

Reconstruction and postoperative physical rehabilitation of noncontact anterior cruciate ligament injury from rollerblading

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Keywords: physical rehabilitation, anterior cruciate ligamentum (ACL), rollerblading injury

INTRODUCTION The anterior cruciate ligament functions as a primary restraint to excessive anterior translation and rotation of the tibia on the femur; thus a complete ACL tear normally results in dynamic knee instability or failure to manage quick changes in position. Physical therapy is necessary for optimal rehabilitation whether the treatment is surgical or only conservative.

CASE PRESENTATION A 29-year old healthy male presented with 24h-lasting acute pain in the knee after hearing a »pop« while rollerblading. The following morning he was unable to extend the knee fully or bear weight when walking. There was no previous history of knee injury or degenerative joint disease. The physical exam presented mild joint effusion, limitation of range of motion and pain upon palpation. Surgery was performed using a graft from the patellar ligament with the superior part of the patella. After the procedure, he started physical therapy with an emphasis on the range of motion training with the use of continuous passive motion device and weight-bearing exercises.

CONCLUSION The knee is one of the joints that are most susceptible to ligament injuries, as it is located in the middle of two large lever arms. The decision for surgical reconstruction versus conservative treatment is an ongoing subject of debate. Surgery is usually the treatment of choice for professional athletes. With the implementation of post-surgical physical therapy, the result is complete recovery with normal knee function and a full range of motion in only 60-80% of cases.