Infographic

Medial Patellofemoral Ligament Reconstruction: Indications, Technique, and Outcomes

Elizabeth Matzkin, M.D.

Abstract: The medial patellofemoral ligament is the primary static restraint to lateral patellar translation. It is injured in 96% to 100% of patellar dislocations that affect approximately 6 to 29 of 100,000 patients and is more common in patients younger than 20 years of age. Risk factors for patellar dislocation include patella alta, trochlear dysplasia, genu valgus, increased Q angle, and hyperlaxity. The treatment for patellar instability depends on the clinical and radiographic findings and can be nonoperative for first-time dislocations (bracing, proximal strengthening, and progressive return to sport) or operative for recurrent dislocations. It is critical for medial patellofemoral ligament reconstruction to reproduce the anatomy and isometry of the native ligament. Graft choice and methods of fixation are less critical to achieve successful outcomes. Studies have reported successful outcomes and improved Kujala scores, with recurrent instability ranging from 1% to 5%. Careful surgical technique can avoid complications, including fracture, graft failure, loss of range of motion, persistent anterior knee pain, medial instability, and recurrent instability. The role of the medial quadriceps tendon femoral ligament also should be considered more in future research.

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From the Department of Orthopaedic Surgery, Brigham and Women's Hospital, Boston, Massachusetts, U.S.A.

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Address correspondence to Elizabeth Matzkin, M.D., Department of Orthopaedic Surgery, Brigham and Women's Hospital, 75 Francis St., Boston, MA 02115. E-mail: ematzkin@bwh.harvard.edu

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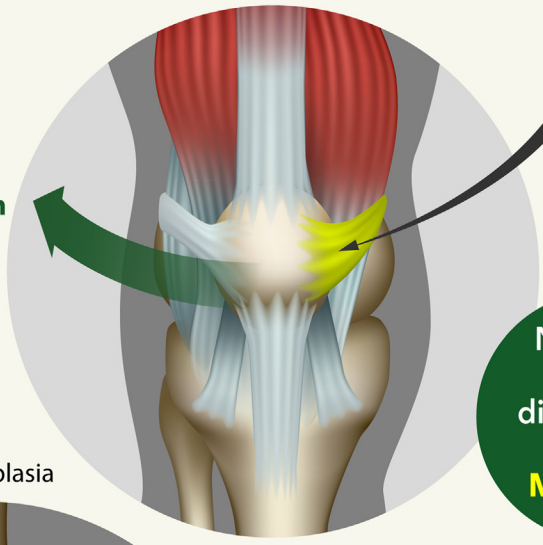
MEDIAL PATELLOFEMORAL LIGAMENT (MPFL)

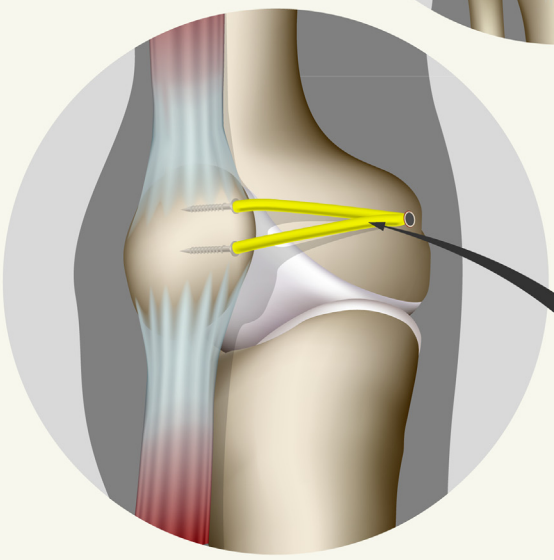


Restrains lateral patellar translation

Risk factors

- Patella alta
- Hyperlaxity
- Genu valgus
- Increased Q angle
- Increased Trochlear dysplasia

Nearly all patellar dislocations result in MPFL tear



TREATMENTS

Non operative

Best for primary dislocations

- Brace
- Proximal strengthening
- Return to sport progression

Operative

Best for recurrent instability

- Reproduce native MPFL anatomy
- Avoid patella fracture
- Avoid overtensioning
- Graft type less critical

COMPLICATIONS

- Loss of range of motion
- Medial instability
- Patellar fracture
- Graft failure
- Redislocation

Avoidance of technical errors minimizes complications

SURGICAL OUTCOMES

Kujala scores improve

Recurrent instability in **1-5%**

FUTURE DIRECTIONS

Medial quadriceps tendon femoral ligament (MQTFL) reconstruction

Elizabeth Matzkin, MD

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL
BRIGHAM HEALTH
BRIGHAM AND WOMEN'S HOSPITAL

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