


# Mechanical tensioning in arthroscopic Latarjet procedures with the DOUBLE ENDOBUTTON<sup>®</sup> Fixation Device achieves significantly higher healing rates than hand tensioning

Boileau P, Gendre P, Saliken DJ, Thélou CE, Trojani C. Tensioning device increases coracoid bone block healing rates in arthroscopic Latarjet procedure with suture-button fixation. *JSES Int.* 2022;31(7):1451–1462.


Available at: [Journal of Shoulder and Elbow Surgery](#)  

## Key points


Compared with the hand tensioned group, the mechanically tensioned group (DOUBLE ENDOBUTTON Fixation Device) demonstrated:



**20% higher rate** of bone block healing (p=0.023)



Significantly lower bone block nonunion (p=0.027)



Fewer instances of traumatic recurrent shoulder instability episodes at last follow-up

## Overview

- Prospective, single surgeon, non-randomised study (n=69) to compare clinical and patient-reported outcomes between hand tensioned and mechanically tensioned suture-button constructs (DOUBLE ENDOBUTTON Fixation Device) in coracoid bone block fixation in arthroscopic Latarjet procedures
- Mean age at surgery was 27 years (range: 15–63 years); patient characteristics, including age, sex, type of sport, bone loss, number of previous failed surgical procedures, smoking, and length of follow-up, were comparable between both groups
- Primary outcome was coracoid bone block union and position on computed tomography scan images at 6 months' follow-up
- Secondary outcomes included functional outcome scores, shoulder stability, return to sports, and complications at last follow-up (minimum 24 months)

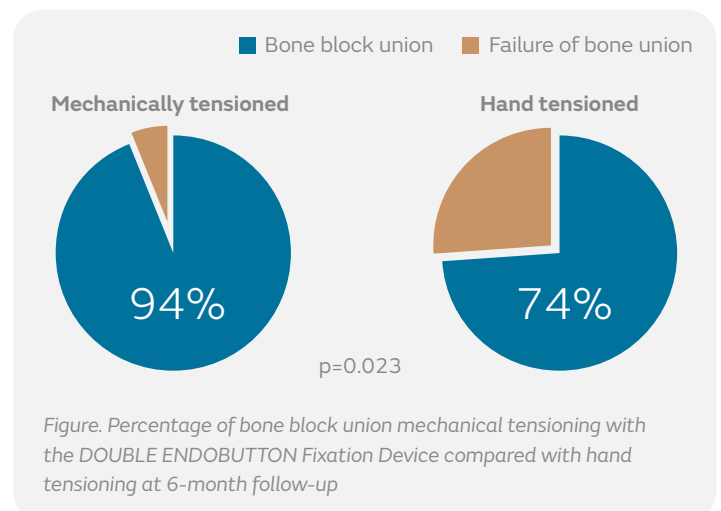
## Results

Compared with the hand tensioned group (n=34), the mechanically tensioned group (n=35) demonstrated:

- Significantly higher bone block healing (94 vs 74%; p=0.023; Figure)
- Significantly lower bone block nonunion (defined as a radiolucent line that measured <5mm; one vs eight; p=0.027)
- Fewer instances of traumatic recurrent shoulder instability episodes at last follow-up (one vs three)

No significant difference in Walch-Duplay and Rowe scores between groups

Overall, no neurologic complications, infections, or hardware failures were recorded in either group



## Conclusions

Compared with hand tensioning, mechanical tensioning significantly improves healing rates in arthroscopic Latarjet procedures with the DOUBLE ENDOBUTTON Fixation Device and enhances biomechanical performance, approaching that of a screw.

## Considerations

The authors note that this technique can also be used when performing an open or semi-open Latarjet procedure, avoiding the problems and complications reported with screws.

For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.