

## **Isolated Femoral vs Both Component Revision TKA for Loosening Have Similar 10-Year Outcomes**

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### **INTRODUCTION:**

Isolated femoral revisions for aseptic loosening are relatively uncommon and data comparing to both component revision total knee arthroplasty (TKA) are limited. The goals of this study were to report implant survivorship and clinical outcomes after isolated femoral component revision TKA compared to matched cases of both component revision TKAs.

### **METHODS:**

We identified 72 cases of isolated femoral component revision TKAs at a single tertiary academic center from 2000-2022. All indications were for primary femoral component aseptic loosening. Metaphyseal fixation was utilized in 40%. Thirty-six of these cases were propensity score matched 1:1 to 36 both-component revision TKAs of primary components based on surgical indication, age, sex, surgical year, and ASA score. Mean age was 65 years, 61% were female, and mean BMI was 31 kg/m<sup>2</sup>. Mean follow-up was 8 years.

### **RESULTS:**

After isolated femoral component revision, the 10-year survivorship free from re-revision of the femoral component for aseptic loosening and any re-revision were 86%, and 80%, respectively, for all 72 cases. The most common indications for re-revision were aseptic loosening of the femoral component (n=7), instability (n=4), and infection (n=3). Two of the 7 femoral components re-revised had metaphyseal fixation. Overall, the 10-year survivorship free from reoperation for any reason was 75%. In the subgroup analysis of 36 matched cases, there were no differences in the 10-year survivorship free from re-revision of the femoral component for aseptic loosening (p=0.2), any re-revision (p=0.3), or any reoperation (p=0.2) between isolated femoral revisions and both component revisions. Mean Knee Society score improved from 41 to 63 at most recent follow-up (p=0.8).

### **DISCUSSION AND CONCLUSION:**

Isolated femoral component revisions for aseptic loosening demonstrated modest 10-year survivorship free from any re-revision of 80%. There was no difference in 10-year survivorship between isolated femoral revisions and both component revisions.