Surgical Technique
Addendum

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JOURNEY® II TKA

Total Knee System

Flexion/Extension Gap Balancing

Balancer components

Balancer Shaft and Handle
Shaft: Part #71933037
Handle: Part #71674076

Balancer Body
Part #71933036

Balancer Tibial Paddle
Part #71933038

Tibial Paddle assembled onto the body

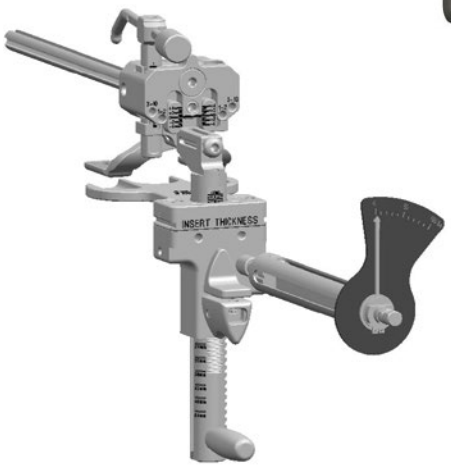
Shaft assembled into the body and tibial paddle

Femoral Paddle
Part #71933039

Balancer in Extension with the Femoral Paddle

JOURNEY® Sizing Guide and Stylus
Sizing Guide: Part #71933040
Stylus: Part #71933041

Balancer in Flexion with Sizing Guide and Stylus



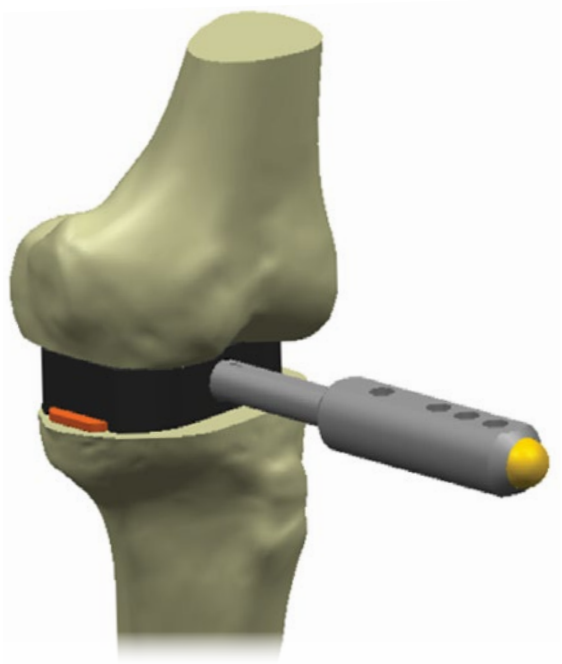
Introduction

Correct mechanical alignment, sizing, and soft tissue balancing of the knee may produce a more functional knee replacement. Improper alignment, sizing, or balancing may cause flexion instability, flexion/extension mismatch, or residual deformity. These are common causes of patient pain, complaints, and revisions.

One method to improve alignment, sizing, and balancing is a Gap Balancing technique using a tensioning device. It's important to consider that TKA is a bone AND soft tissue operation. Often soft tissues are pathologic and respond variably to releases. Using a tensioner to set the size and rotation of the femoral component aids in balancing the flexion gap by adjusting bone resections rather than potentially requiring additional soft tissue releases.

A common misconception is that the utilization of a gap balancer may be cumbersome and less efficient to traditional monolithic balancing instruments. The goal of this surgical technique is to demonstrate the robustness, efficiency, and accuracy of utilizing a soft-tissue gap balancer to achieve a well-aligned TKA.

1. **Perform distal femoral and proximal tibia resection**
   per recommended surgical technique
   JOURNEY® II TKA - #00829
   Note: Leave pins in order to recut if needed



2. **Balance Extension Gap with Spacer Blocks/Tensioner**

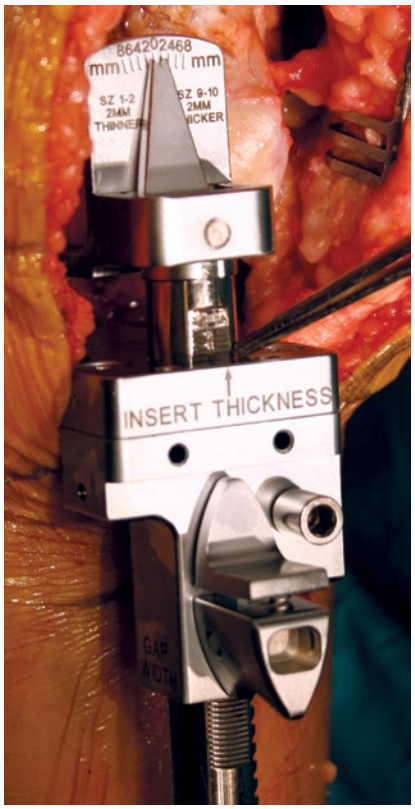
   a. Check Extension Gap w/ Spacer Block

Extension Gap	Next Step
Good	Remove all pins
Loose	Insert Larger Spacer Block until good
Tight	Balance through initial Varus/Valgus Releases
Tight after V/V Releases	Recut Bone

   b. Once gross extension balance obtained by spacer block, Insert Tensioner

      i. Tension knee to match the insert thickness found with the Spacer Block
      Note: Note tension on torque wrench required to obtain correct insert thickness

      ii. Fine tune extension balance with needling techniques in order to read a "0" setting on guide[1]



1. Bellemans J. Multiple Needle Puncturing: Balancing the Varus Knee. ORTHOPEDICS. 1; 32: 693. doi: 10.3928/10477447-20110714-48

Nota Bene: *The technique description herein is made available to the healthcare professional to illustrate the authors' suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which addresses the needs of the patient.*

3. Balance Flexion Gap

a. Change out Tensioner device for use in flexion

b. Tension knee in 90° of flexion to same torque wrench setting recorded in extension (make sure tensioner is flush on Distal cut)

c. Size femoral component with anterior stylus on lateral trochlea

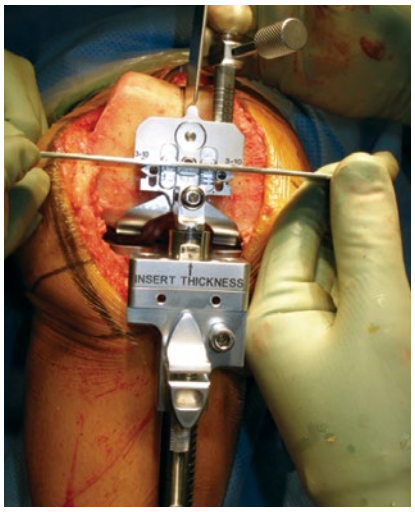
d. Loosen set screw and shift mechanism anterior to posterior as needed to match flexion gap to extension gap and finalize size of femoral component

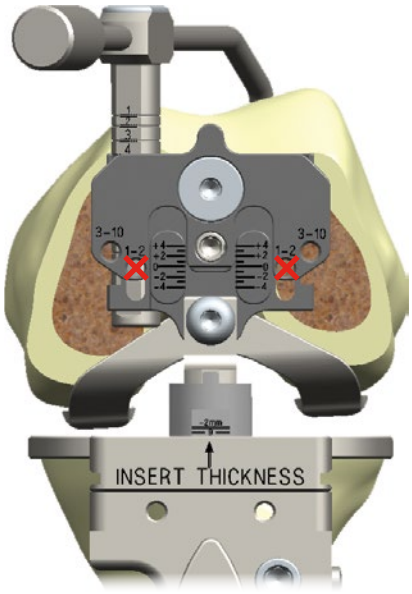
Femoral Rotation Guidance:
Varus Knee: Balancer should automatically externally rotate femoral component block

Valgus Knee: CAUTION! Avoid internal rotation of femoral component cutting block by considering releasing popliteus insertion on lateral femur or manually overriding rotation prior to drilling holes

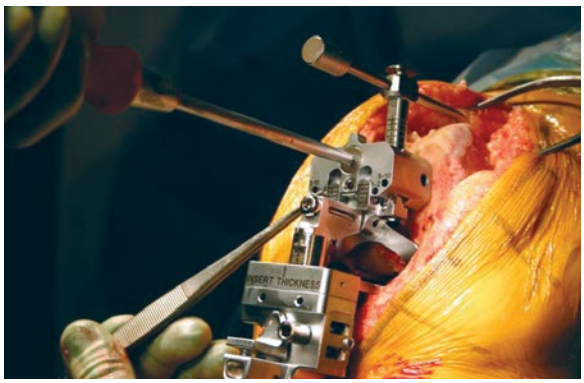
e. Lock the Sizing Guide and drill Holes for 5-in-1 Cutting Block
Note: Drill the 3-10 Holes for all sizes (1-10)

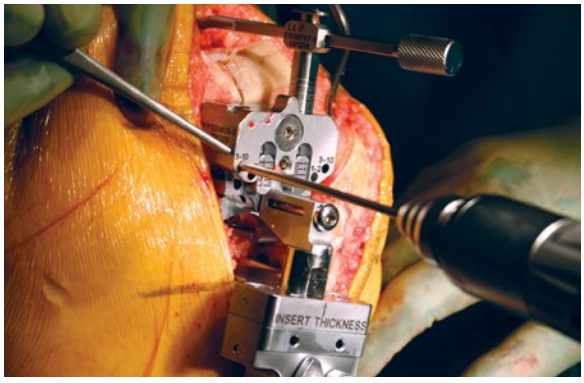
The drill holes for 1-2 are not used for JOURNEY° II TKA.





4. Insert 5-in-1 Cutting Block and finish femoral cuts





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Reference JOURNEY II TKA Surgical Technique 00829

The following technique guide was prepared under the guidance of Dr. Mark Freeman, Prof. G van Hellemondt and Dr. Matt Nadaud under close collaboration with each physician. It contains a summary of medical techniques and opinions based upon their training and expertise in the field, along with their knowledge of Smith & Nephew products. It is provided for educational and informational purposes only. Smith & Nephew does not provide medical advice and it is not intended to serve as such. It is the responsibility of the treating physician 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 products in this surgical technique, including indications for use, contraindications, effects, precautions and warnings, please consult the products' Instructions for Use (IFU)

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