

## Reconstruction of the Anterior Cruciate Ligament using the Central Third of the Patellar Tendon

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**Background:** Conservative management of patients with torn anterior cruciate ligament (ACL) is not the usual way of treatment. The aim of ACL-reconstruction is to achieve normal function of the knee by using different approaches and grafts.

**Methods:** The results of fifty patients who had had a reconstruction of the anterior cruciate ligament (ACL) through a small arthrotomy, with the use of the central third of an autogenous, bone-patellar tendon-bone free graft, at King Hussein Medical Center, between the years 1994-1997, were reviewed retrospectively. Forty five (90%) patients were active soldiers between the ages of 20-30 years. The average time between injury and operation was 27 months (1-72). The analysis of causes of injury revealed that 50% were sport injuries (contact and non-contact), 46% due to fall and twisting injuries. All patients presented with knee pain, recurrent swelling, and giving way either partial or full. Twenty eight (56%) knees had an associated meniscal injury. The patients had an aggressive rehabilitation program advocated by Shelbourne and Nitz, aiming for early restoration and maintenance of movement and strength of the quadriceps and hamstrings. The patients were evaluated by clinical examination, radiological assessment, subjective questionnaire, and the functional status was evaluated according to the scoring scale of Lysholm and Gillquist.

**Results:** Based on the above scoring system we found that 45(90%) knees were graded as excellent or good and no longer gave way. Full motion (0-135 degree) was restored in all knees except in two who had restriction of flexion. No evidence of degenerative changes were seen except in one patient who developed late infection. The unsolved problem of anterior knee pain developed in ten (20%) patients.

**Conclusion:** This procedure, with the patient's cooperation and understanding of the rehabilitation program, yielded results similar to those of other procedures.