

Bilateral knee replacements: 1 surgery or 2?

Outcomes for Simultaneous and Staged Bilateral Total Knee Replacement Surgeries

Each year in Canada, approximately 55,000 elective total knee replacements are performed, making this one of the most common surgeries nationally. When patients need to have both knees replaced, they and their doctors decide whether to replace them during the same surgery (simultaneously) or during separate surgeries (staged). This study compares the in-hospital and post-discharge health outcomes of each surgical approach using the largest Canadian cohort to date.

Key findings

- Patients who had a simultaneous surgery had a median length of stay of 6 days, compared with 8 days for a staged procedure.
- Readmission rates for patients who experienced an infection within 90 days post-surgery were higher for those who underwent staged surgeries than for those who underwent a simultaneous surgery.
- Post-surgery, 45% of patients who had simultaneous surgeries were transferred to inpatient rehabilitation, whereas nearly 90% of patients who had staged surgeries were discharged home.
- There was no significant difference between staged and simultaneous surgeries in the rate of patients needing to have their replacements redone within 3 years (early revisions) or in the rate of inpatient cardiac complications and pulmonary embolism.
- Based on available system cost estimates, the overall average costs of simultaneous and staged procedures were comparable, with total costs of \$20,800 and \$23,700, respectively.



This Canadian Joint Replacement Registry (CJRR) report uses pan-Canadian data from the Hospital Morbidity Database (HMDB) at the Canadian Institute for Health Information (CIHI) to compare bilateral total knee replacements performed during separate surgeries (staged) versus during the same surgery (simultaneously) and contains data from 2006–2007 to 2014–2015.

Additional resources

The following companion products are available on [CIHI's website](#):

- Report
- Data tables
- Infographic

Talk to us

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