

Experience with an Employer Travel Program: Does Mode of Travel Impact Outcomes After Total Knee Arthroplasty?

Anirudh Buddhiraju, Sanjana Agarwal, Vishal Hegde, Tiffany Wilson, Harpal Singh Khanuja

INTRODUCTION: Many employers are requiring patients to travel substantial distances to designated centers for joint replacement surgery. The impact of early postoperative travel following total knee arthroplasty (TKA) remains insufficiently studied. This study aimed to evaluate differences in complications, including symptomatic deep venous thrombosis (DVT), and patient-reported outcomes between different means of transportation one week postoperatively.

METHODS: A retrospective review was conducted of 357 consecutive primary TKA patients between 2022 and 2025. Patients were stratified based on driving (N=174, 52.4%) or flying (N=158, 44.3%). Zip code–based geodesic distance was calculated. Demographics, preoperative PROMs (KOOS, KOOS JR, and FJS), changes at 3 and 12 months, and complication rates were compared. All patients received standardized postoperative DVT prophylaxis (either aspirin 81 mg BID or a DOAC), similar to local patients who did not require much travel.

RESULTS: The mean travel distance was 320 ± 188 miles. No differences were observed in age (59.5 vs. 59.8 years, $p=0.72$), BMI (32.0 vs. 31.9, $p=0.90$), or sex (43.0% vs. 33.9% male, $p=0.11$) between the driving and flying groups. All patients demonstrated significant improvement in baseline PROMs at 12 months: median KOOS JR+43, KOOS Pain+58, QOL+72 (all $p<0.001$). Flyers demonstrated significantly improved FJS at 12 months (mean 55.9 vs. 47.8, $p=0.039$); all other score changes were similar. Complications were infrequent in both groups: revision (0.6%), readmission (0–0.6%), infection (0.6%), transfusion (0–0.6%), DVT (0–0.6%), ED visit (0–0.6%). No increased risk of DVT occurrence was observed in patients who travelled by air.

DISCUSSION AND CONCLUSION: Complication rates were similar in both groups, and patients traveling by air demonstrated comparable or greater functional improvement compared to patients who drove. These findings suggest that air travel occurring a week after TKA may be safe and may not confer an increased risk of symptomatic DVT following surgery.

