

LARS<sup>x</sup><sub>TM</sub>

mcl

Medial Collateral Ligament Reconstruction and Reinforcement  
Surgical Technique





# LARS™ MCL

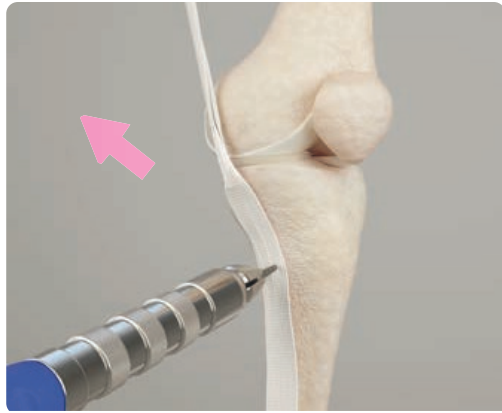
Stability / Versatility / Recovery

The next generation in soft tissue internal fixation

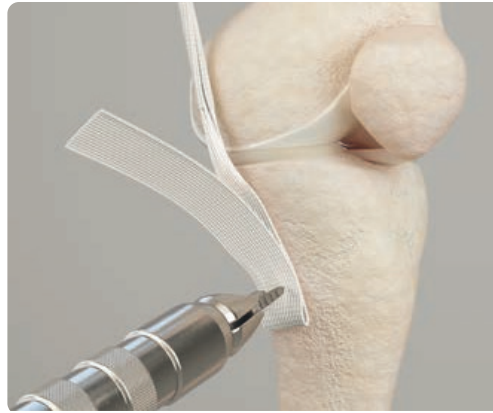
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## Surgical Technique Overview



a. Tibial fixation, distal staple



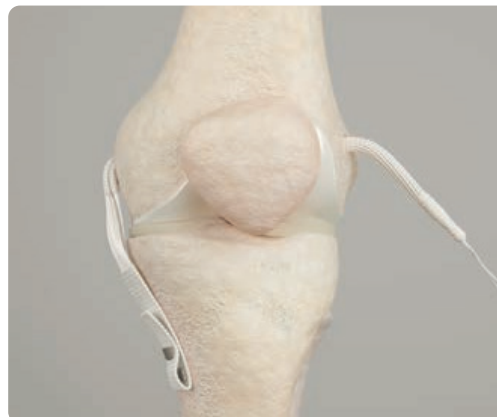
b. Tibial fixation, proximal staple



c. Identification of isometric femoral insertion point



d. Femoral tunnel preparation



e. Passing of the LARS MCL32



f. Femoral fixation



*Step 1*  
Tibial fixation, distal staple

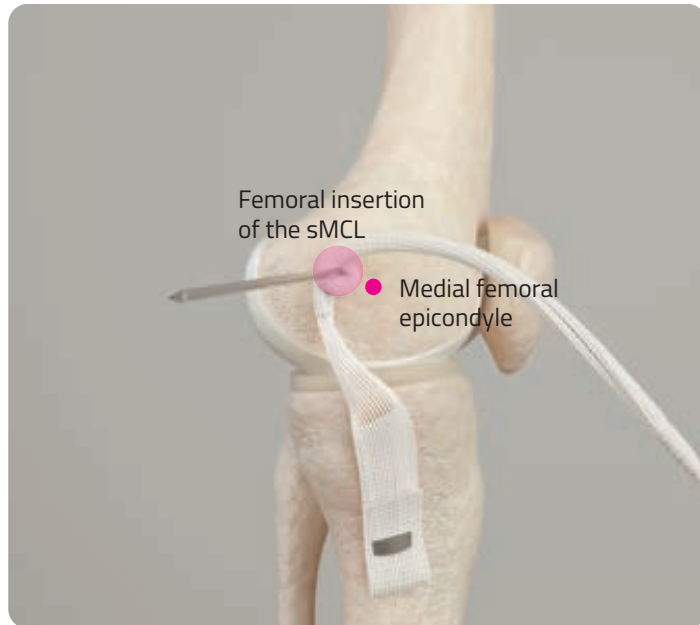
The tibial insertion point for the sMCL is identified 4-5cm distal to the joint line, proximal to the pes anserinus. Ensure that the free fibre section of the LARS MCL32 is aligned with the joint line of the knee prior to securing the LARS. The flat portion of the LARS MCL32 is secured at the tibial insertion using a double staple technique.

The first staple should be inserted over the flat portion of the LARS MCL32 5-10mm distally to the final desired fixation point.



*Step 2*  
Tibial fixation, proximal staple

The flat tail end of the LARS MCL32 is then folded back over the first staple and secured 5-10mm proximal with a second staple to ensure secure fixation.



### Step 3 Identification of isometric femoral insertion point

The proximal cylindrical cord end of the LARS is then passed superficial to the joint capsule using a curved haemostat or grasper passed down from the femoral insertion point.

The isometric femoral point is identified by drilling a sharp 2mm k-wire 2mm proximal and 5mm posterior to the medial epicondyle, aiming anterior and proximal to avoid other graft tunnels if performed as part of a multiligament reconstruction procedure. Isometry can be confirmed by wrapping the cord end of the LARS MCL32 around the k-wire and flexing/extending the knee through its full range of motion.



There should be minimal change in tension in the LARS throughout the range of motion. If there is significant change in tension in the LARS ligament during flexion and extension the k-wire will need to be repositioned and the isometry checked again.



*Step 4*  
Femoral tunnel preparation

Once the isometric femoral point has been identified, the sharp k-wire can be drilled through the femur aiming anterior and proximal until the lateral cortex is breached. Overdrill the k-wire with a 5mm diameter cannulated drill bit. Leaving the k-wire in place, remove the cannulated drill and insert the wire loop passing canula.



Remove the k-wire and pass a flexible wire loop through the tube so that the looped end exits the medial end of the tunnel.



## Step 5 Passing of the LARS ligament

Use the flexible wire loop to pass the LARS lead sutures through the femoral tunnel. Pull the LARS through the femoral tunnel, being careful to ensure that it does not become twisted and the free-fibres remain parallel. Do not overtension the LARS. Put the knee through full range of motion, from full flexion to full extension to ensure there is no impingement.



## Step 6 Femoral fixation

With the knee in neutral rotation, secure the LARS in the femoral tunnel using a LARS screw with a diameter 1mm larger than the drill bit used to prepared the tunnel, inserted from the medial side over a blunt guidewire.

Maintain some tension on the LARS ligament while the screw is inserted to prevent the LARS being pushed into the tunnel.

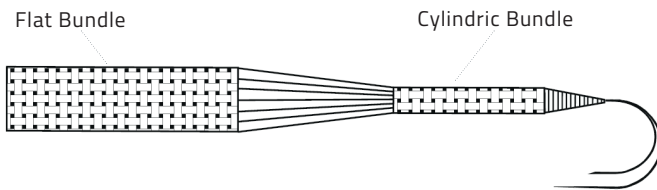
The LARS MCL32 should be fixed at its longest length to avoid over-tensioning and restricting full range of movement.





The excess LARS is cut flush to the lateral bone surface using a scalpel.

### Ligament design



**Staples** must be used to fix the flat Bundle of the MCL 32

### Instrument set

#### Product description


- 5 mm/2.2 mm cannulated drill
- LARS screwdriver
- K-wire 2 mm x 250 mm - blunt end
- K-wire 2.5 mm x 250 mm 2 trocar ends
- Ligament traction handle

### Product information

For full product details, please refer to the Product Catalogue VEN/IN.03.



### MOV MEDIX

 5, rue de la Fontaine  
21560 Arc-sur-Tille - France  
Tel: + 33 (0)3 80 37 26 60  
Email: [contact@movmedix.com](mailto:contact@movmedix.com)



[movmedix.com](http://movmedix.com)

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