

## The Results of Total Knee Arthroplasty in Workers' Compensation Patients

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### Abstract

*Total knee arthroplasty was evaluated in 10 patients with post-traumatic osteoarthritis secondary to work-related knee injuries (age- and sex-matched with 10 controls who had total knee arthroplasties for nonwork-related osteoarthritis) to determine if Workers' Compensation status influenced treatment outcome. Using the Hospital for Special Surgery Knee Rating System (maximum possible score: 100), most recent follow-up scores averaged 64.1 for Workers' Compensation patients and 91.9 for controls. Subjective indices (pain, function) were significantly different between groups ( $p < 0.05$ ), but objective indices (range of motion, strength, deformity, instability) were not. No significant differences were noted between groups on either immediate postoperative or most recent follow-up radiographs (which were assessed for alignment and radiolucencies at implant surfaces, respectively). Suboptimal outcomes can be anticipated in total knee arthroplasties performed on Workers' Compensation patients, particularly in cases where claims have not been settled at the time of surgery.*

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Expenditures related to Workers' Compensation continue to rise in the United States.<sup>1-3</sup> Between 1985 and 1992, the total cost increased from \$22.5 to \$44.7 billion.<sup>1,2</sup> Outcomes in patients who sustain work-related injuries are affected by physical, psychological, emotional, and financial factors.<sup>4,5</sup> Previous reports have studied these variables and their influence on treatment outcome and recovery of patients with work-related back injuries.<sup>4,11</sup>

It was the senior author's (C.G.S.) hypothesis that Workers' Compensation patients who underwent total knee arthroplasties for work-related post-traumatic osteoarthritis had poorer subjective outcomes than patients who underwent total knee arthroplasties for non-work-related osteoarthritis. Our objective was to evaluate the results of total knee arthroplasty in Workers' Compensation patients and compare them to control patients to determine if Workers' Compensation status adversely influenced treatment outcome.

### Materials and Methods

A retrospective review of 431 consecutive primary unilateral total knee arthroplasties performed between July 1987 and November 1992 by the same surgeon (C.G.S.) disclosed 10 Workers' Compensation claims in which the patients sustained initial work-related knee injuries that ultimately resulted in post-traumatic osteoarthritis. There were nine males and one female. The average age at the time of surgery was 56.5 years (range: 29.3 to 74.8 years).

Ten randomly selected patients who underwent total knee arthroplasty for non-work-related osteoarthritis (one case was post-traumatic) were used as a control group. There were nine males and one female. Their average age at the time of surgery was 58.8 years (range: 29.3 to 76.4 years).