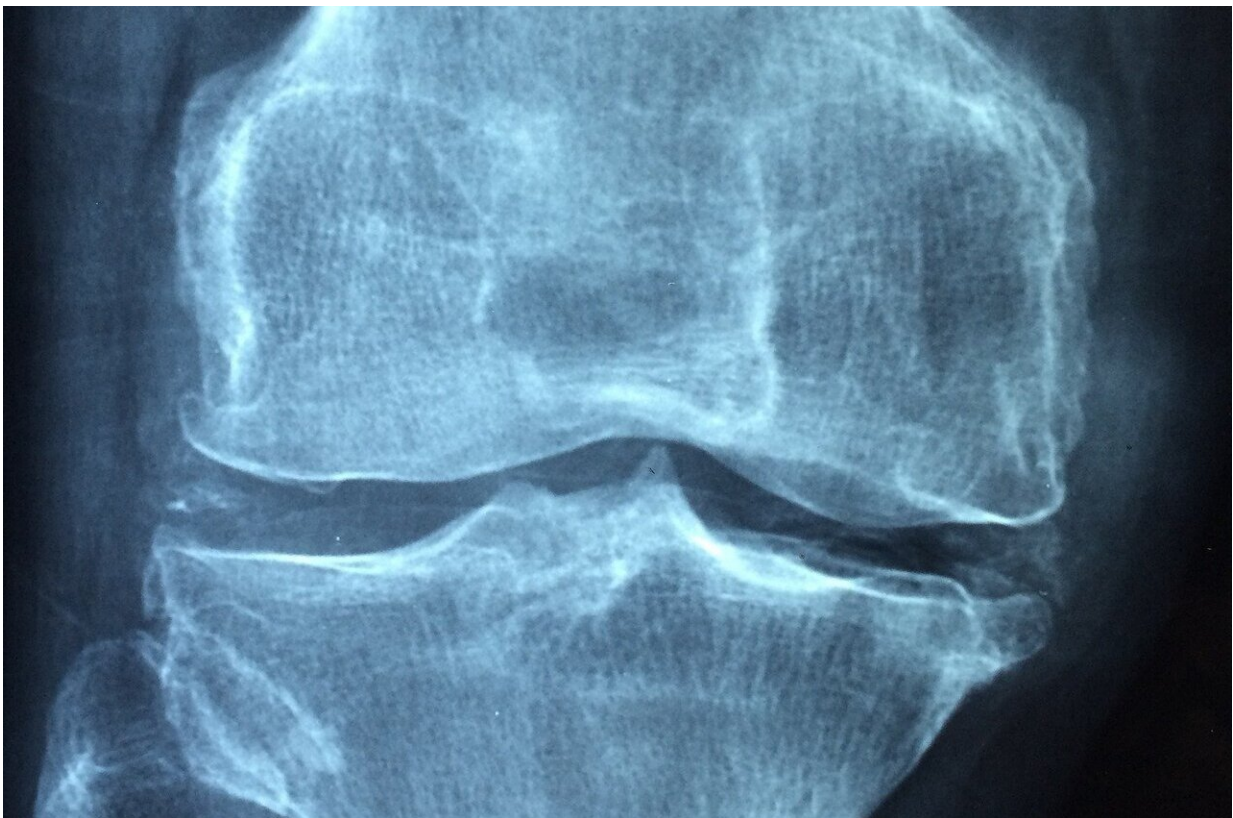


# Same-day discharge for hip and knee replacement surgery is safe and feasible in high-risk patients, study suggests

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Same-day discharge after total knee arthroplasty (TKA) or total hip arthroplasty (THA) is safe in some patients classified as "high

risk"—with no increase in complications or other adverse outcomes, reports a study in *The Journal of Bone & Joint Surgery*.

In [patients](#) undergoing TKA or THA, "We found that same-day [discharge](#) did not increase the risk of emergency department visits, unplanned readmissions, and complications as compared with an inpatient stay for higher-risk patients, suggesting that it is possible to expand indications for same-day discharge in the [hospital setting](#) while maintaining safety," according to the new research by Nithin C. Reddy MD of the Southern California Permanente Medical Group, San Diego, and colleagues.

## **Same-day discharge after TKA/THA is 'not inferior' to inpatient surgery in patients with ASA grade $\geq 3$**

The [cohort study](#) included two groups of "high-risk" patients who underwent THA (5,250 patients) or TKA (9,752 patients) for osteoarthritis, identified with use of the Kaiser Permanente Total Joint Replacement Registry. All patients had an American Society of Anesthesiologists (ASA) classification of 3 or higher, indicating a higher risk of adverse outcomes related to surgery and anesthesia. Common conditions in this 'higher risk' cohort included [high blood pressure](#), obesity, and diabetes.

In both the THA and TKA groups, about one-third of patients were discharged on the same day as surgery, without spending a night in the hospital. Complication rates, emergency department (ED) visits, unplanned hospital readmissions, and mortality were compared for patients who underwent same-day or inpatient surgery.

For high-risk patients undergoing THA, same-day discharge was shown to be noninferior to inpatient surgery for most outcomes. At 90 days,

same-day discharge showed no increase in complications, ED visits, or hospital readmissions. The study could not demonstrate noninferiority for mortality, as death was uncommon within 90-days post-discharge in both groups.

For patients undergoing TKA, same-day discharge was shown to be noninferior to inpatient surgery for mortality as well as complications, ED visits, and hospital readmissions. For both THA and TKA, the authors were unable to rule out a higher risk of certain types of complications, specifically deep infections and clot-related complications. Both of these complications occurred in less than one percent of patients in both groups.

Certain other medical conditions were associated with an increased risk of specific [adverse outcomes](#) following same-day discharge. For example, patients with [congestive heart failure](#) had significantly higher [complication](#) rates after both THA and TKA. Other [medical conditions](#) were also associated with increased rates of ED visits and hospital readmission. Black patients had a higher risk of ED visits following TKA with same-day discharge.

All patients were treated at Kaiser Permanente hospitals in California, where formal programs have been introduced for same-day rapid recovery following total joint replacement, including preoperative education, case managers, and home health. Before discharge, patients had to meet specific requirements for pain control, mobility, and caregiver support.

Previous studies have reported that same-day discharge following THA or TKA is safe for healthy patients, leading to significant cost savings. Most of these studies have been limited to relatively younger and healthier patients. Concerns about safety, along with potential financial penalties for patients requiring further care, have so far limited

expansion of same-day discharge in higher-risk patients.

The new study supports the feasibility and safety of same-day discharge for one group of higher-risk patients: those with an ASA score of 3 or higher. "Our findings suggest that it may be possible to expand the indications for same-day discharge [TKA or THA] to include more a more diverse selection of patients, provided that robust, enhanced care protocols are in place to ensure patient safety and mitigate the risk of adverse events," Dr. Reddy and colleagues conclude. They emphasize the need for larger studies to evaluate the impact on less-frequent outcomes.

**More information:** Nithin C. Reddy et al, Association Between Same-Day Discharge Total Joint Arthroplasty and Risk of 90-Day Adverse Events in Patients with ASA Classification of  $\geq 3$ , *Journal of Bone and Joint Surgery* (2021). [DOI: 10.2106/JBJS.20.02110](https://doi.org/10.2106/JBJS.20.02110)

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