


## Two-year results from STABILITY randomised controlled trial (RCT) show that augmenting ACL reconstruction with a lateral extra-articular tenodesis (LET) significantly lowers risk of graft rupture in young, high-risk patients

Getgood AMJ, Bryant DM, Litchfield R, et al. Lateral extra-articular tenodesis reduces failure of hamstring tendon autograft anterior cruciate ligament reconstruction: 2-year outcomes from the STABILITY study randomized clinical trial. *Am J Sports Med.* 2020;48(2):285–297.

Available at: [The American Journal of Sports Medicine](#)  

### Key points

In a RCT at 2 years post-operatively, compared with ACLR alone, ACLR + LET in young high-risk patients was associated with:



**33%**  
lower risk of graft rupture  
( $p < 0.001$ )



Similar clinical outcomes and level of activity post-operatively

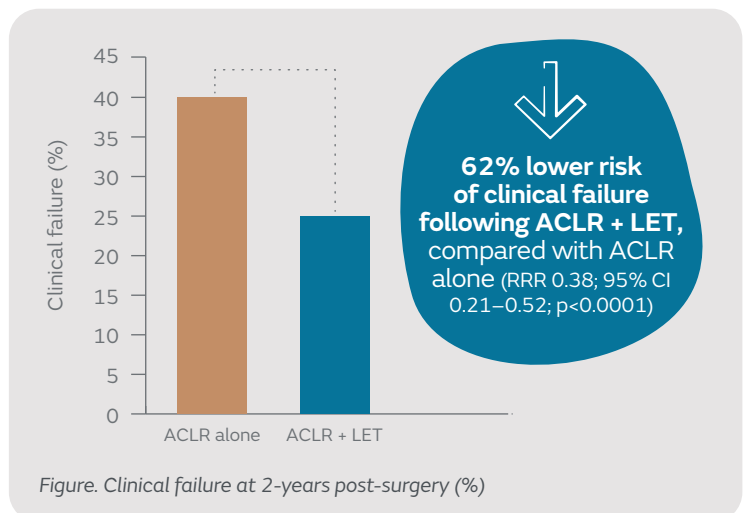
### Overview

- A multicentre (7 Canadian sites; 2 European sites) RCT comparing ACLR with or without LET in young patients
- Patients (14–25 years) had an ACL-deficient knee at risk of reinjury based on at least two of the following criteria: (1) grade 2 pivot shift or greater, (2) involved in competitive pivoting sports, (3) generalised ligamentous laxity
- All patients had a standardised single-bundle hamstring tendon autograft ACLR; a modified Lemaire technique was used for the ACLR + LET group
- 618 patients (297 male) were randomised to ACLR + LET (n=306) and ACLR (n=312)
  - 18 patients were lost to follow-up and 11 withdrew (5%)
- Primary outcome was clinical failure, defined as one or more of a persistent (detected at 2 visits) mild asymmetric pivot shift (grade 1), a moderate or severe (grade 2 or 3) asymmetric pivot shift at any follow-up visit, or a graft rupture
- Secondary outcomes included:
  - P4 pain scale
  - Marx Activity Rating Scale (MARS)
  - ACL Quality of Life (ACL-QOL) Questionnaire
  - International Knee Documentation Committee Subjective Knee (IKDC) score
  - Knee Osteoarthritis and Outcomes Score (KOOS)
- Outcomes were assessed at 3, 6, 12, and 24 months post-surgery

### Results

At 2 years post-operatively, compared with patients in the ACLR group, patients with ACLR + LET had:

- Fewer clinical failures; 25% (72/291) versus 40% (120/298)
  - 62% lower risk of clinical failure following ACLR + LET (Relative Risk Reduction [RRR] 0.38; 95% CI: 0.21–0.52;  $p < 0.0001$ )
- Fewer graft ruptures; 11/291 (4%) versus 34/298 (11%)
  - 33% lower risk of graft rupture following ACLR + LET (RRR 0.67; 95% CI: 0.36–0.83;  $p < 0.001$ )
- Comparable clinical outcomes at 12 and 24 months, but may show differences at 3 and 6 months
  - Minimal pain by 3 months (P4 pain scale)
  - MARS score indicated a similar level of activity as pre-operatively
  - ACL-QOL showed continuing and similar improvement
  - IKDC scores and all KOOS scores were similar



### Conclusions

Compared to anterior cruciate ligament reconstruction, augmenting the repair with lateral extra-articular tenodesis in young high-risk patients is associated with a significantly lower risk of clinical failure and graft rupture at 2-years post-surgery, without compromising clinical outcomes.

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