

## **Patellar resurfacing in total knee arthroplasty**

Pavlou G, Meyer C, Leonidou A, et al. **Patellar resurfacing in total knee arthroplasty: does design matter?: a meta-analysis of 7075 cases.** J Bone Joint Surg Am. 2011 Jul 20;93(14):1301-9.

**BACKGROUND:** Patellar resurfacing in total knee arthroplasty remains controversial. The aim of this study was to compare outcomes following total knee arthroplasty with patellar resurfacing with those following total knee arthroplasty without patellar resurfacing. We also sought to identify any correlation between outcomes and prosthetic design.

**METHODS:** Eighteen Level-I randomized controlled trials with a cumulative sample size of 7075 knees (3463 in the resurfacing group and 3612 in the non-resurfacing group) satisfied the inclusion criteria. In the primary analysis, patellar resurfacing total knee arthroplasty was compared with non-resurfacing total knee arthroplasty, with use of reoperation rates, incidence of anterior knee pain, and functional scores as outcome measures. The secondary analysis focused on comparing patella-friendly and non-patella-friendly total knee arthroplasty designs with regard to the same three outcome measures.

**RESULTS:** No significant differences were found between the resurfacing and non-resurfacing groups with regard to the incidence of anterior knee pain. A higher rate of reoperations was observed in the non-resurfacing group. Analysis of homogeneous data comparing patella-friendly with non-patella-friendly total knee arthroplasty designs demonstrated no differences in the incidence of reoperations.

**CONCLUSIONS:** No evidence was found to suggest that either patellar resurfacing or the prosthetic design affects the clinical outcome of a total knee arthroplasty. The higher incidence of reoperations in the non-resurfacing group may be attributed to the fact that secondary patellar resurfacing adds a surgical option for the treatment of anterior knee pain following total knee arthroplasty, thus artificially increasing the rate of reoperations in the non-resurfacing group.

**LEVEL OF EVIDENCE:** Therapeutic Level I. See Instructions to Authors for a complete description of levels of evidence.