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What is the Lateral Extra-articular Tenodesis (LET) procedure?

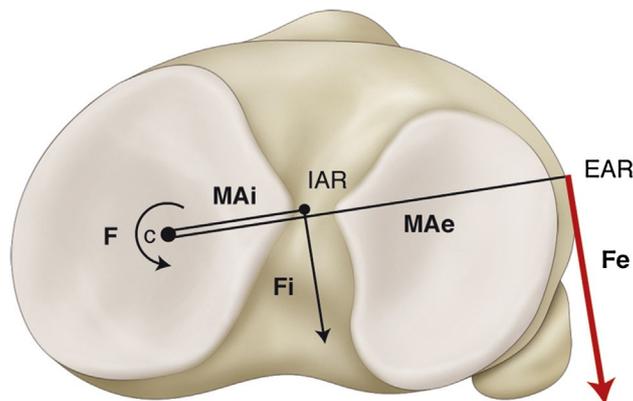
LET is a procedure to control rotational instability (pivot shift) of the knee that may not be completely controlled by conventional Anterior Cruciate Ligament Reconstruction (ACLR).

Certain patients are considered high risk for persisting instability and/or re-injury after ACLR. These include patients participating in high-intensity pivot sports (such as AFL, netball, soccer), have a high-grade pivot shift (as assessed by your surgeon) or who have a failed ACL reconstruction. Other patients who may benefit include those with hyperlaxity, young patients and those who have had significant medial meniscus injury/resection.

LET added to ACLR reduces the rate of ACL re-injury and secondary meniscus damage.

The typical graft choice is the central part of the iliotibial band (from the same knee).

The surgery is done through a 5cm incision on the lateral (outside) part of your knee.



Biomechanical advantage of an anterolateral reconstruction. After an ACL tear, the knee's center of rotation (c) is shifted medially; ALR (Fe - red arrow) located away from the center of rotation has a larger mechanical effect due to its moment arm (MAe) than reconstruction at the center of the joint (Fi - black arrow).



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Lateral Extra-Articular Procedures (LEAP) with ACL Reconstruction: International Consensus

Arthroscopy
The Journal of Arthroscopic and Related Surgery



Background

LEAP has been shown to reduce ACL reconstruction (ACLR) failure

LEAP indications

Strongly recommended

- Hamstring autograft in young/active patients
- Grade 3 pivot shift
- Knee hyperextension
- Skeletally immature patients
 - *Avoid physis*

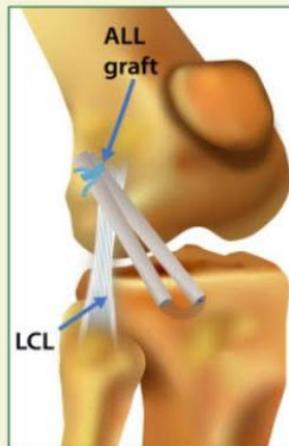
Recommended

- Revision ACLR
- Chronic ACL deficiency

Should be considered

- Patellar or quadriceps tendon autografts
- Athletes returning to pivoting sports
- Grade 3 Lachman
- Posterior tibial slope $>12^\circ$
- History of contralateral ACL injury

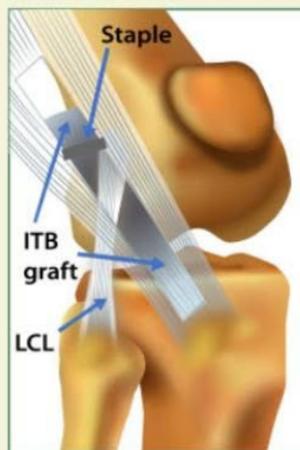
Anterolateral ligament (ALL) reconstruction



Anterolateral view, right knee

- Autograft or allograft
- Graft is passed superficial to the lateral collateral ligament (LCL)
- Graft is secured to the femur proximal and posterior to the LCL and the tibia between Gerdy's tubercle and the fibular head
- Single-limb graft may also be utilized

Lateral extra-articular tenodesis (LET)



Anterolateral view, right knee

- Modified Lemaire is most common
- A 1 cm wide, 8 cm long strip of ITB is left attached distally, released proximally, passed deep to the LCL
- Femoral fixation is placed posterior and proximal to the LCL using a staple, screw, or anchor



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