

Surgical technique: PULLUP®

Dr. David DEJOUR

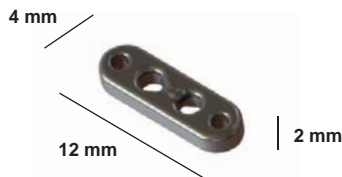
Lyon-Ortho-Clinic

Clinique de la Sauvegarde (Lyon)

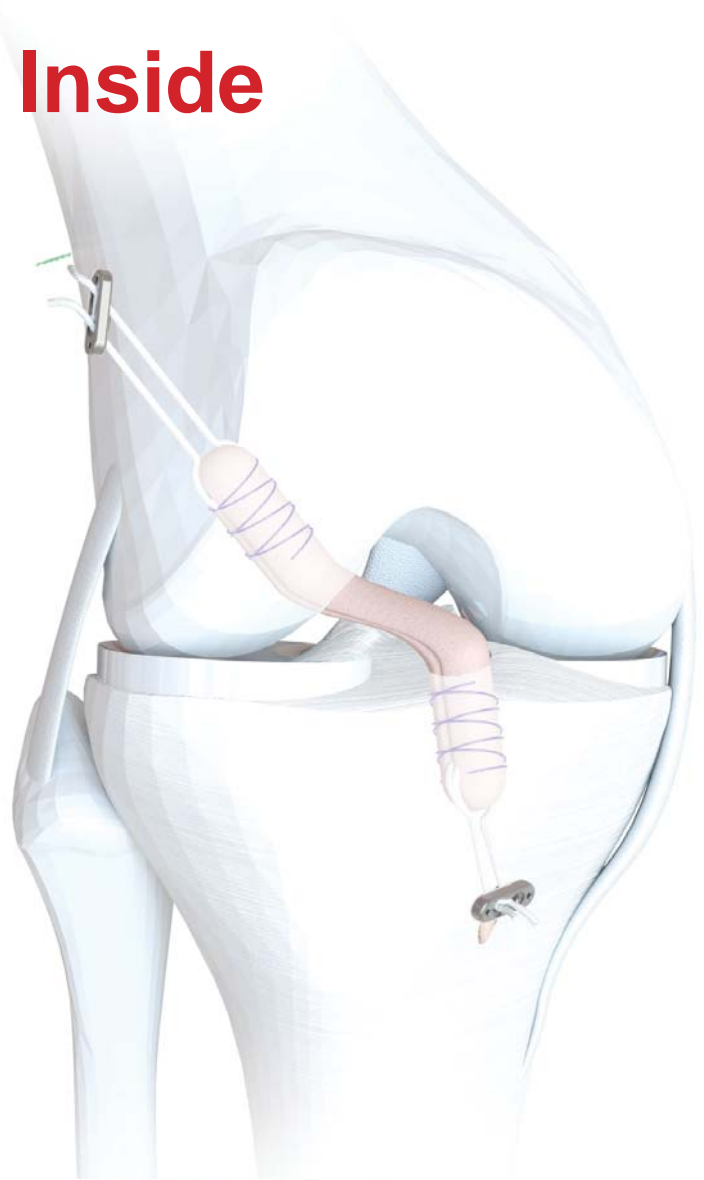


ST4 - Inside

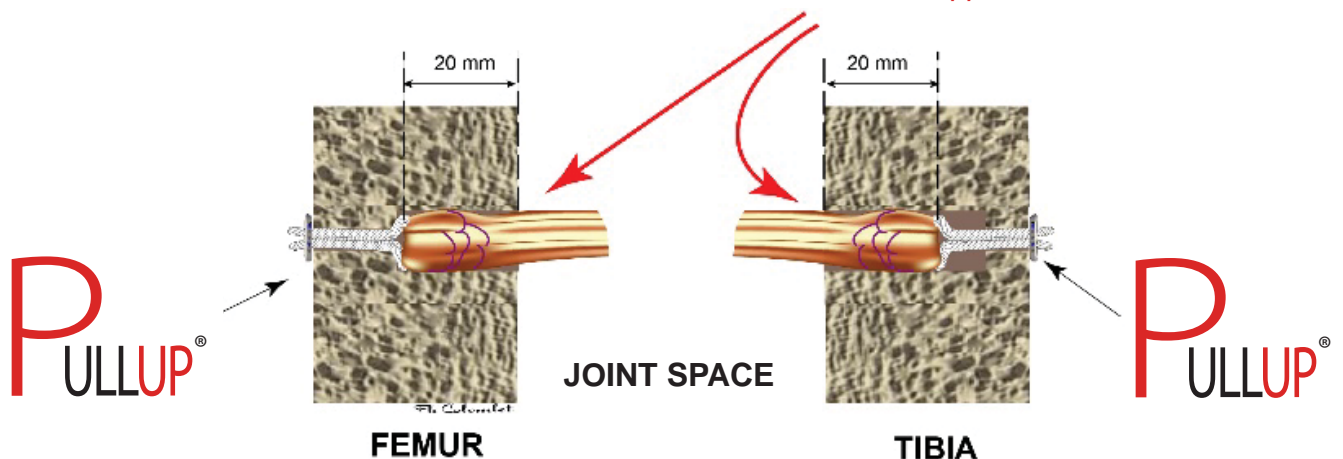
PULLUP®



For cortical tunnels \varnothing 4,5 mm



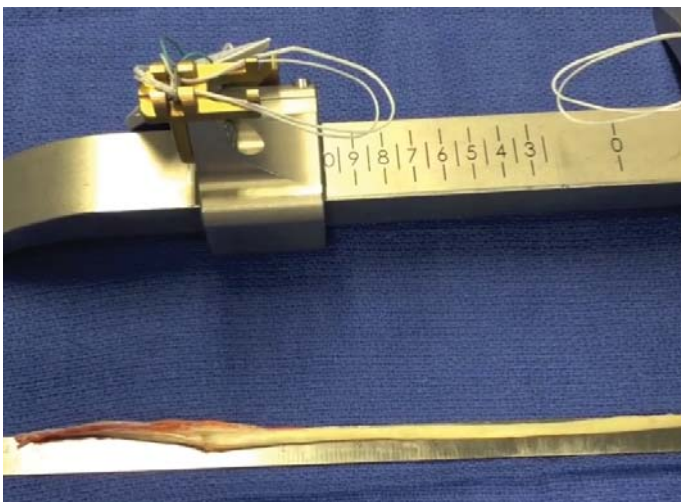
Introduction of the graft -
anterior medial approach



1 – Graft harvesting

Harvest the ST with a open or close tendon stripper.

2 – Graft preparation



Enlarge the white braids loops and install the 2 Pullup® devices on the GraftTech® preparation station.

The ST has to be quadrupled around the Pullup® loops.

Remove the green sutures from the Pullup® plates. They can be used later for the graft passage.



Once the graft is loaded in linkage with Pullup® loops, the graft free ends are crossed and wrapped around with a POWERTEX® suture.

Each stitch must cross all the 4 bundles, with the knots preferably positioned inside the graft.

Be aware of not passing thru the Pullup® loops with the needle.



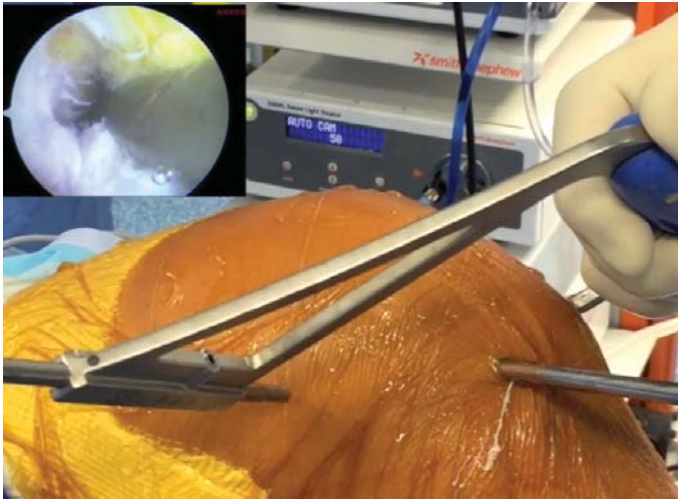
Calibrate and measure the graft (55 to 60 mm depending on the patient's size).

A distance of 15 mm is marked on both graft free ends with a sterile pen, corresponding to the graft position at the socket entries.

The graft is pre tensioned on the GraftTech®.

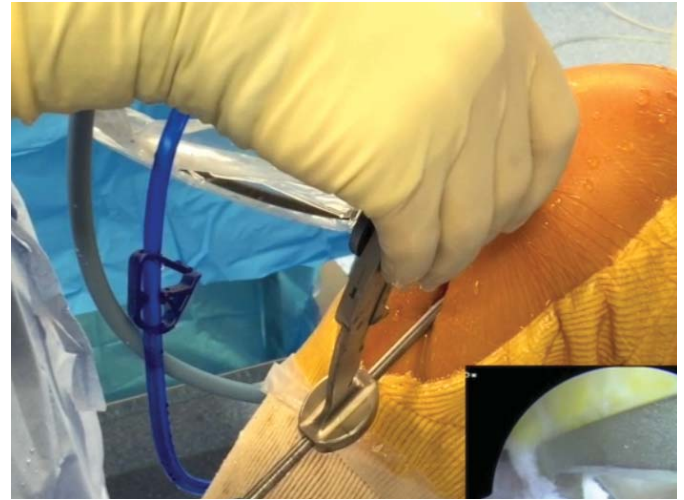
3 – Tunnels drilling

Complete tunnel at 4.5 mm:



Outside-in femoral guide is positioned (45° coronal plane; 30° proximally - distally), thus the femoral pin is positioned in the center of ACL anatomic footprint.

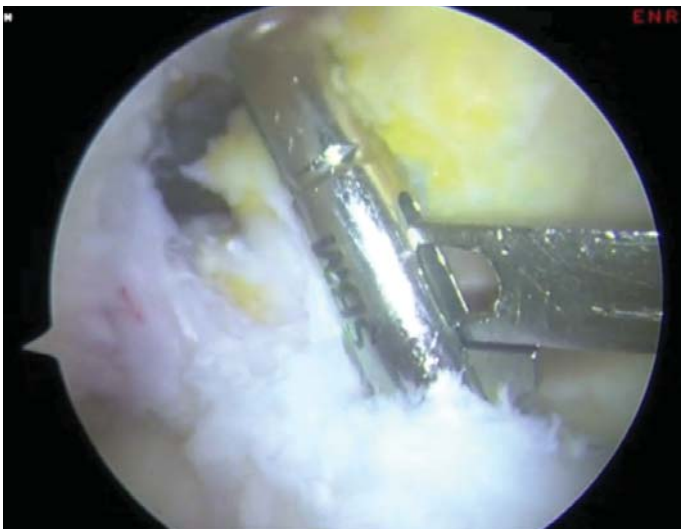
A complete tunnel (4,5 mm) is drilled.



Tibial guide is positioned (55°- 65° coronal plane; 25° sagittal plane), then the tibial pin is positioned in the center of ACL anatomic footprint.

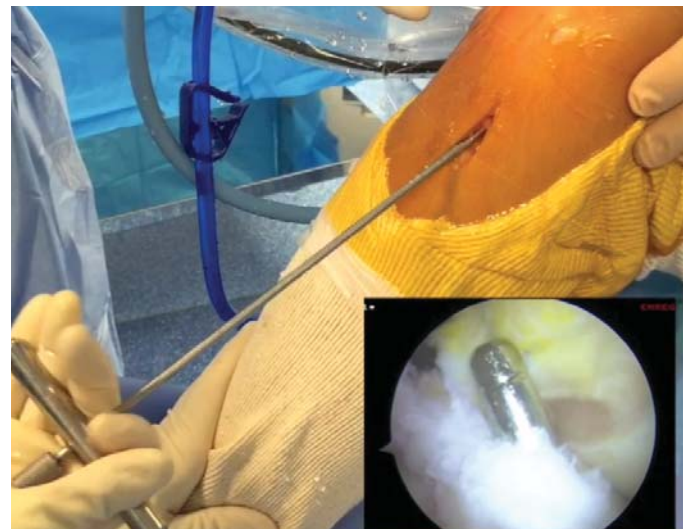
A complete tunnel (4,5 mm) is drilled.

Tibial and femoral socket drilling:



Insert the retrograde drill with the same diameter of the graft in the tibial tunnel.

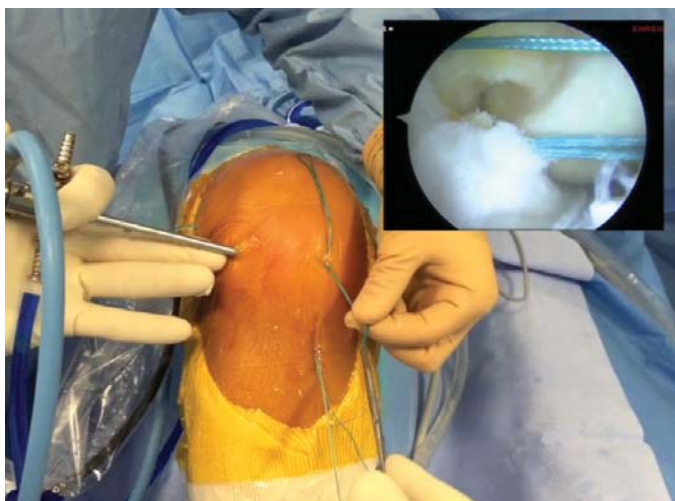
Open the retrograde drill with the proper device.



Manual retrograde drill tibial socket (20-25 mm) has to be performed. The tunnel length depends on the graft size; it is advised to drill 3 mm more than the graft length to optimize the intra-articular graft tension and position.

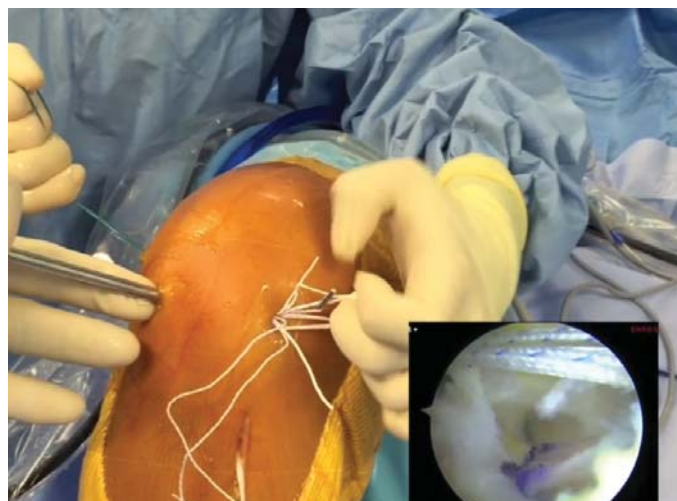
Repeat this procedure for the femoral socket.

4 –Graft Passage



Insert 2 pulling suture via the antero-medial arthroscopic portal; first in the femur and then in the tibia.

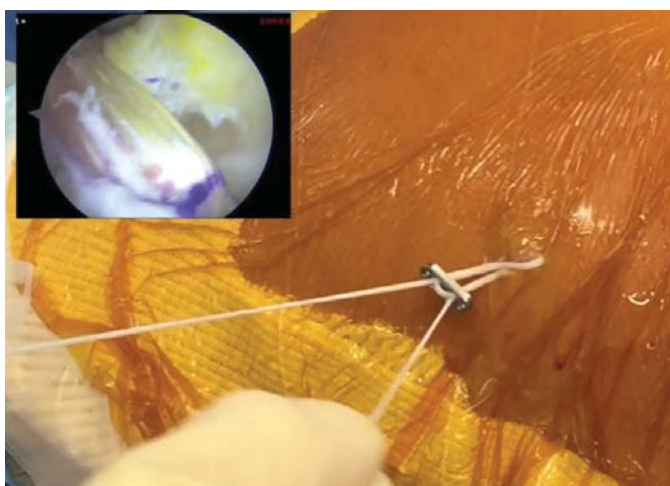
The green sutures removed earlier from the plates can be used to achieve this surgical step.



Introduce the graft via the antero-medial arthroscopic portal pulling on the white/blue traction suture; the tibial part first and then the femoral one.

The pen marks help the surgeon to optimize the properly graft position in the bone tunnels.

5 – Graft tensioning and fixation

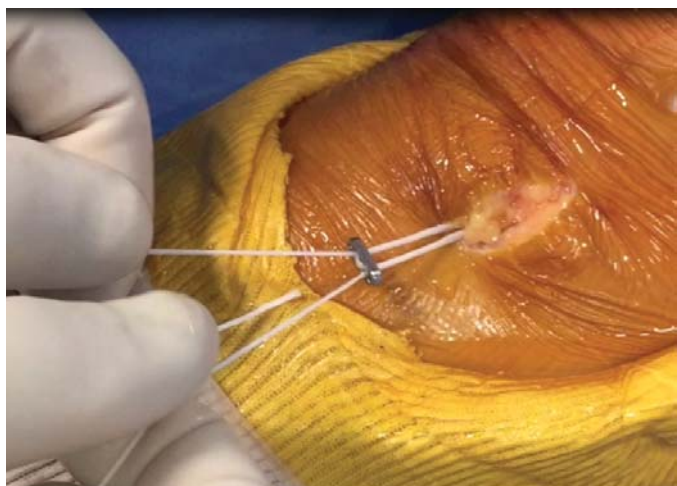


Femoral fixation

With the knee flexed to 80°, alternately pull on the braid sutures with one hand and then with the other until the plate is contact with the femoral shaft.

Visual confirmation of the plate-to-bone contact is possible through the full-thickness incision with or without the scope.

Graft cycling by pulling on the tibia white/blue traction suture.



Tibial fixation

With the knee flexed at 10°, the graft is tensioned and the anterior tibial translation is reduced by applying a posterior drawer; finally, the tibial fixation is performed using the same method described above for the femur.

Cut the Pullup® sutures by leaving 2 mm on each plate.

Courtesy of Dr. David DEJOUR



Science & Bio Materials

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Carefully read the instructions for use that come with the medical devices and labeling provided to medical professionals. Document not legally binding - Can be modified without prior notice.
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