

## Sports After Total Knee Replacement: Are Intense Contact Sports Possible?

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### Summary:

intense physical activity is possible after this TKA and does not compromise the midterm survivorship of the implant .

### Abstract:

Background: Total Knee Arthroplasty (TKA) implants show durable long-term benefit in wear and loosening. However patients become demanding for more intense physical and sports activities which could decrease implant durability. The purpose of this study is to evaluate the ability of TKA patients to return to sports and the tolerance of sports activities on the mid term survivorship of the prosthesis.

Methods: From January 2001 to January 2008, 500 patients received a posterior cruciate ligament-substituting mobile bearing TKA. Clinical and radiological outcomes were assessed at baseline and postoperatively using the Knee Society (KS) Knee and Function and activity by the University of California at Los Angeles (UCLA) scale.

Results: Mean age at surgery was 70.6 years (range,40-91). Osteoarthritis predominated (91.8%). Mean follow-up was 7.5 years (5-13) including 123 knees (21%) followed more than 10 years. At 3 months after surgery, 215 patients (43%) enjoyed outdoor activities such as hiking, cycling, fishing, golf, hunting and horse-riding. At last follow-up, 145 patients were not concerned by physical activities ; 355 patients (71%) could perform regular physical activities, with a mean UCLA rating of  $7.3 \pm 1/10$  (5 to 10). 133 patients (26%) could perform sport activities at a level equal or greater than 8/10 on the UCLA rating score. In 96 of these 133 knees (72%), the patient had more than one sports activity (total = 233 itemized activities). In 103 of these 133 cases, UCLA rating was 9/10 (backpacking, dancing, cross country skiing, aerobics, rollerblade running, horse-riding or jumping-show or heavy farm labor), and in 30, 10/10 (tennis, marathon, downhill skiing, alpine glacier hiking, parasailing). Kaplan-Meier 13-year survivorship with revision for aseptic loosening as end-point was 99.4% (95% CI, 99.8-100). On the 3 loosening occurring during this period , none occurred on patients with intense physical activity. All 3 were on patients with moderate activities.

Conclusion: This study reports that return to an intense physical activity is possible after this Mobile bearing Total Knee Arthroplasty and does not compromise the midterm survivorship of the implant .