



*Shelbourne Knee Center*  
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**Patellar Tendon Rupture Repair Using Dall-Miles Cable. Shelbourne KD, Darmelio MP, Klootwyk TE: *Am J Knee Surg* 14:17-21, 2001**

**ABSTRACT:** We present a technique for repairing patellar tendon ruptures by augmenting the repair with a Dall-Miles cable, which allows for immediate active range of motion and strengthening. Ten patients underwent patellar tendon repair with end-to-end suture technique, medial and lateral retinacular repair, as well as reinforcement with a Dall-Miles cable through the patella and tibial tubercle. The cable was tensioned at 60° of flexion to allow immediate range of motion to at least 100° of flexion and to protect the repair from undue tension while healing. Accurate tendon length was obtained from a lateral radiograph of the noninvolved knee in 60° of flexion. Patients were allowed to bear full weight as tolerated postoperatively. A knee immobilizer was worn for approximately 2 weeks when adequate muscular control of the leg was attained. The cable was removed at 6 to 8 weeks postoperatively, at which time range of motion equal to the opposite extremity was sought. Full extension was obtained by 1 week postoperatively. Average postoperative knee flexion was 88° at 2 weeks, 112° at 1 month, 133° at 3 months, and 138° at 6 months compared with flexion of 141° in the noninvolved knee. Mean quadriceps muscle strength at 1 year postoperatively was 72% ± 11% of the noninvolved leg. No patients had a patella infera or re-rupture after surgery. Repair of a patellar tendon rupture with end-to-end techniques reinforced with a Dall-Miles cable allows immediate rehabilitation without the need for prolonged immobilization. This technique allows restoration of full range of motion early postoperatively and enables patients to regain adequate quadriceps strength.