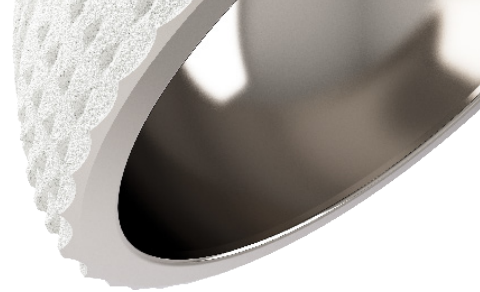


Dual Mobility

A Summary of Economic Outcomes



Clinical Significance of Dislocations

Dislocation remains a common issue associated with total hip replacement (THR) **across multiple healthcare systems** with varying treatment practices.¹

Dislocation rates vary from **0.2%-7%** in peer-reviewed literature²⁻⁶

Dislocation is the cause of **15.5%-21.1%** revision cases according to registry data⁷⁻⁹

Several risk factors lead to dislocation following THR¹⁰

1. Patient Specific
Age, Neurologic Disease, Impaired Compliance.

2. Surgery Related
Implant Position & Design, Surgeon Variability.

Economic Burden of Dislocations



Dislocation following primary THR has both **cost & resource implications**

~37% Dislocation cases required surgical intervention¹¹

Dislocation increased the cost by **300%-342%** when compared to primary THA¹²⁻¹³

5 days vs. 3 days



Patients with unplanned THA admissions had a longer length of stay when compared to elective admissions ($p < 0.0001$) leading to a 24% increase in median costs¹⁴

Dual Mobility Technology May Reduce the Risk of Dislocation Following Primary THR

Dual mobility (DM) components tend to demonstrate favourable survivorship at both mid- and long-term follow-up.

De Martino et al.¹⁵

12,844 primary DM
mean follow-up: 6.8 years

Intra-prosthetic Dislocation: 0.7%
Mean Dislocation: 0.9%



Darrith et al.¹⁶

10,783 primary DM
mean follow-up: 8.5 years

Intra-prosthetic Dislocation: 1.1%
Mean Dislocation: 0.46%



DM cups have demonstrated a decreased risk of revision for dislocation without increasing the risk of revision for other causes or osteolysis¹⁷



DM cup designs can also **reduce the rate of dislocation in the treatment of displaced fractures of the femoral neck** when compared to conventional cups in primary THR and hemiarthroplasties¹⁸⁻²¹

7-15x Greater dislocation rates following **conventional primary THA** treatment for fractured neck of the femur with **conventional cups** when compared with **DM cups** in a similar cohort.¹⁸

Dual Mobility Technology in Primary THR is a Cost-Effective Procedure

Three cost-effectiveness studies, based on real world data, demonstrate that THA using DM provide greater health gain and are cost-saving when compared to standard THR.



Epinette et al.²²

- 80,405 patients who underwent THR in 2009 were followed over a 4-year period
- DM resulted in relative risk of dislocation of 0.4 compared to standard THR, translating to 3,283 fewer dislocations, €28.3 million savings, and 441 QALY's gained per 100,000 patients

€283
in savings per case with THA-DM



Barlow et al.²³

- From a societal perspective - using DM resulted in lower accrued costs & better quality of life for THA
- Sensitivity analysis demonstrated DM remained cost-saving until DM implants exceeded those of standard THR by \$1,023
- The cost-effectiveness threshold for DM implants was \$5,287 greater than conventional implants



Elbuluk et al.²⁴

- DM implants are cost-effective for patients with spinal deformity who are a high-risk population for dislocation after THA
- The cost-effectiveness threshold for DM implants was \$1,180 with the incremental cost-effectiveness ratio being \$71,000/QALY

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