

SURGICAL TECHNIQUE

HIGH TIBIAL OSTEOTOMY APPROACH

The technique presented below is one of the surgical techniques possibilities. The choice is made according to surgeon's preferences. Use an antero-medial approach to expose the proximal tibia metaphysis.



1. The patient is positioned in a supine position on the operating table. The procedure is performed under pneumatic tourniquet and a small pillow is placed under the buttock of the operated side in order to maintain the limb in neutral position.

2. An 8 cm slightly oblique vertical incision is made along the antero-medial surface, running over the joint space down to under the tibial tuberosity.

3. A single-plane incision is made through the periosteum; then the hamstring and the medial collateral ligament (MCL) are retracted posteriorly thanks to the Care + retractor.

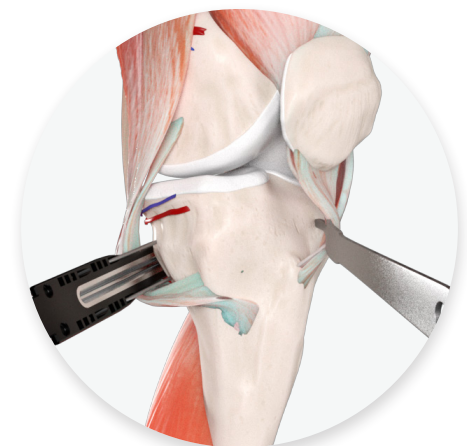
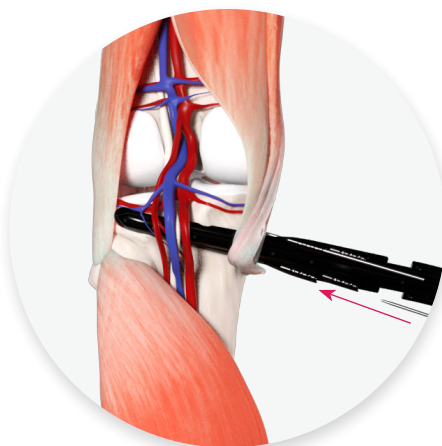
The wider the angular correction is, the more the hamstring and MCL should be released distally.

CAUTION: if the release is adequate, the opening of the osteotomy and the insertion of the bone graft can be performed with no risk of tearing the lateral cortical hinge. If it is not, forcing the graft in may tear the hinge, thus seriously jeopardizing complete bone healing. ie: pseudarthrosis.

4. Position the Care+ retractor at the level of the wanted osteotomy cut in order to protect the vascular structures from the saw blade.

Optional: If the Care+ is positionned between the hamstring and the MCL, use a smaller retractor to pull back the MCL.

CAUTION: the groove must be positioned parallel to the front plane.



5. When its position is validated under X-ray, secure the Care+ with two divergent 2.2 mm pins.

6. Clear the deepest part of the patellar tendon down to its attachment onto the tibial tuberosity, and protect it using a retractor during the osteotomy.

SURGICAL TECHNIQUE

HIGH TIBIAL OSTEOTOMY PLATE WITH ACL RECONSTRUCTION



1. Perform the ACL tunnel following the surgeon's surgical technique.



2. Perform the osteotomy cut, by inserting wedges of increasing sizes until finding the appropriate one (4-18 mm) while maintaining the lateral surface of the tibia. Once the appropriate wedge is inserted, the angular correction is maintained during osteosynthesis.

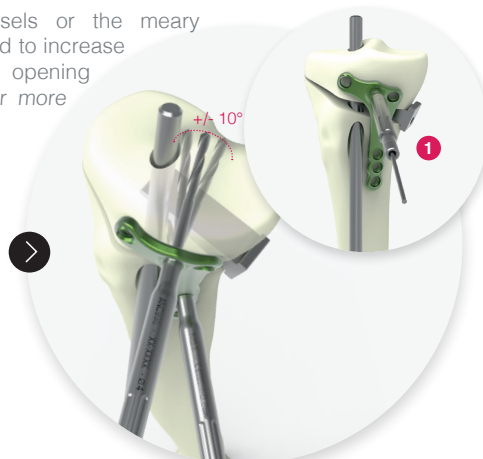
Alternatively, chisels or the meary pliers can be used to increase the size of the opening (see page 14 for more information).



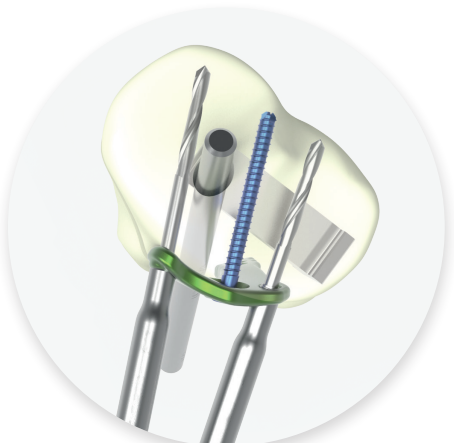
3. Insert the spacer (Ø8 mm: ANC649 or Ø10 mm: ANC601) in order to preserve the tunnel during the insertion of the proximal screws (see steps 5 and 6).



4. Position the plate: the diaphyseal part of the implant should run alongside the anterior tibial tuberosity, the anterior holes are positioned on either sides of the tunnel.



5. Insert the Ø4.5 mm screws (ST4.5LxD-ST) located on both sides of the osteotomy site. Drill with a Ø4.0 mm drill bit (ANC211) using the drill guide (ANC998). To avoid drilling through the tunnel, use the polyaxiality for the placement of the screw into the proximal central hole. Before drilling, a Ø2.2 mm pin (33.0222.200) can be inserted through the reductor of the drill guide (ANC1009) (1).

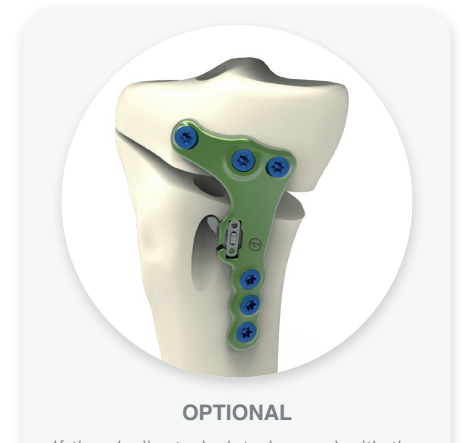


6. Once the first two screws have been inserted, repeat the procedure with the other two proximal Ø4.5 mm screws. If the insertion of the screw is difficult, remove the screw, countersink, and insert the screw again. Final tightening of the screws must be performed by hand.



FINAL RESULT

Complete the procedure by inserting the last two distal screws and removing the metallic wedge and the spacer. The ligamentoplasty can then be performed.



OPTIONAL

If the dedicated plate is used with the rectangular titanium or non-metallic suture-button (3.8 x 12 mm), this latest must be inserted into the dedicated counter-form.