



Zimmer® Patient Specific Instruments

Surgical Technique
Gender Solutions™
Natural-Knee® Flex



The fit you can feel



Femoral Technique

1 Position Femoral Pin Guide

Position the Pin Guide on the distal femur.

Do not remove osteophytes from the femur.

Pin Guide will be captured by the anterior ridge of the femur.

Apply posterior pressure to the Pin Guide and verify secure fit.



2 Drill and Pin the Anterior Pin Holes

Verify positioning based on alignment with the epicondylar axis and AP axis reference lines on the Pin Guide.

Drill and pin the medial and lateral pin holes of the Pin Guide using the Universal Disposable Drill and Pin Set (2001-00-000).



3 Pre-drill Distal Peg Holes

Pre-drill the medial and lateral distal peg holes of the Pin Guide with the *Gender Solutions Natural-Knee Flex* 6mm Drill (00-5970-060-00) to the depth line that is etched on the drill.

Note: Depending on femur size constraints, when drilling the distal lateral hole, the drill can interfere with the anterior lateral pin. If applicable, remove the anterior lateral pin prior to drilling the distal lateral hole. Following this, the anterior lateral pin can be replaced.

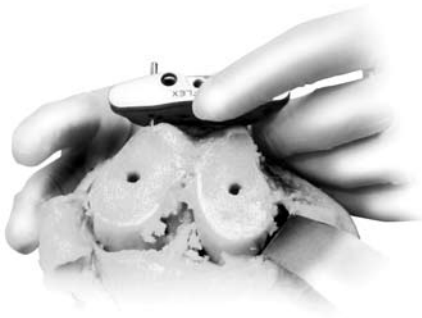


4 Place Distal Cut Guide and Cut Femur

Remove the Pin Guide by sliding it off the pins, leaving the anterior pins in the bone.

Check alignment if desired.

Secure the *Natural-Knee Flex Captured Femoral Distal Saw Guide* (00-5413-000-03), and make the cut.



5 Remove Distal Cut Guide and Secure Femoral Finishing Guide

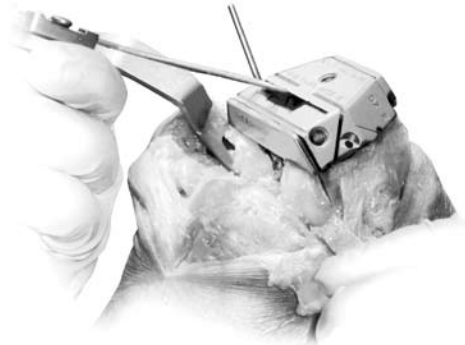
Remove the anterior pins.

Locate the pre-drilled peg holes.

Check alignment if desired.

Place the *Natural-Knee Flex MIS Femoral Finishing Guide* in pre-drilled distal holes. Secure the *Natural-Knee Flex MIS Femoral Finishing Guide* and make the cuts.

In the event the pre-drilled distal holes are covered up following the distal cut, clean the area. Alternatively, prior to removing the anterior pins, place the Pin Guide back over the anterior pins and locate the distal pins through the distal holes in the guide.



Femoral Technique continued

6 Follow Natural-Knee Flex Femoral Surgical Technique

Following the finishing cuts, proceed with the surgery as suggested in the *Zimmer Gender Solutions Natural-Knee Flex System Surgical Technique*.

When performing the cuts, excessive force (considering the pressure being applied to the guide) on the medial or lateral side of the cut guide could influence the amount of varus/valgus in the cut.

Tibial Technique

1 Position Tibial Pin Guide

Position the Pin Guide on the tibia.

Do not remove osteophytes from the tibia. Remove any soft tissues (meniscus, etc.) that may prevent proper placement of the Pin Guide.

Ensure the posterior medial hook goes over the posterior ridge of the tibia.



2 Drill and Pin Lateral

Verify positioning based on alignment with the mechanical axis reference lines on the Pin Guide.

Drill and pin the lateral hole of the Pin Guide.



3 Drill Medial Hole

Drill the medial hole of Pin Guide (do not place pin).



Tibial Technique continued

4 Remove Tibial Pin Guide

Remove the Pin Guide by lifting the medial hook off the posterior ridge and sliding off the lateral pin. It may be necessary to remove the previously placed pin from the lateral hole.



5 Place Pins

Ensure both pins are placed in the pre-drilled holes.



6 Secure Cut Guide and Cut Tibia

Secure the *Natural-Knee Flex Captured Tibia Proximal Saw Guide* (00-5413-015-03), check alignment with Alignment Rod before cutting, and make cuts.



Cut Guide will need to be placed on the outside medial and inside lateral "9" holes.

7 Follow Natural-Knee Flex Tibial Surgical Technique

Following the primary tibia cut, proceed with the surgery as suggested in the *Zimmer Gender Solutions Natural-Knee Flex System Surgical Technique*.

When performing the cut, excessive force (considering the pressure being applied to the guide) on the medial or lateral side of the cut guide could influence the amount of varus/valgus in the cut.

Contact your Zimmer representative or visit us at www.zimmer.com



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