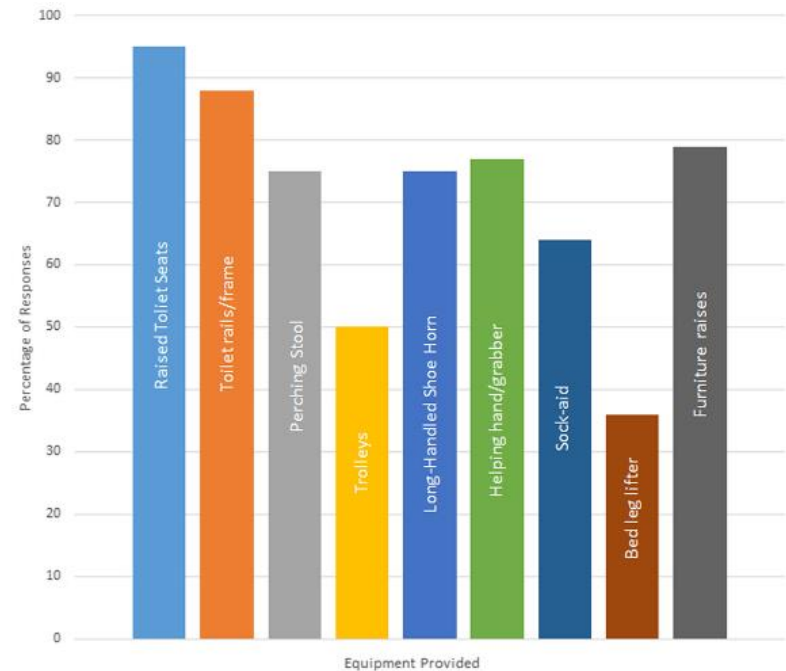
Open Access

# UK survey of occupational therapist's and physiotherapist's experiences and attitudes towards hip replacement precautions and equipment



# Are we making it harder for patients

- 170 health care professionals answered the questionnaire.
- Are hip precautions inhibiting recovery?



# Hip precautions the healthcare professionals view



	Yes
Would you like to change your current practice.	48%
Would you like to remove hip precautions for all patients?	11%
Should there be more research on the provisions of hip precautions following primary THR?	88%



**Assistive devices, hip precautions, environmental modifications and training to prevent dislocation and improve function after hip arthroplasty (Review)**

# Hip precaution Cochrane review.

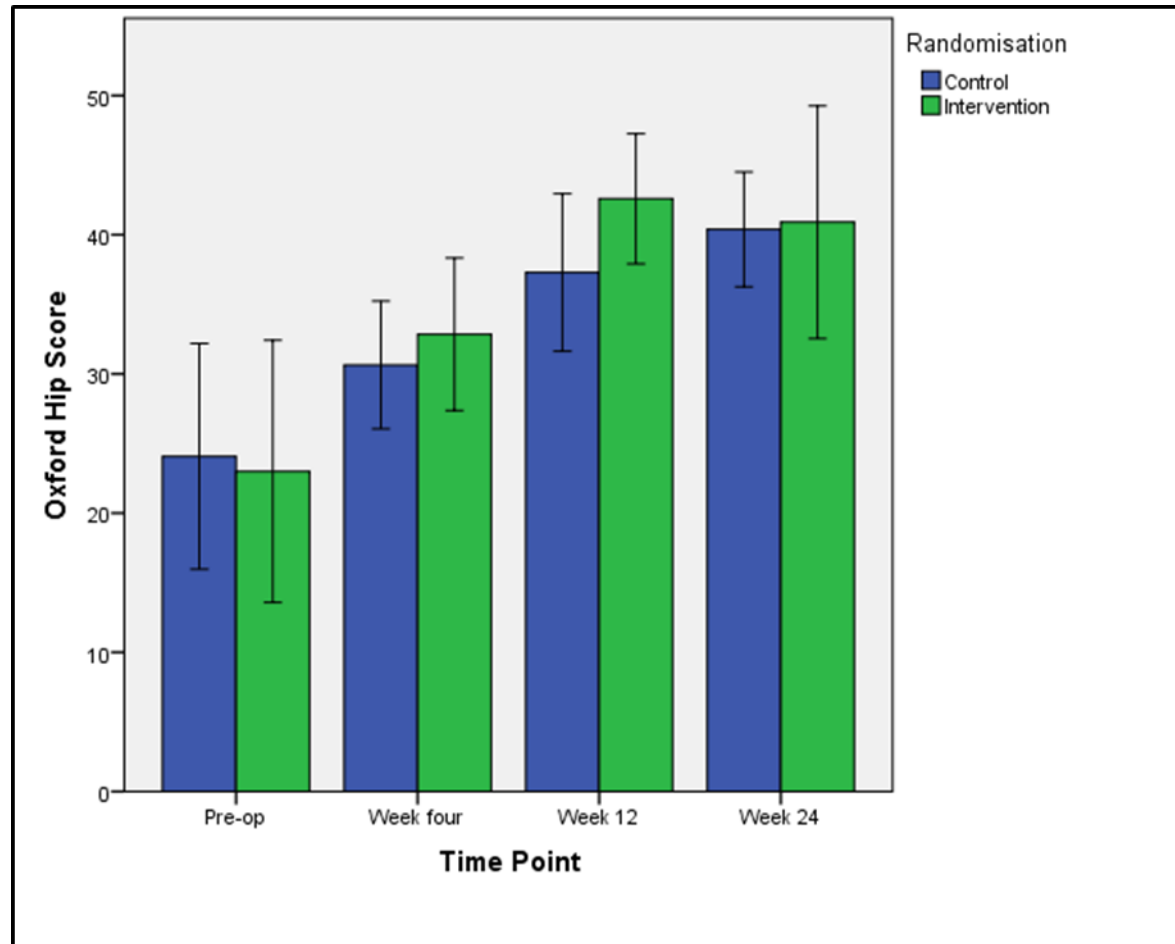


- Three studies included, 492 participants.
- The evidence presented with a high risk of performance, detection and reporting bias.
- The results of the systematic review were inconclusive.

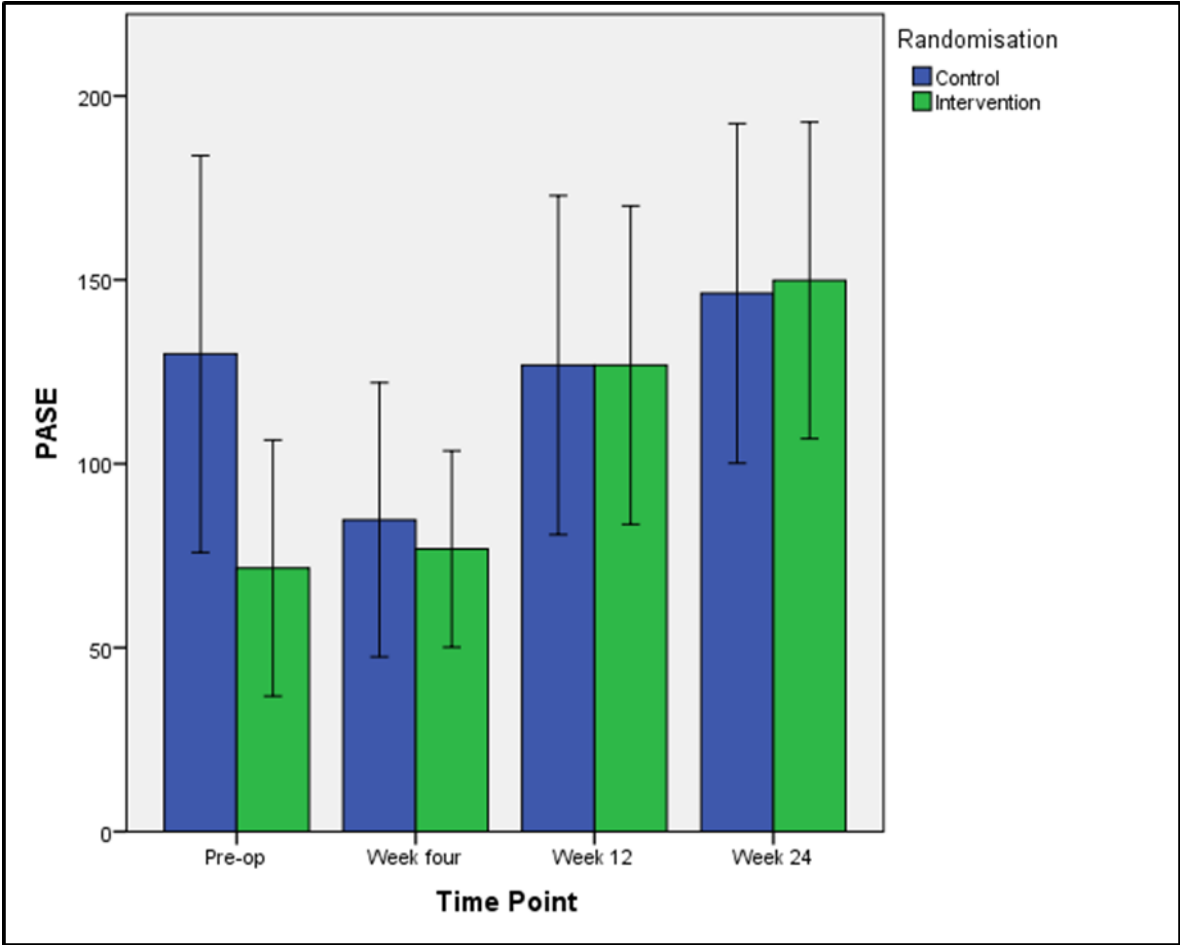
	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Peak 2005	+	+	-	-	+	+	+
Ververeli 2008	+	+	-	-	?	-	+
Wong 1990	-	-	-	-	+	-	+



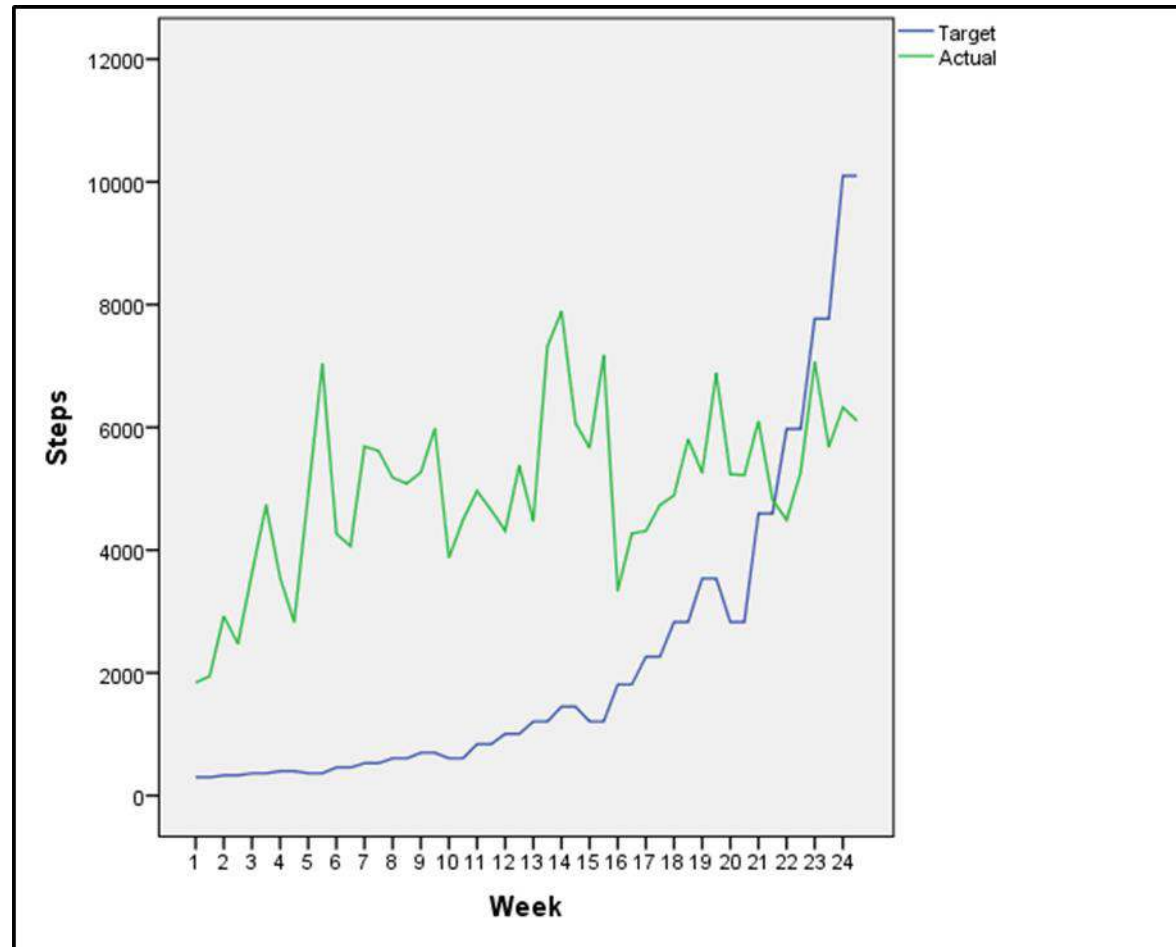
# The use of Pedometer to improve rehabilitation, a pilot trial



# Physical Activity Score for Elderly



# Adherence to the intervention



# Conclusion



- Joint replacements are highly successful operations.
- However it is important to consider novel interventions and how they could help in further developing post-operative rehabilitation.
- More research is needed in high quality trials to further this field of work.

# References



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