

Functional Recovery Following Hip Resurfacing Arthroplasty

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1. OBJECTIVES

Research Question:

What activity levels do patients achieve 52 weeks post hip resurfacing arthroplasty, and what are the relationships with baseline impairment characteristics?

Objectives:

- To describe patients' change in activity levels 52 weeks post hip resurfacing arthroplasty.
- To investigate the relationship between baseline characteristics and post-operative outcomes to identify possible associations.

2. BACKGROUND

Hip resurfacing arthroplasty (HRA) is usually undertaken in younger, more active patients with osteoarthritis, compared with traditional total hip replacements, who wish to return to some level of sports or activity. Previous research has noted that patients are able to return to baseline levels of activity, and interestingly, some patients have increased levels of activity post hip resurfacing arthroplasty.

3. METHODS

- Data analysis was performed on a randomised controlled trial data set, with follow ups at six, 16 and 52 weeks^[1].
- Groups were combined to produce a single prospective cohort.
- 80 male patients were included in the study.
- Primary outcomes were UCLA Activity Index, Oxford Hip Score (OHS), Hip disability and Osteoarthritis Outcome Score (HOOS).

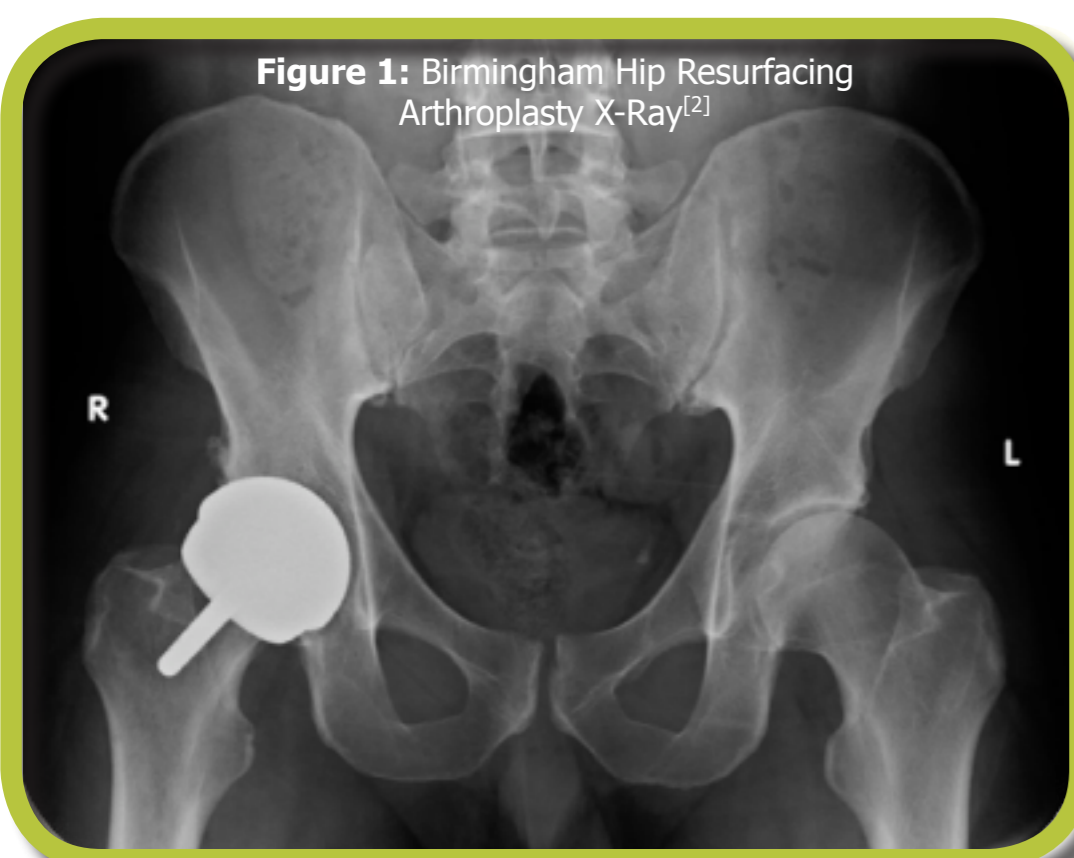


Figure 1: Birmingham Hip Resurfacing Arthroplasty X-Ray^[2]

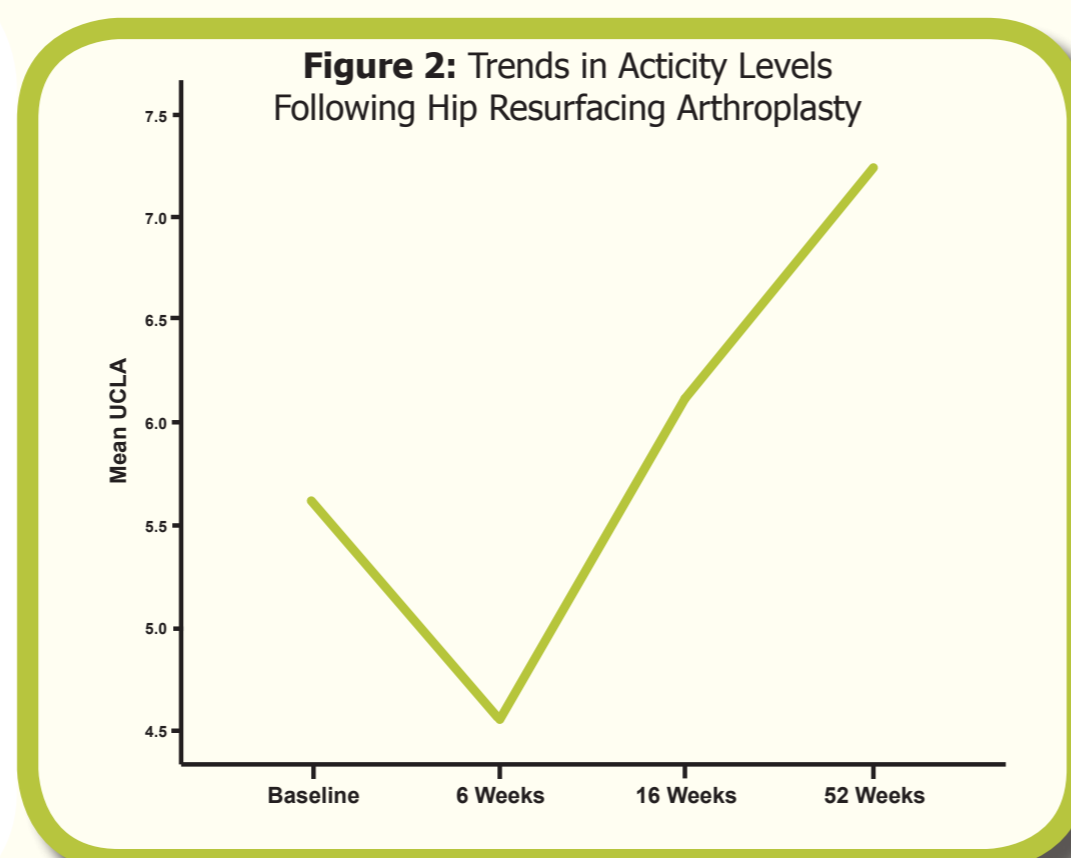


Figure 2: Trends in Activity Levels Following Hip Resurfacing Arthroplasty

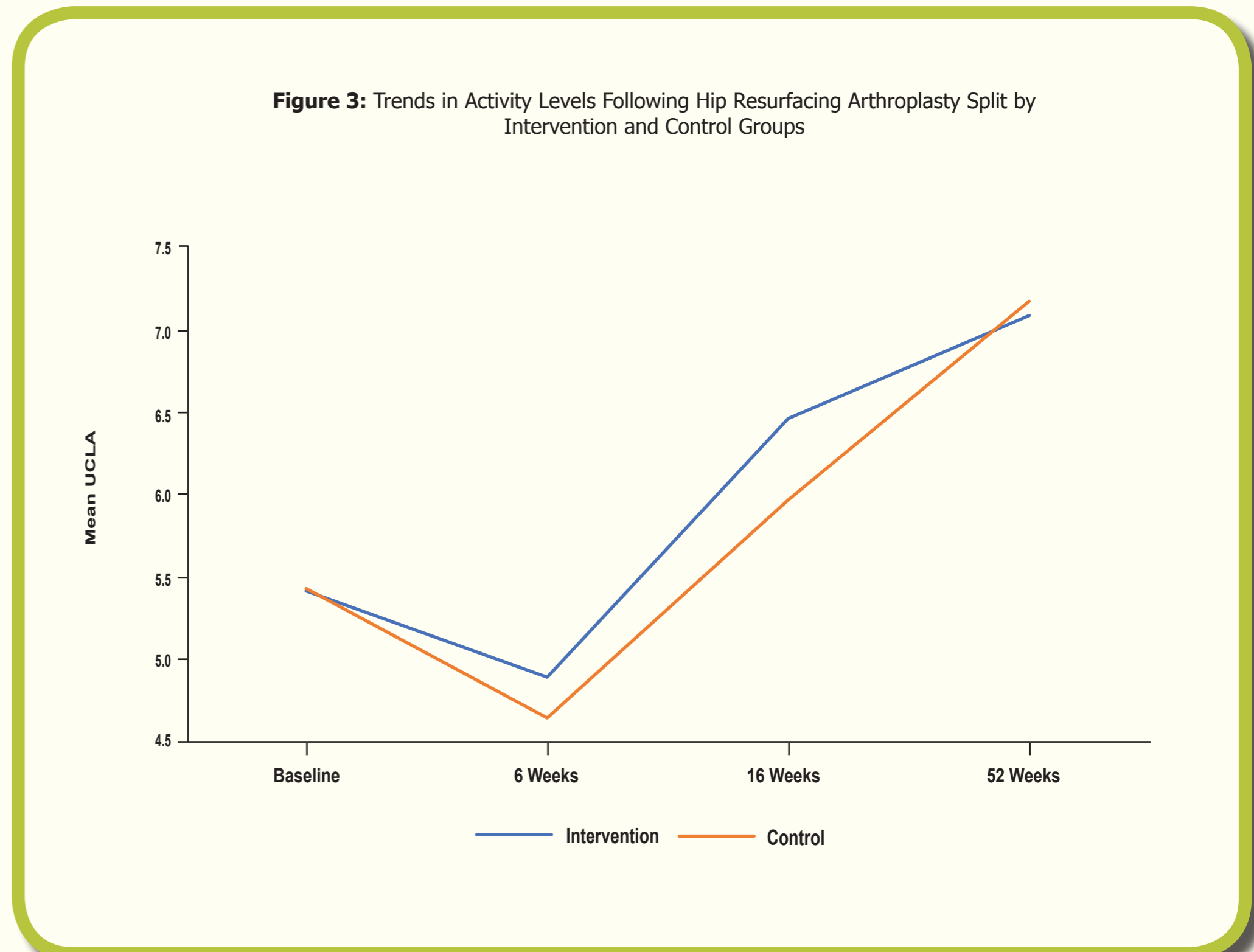


Figure 3: Trends in Activity Levels Following Hip Resurfacing Arthroplasty Split by Intervention and Control Groups

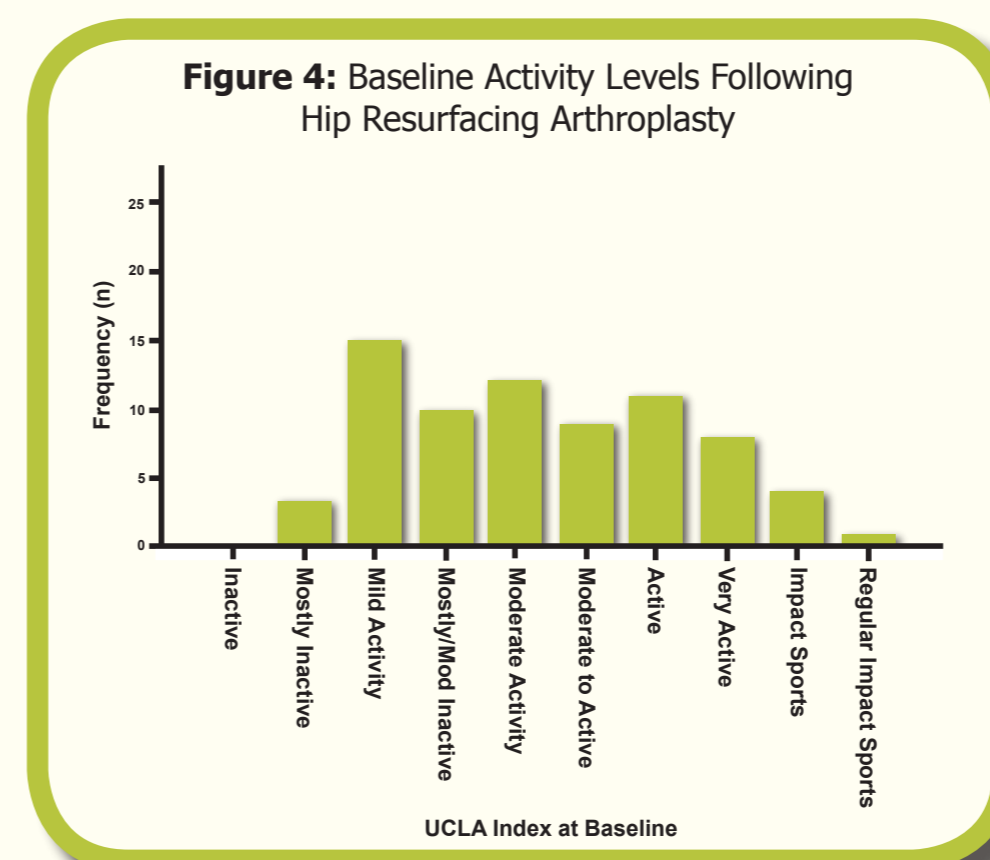


Figure 4: Baseline Activity Levels Following Hip Resurfacing Arthroplasty

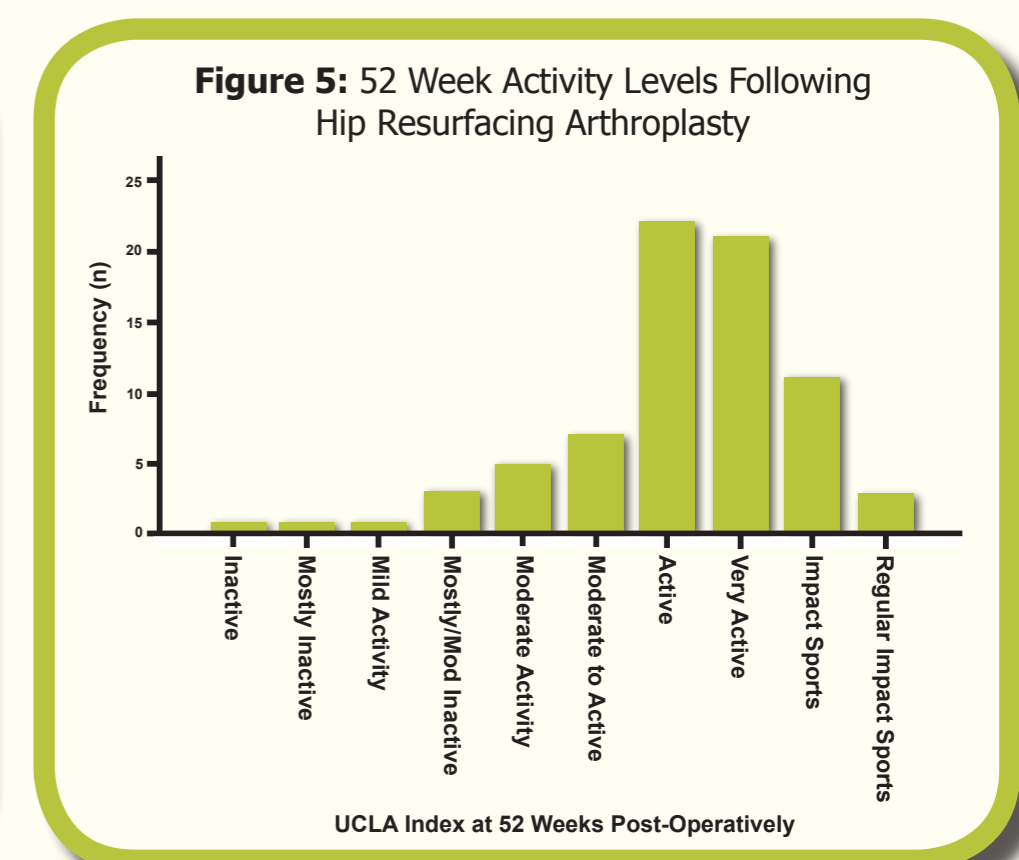


Figure 5: 52 Week Activity Levels Following Hip Resurfacing Arthroplasty

4. RESULTS

- Patients were most likely to achieve 'active' and 'very active' scores at 52 weeks.
- 95.8% of patients engaging in high levels of activity pre-operatively, were able to return to this level by 52 weeks.
- 54.2% who had low activity levels at baseline, achieved high levels of activity by their 52 week follow up.
- There was a significant correlation between activity levels at baseline and activity levels at 52 weeks.
- There was no significant difference between groups from the original trial with regard to activity levels.

5. CONCLUSIONS AND IMPLICATIONS

Overall, this study shows that following HRA, patients can achieve significant improvements in self-reported activity and functional outcomes, including scores in pain and symptoms comparable with that of the current literature. Activity levels have been shown to initially decrease following HRA, with current research suggesting that interventions such as prehabilitation may slightly improve early post-operative function and pain, although specific studies investigating its effects on patients following HRA are yet to be conducted. The results of this study may have implications for physiotherapists when explaining the rehabilitation process to patients and aiding in realistic goal setting following HRA.

Acknowledgements:

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References:

- ^[1] Barker, K., Newman, M., Hughes, T., Kiran, A., Pandit, H. and Murray, D. (2013). Recovery of function following hip resurfacing: a randomised controlled trial comparing a tailored versus standard physiotherapy rehabilitation programme. *Osteoarthritis and Cartilage*, 21, pp.S146-S147.
- ^[2] Wind, M. (n.d). Birmingham Hip Resurfacing. [online] drmichaelwind.com. Available at: <http://www.drmichaelwind.com/hip-surgery/brimingham-hip-resurfacing/> (Accessed 14 Mar. 2017).