

## Survival of Acute Total Hip Arthroplasty Following a Femoral Neck Fracture

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**Purpose:** Femoral neck fractures (FNFs) in the geriatric population are a common injury with multiple treatment options. While elective total hip arthroplasty (THA) has been the gold standard for durability and functional outcome, this has only recently been proposed as a treatment options for FNFs in geriatric patients. Historically there have been concerns that acute THA for FNF has resulted in increased revision rates compared to elective THA. The primary outcome in this study was reoperation. Secondary outcome was 1-year mortality rate.

**Methods:** This was a retrospective review of patients between 1992 and 2014 from 5 hospitals. Inclusion criteria were age >50 years, with acute FNF treated with THA. Exclusion criteria were hemiarthroplasty and subacute or chronic FNF.

**Results:** 221 patients met criteria. The mean age was 73.8 years ( $\pm 10.4$ ), with 72% being female. 50.8% cases utilized a head size less than 36 mm, 48.2% used a head size of 36 mm or greater. One-year mortality rate was 6.3%. Overall revision rate was 6.8%. When recalled and failed metal on metal implants (MoM) were excluded, the revision rate dropped to 4.5. 70% of the revisions were performed in the first year. Average time to revision surgery was 19.9 months. 5-year survival free from revision was 96.3%, 10-year survival was 93%.

**Conclusion:** With modern implants and techniques the outcomes of THA for acute femoral neck fractures approaches the results reported for elective THA. This has important implications as reimbursement for hip arthroplasty transitions to bundled payments.

**Figure 1: Survival Free From Revision for Acute THA After Femoral Neck Fractures**

