

Do Patients Prefer One Total Knee Arthroplasty Insert Over Another? A Comparison between Highly Congruent vs Cruciate Retaining Inserts

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INTRODUCTION: The purpose of this study was to determine if patients who had undergone bilateral total knee arthroplasty (TKA) with a cruciate retaining (CR) bearing in one knee and a highly congruent bearing in the other had a preference between the two bearings.

METHODS:

We retrospectively identified 104 patients with bilateral TKAs performed an average of 15 months apart (range, simultaneous to 11 years apart) by the same surgeon using the same implant system, with each patient having a CR bearing in one knee and a highly congruent bearing in the other. Mean age at surgery was 62.7 years (range, 43 to 88 years) and 62% of patients were female. We assessed implant survival, reoperation rate, and range of motion (ROM). Patient knee preference, satisfaction, noise generation, subjective instability, and patient reported outcome measures (PROM) were also analyzed. Power analysis revealed that 81 knees in each group were required to detect a difference in laterality preference of 20% ($\alpha=0.05$, $\text{Beta}=0.80$). Univariate analysis with $\alpha < 0.05$ was used in comparisons between groups.

RESULTS: At a mean of 5.4-years, 27 patients (26%) preferred their CR knee, 25 patients (24%) preferred their highly congruent knee, and 52 patients (50%) had no preference ($P=0.9$). 35 Patients (34%) preferred the first knee that was operated on versus 14% that preferred the second knee ($P<0.001$). There was no difference in prosthesis survival ($P=0.4$) or reoperations ($P=0.1$) between groups. Additionally, there was no difference in overall patient satisfaction, knee flexion or PROMs.

DISCUSSION AND CONCLUSION:

Patients with a CR insert in one knee and a highly congruent insert in the other did not prefer one versus the other. There was no difference in survival, outcomes, or post-operative range of motion between the two bearings demonstrating both as reliable and adequate choices in TKA.