

# iBalance<sup>®</sup> PFJ

Patellofemoral Joint Arthroplasty

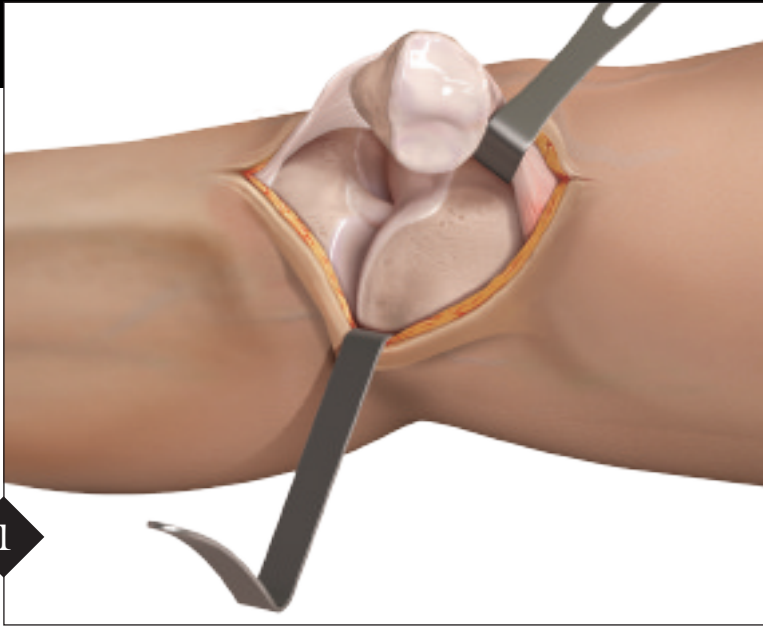
Surgical Technique



# Patellofemoral Joint Arthroplasty

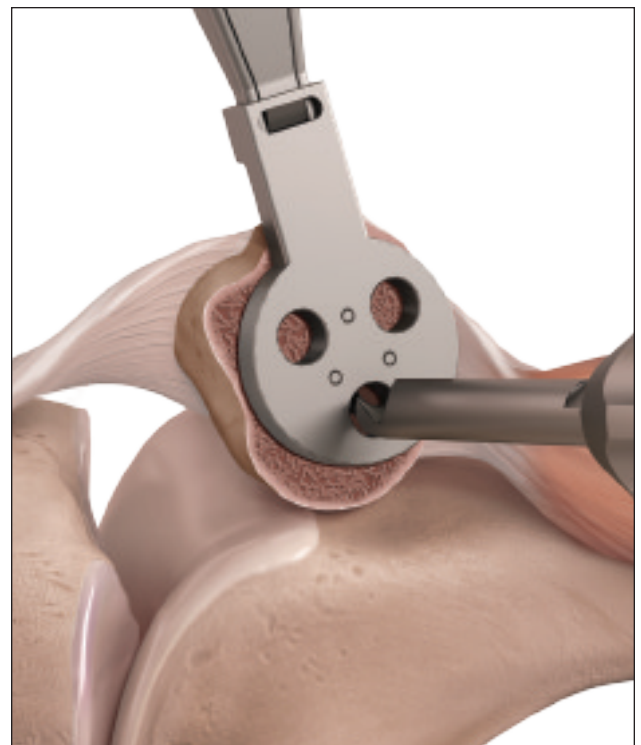


## Surgical Approach



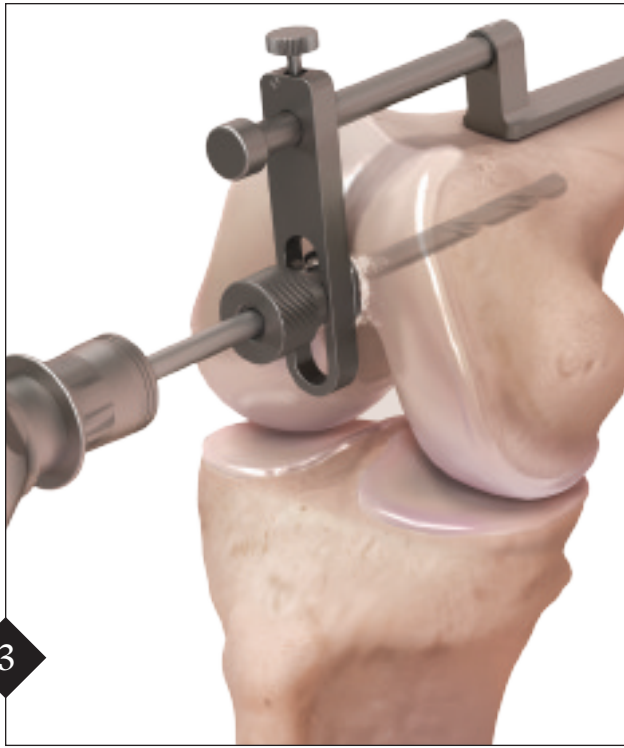
With the knee in 90° of flexion, use a skin marker to mark a 4-5 inch line starting directly over the medial facet of the patella and extending down medially to the patellar tendon. Create the incision, identifying the deep fascia of the knee. Continue the arthrotomy from about the 1:30 (or 10:30) position on the patella, down along the medial aspect of the patella to the patellar tendon. Care is taken superiorly to avoid the main attachment of the quadriceps tendon and inferiorly to avoid injury to the medial meniscus. Bring the knee into full extension and to expose the articular surface of the patella. Place a roll of towels or bump behind the knee to bring the knee into 20-30° of flexion to visualize the affected trochlea area or contact area.

## Patella Preparation

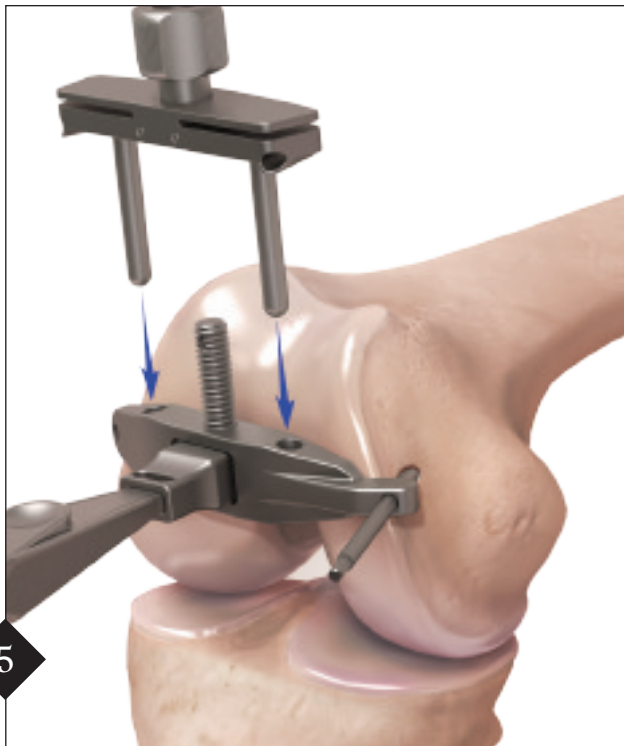


Measure the thickness of the patella with the Patella Calipers. Using a sagittal saw, resect 8-10 mm of bone, matching the thickness of the iBalance patellar components. Assess the proper coverage of the resected patella with the appropriate size Patella Drill Guide. Drill the peg holes through the drill guide.

## Femoral IM Drill

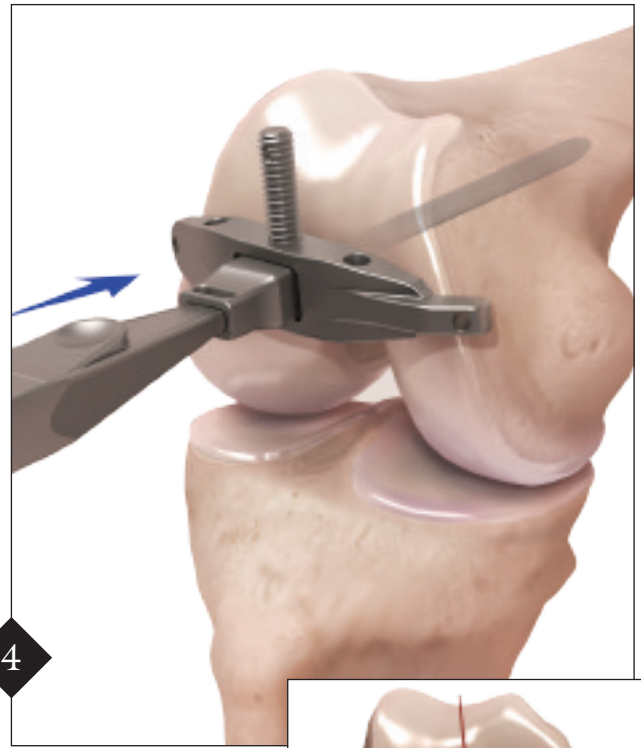


Place the stylus of the Anterior Cortex Alignment Guide directly on the anterior cortex of the femur, proximal to the superior flare of the trochlea, making sure that there is no soft tissue impingement that would alter the reference position. Position the drill sleeve approximately 1 cm anterior to the posterior aspect of the notch and drill the canal using the 5 mm IM Drill.

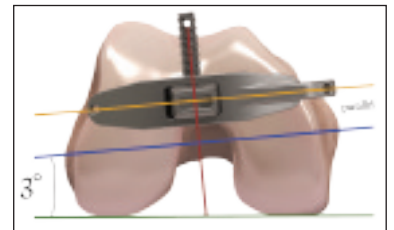
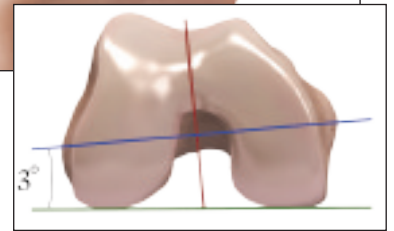


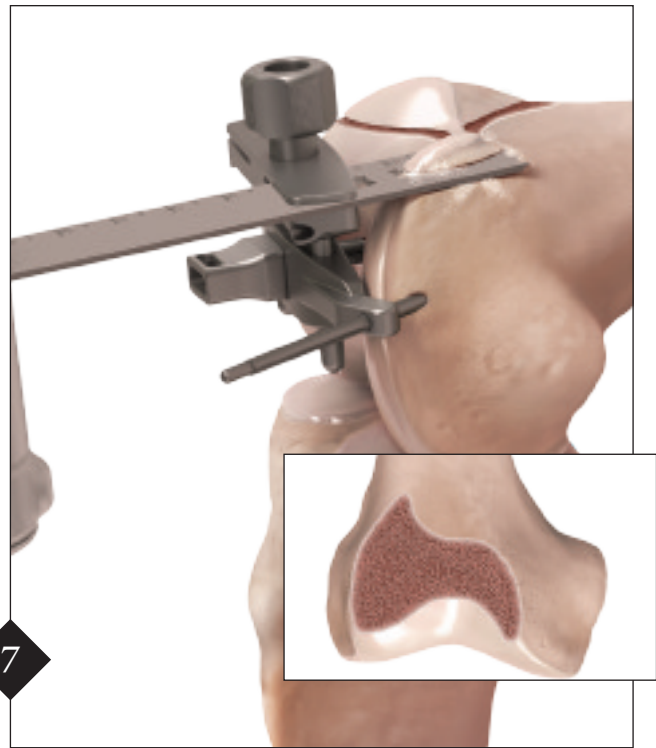
Place the Anterior Cut Guide onto the Anterior Resection Guide and thread down onto the height adjustment bolt with the rounded knob located on top of the guide, oriented proximally.

## Anterior Femoral Resection



Insert the IM rod of the left or right Anterior Cut Guide Base into the canal with the base of the guide placed flush on the condyles. Rotate the guide such that it matches the transepi-condylar axis. Once the rotational orientation is verified, pin the guide in place through the medial pin hole using a nonheaded pin.





Using the “Trochlear Groove” end of the Anterior Cut Stylus, adjust the height of resection such that the stylus touches the deepest point of the patient’s trochlea. The “Lateral Condyle” end of the Anterior Cut Stylus provides a secondary check to ensure the lateral aspect of the component does not overstuff the compartment. If the lateral condyle end of the stylus is sitting proud on the anterior aspect of the lateral trochlea, this is an indicator that the implant will overstuff the patellofemoral joint. Lower the saw capture to increase the resection level and, using an Angel Wing, verify that both an appropriate amount of bone is being removed and the flexion/extension position of the guide is appropriate. If the potential of notching is observed remove the anterior cut guide and replace with optional “flexion anterior cut guide”. Repeat steps to determine appropriate resection level with stylus. Once the position of the “saw capture” is deemed appropriate, make the anterior resection using a sagittal saw.

## Femoral Preparation



Place the Distal/Proximal Stylus in the middle slot of the PF Finishing Guide and position the guide on the resected anterior femur with the Distal/Proximal Stylus flush against the notch. Evaluate the coverage of the guide on the anterior femur and in the deep trochlea, as the guide matches the associated implant. If the coverage of the selected guide is appropriate, with no overhang, pin the guide into place with the headed pins.



### *Patellofemoral Finishing Guide Selection and Placement*

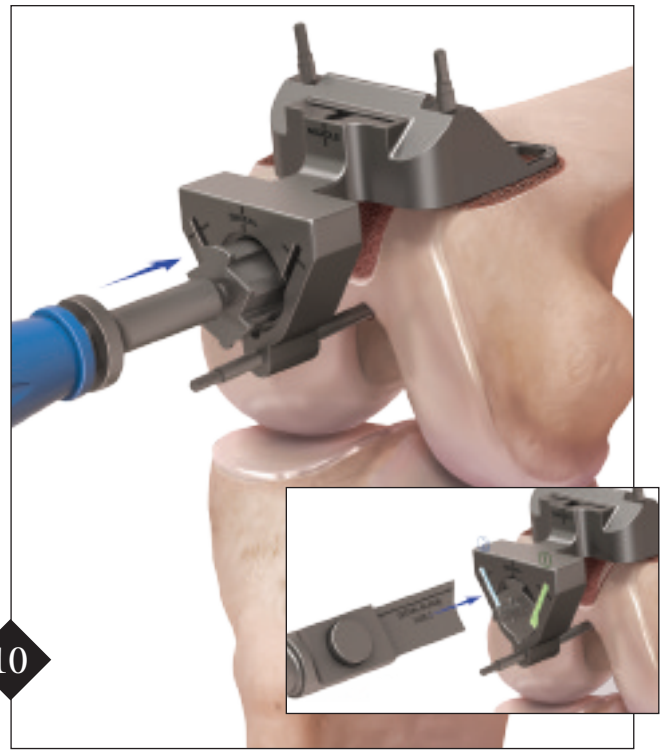
Select a Finishing Guide based on the anterior coverage of the Finishing Guide.



9

**Femoral Reaming**

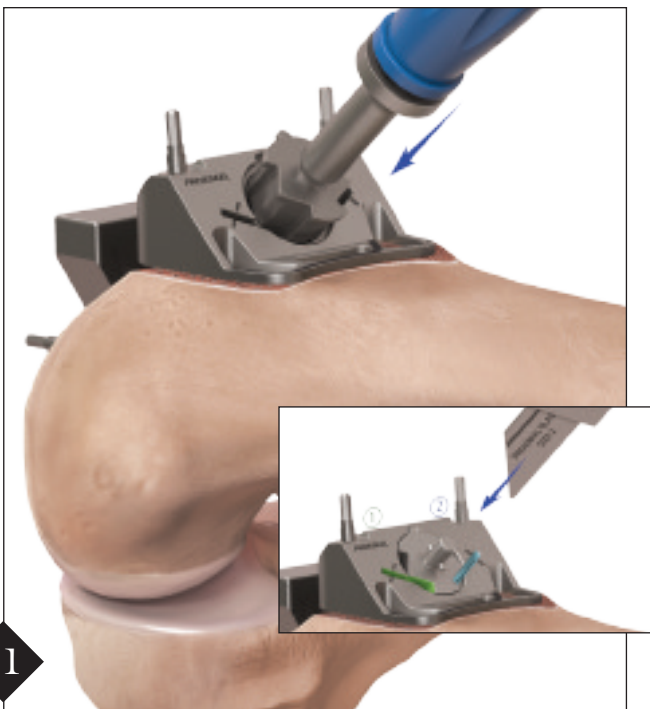
Select a Reamer that matches the selected PF Finishing Guide. Place the Hole Saw in the distal hole in the guide and advance under power until the Hole Saw is fully seated. Repeat this step in the proximal reaming hole.



10

**Femoral Finishing**

The radii that were created in step 9 will be extended using the PF Blades, which are included in the disposables kit. Load the Blade Stabilizer that matches the size of the guide onto its handle and insert into the distal hole of the Finishing Guide, taking care to orient the stabilizer properly. Load the distal blade onto the Blade Handle. Orient the blade so the laser lines match the laser lines on the Finishing Guide and impact the blade into the slot until fully seated. Repeat this step on the other side.



11

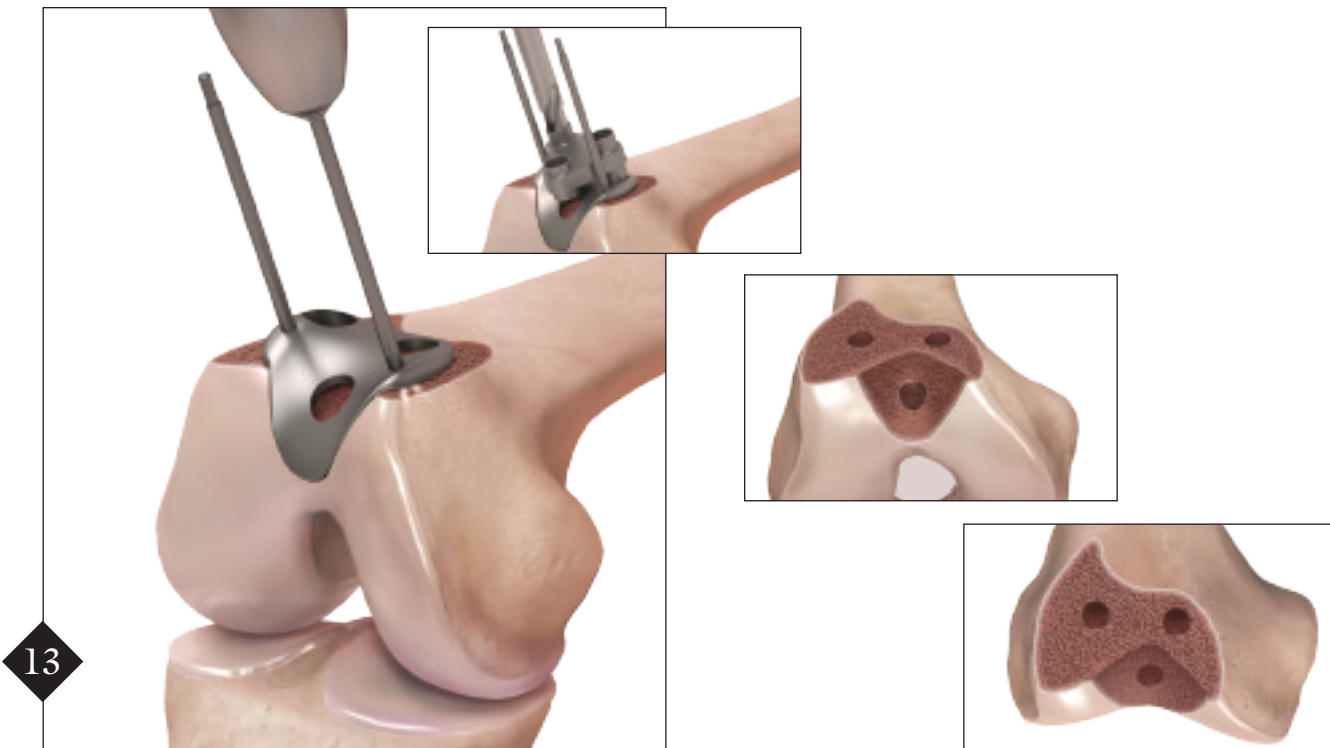
Remove the Blade Stabilizer and insert it into the proximal reamer hole. Load the proximal blade onto the PF Blade Handle. Orient the blade so the laser lines match the laser lines on the Finishing Guide and impact the blade until fully seated. Repeat this step on the other side. Remove Stabilizer.



12

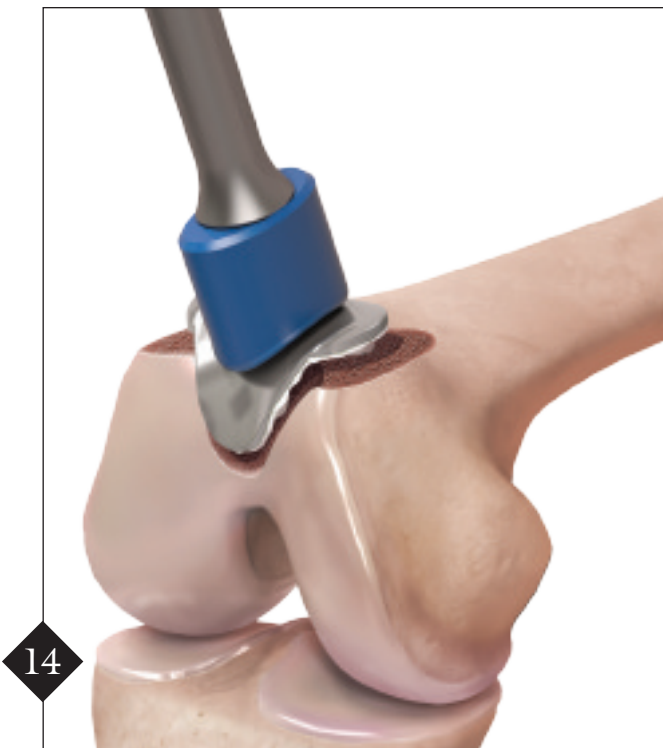
Load the middle blade onto the handle. Orient the blade so the laser line matches the laser line on the Finishing Guide and impact the blade into the middle slot until fully seated.

## Trialing and Femoral Peg Drilling



To complete the femoral prep, remove the Finishing Guide, select a Femoral Trial that matches the size of the guide and place onto the prepared femur. It should sit flush lateral in all planes. Pin the trial to the femur in the lateral hole. Attach the Peg Drill Stabilizer that matches the size of the trial to the Femoral Trial and pin into place. Drill the peg holes with the drill.

## Implantation



The trochlear implant is implanted first. Apply bone cement to the backside of the component and the prepared femoral bone. Place the trochlear component onto the femur and impact with the Femoral Impactor until seated. Coat the prepared patella and the patellar component with a thin layer of cement and place the component onto the prepared patella. Pressurize the implant for secure fixation to the patella using the Cement Clamp.

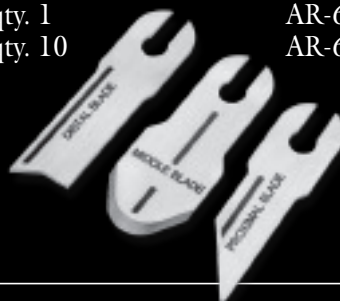


## Ordering Information

### *iBalance PFJ Finishing Blades:*

(each kit includes three blades – Distal, Middle and Proximal)

Finishing Blades, size 1, qty. 1	AR-602-26
Finishing Blades, size 1, qty. 10	AR-602-26L
Finishing Blades, size 2, qty. 1	AR-602-27
Finishing Blades, size 2, qty. 10	AR-602-27L
Finishing Blades, size 3, qty. 1	AR-602-28
Finishing Blades, size 3, qty. 10	AR-602-28L
Finishing Blades, size 4, qty. 1	AR-602-29
Finishing Blades, size 4, qty. 10	AR-602-29L



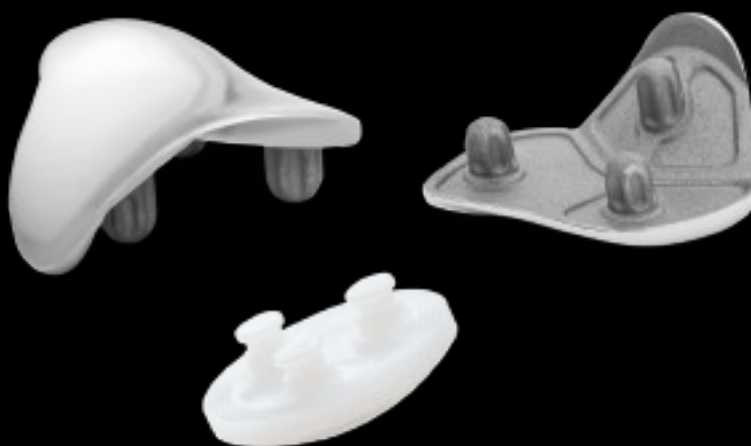
### *Implants:*

#### Trochlear Components:

iBalance Patellofemoral Implant, size 1, left	AR-502-1L
iBalance Patellofemoral Implant, size 2, left	AR-502-2L
iBalance Patellofemoral Implant, size 3, left	AR-502-3L
iBalance Patellofemoral Implant, size 4, left	AR-502-4L
iBalance Patellofemoral Implant, size 1, right	AR-502-1R
iBalance Patellofemoral Implant, size 2, right	AR-502-2R
iBalance Patellofemoral Implant, size 3, right	AR-502-3R
iBalance Patellofemoral Implant, size 4, right	AR-502-4R

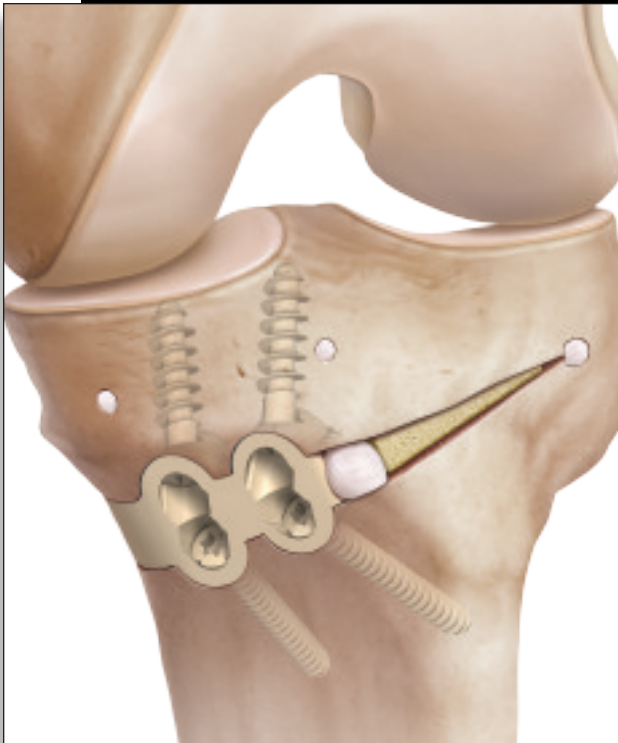
#### Patellar Components:

iBalance Patella Implant Dome, 27 mm x 8 mm	AR-504-PSA8
iBalance Patella Implant Dome, 30 mm x 8 mm	AR-504-PSB8
iBalance Patella Implant Dome, 34 mm x 9 mm	AR-504-PSC9
iBalance Patella Implant Dome, 37 mm x 10 mm	AR-504-PSD0





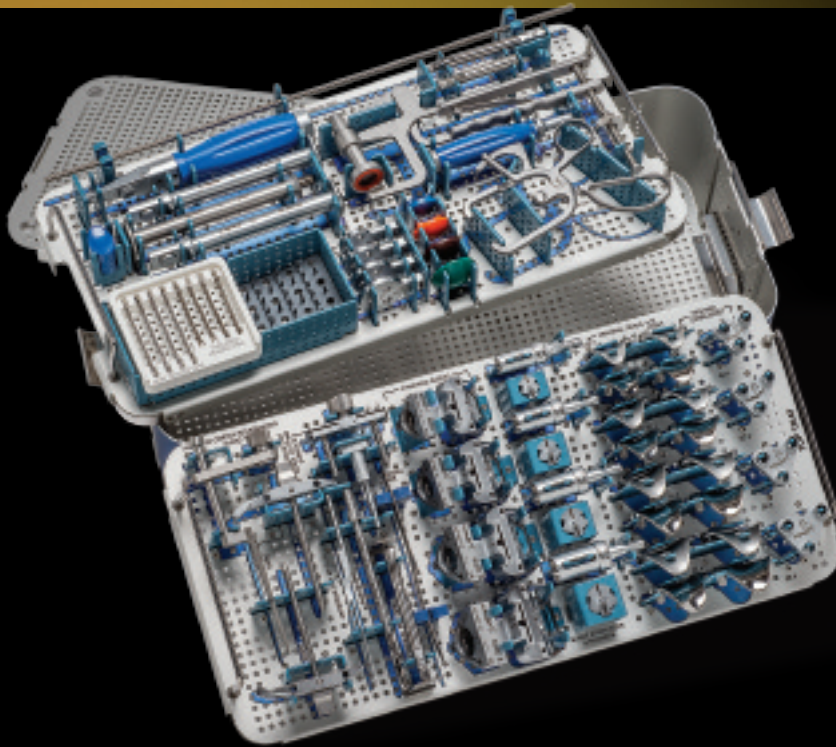
## Other iBalance Systems for Restoration of the Knee



*iBalance HTO System  
for Medial High Tibial Opening Wedge Osteotomy*



*iBalance Unicondylar Knee System  
for isolated medial or lateral  
tibiofemoral arthrosis*



***iBalance PFJ Instrument Set (AR-602-S) includes:***

Anterior Cortex Alignment Guide	AR-602-5
IM Drill	AR-602-6
Anterior Cut Guide Base, left	AR-602-8L
Anterior Cut Guide Base, right	AR-602-8R
Anterior Cut Guide	AR-602-9
Anterior Cut Stylus	AR-602-10
Quick Connect Handle	AR-613-8
Finishing Guide, size 1	AR-602-11
Finishing Guide, size 2	AR-602-12
Finishing Guide, size 3	AR-602-13
Finishing Guide, size 4	AR-602-14
Distal/Proximal Stylus	AR-602-15
Hole Saw, size 1	AR-602-16
Hole Saw, size 2	AR-602-17
Hole Saw, size 3	AR-602-18
Hole Saw, size 4	AR-602-19
Blade Stabilizer, size 1	AR-602-20
Blade Stabilizer, size 2	AR-602-21
Blade Stabilizer, size 3	AR-602-22
Blade Stabilizer, size 4	AR-602-23
Blade Stabilizer Handle	AR-602-24
Blade Handle, qty 2	AR-602-25
Femoral Trial, size 1, left	AR-602-1L
Femoral Trial, size 1, right	AR-602-1R
Femoral Trial, size 2, left	AR-602-2L
Femoral Trial, size 2, right	AR-602-2R
Femoral Trial, size 3, left	AR-602-3L
Femoral Trial, size 3, right	AR-602-3R
Femoral Trial, size 4, left	AR-602-4L
Femoral Trial, Size 4, right	AR-602-4R
Peg Drill Stabilizer, size 1	AR-602-38
Peg Drill Stabilizer, size 2	AR-602-39
Peg Drill Stabilizer, size 3	AR-602-40
Peg Drill Stabilizer, size 4	AR-602-41

*iBalance PFJ Instrument Set (AR-602-S) continued:*

---

Femoral Peg Drill	AR-602-42
Flexion Anterior Cut Guide	AR-602-58
Alignment Rod, qty. 2	AR-601-AR00
Threaded Pin, Headed, qty. 4	AR-603-72
Fixation Pin, qty. 4	AR-601-Fp30
Pin Driver	AR-603-91
Femoral Impactor Head	AR-602-43
Universal Impactor Handle	AR-603-31
Angel Wing	AR-603-76
Patella Drill Guide, 27 mm	AR-602-44
Patella Drill Guide, 30 mm	AR-602-45
Patella Drill Guide, 34 mm	AR-602-46
Patella Drill Guide, 37 mm	AR-602-47
Patella Cement Clamp	AR-603-85
Patella Calipers	AR-602-48
Patella Peg Drill	AR-603-92
Dome Patella Trial, Size 27, 8 mm	AR-603-77
Dome Patella Trial, Size 30, 8 mm	AR-603-79
Dome Patella Trial, Size 34, 9 mm	AR-603-81
Dome Patella Trial, Size 37, 10 mm	AR-603-83
Pegged Femoral Trial, Size 1, left	AR-602-50
Pegged Femoral Trial, Size 2, left	AR-602-51
Pegged Femoral Trial, Size 3, left	AR-602-52
Pegged Femoral Trial, Size 4, left	AR-602-53
Pegged Femoral Trial, Size 1, right	AR-602-54
Pegged Femoral Trial, Size 2, right	AR-602-55
Pegged Femoral Trial, Size 3, right	AR-602-56
Pegged Femoral Trial, Size 4, right	AR-602-57
iBalance PFJ Instrument Case	AR-602-C

*This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's Directions For Use.*



PATENTS PENDING