

# Postsurgical knee rehabilitation

## A five year study of four methods and 5,381 patients

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### Abstract

This study was an investigation into the influences of rehabilitation procedures on the long-term success of postsurgical knee patients. In a blind retrospective paradigm, the cases of 5,381 patients (2,417 females, 2,964 males; mean age, 32.7 years; age range, 13 to 61 years) were reviewed to correlate rehabilitation methods with postsurgical success. Postsurgical success was defined as patient resumption of required activities without symptom recurrence, over a period of 5 years after surgery. The four rehabilitation methods studied were programs of no exercise, home exercise, isotonic exercise, and isokinetic exercise. Statistical analysis revealed significant differences at the  $P = 0.05$  level for comparison of the isokinetic exercise to the other methods on the basis of rehabilitation interval (isokinetic,  $8.9 \pm 3.7$  weeks; isotonic,  $12.3 \pm 6.1$  weeks; home,  $10.0 \pm 4.5$  weeks) and correlation to success (isokinetic,  $r = 0.92$ , isotonic,  $r = 0.48$ , home,  $r = 0.09$ , no exercise,  $r = 0.00$ ). It was concluded that rehabilitation methods that incorporate isokinetic exercise are more efficient and effective than nonisokinetic programs in the long-term successful management of postsurgical knee patients.