What Guides the Expert Knee Surgeon? Fixation and Patellar Resurfacing Decisions in Primary TKA Among Knee Society Members

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INTRODUCTION: Total knee arthroplasty (TKA) remains a highly successful and frequently performed procedure with variability in surgeon preferences regarding implant fixation and patellar resurfacing. This study aims to characterize current practice patterns among members of The Knee Society and to identify key factors influencing fixation and patella resurfacing.

METHODS: A 23-question survey was distributed to 216 members of The Knee Society. The survey assessed demographic information, TKA volume, fixation technique preferences, patellar resurfacing practices, and the clinical rationale for these decisions. Responses were collected over a 4-week period in May 2025. Descriptive statistics were used to summarize the data.

RESULTS: The response rate was 48.1% (104 surgeons) with 52 (50.0%) being in practice >25 years and 39 (37.9%) performing 201–300 primary TKAs annually. Cemented fixation was dominant, with an average use rate of 72.9%; 67.3% (70 surgeons) used both cemented and cementless implants, with an average cementless use of 35.8% of cases. Age (70.0%) and bone quality (82.9%) were the most cited indications for cementless use. Conversely, 35.6% (37 surgeons) reported using cemented fixation in all patients. Patellar resurfacing practices varied widely with 34.7% (33 surgeons) reporting always resurfacing, and individual rates ranging from 0% to 100%. 40.2% (41 surgeons) of respondents said their indications have changed in the past 5 years; resurfacing was most influenced by degree of arthritis (53.7%), patellar tracking (23.1%), and size/thickness (21.0 - 31.6%). Among surgeons performing cementless TKA, patellar resurfacing remained heterogeneous, and 40% (24 surgeons) still preferred cemented patellar components.

DISCUSSION AND CONCLUSION: Cemented fixation remains the standard among expert TKA surgeons, though cementless techniques are increasingly used in select patients. Patellar resurfacing practices remain highly variable, reflecting individualized decision-making. These findings highlight evolving trends and underscore the need for continued research and consensus in primary TKA.