

2 knee replacements may be better than 1

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Replacing both knees in one surgery, or simultaneous total knee replacement (TKR) was associated with significantly fewer prosthetic joint infections as well as other revision knee operations within one year after surgery, compared with total knee replacements performed in two separate procedures. However, simultaneous replacement was associated with a moderately higher risk of adverse cardiovascular outcomes within 30 days, according to a study presented today at the 2011 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS).

This study included 11,445 patients who underwent simultaneous bilateral [knee replacement](#) and 23,715 patients who had both knees replaced in two stages several months apart. Patients' mean ages were 67.2 years in the group who underwent simultaneous surgery and 67.7 years in the group who underwent two surgeries. The majority of patients in both groups were women: 53.9 percent of those who underwent simultaneous surgery and 61.3 percent of those who underwent two procedures.

In this study, patients who underwent simultaneous knee replacements had:

- higher risk of heart attack and pulmonary embolism;
- similar risk of death and stroke; and
- lower risk of major joint infection or major mechanical

malfunction.

"Our study found that the risk of developing a serious joint infection that required an additional knee revision surgery was two times higher in patients who had staged knee replacements compared to the patients who had both knees replaced at the same time (2.2 percent after staged knee replacements and 1.2 percent after bilateral knee replacements)," said John P. Meehan, MD, study author and orthopaedic surgeon from the University of California, Davis.

Revision knee surgeries for problems unrelated to infection were also more common using the staged approach.

"These findings indicate that performing simultaneous knee replacements would significantly reduce the incidence of major orthopedic complications, and at the same time reduce the number of hospitalizations and the number of operating room sessions," he added.

Similar to previous studies, this study found that the risk of adverse cardiovascular events such as having a [heart attack](#) or developing a blood clot that travels to the lungs was higher after undergoing simultaneous knee replacements, but there was no significant difference in overall mortality.

Dr. Meehan added that further research is now needed to better define which patients should not be considered for bilateral simultaneous knee replacement.

Provided by American Academy of Orthopaedic Surgeons

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