

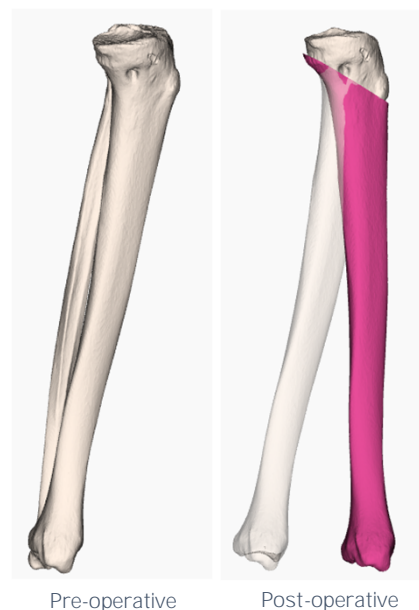
CHALLENGE Restoring optimal tibial alignment by performing a biplanar corrective osteotomy.

CORRECTION PLANNING

The patient presented an abnormal posterior slope of both plateaus of the left tibia. Additionally, a 5-degree varus was observed.

A closing osteotomy was chosen. The cutting trajectory was oblique starting below the tibial tuberosity while preserving the tibio-fibular joint. A 12-degree sagittal and 5-degree coronal correction were applied on the proximal tibia.

The pre-op situation is presented on the left figure. The post-op view is simulated on the right. The pink model represents the mobilized bone fragment.



GUIDE DESIGN

The guide was made of 2 main components presenting each a flat surface to guide the saw blade. The components were linked through 2 connectors. Once the guide was attached, the connectors were cut. The 2 bone cuttings were performed following the flat surfaces that guided the saw blade.

The components were equipped with 4 K-wires each, parallel 2 by 2. The K-wires permitted to rigidly attach the guide on the tibia.

When the osteotomy was complete, the proximal tibia could be mobilized. The bone reduction was performed by bringing the K-wires parallel. Automatically, the desired correction were applied.

