

Total versus partial knee replacement in patients with medial compartment knee osteoarthritis: the TOPKAT RCT

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Plain English summary

The TOPKAT RCT

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Plain English summary

What was the question?

Two types of knee replacement are available for patients with arthritis of the inner part of their knee: a partial knee replacement or a total knee replacement. It is not known which replacement offers most benefit for the patient or for the health-care system.

What did we do?

We performed a large study involving 528 patients at 27 hospitals with 68 experienced surgeons, in which half of the patients underwent partial knee replacement and the other half underwent total knee replacement. We took yearly scores and measures, including pain, function, whether or not the operation was successful, and the costs of each patient for 5 years. Comparison between treatments was assessed at 5 years post operation.

What did we find?

Good outcomes and relatively few complications were observed after both operations. The measurements taken to assess the clinical benefit were largely very similar between the two groups. Where differences did occur at 5 years, there were only small differences between the two knee replacements and partial knee replacement was generally favoured. Some measurements, however, did show a larger difference between the two groups, including whether or not the operation addressed the patients' problems and whether or not the patient would have the operation again. These measurements were also in favour of partial knee replacement, but caution is required not to overstate importance, as patients in the study knew which device they had had implanted. The number of patients requiring further operations or revision surgery was similar in the two groups. This last finding contrasts with information from previously obtained, mainly non-randomised, studies and is of high relevance. The cost of each operation in relation to the benefit obtained was clearly in favour of partial knee replacement.

What does this mean?

Both operations are effective for use in the NHS. There appear to be some modest clinical advantages for patients to undergo partial knee replacement over total knee replacement but, importantly, the study casts doubt over previous concerns on high reoperation rates for partial knee replacement. The study has shown that reoperation rates recorded from different sources (cohort or trials) can be conflicting.

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This report

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