Surgical Technique

Smith+Nephew

VISIONAIRE◊
Adaptive Guides

For Total Knee Systems:

GENESIS◊ II, LEGION◊ PRIMARY, or JOURNEY◊ II*

For internal use only.

*JOURNEY◊ II is not available for supply in Australia.

Table of Contents

Intended Use/Indications for Use **3**
Indications 3

Femoral Guide **4**
Positioning and Exposure 4
Pinning and Drilling 4
Resection 5

Tibia Guide **6**
Placement and Pinning 6
Pinning and Drilling 6
Resection for Cruciate-Retaining (CR), Posterior-Stabilized (PS) or Bi-Cruciate-Stabilized (BCS) Tibia 7
Appendix A: Standard Distal Femur and Proximal Tibia Resection Guides 10
Appendix B: Adaptive Femur and Tibia Guide Surgeon Design Preferences 11

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Intended Use/Indications for Use

Smith & Nephew VISIONAIRE Adaptive Guides are intended to be used as a patient-specific surgical instrument to assist in the positioning of total knee replacement components intraoperatively and in guiding the marking of bone before cutting provided that anatomic landmarks necessary for alignment and positioning of the implant are identifiable on patient imaging scans.

The VISIONAIRE Adaptive Guides are intended for use with the following existing Smith & Nephew knee systems and their cleared indications for use: GENESIS® II, LEGION® Primary, and JOURNEY® II* Total Knee Systems.

Nota Bene

The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the VISIONAIRE Adaptive Guides, including its indications for use, contraindications, and product safety information, please refer to the product's label and the Instructions for Use packaged with the product.

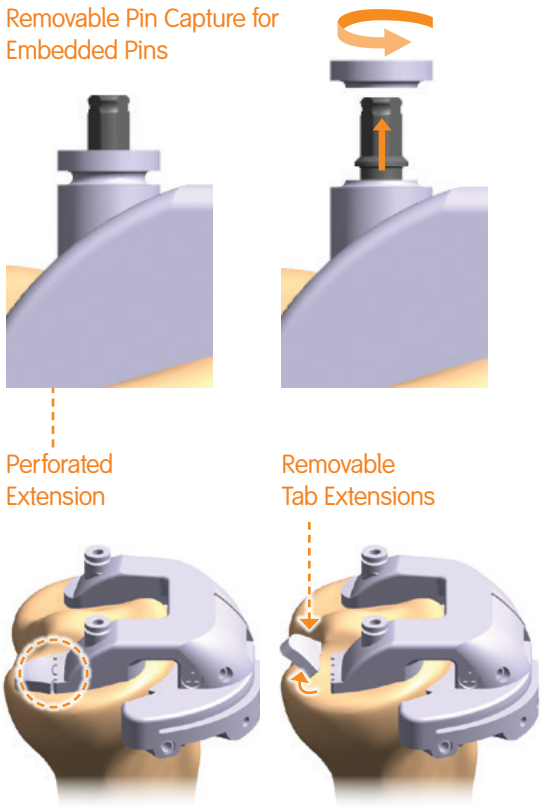
Note: It is recommended that a sterile back-up instrument set be made available nearby in the event that an Adaptive Guide is intraoperatively determined to be unsuitable for intended use.

Tip: Do not remove osteophytes before evaluating guide fit. If an osteophyte prevents proper fit, remove only the interfering osteophyte before reevaluating fit.

Tip: Avoid over-driving rimmed speed pins. If over-driven into the guide, rimmed speed pins can be extracted by removing the pin capture using a rongeur and backing them out with the driver.

Tip: Paddle extensions are perforated to allow optional removal prior to placement.

For a full list of guide preferences available refer to Appendix B.



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Femoral Guide

Positioning and Exposure

1. Flex the knee.
2. Carefully remove only soft tissue from the anterior femur cortex which may prevent proper guide fit.

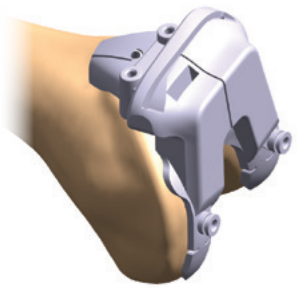
Pinning and Drilling

3. Place the femoral guide on the distal femur by pushing the guide into the trochlear groove and down on the distal condyles.

   Note: The proximal contact area of the femoral guide should contact the anterior cortex to prevent unintended flexion.

   Tip: The alignment rod may be used to verify alignment before pinning the femur guide (see Step 6).

Step 3

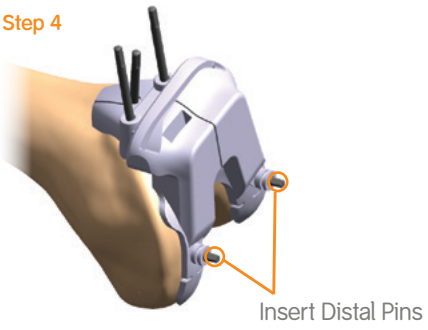


4. While the femur guide is firmly held in place, secure the femur guide distally by inserting pins into the distal holes.

   Note: The distal pin holes of the femoral guide correspond to the spikes of the femur AP cutting guide associated with the implant. Insert pins deeper than the resection plane.

   Tip: It is best for the surgeon to hold the femoral guide while an assistant pins.

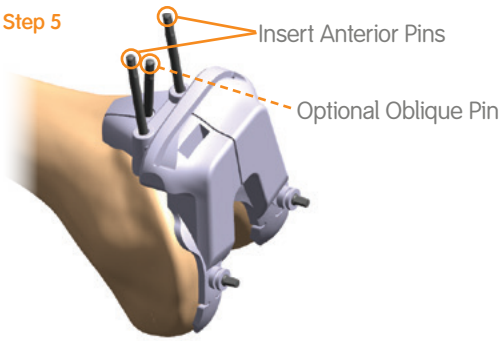
Step 4



5. Secure the femoral guide anteriorly by inserting headless pins into the appropriate anterior parallel pin holes.

   Tip: Use of the anterior oblique pin is optional for additional security if desired.

Step 5



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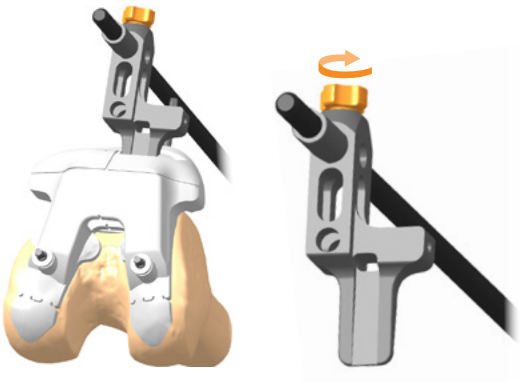
Resection

6. Use the external alignment rod to verify proper alignment prior to making the distal resection.

   Note: The AP etch line points to the Rod when assembled correctly and is oriented neutral to the planned alignment of the femur implant. The ML etch line length is equal to the ML width of the planned femur implant. The rotation of the ML etch line is parallel to the preoperatively determined TE Axis.

Step 6

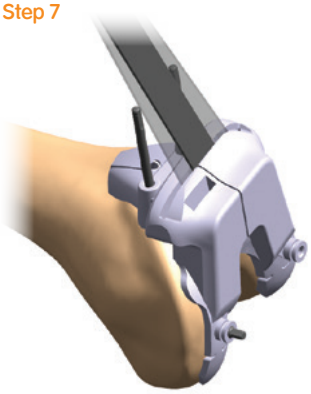
Alignment Rod Assembly



Use light pressure when inserting connector into guide

7. Remove one distal pin prior to beginning the distal resection. To complete the resection, move the remaining distal pin to the opposite side of the femoral guide to preserve three pin attachments.

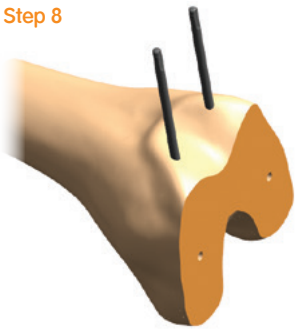
Step 7



8. After completing the resection, remove the femoral guide and complete the procedure per the surgical technique recommended for the implant taking care to ensure resection alignment is acceptable.

   Note: The anterior parallel pin holes created through the femoral guide correspond to the standard distal cutting associated with the implant. See Appendix A for the list of available standard guides.

Step 8



Tibia Guide The following TKA tibia technique is recommended for DCF, TCF, MIS and TAA Adaptive Tibia Guides.

Positioning and Exposure

1. Sublux the tibia.
2. Remove the meniscus, including the posterior medial meniscus.
3. Carefully remove only soft tissue from the anterior tibia cortex which may prevent proper guide fit.

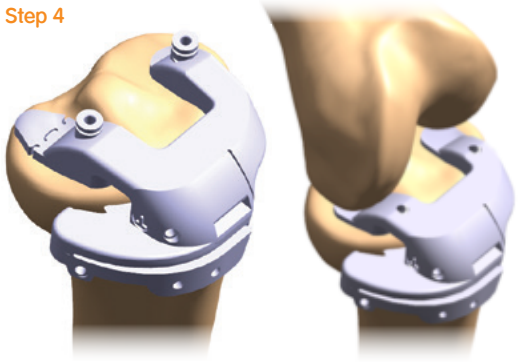
Placement and Pinning

4. Place the tibial guide on the proximal tibia. The primary key contact area for the tibial guide is the anterior medial tibial cortex, the secondary contact area are the medial and lateral plateau.

   Note: The key contact areas of the tibia guide should be mated flush to the corresponding anatomy. If not, remove only osteophytes or soft tissue which may be preventing proper fit.

   Tip: The alignment rod may be used to verify alignment before pinning the tibia guide (see Step 7).

Step 4



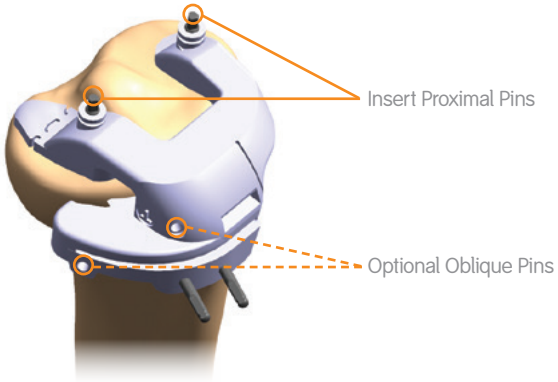
DCF Approach TCF Approach

5. While the tibia guide is firmly held in place, secure the tibia guide proximally by inserting pins into the proximal holes.

   Note: With the exception of the TCF Guide, the proximal pin holes correspond to the pin holes of the tibial baseplate trial associated with the implant. Insert pins deeper than the resection plane.

   Tip: It is best for the surgeon to hold the tibia guide while an assistant pins.

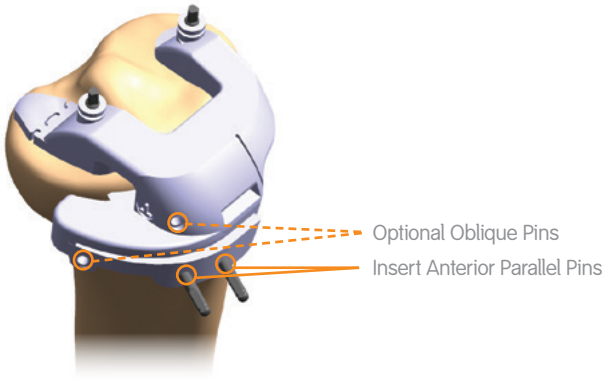
Step 5



6. Secure the tibia guide anteriorly by inserting headless pins into the appropriate anterior parallel pin holes.

   Tip: Use of one or more oblique anterior pin holes with short headed pins is optional for added security if desired.

Step 6



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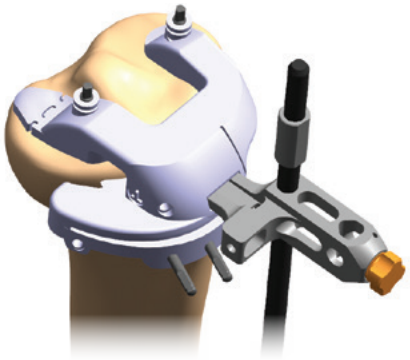
7. Use the external alignment rod to verify proper alignment prior to making the proximal resection.

   Note: The anterior line corresponds to the sagittal mid-plane of the tibial implant and the intended ML position of the alignment rod.

   Tip: The medial side of the guide includes a symbol which indicates that the Alignment Rod will align either Parallel ∥ to the tibia mechanical axis or Perpendicular ⊥ to the cutting slot.

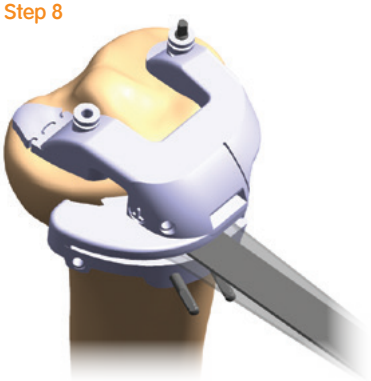
Step 7



Resection for Cruciate-Retaining (CR), Posterior-Stabilized (PS) or Bi-Cruciate-Stabilized (BCS) Tibia

8. Remove one distal pin prior to beginning the distal resection. To complete the resection, move the remaining distal pin to the opposite side of the tibia guide to preserve three pin attachments.

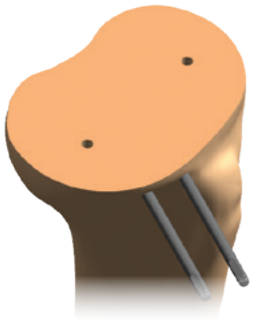
Step 8



9. After completing the resection, remove the tibia guide and complete the procedure per the surgical technique recommended for the implant taking care to ensure resection alignment is acceptable.

   Tip: The anterior parallel pin holes created through the tibia guide correspond to the standard proximal tibia cutting guide specified for the case. See Appendix A for the list of available standard guides.

Step 9

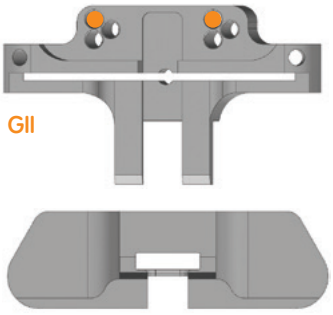


Appendix A: Standard Distal Femur and Proximal Tibia Resection Guides

VISIONAIRE® Adaptive Guides provide anterior parallel pin holes which correspond to Smith & Nephew conventional distal femur and proximal tibia resection guides. On the anterior face of each Adaptive Guide, the conventional resection guide intended for use is labelled. Below are pictured the standard resection guides which correspond to each text label.

Corresponding
Standard Femur Guides

Corresponding
Standard Tibia Guides

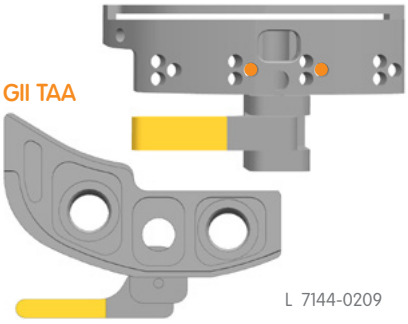


GII

7144-1147

GII MIS

L 7144-1136
R 7144-1137



GII TAA

L 7144-0209
R 7144-0205

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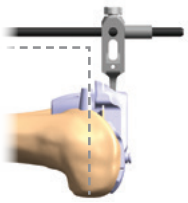
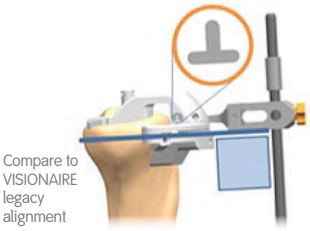
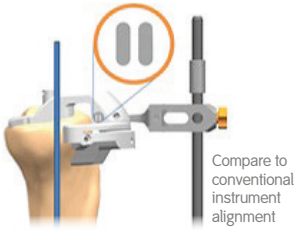
Appendix B: Adaptive Femur and Tibia Guide Surgeon Design Preferences

Femur		Options	Tibia	
	 DCF	To accommodate techniques with tighter joint spaces, a lower profile tibia guide with angled proximal pins is available. These pin holes do not set rotation.	 DCF	 TCF
 Tab	 No Tab	Guides can be designed with extended contact tabs or without.	 Tab	 No Tab
	 MIS	Along, with the standard MIS cutting slot, the tibia is offered with an elongated TAA cutting slot.	 MIS	 TAA
	 Perpendicular	The guide can be designed to position the drop rod parallel to the mechanical axis or perpendicular to the cutting slot.	 Perpendicular	 Parallel
	 JOURNEY II* CR	The Adaptive Guide for JOURNEY° II* supports BCS and CR.	 CR	
 Rimmed	 Non Rimmed	Rimmed pin holes are offered for use with headed speed pins.	 Rimmed	 Non Rimmed

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Notes

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For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.