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“Randomized controlled trial of staged versus simultaneous bilateral knee arthroplasty”

One third of the 60 000 Canadians who undergo knee replacement surgery this year have arthritis in both knees. It’s unclear if they should have both knees replaced in a single operation, or do them one at a time in separate operations.

A single operation offers the benefits of one recovery period, while staged operations (months apart) may allow some patients to delay the second side as they obtain enough improvement from the first side. Unfortunately, some patients who select staged surgery may unnecessarily prolong their pain and loss of function while waiting for the second side.

Our study involving 224 randomized patients will compare pain relief and return of function in those having both knees replaced in a single operation to those having their knees replaced in separate operations. Outcomes will be measured up to two years following surgery, and include recovery time, pain relief, restoration of function, satisfaction, and time off work. This will help answer the question: Should I have both knees replaced at the same time or not?

This is the first randomized study of simultaneous versus staged bilateral knee replacements, and will provide definitive, unbiased information to assist patients in deciding upon the best surgical option for them. The knowledge gained from this trial will be used to develop a decision support tool that patients can use to assist them in deciding which surgical option is best for their unique situation. It is anticipated that this will result in improved decision-making by patients and their health care providers, and thus be very relevant to the tens of thousands of Canadians who undergo knee replacement surgery every year.