

BMI Unicondylar Knee System

Surgical Technique



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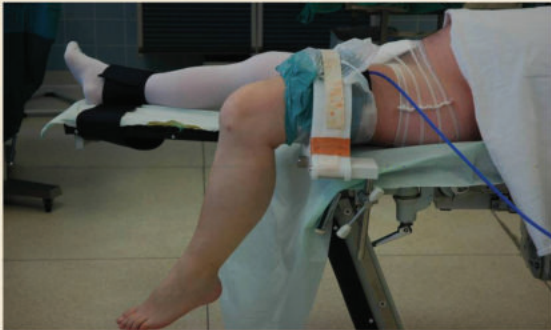
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CE1011

"Movement is Life"

The system was developed with the aim to create an exact duplicate of the individual patient's natural joint movements and the stability of the joint. The instrument ensures precise bony preparation of both femoral and tibial side, with accurate determination of the lower extremity axis. It is a very important, and well-received bonus among surgeons and patients that the prosthesis can be implanted only with minimally invasive surgical technique, that ensures minimal damage to the extensor mechanism and soft tissues of the knee, and guarantees speedy postoperative recovery. Patient may leave the hospital within 24 hours after operation.



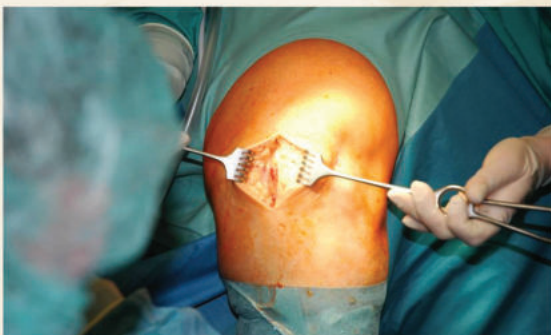
Positioning of the Patient

1. horizontal femur
2. leg holder
3. pressure bandage
4. Hyperflexion ($< 90^\circ$)



Step 2

Incision of the Knee
parapatellar, 5cm



Step 3

Incision



Step 4

Cutting the Patella edge (if needed)



Step 5

Fixing the resection level of the distal posterior femur (6 mm), Flexion gap



Step 6

Resection line of the distal posterior femur (flexion gap) 6 mm



Step 7

Resection of the distal posterior femur with oscillating saw parallel to femur axis (horizontal cutting)



Step 8

Taking out the resected distal posterior femur (flexion gap)



Step 9

Resection and eliminating of the lateral osteocytes (important)

“Movement is Life”



Step 10

Milling and eliminating the cartilage of the condyle



Step 11

Milling and rounding the anterior cutting edge of the flexion gap



Step 12

Choosing the size of the condyle implant (45, 48, 54, 60 mm) by using the milling template with handle (parallel to femur axis, cave: alignment to the tibia)



Step 13

Sagittal (vertical) transection of the tibia close to the anterior cruciate ligament (eminencia)



Step 14

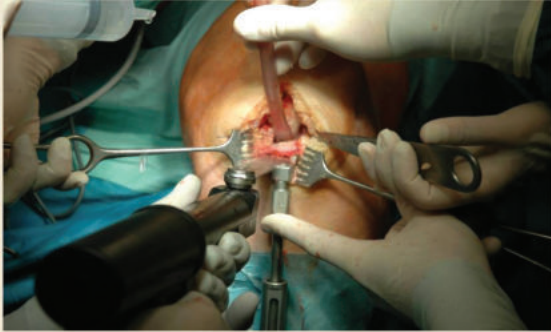
Marking the horizontal tibial resection line; the deepest point of the medial tibia plateau has to be resected

“Movement is Life”



Step 15

Positioning and fixation of the tibial cutting block by inserting two pins into the lower holes by using a power tool. Using the lower holes allows second resection by putting just the block one or two holes lower (2 mm each step)



Step 16

Horizontal cutting of the medial tibia plateau with oscillating saw along the top of the cutting block



Step 17

Taking out the resected medial tibia plateau



Step 18

Checking the size of the metal tibia plateau (standard, large, x-large) and the high of the PE-insert (8, 10 and 12 mm) or the size of the all-poly tibia plateau with the trials, or the checking the high of the all poly tibial tray with the help of the appropriate all poly trials



Step 19

Drilling the central hole of the medial condyle by using the handle on the template as drilling guide.



Step 20

Completing the groove for the fin of the implant



Step 21

Groove for the fin of the implant completed



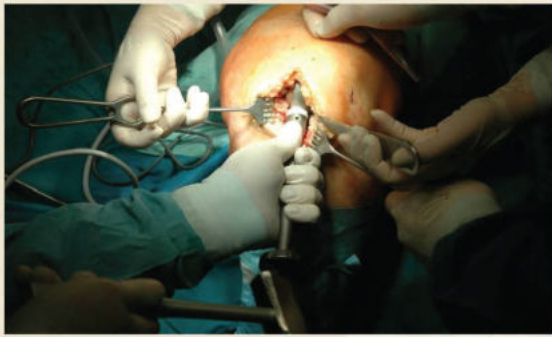
Step 22

Milling the anterior part of the condyle at the patella groove to avoid impingement between patella and implant



Step 23

Femur trial is put into situs



Step 24

Femur trial is hammered onto the bone by using impactor



Step 25

Checking the anterior condyle at the patella groove to avoid impingement with patella.



Step 26

Final checking of correct seating of the implants before cementing the components.



Step 27 Closure.



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