

Mako SmartRobotics™

Q: Can total hip replacements **do better?**



While total hips have shown to have a revision rate of around 2%¹, there is data to suggest that total hips can do better. A retrospective study for each of the following claims has shown...

28% of people who had their hips replaced felt their expectations were not met²

Patient and surgeon satisfaction after hip replacement found that survivorship at six years was 96.6%. However, if dissatisfaction was added as a factor that indicated failure, the success rate dropped to 83.7%.³

Patients with leg length discrepancy or femoral and acetabular offset discrepancy (compared to the non-operated leg) were more likely to have trochanteric pain syndrome three years after their operation. Furthermore, those patients were more likely to have a worse outcome and less likely to report their expectations being met.⁴

One year after hip replacement, 537 patients found that those with a higher level of preoperative function were less likely to obtain meaningful improvement after THA. This suggests that active patients may not gain the same benefit from their surgery as less active patients.⁵

9,784 THAs saw 206 dislocations. 120 of those dislocations (58%) were placed in the safe zone.⁶

Out of 117 patients, a total of 60 revision THAs (51.3%) were deemed potentially avoidable and 57 (48.7%) were deemed unavoidable. Avoidable factors included suboptimal positioning (48%) and symptomatic leg length discrepancy of >1 cm (6.7%).⁷

A: Mako® Total Hip **makes a difference**

Mako Total Hip has demonstrated favorable outcomes compared to manual surgery

- ▲ **Improved** patient outcomes (UCLA activity, Harris Hip Scores, SF-12 physical, VR-12, and Forgotten Joint Score)^{8,9}
- ▼ **Reduced** dislocations⁸
- ▲ **Ability to reproduce** hip biomechanics (cup accuracy, offset, LLD ⁹⁻¹³)
- ▲ **Greater** bone preservation¹⁵
- ▼ **Reduced** blood loss⁸
- ▼ **Less** surgeon mental and physical fatigue^{15,16}

Mako Total Hip has demonstrated favorable economics outcomes compared to manual surgery

- ▼ **Decreased** length of stay¹⁷
- ▼ **Reduced** utilization of post index rehabilitation services such as skilled nursing home, health aid and inpatient rehab¹⁸
- ▼ **Reduced** 90-day EOC costs compared to manual THA¹⁸ (U.S. study specific)
- ▼ **Reduced** cumulative cost compared to manual THA for Medicare and private payer over 5 years¹⁹ (U.S. study specific)



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