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## Patellar resurfacing versus non-resurfacing in Total knee arthroplasty: A meta-analysis of randomized controlled trials

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**Purpose:** Patella resurfacing or non-resurfacing in total knee arthroplasty remains controversial. The aim of this study was to evaluate the effectiveness of patellar resurfacing through an evaluation of the current literature.

**Methods:** A meta-analysis of randomized controlled trials was performed comparing total knee arthroplasties performed with and without patellar resurfacing. Outcomes of reoperation, anterior knee pain and knee scores were analysed.

**Results:** Fourteen trials assessing 1725 knees were eligible. The absolute risk of reoperation was reduced by 4% (95% confidence interval, 2-6%) in the patellar resurfacing arm (between-study heterogeneity,  $P=0.05$ ,  $I^2=42\%$ ), implying that one would have to resurface 25 patellae (95% confidence interval, 17-50 patellae) in order to prevent one reoperation. There was no difference between the two groups in terms of anterior knee pain, knee pain score, knee society score and knee function score. But in the studies followed up for a mean time not less than 5 years, difference was found between the two arms in knee society scores ( $RR=2.14$ , 95% confidence interval, 0.76-3.52;  $P=0.002$ ).

**Conclusions:** The available evidence indicates that patellar resurfacing reduces the risk of reoperation after total knee arthroplasty. Patellar resurfacing patients may make a difference in long term follow-up ( $\geq 5$  years) of knee society scores. In other aspects, the benefit of patellar resurfacing is limited. Additionally, more carefully and scientifically designed RCTs are required to further prove the claim.

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