Freedom Partial Knee Saw Bone Workshop

maxx medical

Incision

A medial parapatellar incision is made with a medial parapatellar capsule incision into vastus medialis for improved visualization and mobility.

maxx medical

Removal of osteophytes and meniscus

All osteophytes must be resected from the medial margin to increase exposure and proper placement of the resection guides & templates.

Surgeon will need to perform a full menisectomy.

maxx medical

Posterior Femoral Condyle

Place Posterior Femoral Cut Guide (3.0mm) between the tibia and femur with the leg at 90° of flexion. Position guide below condyle and the using sagittal saw resect the posterior femur.

-Note: This helps in joint visualization.

maxx medical

Tibial Probe

Insert Tibial Probe through incision and place hook on the farthest posterior aspect, along the tibial spine.

maxx medical

Sizing with the Tibial Probe

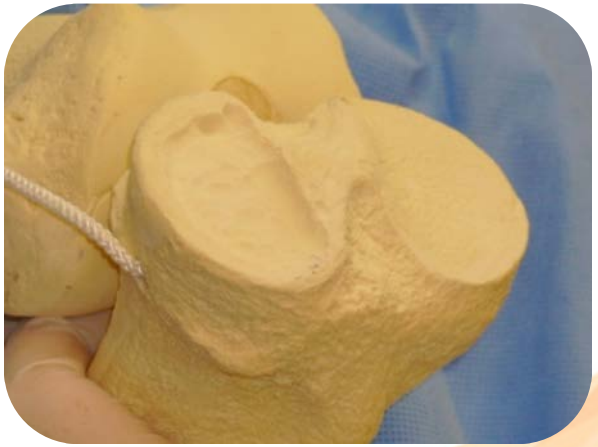
The three calibration lines (small, medium, large) indicated on the Probe indicate the farthest anterior portion of the implant and are calibrated to provide a 3 mm cortical rim around the tibial implant for stability and proper alignment.

maxx medical

Improve Joint Visualization

Resect the A/P lateral margin along the tibial spine to allow for template insertion and seating.

To provide adequate joint space prepare a rough cut of the tibial plateau using the calibrated 5mm Round Bur. The marks on the bur depict the full A/P dimension of each implant. The rough cut depth should approximate the radius of the bur and implant perimeter.

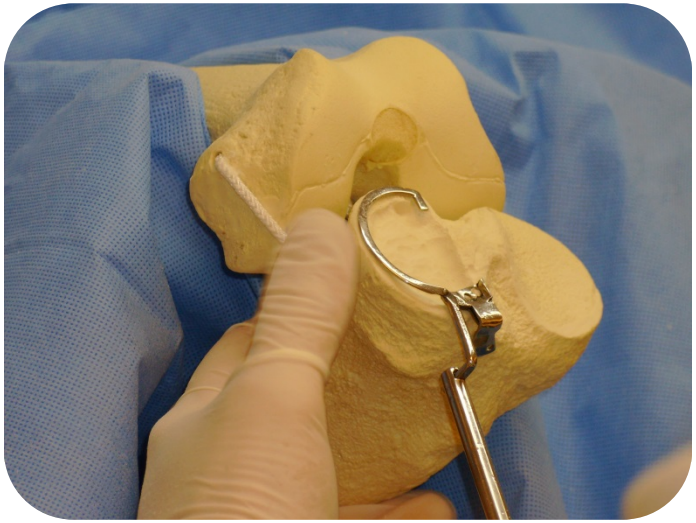


maxx medical

Tibial Template

Based on the tibial probe sizing, insert appropriate size Tibial Template.

Template should rest on the outer cortical rim and be secured using headed pins.

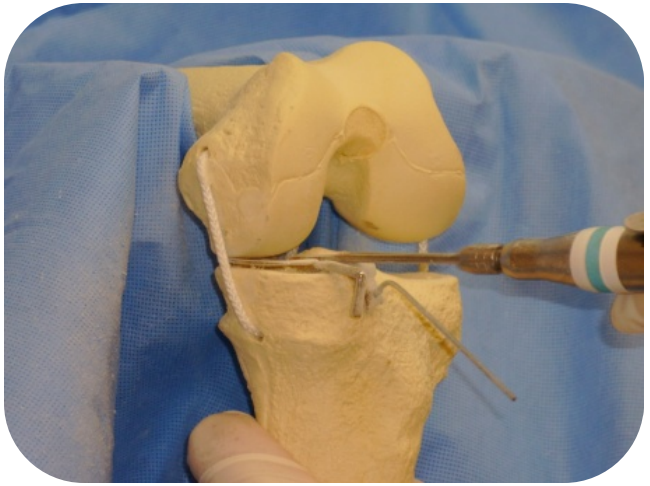


-Note: The picture on the right shows a joint dislocated for purposes of viewing

maxx medical

Resect the tibia

Using the bur follow the template margins, resecting to a depth of 4mm (less than one bur diameter). Use the anterior geometry of the template as a fulcrum while guiding the bur.

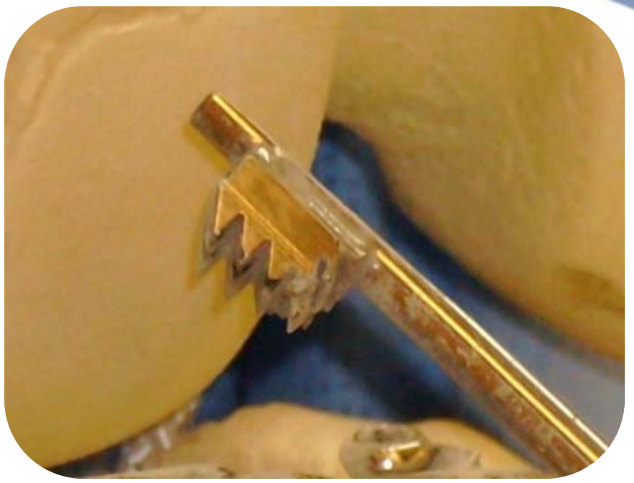


maxx medical

Resect the tibia

Attach the Small Tibial Rasp to a recip hand piece to resect areas closest to the tibial template.

-Note: The Small Tibial Rasp has a calibration markings at 3mm and a posterior depth stop to assist the surgeon with the depth of the resection



Use the Large Tibial Rasp smooth the tibial surface.

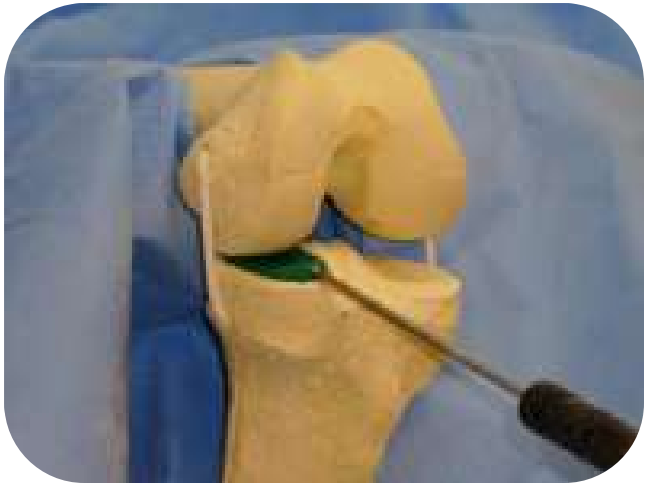
-Note: A 4mm calibration line is located on the side of the rasp to aid in resection depth

maxx medical

Tibial Trial

Seat the Tibial Spacer to verify resection geometry and appropriate A/P slope.

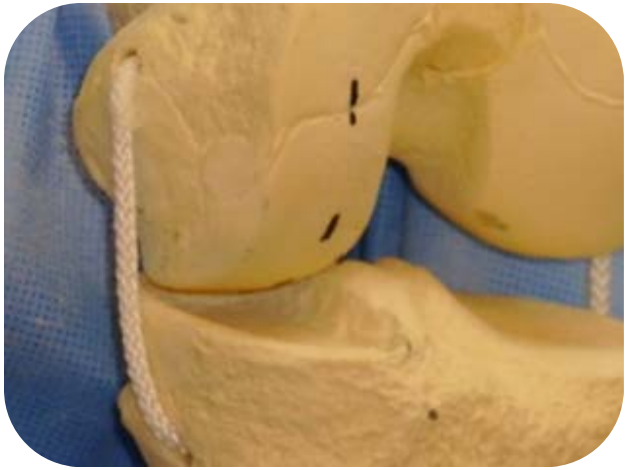
Resect additional tibial bone if needed for proper fit and alignment of the tibial spacer.



maxx medical

Femoral Bone Preparation

Mark the center of the femoral condyle using a surgical marker or bovie in 2 to 3 areas.



maxx medical

Femoral Bone Preparation

Using the appropriate Femoral Keel Registration Template, fit the Template to align the center condyle marks and to assure congruency between the template and natural condyle.

maxx medical

Femoral Bone Preparation

Check and align the Anterior/Posterior and Medial/Lateral positions of the template as this references the location of the implant.

Secure using three threaded pins.

-Note: By staggering the pin locations (M/L) you will ensure a secure placement. Driving the pins parallel to the handle will avoid interfering of the keel resection.

maxx medical

Keel Resection

Remove the template handle while allowing Drill Bushing to remain connected to the Femoral Keel Template. Drill into the bushing using the 7.75 mm Drill and advance to the depth stop. Remove the bushing from the template.

maxx medical

Keel Resection

Resect keel slot by using sagittal saw. Remove bone down to the full depth of the saw.

Saw must be positioned perpendicular to the keel registration template.

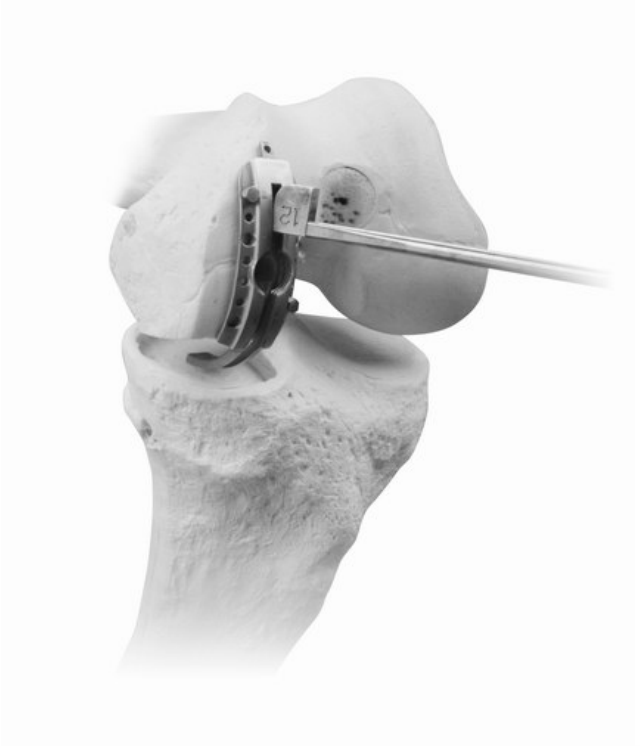
-Note: A round burr with a stop can also be used instead of the sagittal saw.

maxx medical

Keel Resection Depth

Full posterior resection is integral to proper seating of the subsequent guide and final implant.

Check the keel depth by placing the Keel Depth Gage into the slot and
verify at least a 12 mm resection depth.



maxx medical

Femoral Resection Guide

Insert Femoral Resection Guide into keel slot and secure with a 2.7mm threaded pin in the anterior hole.

An additional 1.6mm Olive pin can be used in posterior hole for additional stability.

maxx medical

Femoral Resection Guide

Using the Captured Bur Guard, place the captured hook into the slot in the Femoral Resection Guide.

Move the bur through out its entire range of motion keeping the hand piece collinear with the long axis of the femur.

-Note: Template constrains bur and limits resection to proper implant geometry

maxx medical

Femoral Finishing

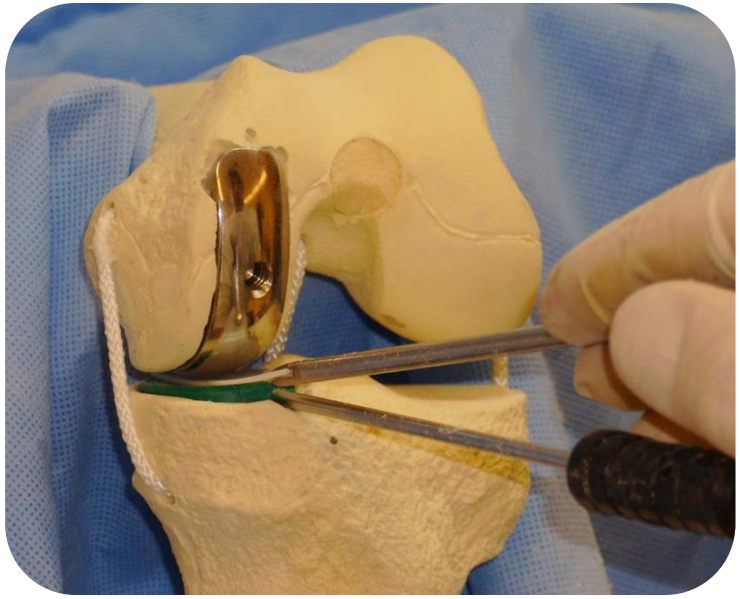
Remove Femoral Resection Guide and resect the remaining bone left adjacent to the keel slot with Femoral Rasp.

maxx medical

Trial Implants

Place full femoral and tibial trial (Small, Medium or Large) into position to check fit of implant.

Perform a full range of motion prior to implanting definitive implants. Use Tibial Spacer Gage to measure flexion-extension gap and determine tibial implant thickness.



maxx medical

Final Implantation

Apply cement to the femoral and tibial implant and insert implant into place using the impactor.

Check appropriate alignment of the implants. Irrigate the medial compartment once again to remove any remaining debris.

maxx medical