



Shelbourne Knee Center
at Methodist Hospital
Specialized Care for Knee Injuries

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Anterior Cruciate Ligament Injury: Evaluation of Intraarticular Reconstruction of Acute Tears without Repair. Shelbourne KD, Whitaker JH, Hirschman LD, et al: Am J Sports Med 18: 484-489, 1990

To evaluate the effectiveness of our treatment regimen, we retrospectively studied the surgically treated knees of 155 athletes, aged 15 to 42 years, who had sustained acute ACL tears. All were treated with ligament excision and intraarticular bone-patellar tendon-bone reconstruction followed by early motion with emphasis on full extension. The follow-up period ranged from 2 to 7 years. Of the 155 patients, 140 were available for final follow-up at a minimum of 2 years after reconstruction. The patients were evaluated by objective measures (KT-1000, Cybex, Lachman test, range of motion, and postoperative competition level) and subjective assessment scores (pain, swelling, stability, activity level, walking, stair climbing, running, jumping, or twisting). The subjective scores were tabulated for stability level, total score, and activity level.

After the patients achieved full range of motion, the KT-1000 measurements at a 20 pound force revealed an average difference of 1.3 mm between the injured and noninjured knees. All but 3 of the 140 patients had a firm endpoint on the Lachman test, and the Cybex mean quadriceps strength of 90%. Sixty of the 69 varsity athletes who were eligible to play returned to preinjury competition level the following season. One had reconstruction failure and eight chose not to continue competition for academic reasons. The questionnaire score average was 92.7 (maximum, 100 points, normal athletic knee score 93.5).

We concluded that the surgical procedure, with emphasis on early full extension postoperatively, achieved excellent results and provided a stable knee