stryker

Triathlon®

Knee System

Surgical protocol compendium

Compatibility

This compatibility chart applies to the X3 inserts with catalog numbers ending with the letter E. Please reach out to your Stryker representative for the compatibility of other Triathlon tibial inserts.

Femoral component/ insert compatibility

Size matching: One up, one down, e.g., size 5 femur with size 4 or 6 insert/baseplate.

- **Note:** Cementless femoral components are not to be used with cement.

	Femoral components	Insert type				
		CR	CS	PS	PSR	TS
	CR cemented			No	No	No
	PS cemented	No				
	TS cemented	No	No			
Cementless	CR beaded with PA			No	No	No
Cementless	PS beaded with PA	No	No			

Femoral component/ patella compatibility

Size matching: Every patella articulates with every femur due to a common radius across all sizes.

	Femoral components	Patella type			
		Asymmetric	Asymmetric metal-backed	Symmetric metal-backed	Symmetric
	CR cemented				
	PS cemented				
	TS cemented				
Cementless	CR beaded with PA				
Cementless	PS beaded with PA				

Tibial insert/baseplate compatibility

Size matching: Size specific, e.g., size 4 insert to be used only with size 4 baseplate.

- **Note:** TS insert can only be used with the cemented universal baseplate.
- **Note:** PS insert trial may be used to trial for PSR insert.

	Tibial Baseplates	Insert type				
		CR	CS	PS	PSR	TS
	Cemented Primary					No
	Cemented Universal					
Cementless	Beaded with PA Primary					No
Cementless	Beaded with PA Screw Fix*					No
Cementless	Tritanium					No

Triathlon TS Augments (for Triathlon PS and TS cemented femur only)

Distal Augments are for use with both the medial and lateral portions of the side indicated, e.g. #4 right is used for medial and lateral compartments on a right femur.

Posterior Augments are universal size specific, e.g. size 4 posterior augments are for the size 4 femur.

Tibial Augments are size specific and come in left medial/right lateral or right medial/left lateral configurations and are only compatible with the cemented universal baseplate.

*This product is not CE marked in accordance with applicable EU regulations and directives. Stryker is not marketing or distributing this product in the EU. Any reference to this product is for presentation purposes only.

This page contains the indications and contraindications for the Triathlon Total Knee System. For the indications and contraindications for the Tritanium Tibial Baseplate, please see the next page.

Indications for US and rest of world:

General Total Knee Arthroplasty (TKR) Indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease (including osteoarthritis, traumatic arthritis or avascular necrosis), rheumatoid arthritis or post-traumatic arthritis.
- Post-traumatic loss of knee joint configuration and function.
- Moderate varus, valgus or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.
- Revision of previous unsuccessful knee replacement or other procedure.
- Fracture of the distal femur and/or proximal tibia that cannot be stabilized by standard fracture-management techniques.

The Triathlon Tritanium Tibial Baseplate and Tritanium Metal-Backed Patella components are indicated for both uncemented and cemented use.

The Triathlon Total Knee System beaded and beaded with Peri-Apatite components are intended for uncemented use only.

The Triathlon All Polyethylene tibial components are indicated for cemented use only.

Additional Indications for Posterior Stabilized (PS) and Total Stabilizer (TS) Components:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Additional Indications for Total Stabilizer (TS) Components:

- Severe instability of the knee secondary to compromised collateral ligament integrity or function.

Indications for Bone Augments:

- Painful, disabling joint disease of the knee secondary to: degenerative arthritis, rheumatoid arthritis or post-traumatic arthritis, complicated by the presence of bone loss.
- Salvage of previous unsuccessful total knee replacement or other surgical procedure accompanied by bone loss.

Additional Indications for Cone Augments:

- Severe degeneration or trauma requiring extensive resection and replacement
- Femoral and tibial bone voids
- Metaphyseal reconstruction

The Triathlon Tritanium® Cone Augment components are intended for cemented or cementless use.

Indications for EU, EMEA countries requiring CE mark and Australia:

General Primary Total Knee Arthroplasty (TKA) Indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease.
- Moderate varus, valgus or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.

Additional Indications for Triathlon Cruciate Retaining (CR) cemented femoral component, CS X3 tibial inserts, Primary Cemented Baseplate, Universal Baseplate, Cemented Symmetric and Asymmetric X3 Polyethylene Patellar components include:

- Revision of previous unsuccessful knee replacement or other procedure.

Additional Indications for Posterior Stabilized (PS) Femoral component, distal fixation pegs and PS/PSR tibial inserts:

- Revision of previous unsuccessful knee replacement or other procedure (cemented PS femoral and PS X3 tibial insert only).
- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Additional Indications for Posterior Stabilized (PS) Femoral components and PS/PSR tibial inserts when used with the Triathlon Tritanium Baseplate:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Indications for Total Stabilizer (TS) Components (TS femoral component, TS tibial inserts and TS accessory components, including stems, extenders and offset adapters):

- Revision of previous unsuccessful knee replacement or other procedure.

The following indications apply in complex primary and/or revision Total Knee Arthroplasty:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.
- Severe instability of the knee secondary to compromised collateral ligament integrity or function.

The Triathlon® Tritanium® Total Knee System Patellar and Tibial Baseplate components are indicated for both uncemented and cemented use in primary total knee arthroplasty.

The Triathlon® Total Knee System beaded with Peri-Apatite components are intended for uncemented use only in primary total knee arthroplasty.

The Triathlon® All Polyethylene tibial components are indicated for cemented use only in primary total knee arthroplasty.

Indications for Tibial and Femoral Bone Augments:

- Painful, disabling joint disease of the knee complicated by the presence of bone loss.
- Revision of previous unsuccessful knee replacement or other procedure, accompanied by bone loss.

Indications for Cone Augments (revision only):

- Severe degeneration requiring extensive resection and replacement.
- Femoral and Tibial bone voids.
- Metaphyseal reconstruction.

The Triathlon Tritanium® Cone Augment components are intended for cemented or cementless use with the Triathlon TS Femoral component and Universal Tibial baseplate. The Cone Augments are cemented to the femoral or tibial component; the bone interface may be cemented or cementless.

Contraindications

- Any active or suspected latent infection in or about the knee joint.
- Distant foci of infection which may cause hematogenous spread to the implant site.
- Any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure or complications in postoperative care.
- Bone stock compromised by disease, infection or prior implantation which cannot provide adequate support and/or fixation to the prosthesis.
- Skeletal immaturity.
- Severe instability of the knee joint secondary to the absence of collateral ligament integrity and function.

Warnings and precautions

See package insert for warnings, precautions, adverse effects, information for patients and other essential product information. Before using instrumentation, verify:

- Instruments have been properly disassembled prior to cleaning and sterilization;
- Instruments have been properly assembled post-sterilization;
- Instruments have maintained design integrity; and,
- Proper size configurations are available.

For Instructions for Cleaning, Sterilization, Inspection and Maintenance of Orthopaedic Medical Devices, refer to LSTPI-B and SLI0001.

This page contains the indications and contraindications for the Tritanium Tibial Baseplate. For the indications and contraindications for the Triathlon Total Knee System, please see the previous page.

Indications for US and rest of world:

General Total Knee Arthroplasty (TKR) Indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease (including osteoarthritis, traumatic arthritis or avascular necrosis), rheumatoid arthritis or post-traumatic arthritis.
- Post-traumatic loss of knee joint configuration and function.
- Moderate varus, valgus or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.
- Revision of previous unsuccessful knee replacement or other procedure.
- Fracture of the distal femur and/or proximal tibia that cannot be stabilized by standard fracture-management techniques.

The Triathlon Tritanium Baseplate is indicated for both cementless and cemented use.

Additional Indications for Posterior Stabilized (PS) Components:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Indications for EU, EMEA countries requiring CE mark and Australia:

General Primary Total Knee Arthroplasty (TKA) Indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease.
- Moderate varus, valgus or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.

Additional Indications for Posterior Stabilized (PS) Femoral components and PS/PSR tibial inserts when used with the Triathlon Tritanium Baseplate:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

The Triathlon® Tritanium® Total Knee System components are indicated for both uncemented and cemented use in primary total knee arthroplasty.

Contraindications

- Any active or suspected latent infection in or about the knee joint.
- Distant foci of infection which may cause hematogenous spread to the implant site.
- Any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure or complications in postoperative care.
- Bone stock compromised by disease, infection or prior implantation which cannot provide adequate support and/or fixation to the prosthesis.
- Skeletal immaturity.
- Severe instability of the knee joint secondary to the absence of collateral ligament integrity and function.

Warnings and precautions

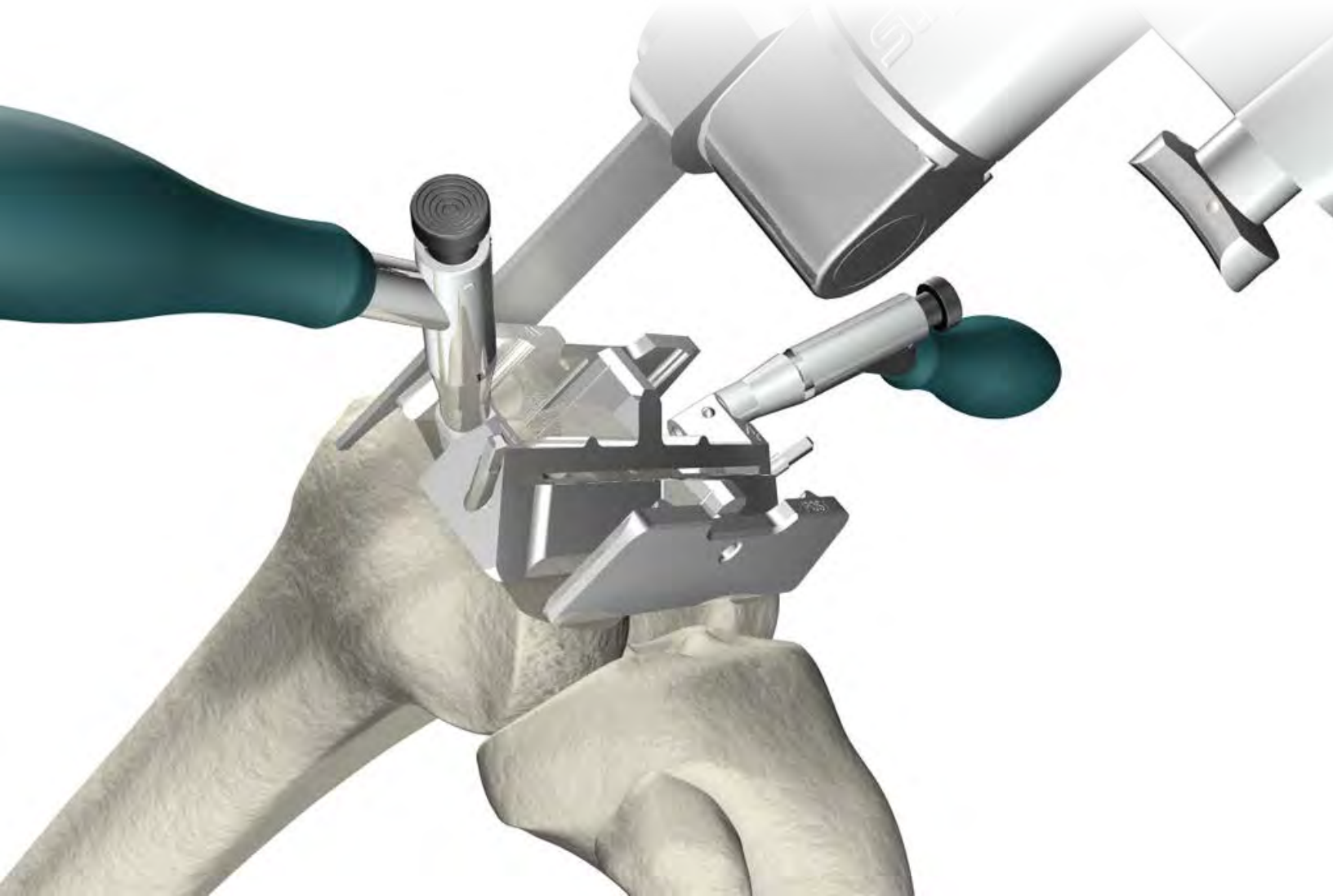
See package insert for warnings, precautions, adverse effects, information for patients and other essential product information. Before using instrumentation, verify:

- Instruments have been properly disassembled prior to cleaning and sterilization;
- Instruments have been properly assembled post-sterilization;
- Instruments have maintained design integrity; and,
- Proper size configurations are available.

For Instructions for Cleaning, Sterilization, Inspection and Maintenance of Orthopaedic Medical Devices, refer to LSTPI-B and SLI0001.

Please use the tiles below to navigate to each specific system. Note that there are implant-specific addendums listed as well.

Triathlon® Knee System
Standard instruments



Surgical protocol

Contents

Exposure

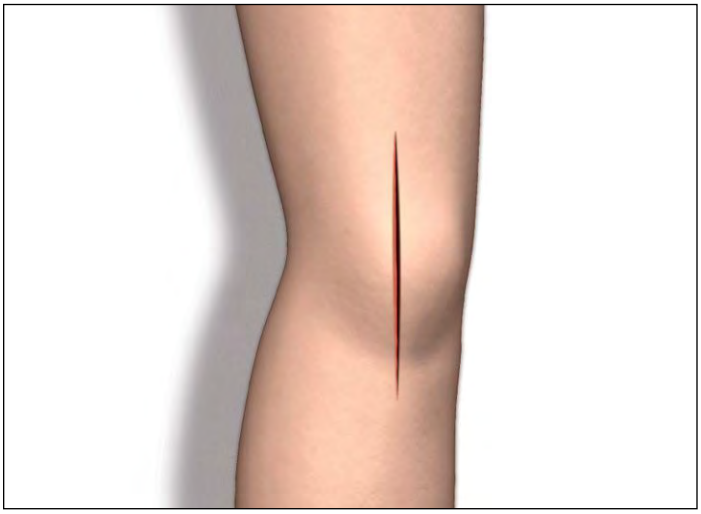


Figure 1

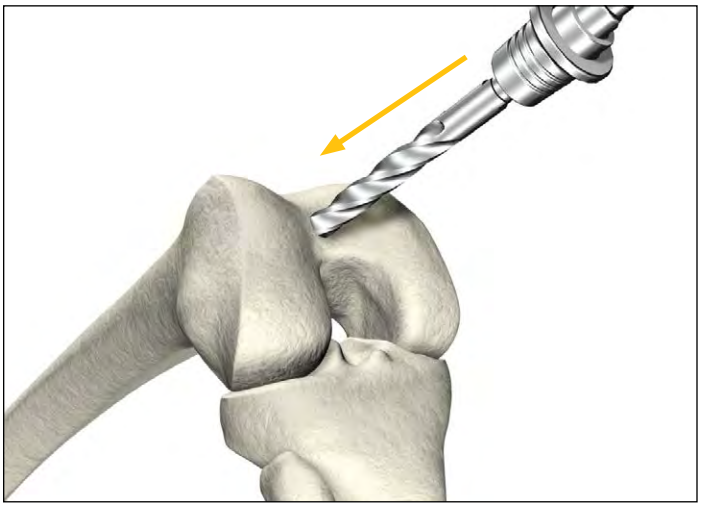


Figure 2

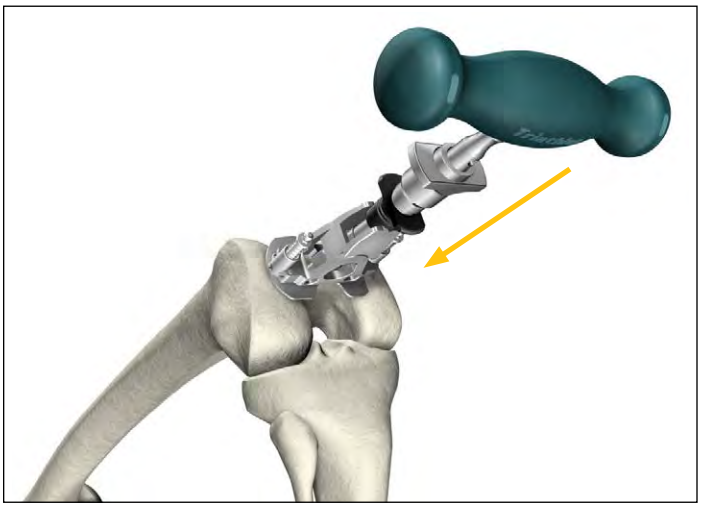


Figure 3

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Exposure

Triathlon Total Knee arthroplasty can be performed through any standard approach. A standard anterior midline incision or other suitable approaches such as mid-vastus, sub-vastus or quadriceps sparing may be used based on surgeon preference.

Any previous incision can be used or incorporated to decrease the risk of skin slough. The capsule is entered through a medial parapatellar approach.

Femoral intramedullary alignment

The Universal Driver allows for attachment of all drills and pins. The Universal Driver may be attached directly to a reamer, drill or a Jacobs Chuck.

There are two options available for Femoral intramedullary alignment: the FLEX IM Rod or the 5/16" IM Rod

Option 2: Flex IM Rod

Locate the IM drill hole; it is as close to the PCL insertion as possible and slightly medial to the midline of the distal femur.

Attach the 3/8" IM drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur.

The hole should not be enlarged and the drill should not be "toggled." The FLEX IM Rod that references this hole will be easier to insert as it conforms to the anterior bow of the femur without the resistance felt with rigid IM Rods.

Attach the T-Handle driver to the FLEX IM Rod. The ANTERIOR engraving on the FLEX IM Rod should be aligned to the Triathlon logo of the T-Handle.

Insert the IM Rod into the Femoral Alignment Guide. These guides are designed for use on either the left or right knee and may be set between 5°, 6° and 7° of the valgus.

Set the instrument to the desired angle by pulling back on the black knob of the Femoral Alignment Guide and placing it in the appropriate notch.. Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be parallel to the transepicondylar axis.

Femoral preparation

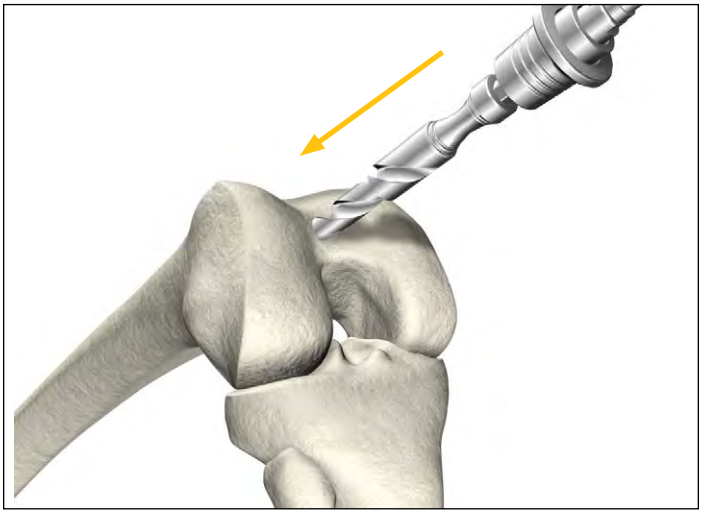


Figure 4

Option 2: 5/16" IM Rod

Locate the IM drill hole. It is approximately 1cm anterior to the femoral attachment of the posterior cruciate ligament and slightly medial to the midline of the distal femur.

Identification of landmarks may be aided by removal of osteophytes from the margins of the intercondylar notch.

Attach the 3/8" IM Drill to the Universal Driver and drill into the IM canal. The first diameter will create a tight fit around the IM Rod. If further clearance is desired, continue to drill until the larger step diameter opens the hole. This will allow the IM canal to dictate the position of the rod and avoids the need to "toggle" the drill to create clearance.

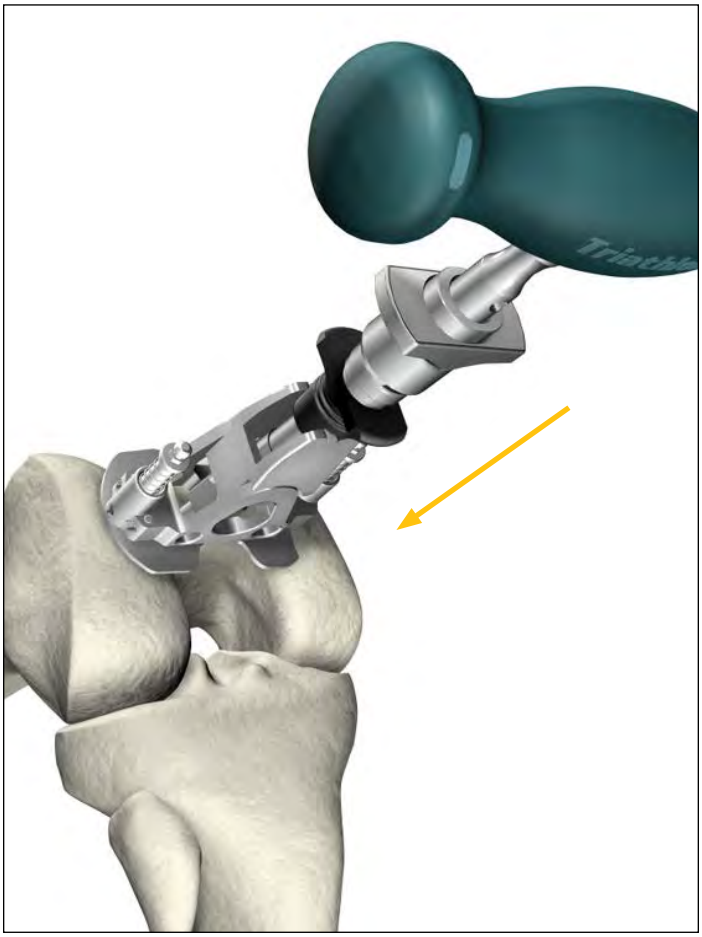


Figure 5

Attach the T-Handle Driver to the 5/16" IM Rod. Insert the IM Rod into the Femoral Alignment Guide. The Femoral Alignment Guide is designed for use on either the left or right knee and may be set to 5, 6 or 7° of valgus. Set the instrument to the desired angle by pulling back on the black knob of the Femoral Alignment Guide and placing it in the appropriate notch. Advance the rod, with attached guide, slowly up the IM canal until the desired depth is reached.

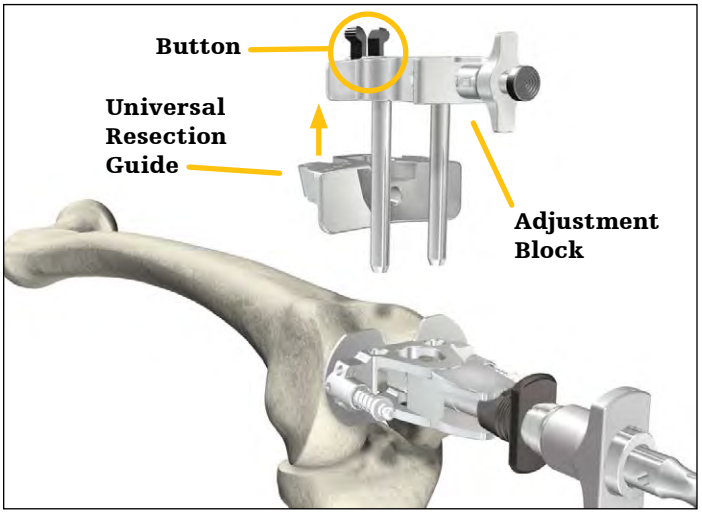


Figure 6

Snap the Universal Resection Guide onto the Adjustment Block and insert the posts of the Adjustment Block into the two holes in the Femoral Alignment Guide **(See Assembly Figures 1a and 1b)**.

Place the Femoral Alignment Guide in contact with the more prominent distal femoral condyle and align the guide in neutral rotation. Although the posterior condyles and the epicondyles may be used as landmarks for rotation, determining I/E rotation is not necessary at this time.

Impact the distal captured pins in the Femoral Alignment Guide to aid in stabilization.

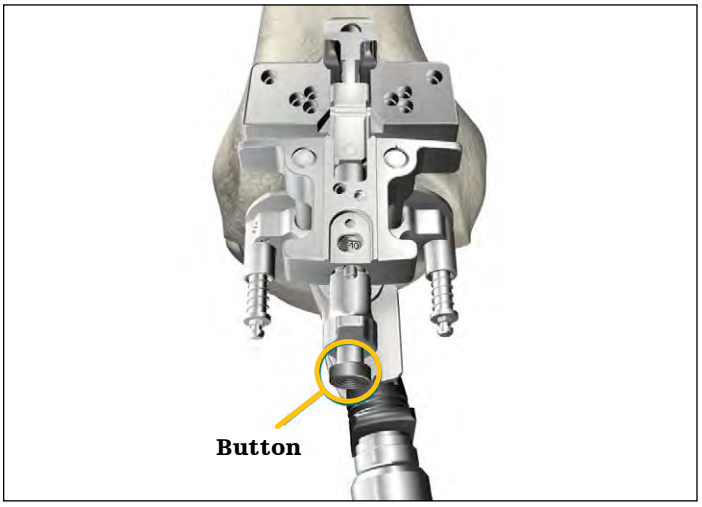


Figure 7

The Adjustment Block allows for an 8 mm (the distal thickness of the femoral component) and 10 mm (used to aid in the correction of a flexion contracture) resection level.

Press the black button on the end of the Adjustment Block and pull to set the resection to the desired level.

- **Note:** If the medial "0" pin-hole is too close to the edge of the bone (on smaller femurs), use the holes marked "2" which are closer to the center of the bone.

The Triathlon Knee System Instruments allow for a clear view of the bone that is being resected to ensure the appropriate level is set.

Slide the Adjustment Block Assembly within the Femoral Alignment Guide until the Universal Resection Guide contacts the anterior surface of the femur.

Figure 8

Prior to pinning the Universal Resection Guide to the femur, an optional external alignment check may be performed. Attach the Universal Alignment Handle to the Universal Resection Guide and insert a Universal Alignment Rod into the handle.

Alignment is correct when the rod intersects the center of the femoral head and parallels the axis of the femur in the lateral view.

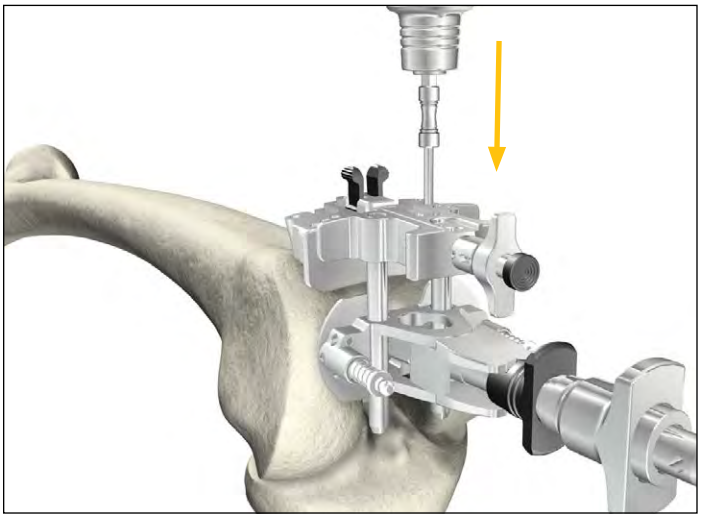


Figure 9

Once alignment is confirmed, remove the Universal Alignment Handle and the Universal Alignment Rod.

Pin the Universal Resection Guide to the anterior femur using Headless Pins. If preferred, Headless Threaded Pins or Fluted Headless 1/8″ Pins may be used instead. Insert the pins into the Headless Pin Driver (which is inserted into the Universal Driver) and drill through the set of holes marked “0” on the Universal Resection Guide. The pins are automatically released from the driver as it is pulled back.

- **Note:** If the medial “0” pin-hole is too close to the edge of the bone (on smaller femurs), use the holes marked “2” which are closer to the center of the bone.
- **Note:** Ensure that 1/2″ of the pin is protruding from all guides after insertion. This will aid in pin removal.

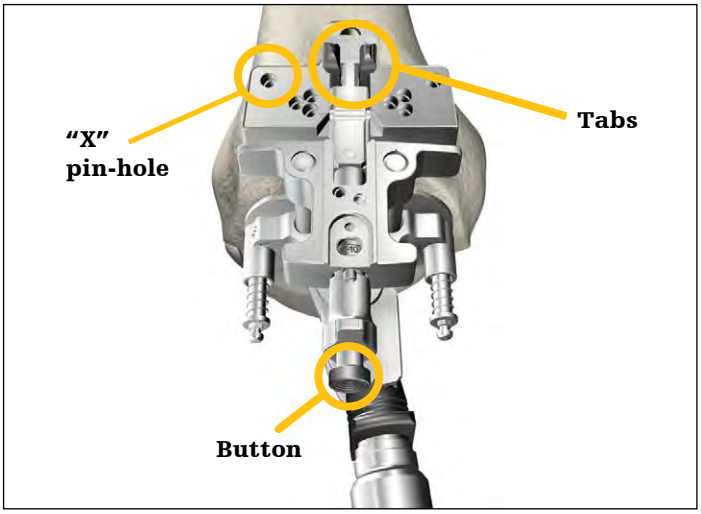


Figure 10

After the Universal Resection Guide is pinned in place, remove the IM Rod. The Femoral Alignment Guide and the Adjustment Block may be removed by squeezing the black tabs on the Adjustment Block.

Pinning through the "X" pin-hole will aid in further securing the guide.

- **Note:** If the "X" pin-hole is used, the pin must be removed prior to repositioning or removing the Universal Resection Guide.

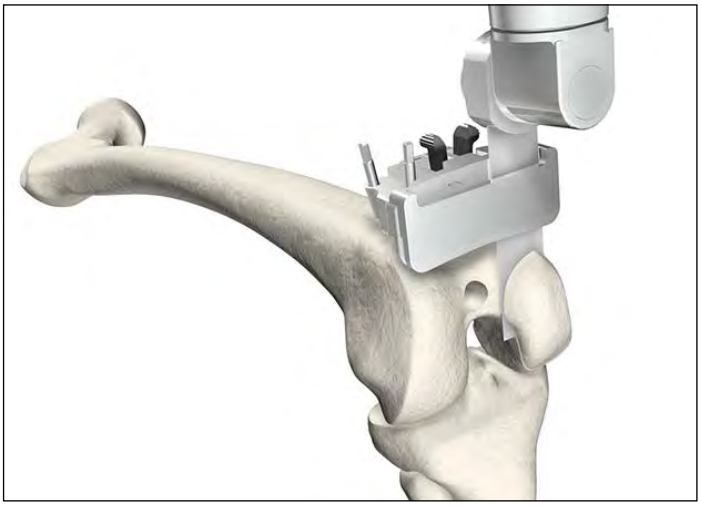


Figure 11

Distal femoral resection

The distal resection level may be altered by repositioning the Universal Resection Guide in either the 2 or 4 holes. This will remove an additional 2mm or 4mm of bone, respectively.

Once the final resection level is determined, the distal femoral resection is made. An optional Modular Capture - Distal Resection may be attached to the Universal Resection Guide. Squeeze the black tabs on the Modular Capture - Distal Resection to insert into the Universal Resection Guide.

The Triathlon Knee System Instruments are designed to provide control of the sawblade during bone resections. When using Modular Captures or cutting through slots, a .050" (1.25mm) blade is used.

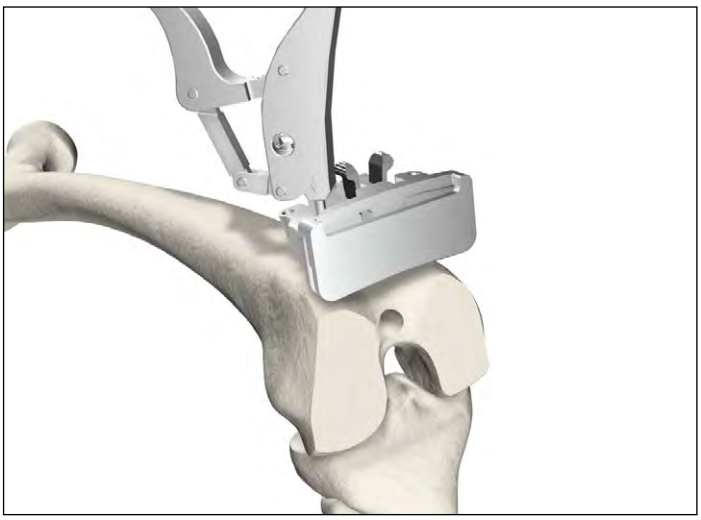


Figure 12

Remove the Headless Pins or Fluted Headless 1/8" Pins by placing the Headless Pin Extractor over the pin and placing flush on the Universal Resection Guide. Squeeze the handle approximately four times, ensuring that after each squeeze, the Headless Pin Extractor is placed flush with the Universal Resection Guide. This will allow the tongue on the Headless Pin Extractor to back out the pin.

If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin. Remove the Universal Resection Guide and check the resection for flatness.

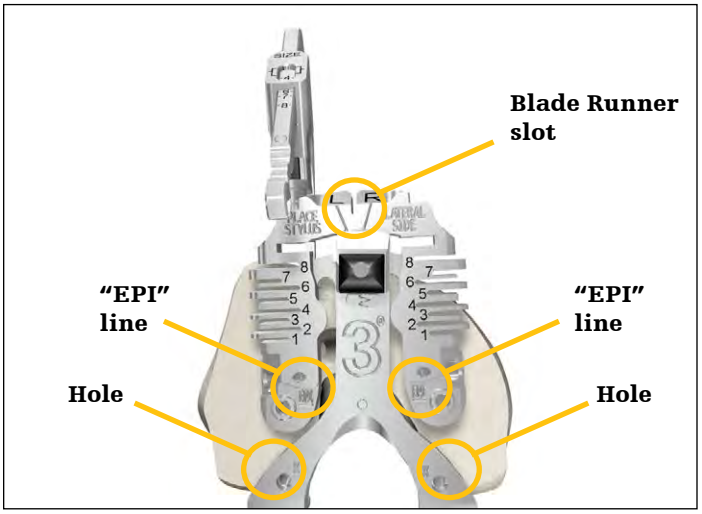


Figure 13

Femoral sizing

Assemble the Femoral Sizer with the Femoral Stylus in the appropriate lateral hole, setting the Stylus length to an approximate size. Set the rotation to "LEFT" for a left leg and "RIGHT" for a right leg. This setting equals 3° of external rotation.

A secondary rotational check can be made by lining up the epicondyles with the reference lines marked "EPI". A tertiary check is to assess Whiteside's line with the Blade Runner through the slot in the top of the guide.

Optional Modular Handles may be assembled to the Femoral Sizer to assist in stabilization.

In the event of hypoplasia: Pin the Femoral Sizer through the hole on the unaffected side for stability. Rotate the Femoral Sizer and assess rotation using the rotational checks mentioned above.

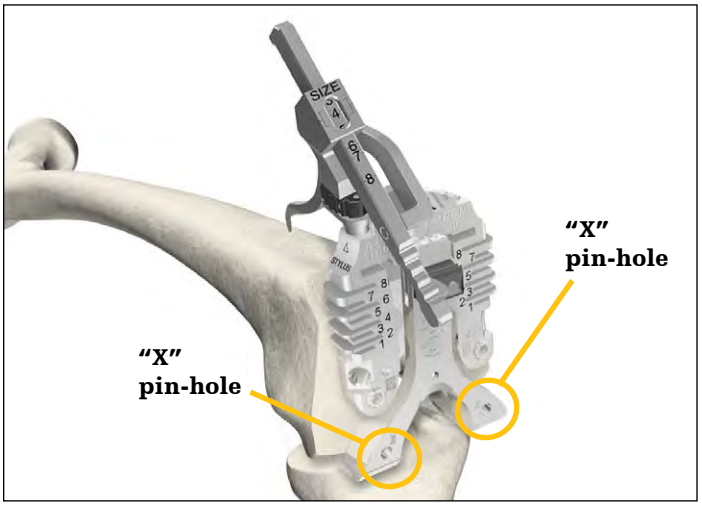


Figure 14

Position the assembly flush on the resected distal femur, sliding the feet of the Femoral Sizer under the posterior condyles. The Femoral Stylus point should be placed on the lateral cortex.

It is important that the Femoral Stylus point rests on bone and not soft tissue.

The Femoral Sizer may be pinned in place through the holes marked "X" with Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins.

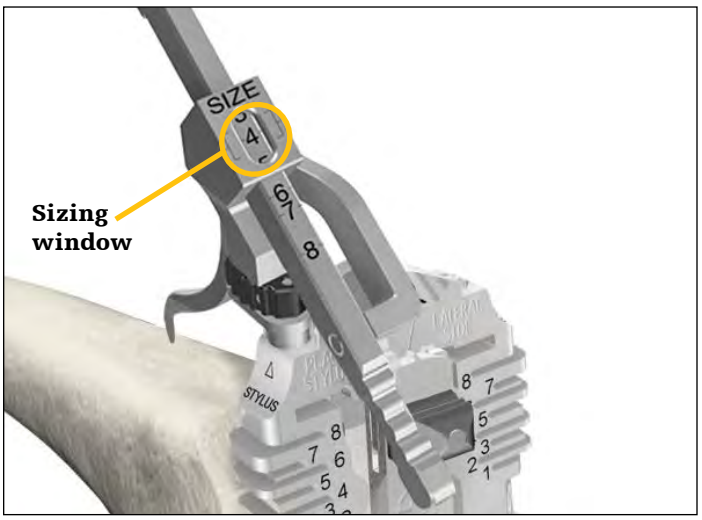


Figure 15

The size is determined by the position of the scribe mark on the Femoral Stylus shaft within the sizing window.

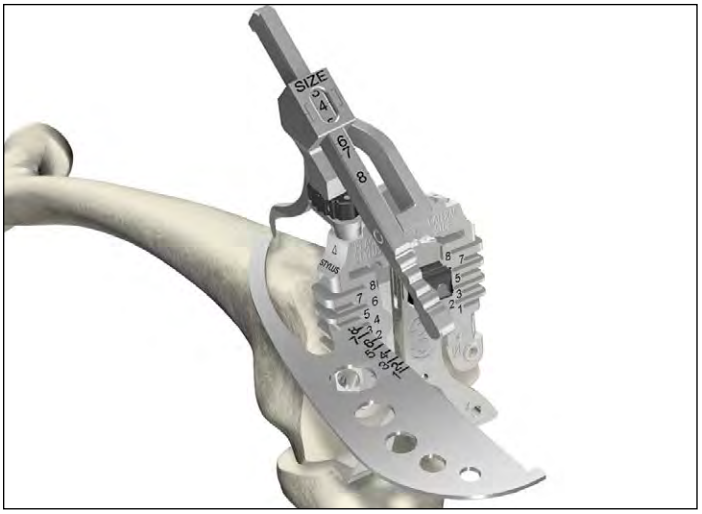


Figure 16

It is recommended that the anterior resection level be checked to further confirm the correct size by sliding a Blade Runner through the sizing guide's size-specific anterior slots and assessing the resection.

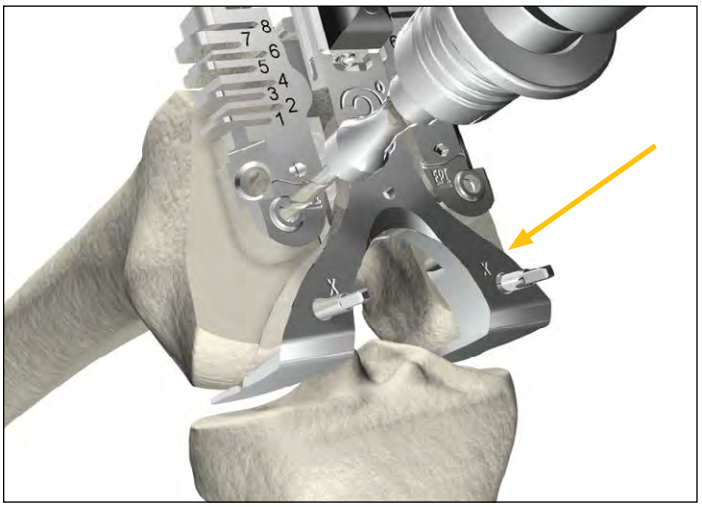


Figure 17

Once size confirmation is complete, attach the 1/8" Peg Drill to the Universal Driver and create fixation Pin-holes (for the 4:1 Cutting Block) through the holes on the face of the Femoral Sizer marked "EPI".

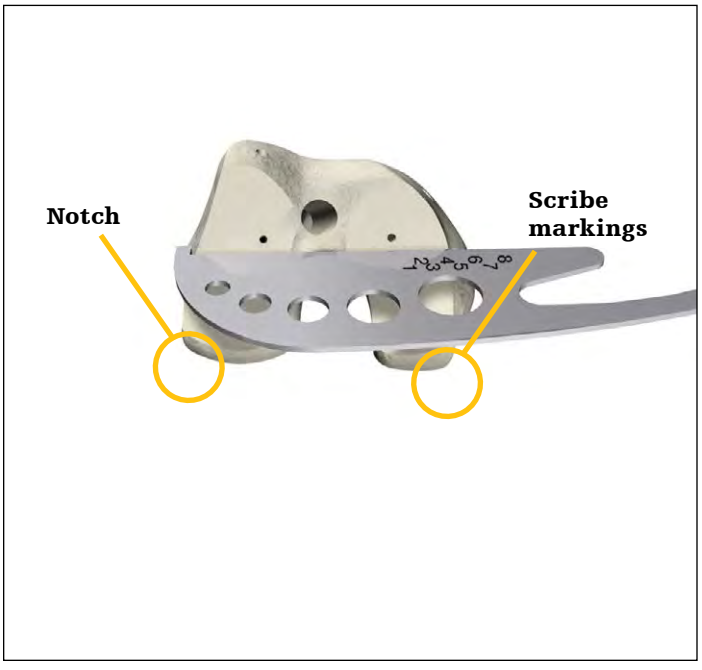


Figure 18

Remove the Headless Pins or Fluted Headless 1/8" Pins using the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

As a secondary sizing check, use the Blade Runner to check the M/L width of the Femoral component.

Line the Blade Runner up with the epicondyles and determine the component size. Ensure that the notch of the Blade Runner is on the outside of the femur. The Blade Runner scribe marks correspond to component sizes 1 through 8. If the M/L width is between sizes, the 4:1 Cutting Block can be downsized if needed.

▸ **Note:** For accurate size determination, ensure that all osteophytes on the medial and lateral condyles are removed prior to sizing.

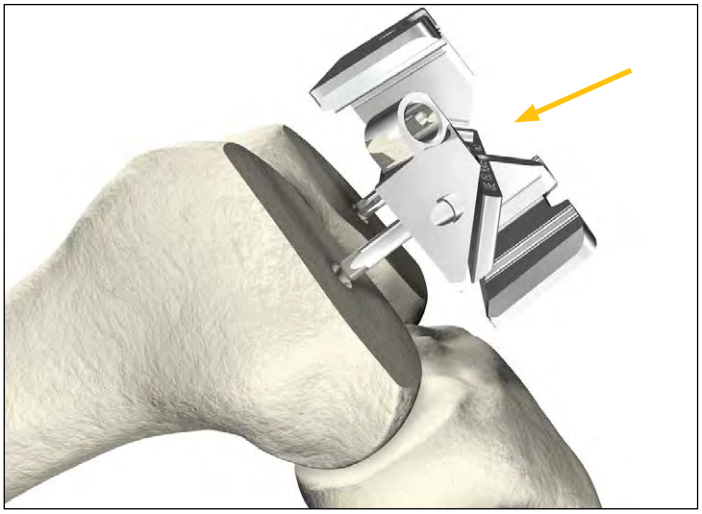


Figure 19

Femoral anterior, posterior and chamfer resections

Locate the fixation pegs of the appropriate size 4:1 Cutting Block into the pin-holes created on the distal femur.

Attach the 4:1 Strike Plate to the 4:1 Cutting Block **(See Assembly Figure 2a)**.

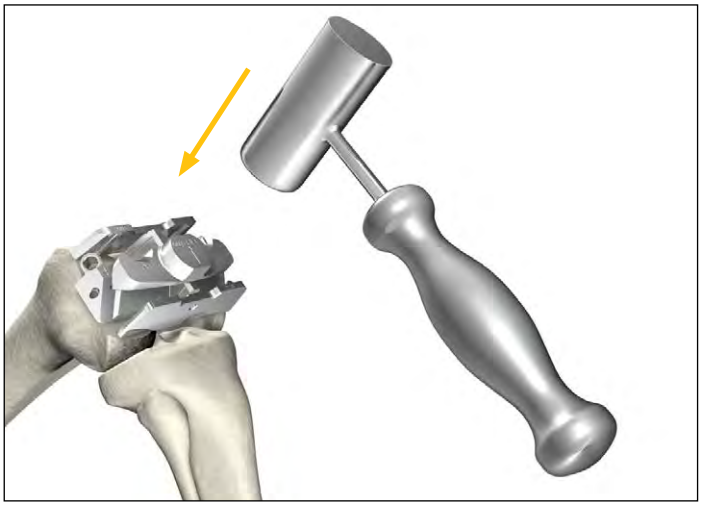


Figure 20

Impact the 4:1 Strike Plate until the 4:1 Cutting Block is seated flush onto the distal femur and remains seated throughout the use of the cutting guide. Pins should be utilized for further stabilization.

- **Note:** Do not impact the 4:1 Cutting Block without the 4:1 Strike Plate in place.
- **Note:** Check run-out of the anterior cut. If there is a pronounced positive step, consider selecting the next smaller size 4:1 Cutting Block if the anterior femur preparation is not adequate. Conversely, if there is potential for notching the anterior cortex consider selecting the next larger size 4:1 Cutting Block.

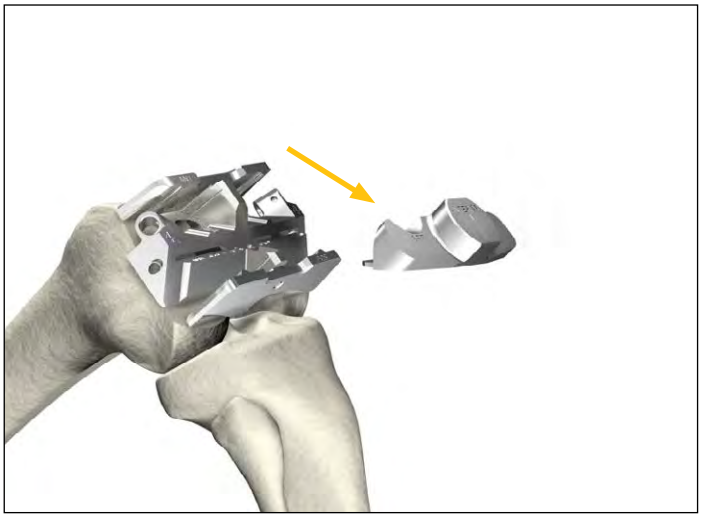


Figure 21

Remove the 4:1 Strike Plate from the 4:1 Cutting Block.

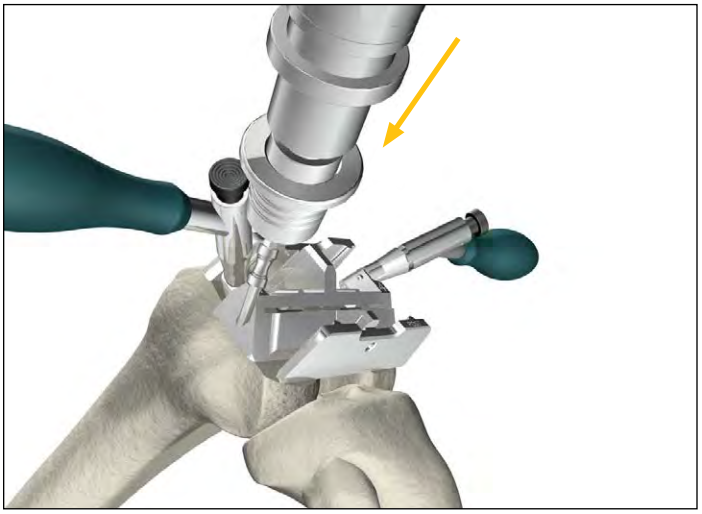


Figure 22a

Modular Handles may be assembled to the 4:1 Cutting Block to aid in both stabilization and removal. Headless Pins, Headless Threaded Pins, Fluted Headless 1/8″ Pins or Headed Threaded Pins may be utilized for further stabilization **(See Assembly Figure 2a)**.

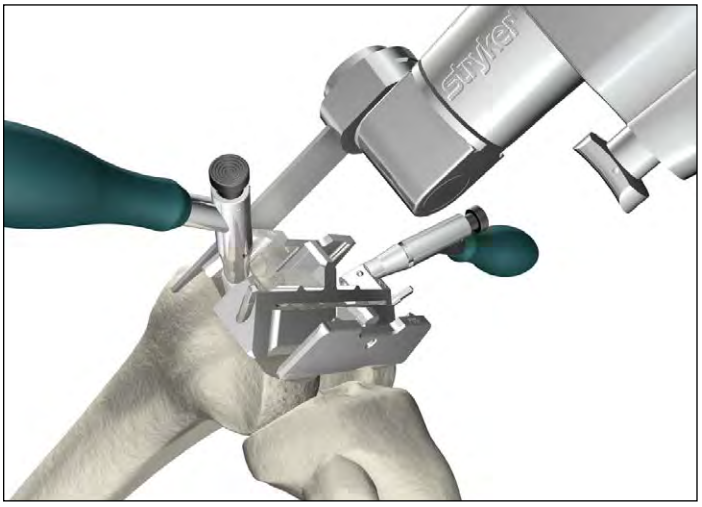


Figure 22b

Complete the remaining four femoral bone resections. The use of a .050″ (1.25mm) thick sawblade is recommended.

The order of bone resections is not critical; however, a recommended sequence for improved stability of the 4:1 Cutting Block is:

1. Anterior cortex.
2. Posterior condyles.
3. Posterior chamfer.
4. Anterior chamfer.

▸ **Note:** Cutting the anterior chamfer later helps stabilize the cutting guide.

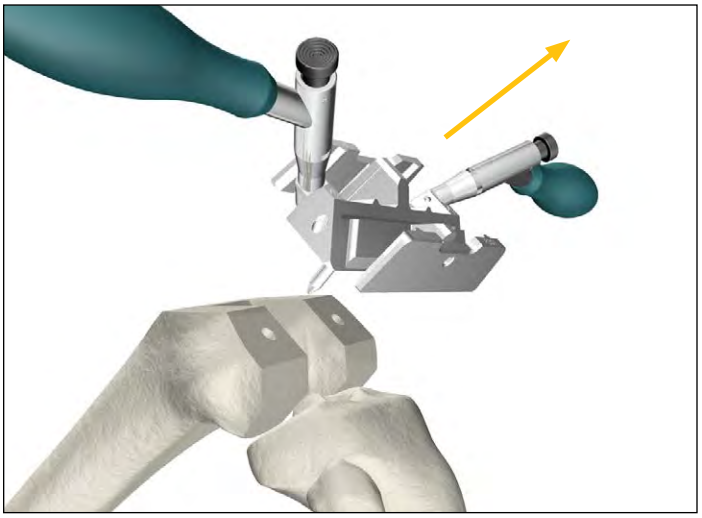


Figure 22c

Remove the 4:1 Cutting Block.

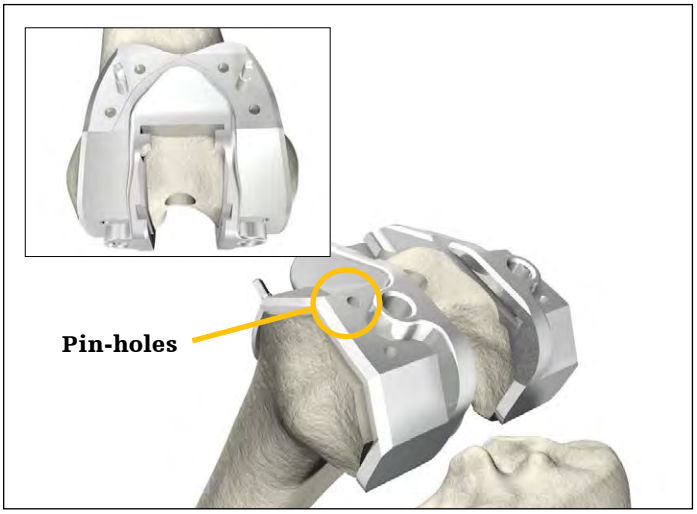


Figure 23

PS box preparation

If it is determined that a PS femoral component will be used, the distal femur must be prepared for the PS box.

Place the appropriate sized PS Box Cutting Guide on the resected distal femur.

- **Note:** The appropriate size is the same as the size 4:1 Cutting Block that was used to prepare the distal femur. For example, if a size 3 "4:1 Cutting Block" was used to prepare the distal femur, select the size 3 PS Box Cutting Guide.

M/L placement of the guide is based primarily on best coverage of the distal bone and alignment of the box opening with the intercondylar notch.

- **Optional surgical tip:** Use a CR Femoral Trial of the same size to identify the preferred M/L position of the PS Box Cutting Guide.
  - Place the appropriate sized CR Femoral Trial on to the prepared femur.
  - Adjust the M/L placement of the Femoral Trial to achieve the desired position of the femoral component.
  - Using a surgical marking pen, mark the location of the distal peg prep holes through the CR Femoral Trial.
  - Remove the CR Femoral Trial and line up the PS Box Cutting Guide on the distal femur with the previously marked holes.

Pin the PS Box Cutting Guide in place using Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins.

- **Optional surgical tip:** To provide the appropriate anterior/posterior and medial/lateral stability with a minimal number of pins, place one pin distally and one pin anteriorly (or both pins distally).

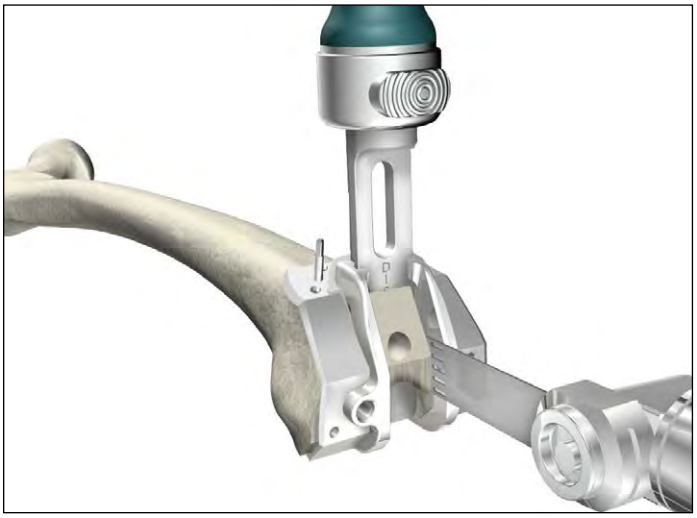


Figure 24

There are two ways to continue the PS box preparation:

Option 1: Chisel and saw

Cut the cortical rim on both sides of the posterior-most portion of the intercondylar notch using the oscillating saw. Assemble the Box Chisel and insert into the slot. Impact the Box Chisel with a mallet until seated to the stop. Leave the Box Chisel in place to act as a reference plane. Cut the medial and lateral edges of the box with an oscillating saw to complete the bone resection as shown in **Figure 24**. Avoid biasing the blade during resection for optimal bone conservation.

Attach the Slap Hammer to the Box Chisel. Remove the Box Chisel from the PS Box Cutting Guide and remove the bone.

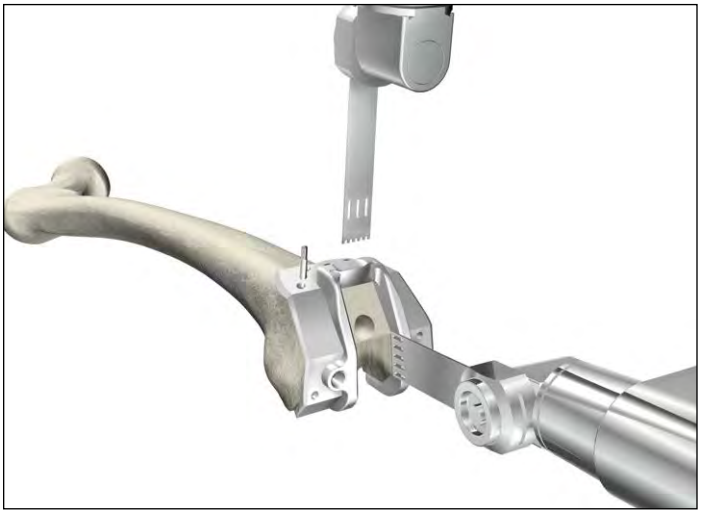


Figure 25

Option B: Saw only

Use a reciprocating saw or a narrow oscillating saw through the proximal slot to resect the distal portion of the femur. An oscillating saw can be used to resect the medial and lateral borders of the intercondylar notch to the proximal portion of the cutting guide.

- **Note:** After completion of options A or B, the surgeon may choose to use the optional and recommended Triathlon PS Femoral Finishing Punch to complete preparation of the box.

Prior to trialing with a PS Femoral Trial, assure the box is prepared properly and remove all remaining bone from the prepared box.

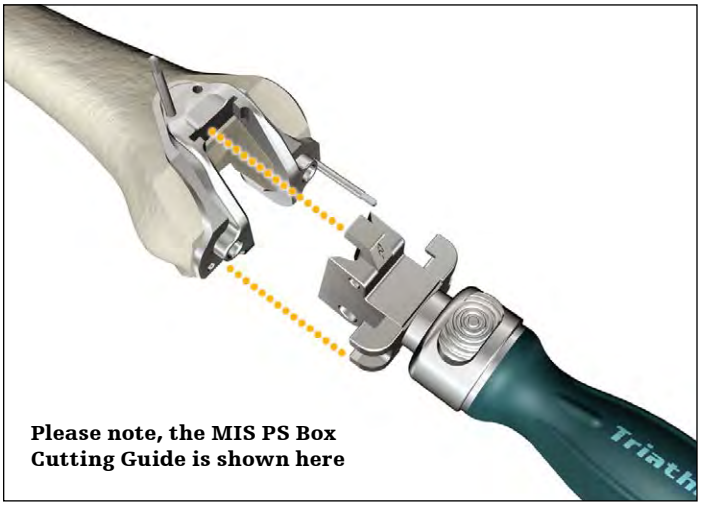


Figure 26

If the optional Triathlon PS Femoral Box Finishing Punch is chosen:

The chisel should be fully removed from the PS Box Cutting Guide prior to using the Triathlon PS Femoral Box Finishing Punch.

Secure the appropriate size Triathlon PS Femoral Box Finishing Punch to the Triathlon Impaction Handle. There are four Triathlon PS Femoral Box Finishing Punches (Size 1-2, Size 3-4, Size 5-6 and Size 7-8).

Properly orient the Triathlon PS Femoral Box Finishing Punch, assuring the anterior side is facing upwards.

Figure 27

Impact the Triathlon PS Femoral Box Finishing Punch through the PS Box Cutting Guide until properly seated. The Triathlon PS Femoral Box Finishing Punch is properly seated when the stop of the Finishing Punch is centered over the PS Box Cutting Guide drill holes. **See Figures 27 and 28**, which depict the Triathlon PS Femoral Box Finishing Punch properly seated on the PS Box Cutting Guide. There should be a gap between the anterior nose of the Triathlon PS Femoral Box Finishing Punch and the PS Box Cutting Guide.

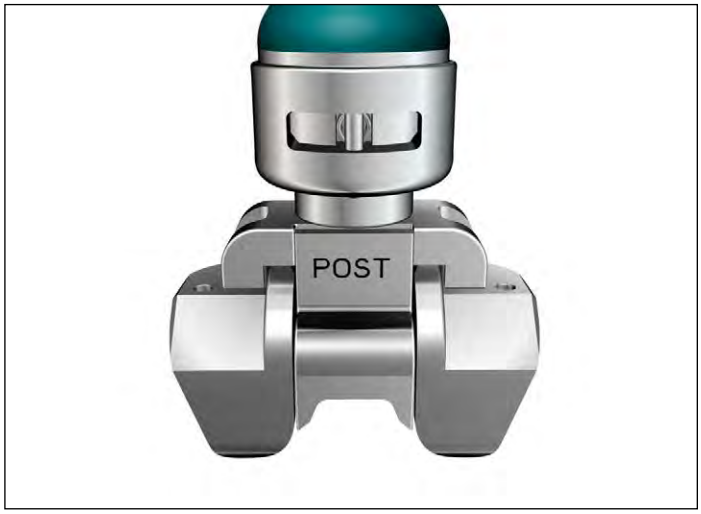


Figure 28

Attach the Slap Hammer to the PS Femoral Box Finishing Punch. Remove the PS Femoral Box Finishing Punch from the PS Box Cutting Guide and remove the bone.

- **Note:** The Triathlon PS Femoral Box Finishing Punch is designed to be used with the PS Box Cutting Guide and should not be impacted onto the prepared distal femur without the PS Box Cutting Guide in place.

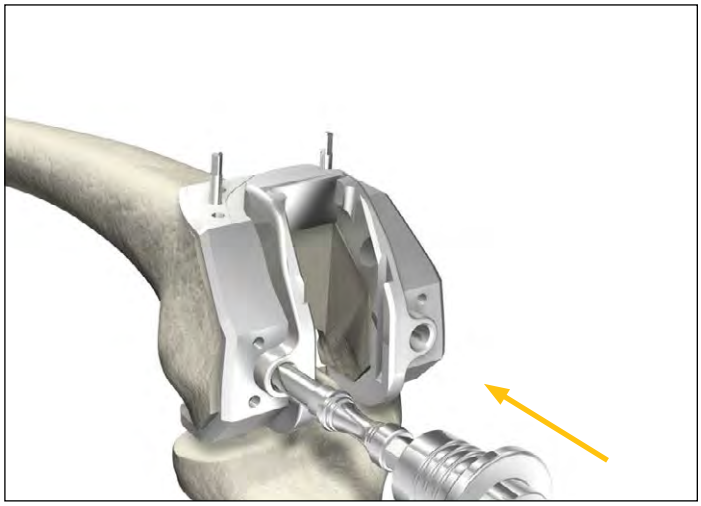


Figure 29

If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), the location holes may be prepared at this stage using the 1/4" Peg Drill attached to the Universal Driver. (The peg holes may also be prepared later through the PS Femoral Trial).

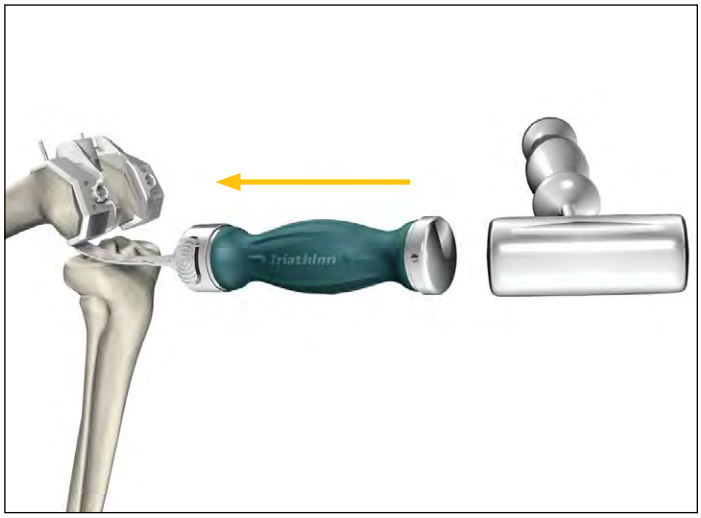


Figure 30

Attach the Posterior Osteophyte Removal Tool to the Impaction Handle and remove the osteophytes beyond the posterior aspect of the PS Box Cutting Guide.

Remove the Headless Pins or Fluted Headless 1/8" Pins with the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

Remove the PS Box Cutting Guide using the Slap Hammer.

- **Note:** If it is difficult to reach the posterior osteophytes in a tight knee, the tibial resection can be made and then the osteophytes can more easily be removed.

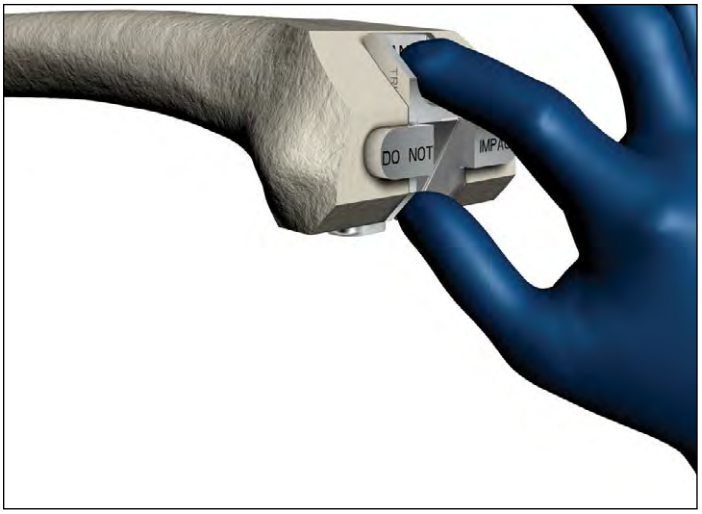


Figure 31

If the optional and recommended Triathlon PS Femoral Box Trial/Protector is chosen:

Remove the PS Box Cutting Guide.

Place by hand **(not through impaction)** the appropriate size Triathlon PS Femoral Box Trial/Protector into the prepared box to assure accuracy of the box preparation. There are two Triathlon PS Femoral Box Trial/Protectors (Size 1-4 and Size 5-8). **See Figure 31** for proper orientation.

The box trial/protector is fully seated when both the distal and posterior "wings" are flush with the bone.

▸ **Note:** Triathlon PS Femoral Box Trial/Protector assesses the accuracy of M/L box width and box depth.

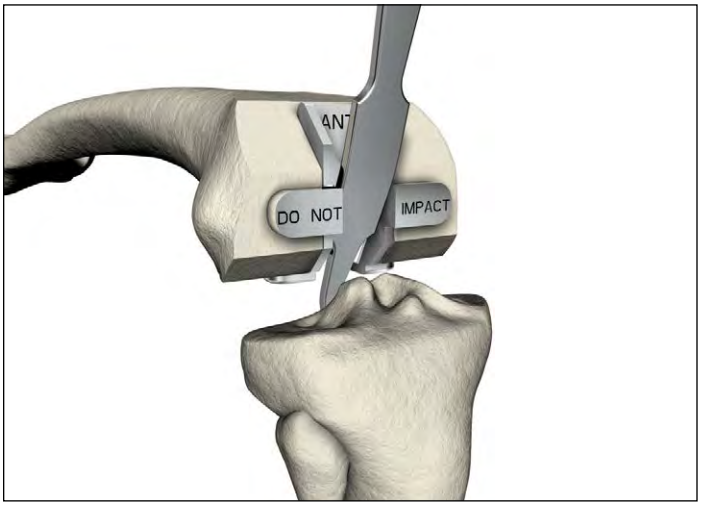


Figure 32

To protect the prepared femoral box prior to trialing with a Femoral Component, place the Triathlon PS Femoral Box Trial/Protector into the prepared box by hand (not through impaction). Ensure the box trial is fully seated on the distal and posterior resections as described above in the box trialing step.

- The Triathlon PS Femoral Box Trial/Protector features a slot in which a retractor can be placed to lever against the distal femur during tibial subluxation.
- If preferred, select an extraction tool that fits into the retractor hole for ease of removal.
- Remove the PS Femoral Box Trial/Protector prior to assembling and implanting the Triathlon PS Femoral Component.

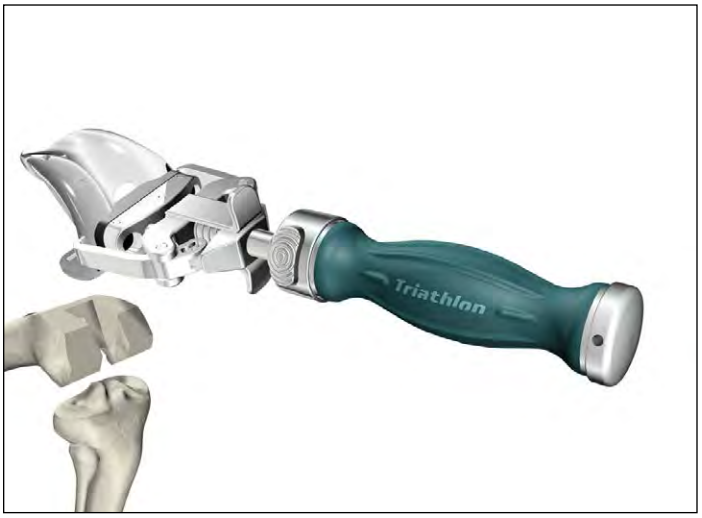


Figure 33

Femoral Trial assessment

(The remaining portion of the technique should be used for a Posterior Stabilized or Cruciate Retaining Knee)

Assemble the appropriate size and side (Left/Right) PS or CR Femoral Trial to the Femoral Impactor Extractor with the Impaction Handle **(See Assembly Figures 3a and 3b)**.

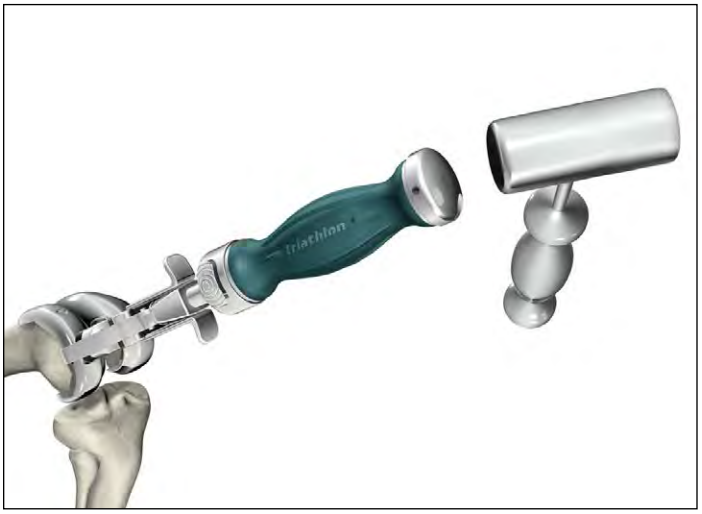


Figure 34

Impact the PS or CR Femoral Trial onto the prepared distal femur. Use the Impaction Handle to ensure the Femoral Trial is aligned with the distal plane.

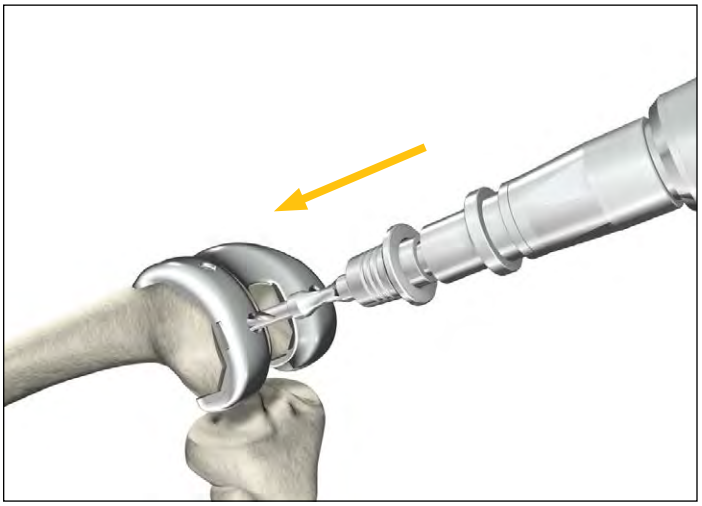


Figure 35

Remove the Femoral Impactor Extractor and Impaction Handle and assess the fit of the PS or CR Femoral Trial. Care must be taken to ensure that all of the osteophytes beyond the end of the posterior femoral condyles are removed.

- **Cruciate Retaining Knee:** Attach the 1/4" Peg Drill to the Universal Driver and create the Modular Femoral Distal Fixation Peg holes. Attach the Posterior Osteophyte Removal Tool to the Impaction Handle and remove posterior osteophytes.

▸ **Note:** If it is difficult to reach the posterior condyles in a tight knee, the tibial resection can be made and then the osteophytes can more easily be removed.

- **Posterior Stabilized Knee:** If the Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only) and the holes were not prepared through the PS Box Cutting Guide, use the 1/4" Peg Drill, attached to the Universal Driver to prepare the distal femoral peg holes.

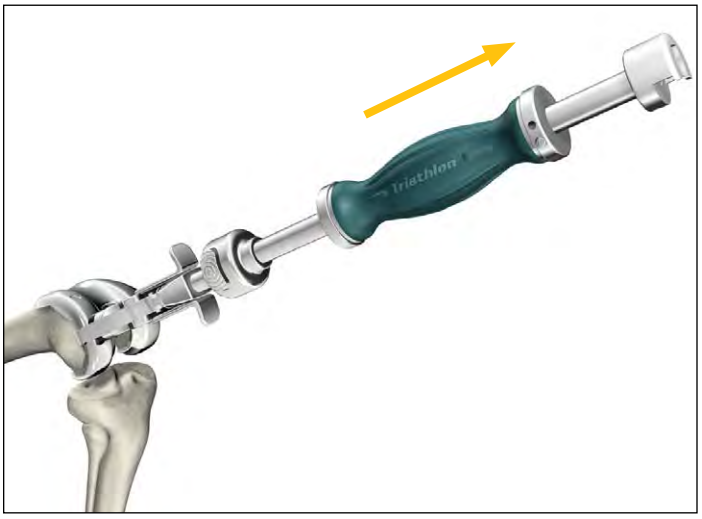


Figure 36

Attach the Femoral Impactor Extractor to the Slap Hammer and remove the PS or CR Femoral Trial from the femur.

Tibial preparation

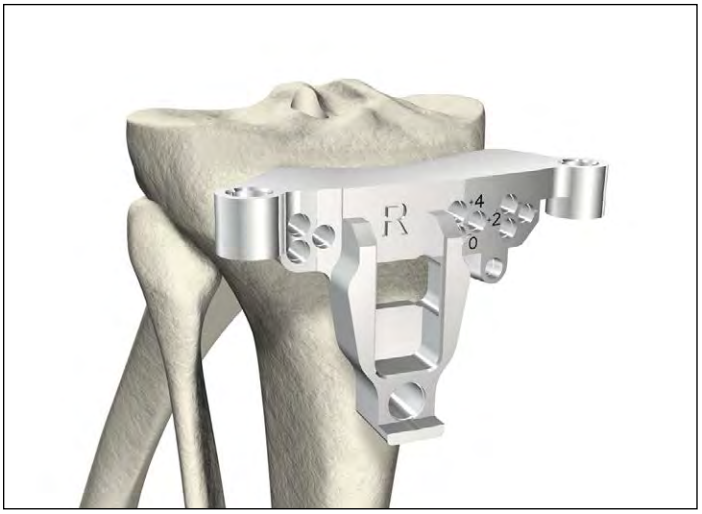


Figure 37

There are two options for tibial preparation: extramedullary (EM) referencing alignment and intramedullary (IM) referencing alignment.

The Tibial Resection Guide, available in Left and Right configurations, is designed to avoid soft tissue impingement.

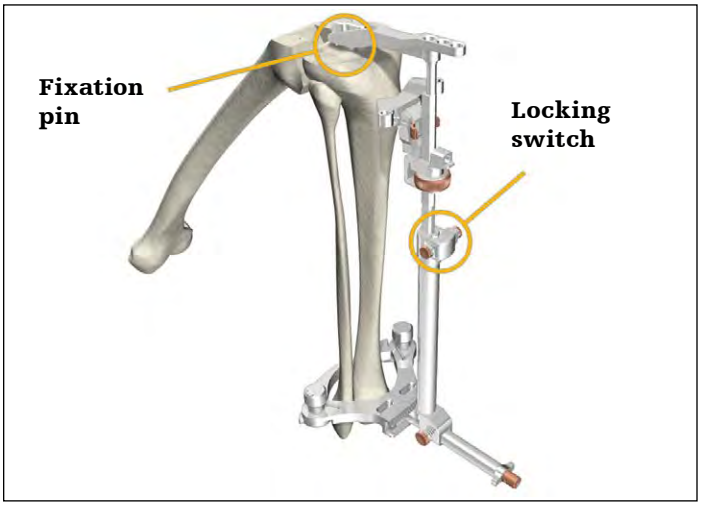


Figure 38

Option 1 - Extramedullary referencing

The tibial resection assembly has five parts: the appropriate Tibial Resection Guide, Tibial Alignment Ankle Clamp EM, Tibial Alignment Distal Assembly EM, the Proximal Rod and the Tibial Adjustment Housing. These are assembled first.

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilizing) and 3° slope (cruciate retaining).

Flexion/extension alignment

The posterior long fixation pin of the Tibial Alignment Proximal Rod EM is partially seated in the proximal tibia to stabilize the assembly. Place the Ankle Clamp around the ankle and unlock the locking switch.

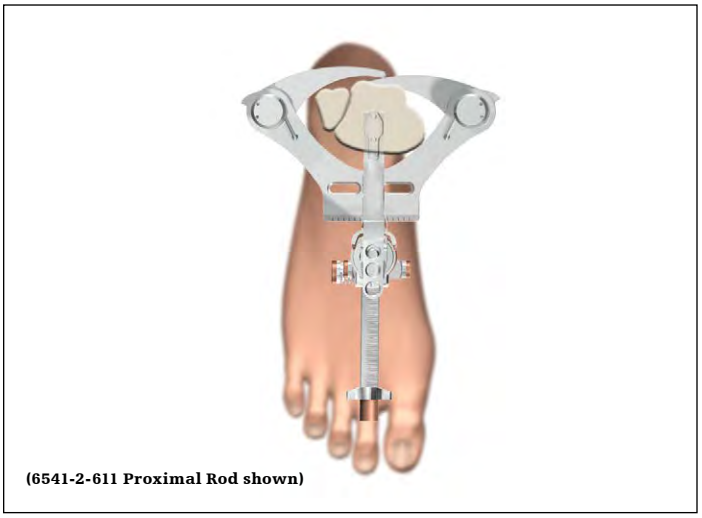


Figure 39

Flexion/extension alignment is correct when the long axis of the assembly parallels the mid-coronal plane of the tibia. Flexion/extension alignment can be checked by verifying that the long axis of the assembly is parallel to the fibula.

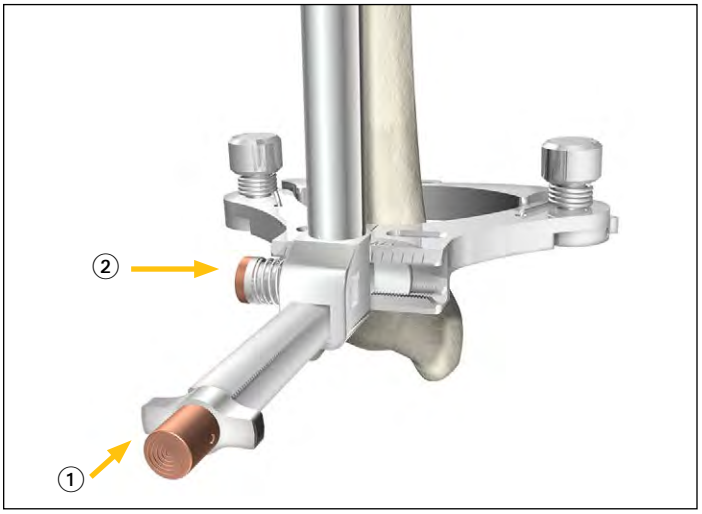


Figure 40

Varus/valgus alignment

Medial/lateral offset can be adjusted by pushing the bronze button ① and sliding the assembly medially until the shaft intersects the center of the tibia. Once triaxial alignment is achieved, release the bronze button.

Tibial slope adjustment

- **Note:** If the Proximal Rod is parallel to the tibia, the slope is 0° or 3° depending on which Tibial Adjustment Housing is used.

Tibial slope can be adjusted by pressing the bronze button ②.

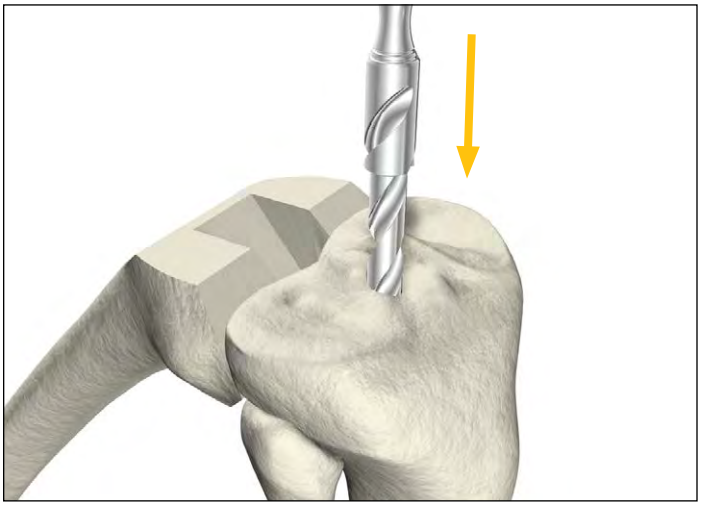


Figure 41

Rotational alignment

Rotate the entire assembly to ensure that the base of the assembly is aligned with the center of the ankle. The center of the ankle is generally in line with the second metatarsal.

Fix the entire assembly in place by striking the proximal end of the Tibial Alignment Proximal Rod EM with a mallet, securing the two fixation pins.

Once alignment is confirmed, set the bronze locking switch on the Tibial Alignment Distal Assembly EM to the locked position.

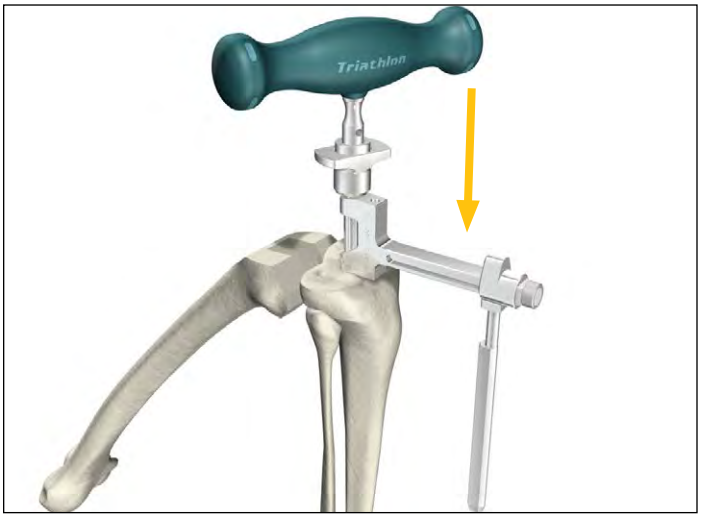


Figure 42

Option 2 - Intramedullary referencing

Attach the 3/8" IM Drill to the Universal Driver and create a hole in the location determined by the preoperative X-rays.

Attach the T-Handle Driver to the 5/16" IM Rod and slowly pass into the canal, ensuring clearance. Remove the 5/16" IM Rod and insert it into the body of the Tibial Alignment Jig IM. The assembly is then inserted into the canal until the isthmus is engaged.

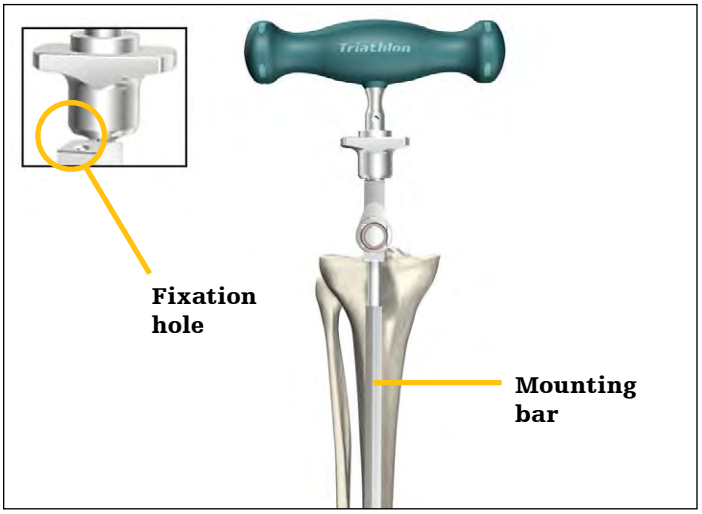


Figure 43

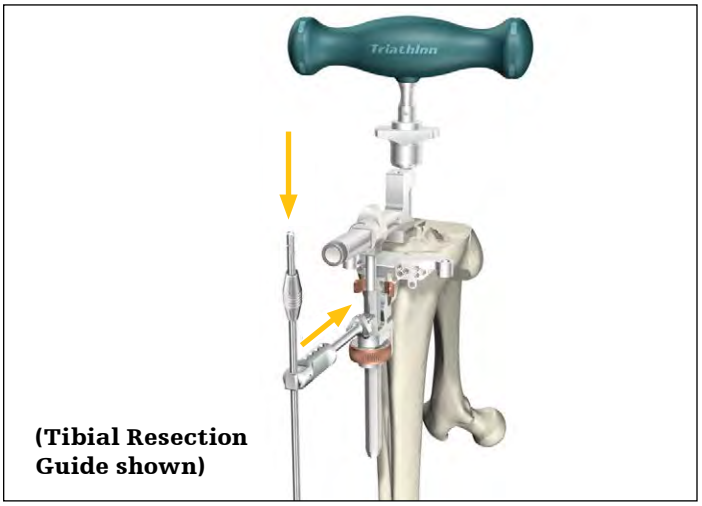


Figure 44

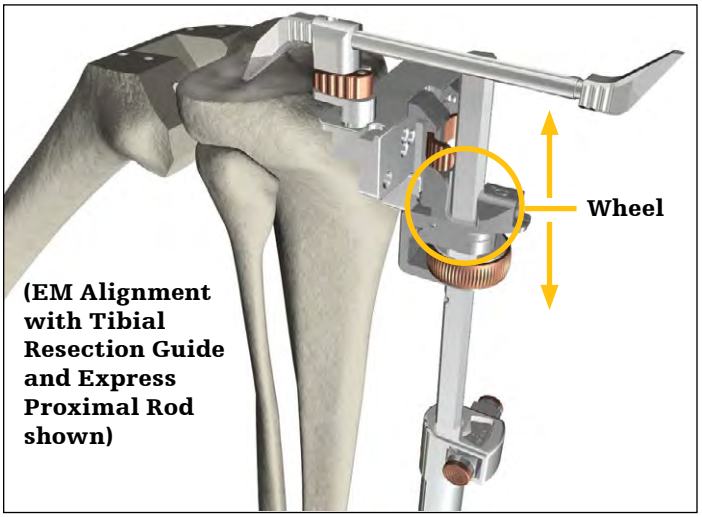


Figure 45

Rotational alignment

With the body of the tibial alignment jig im resting on the proximal tibia, proper rotational alignment is achieved by rotating the instrument about the 5/16" im rod so that the vertical mounting bar is over the medial 1/3 of the tibial tubercle. A headless pin or the 1/8" drill is then inserted into the fixation hole to fix rotation **(see inset)**.

Varus/valgus alignment

Assemble the appropriate Tibial Resection Guide (left or right) on the Tibial Adjustment Housing. **(See Assembly 4e)**.

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining).

Attach the assembly onto the mounting bar by pressing the bronze wheel on the Tibial Adjustment Housing. Attach the Universal Alignment Handle to the Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment.

When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.

[The following applies to both extramedullary and intramedullary alignment.]

Establish tibial resection level

The Tibial Stylus attaches to the Tibial Resection Guide with the "9" end referencing the lowest level of the unaffected compartment **(See Assembly Figure 4f)**.

9mm of bone will be resected. Alternatively, if the "2" end of the Tibial Stylus is used, the amount of bone resected will be 2mm below the tip of the Stylus.

The height of the Tibial Resection Guide, Tibial Stylus and Tibial Adjustment Housing can be adjusted using the bronze wheel on the Tibial Adjustment Housing. For coarse adjustment, press the bronze wheel and slide the assembly up or down. For fine adjustment, turn the bronze wheel to the right to move the assembly up the Proximal Rod or turn left to move the assembly down the Proximal Rod.

Place two Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins into the "0" [neutral] holes, fixing the level of the Tibial Resection Guide.

If additional stability of the guide is required, utilize the oblique "X" Pin-hole.

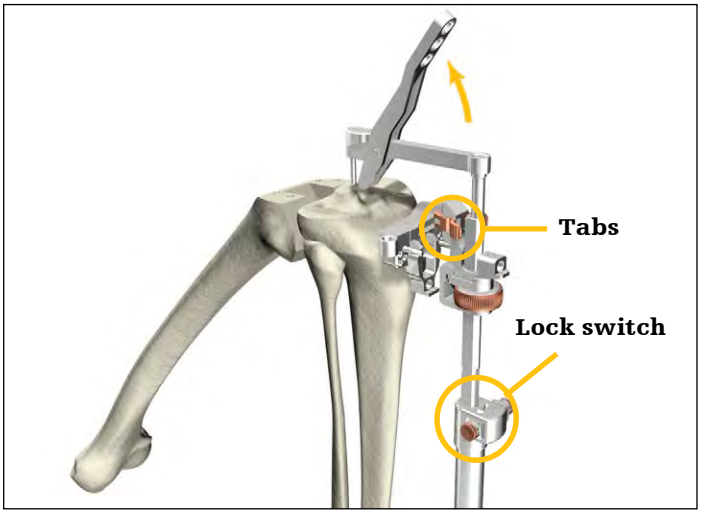


Figure 46

Tibial resection

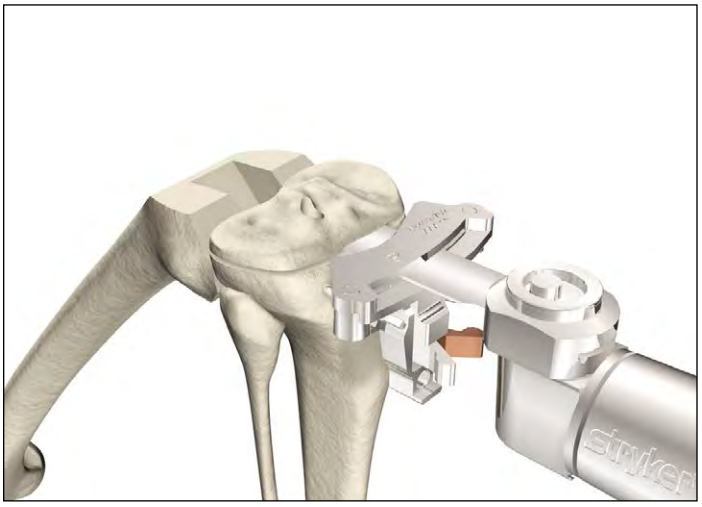


Figure 47

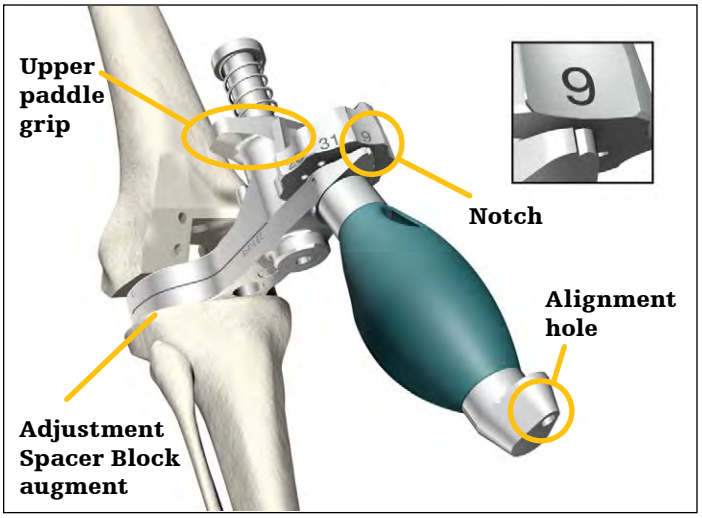


Figure 48

Remove all alignment instruments leaving only the Tibial Resection Guide in place.

If Option 1 EM alignment was used: The Ankle Clamp, Distal Assembly, Proximal Rod and Tibial Adjustment Housing are removed. To remove the assembly, release the bronze lock switch, squeeze the bronze wheel on the Tibial Adjustment Housing and lift the lever arm on the Proximal Rod while holding the wheel release high enough to clear pins. Squeeze the bronze tabs and remove the ankle clamp assembly. This will allow the assembly to disengage from the Tibial Resection Guide and release the fixation pegs from the plateau.

If Option 2 IM alignment was used: Squeeze the bronze tabs on the Tibial Adjustment Housing to disengage the assembly from the Tibial Resection Guide. Slide the Tibial Adjustment Housing anteriorly. Remove the 5/16″ IM Rod, the Tibial Alignment Jig IM, the Tibial Adjustment Housing and the Universal Alignment Handle.

Resection of the proximal tibia is now completed.
An optional Tibial Resection Guide Modular Capture (Left or Right) may be added **(See Assembly Figure 4h)**.

Remove all pins and the Tibial Resection Guide.

Flexion and extension gaps

The flexion gap (90°) and extension gap (0°) may be assessed using the Adjustable Spacer Block.
The numbers on the thumbwheel correspond to the implant insert thickness. Lift the upper paddle grip to free the adjustment wheel. Align the notch with the appropriate thickness **(see inset)** and assess the gap space until the appropriate insert thickness is established.

A Universal Alignment Rod can be placed through the hole on the Adjustable Spacer Block to check alignment.

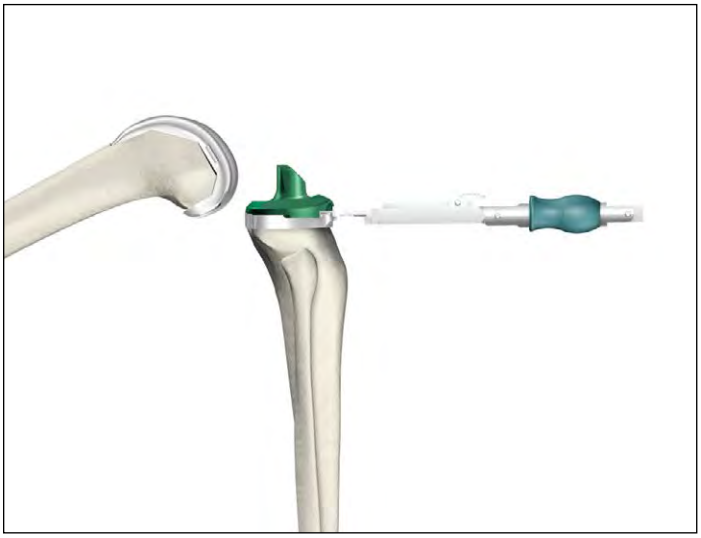


Figure 49

Tibial component sizing

Place the PS or CR Femoral Trial on the femur. Sublux the tibia anteriorly. Assemble a Universal Tibial Template, Tibial Alignment Handle and a PS or CR Tibial Insert Trial **(See Assembly Figure 5b)**.

- **Note:** Lightly impact the tibial insert trial if required. In the event that excessive resistance or misalignment is encountered during insertion of the Tibial Insert Trial, remove, reposition and reinsert the Tibial Insert Trial. Ensure all excess debris (bone and soft tissue) is cleared from the Tibial Template.

Place the assembly on the resected tibial plateau and choose the size that best addresses rotation and coverage.

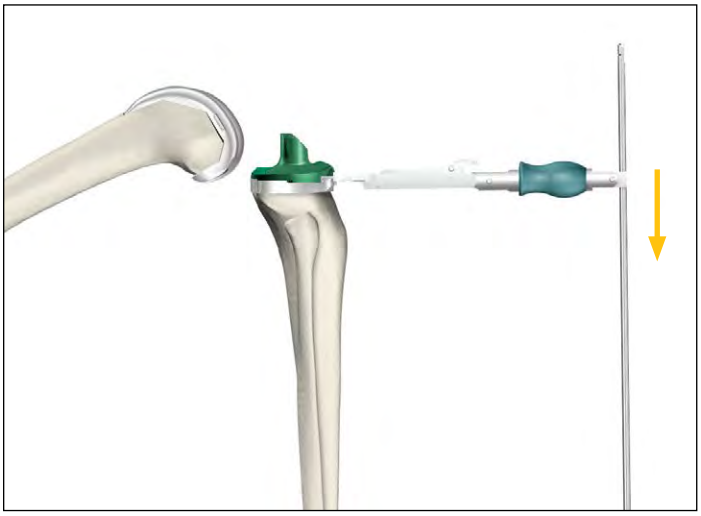


Figure 50

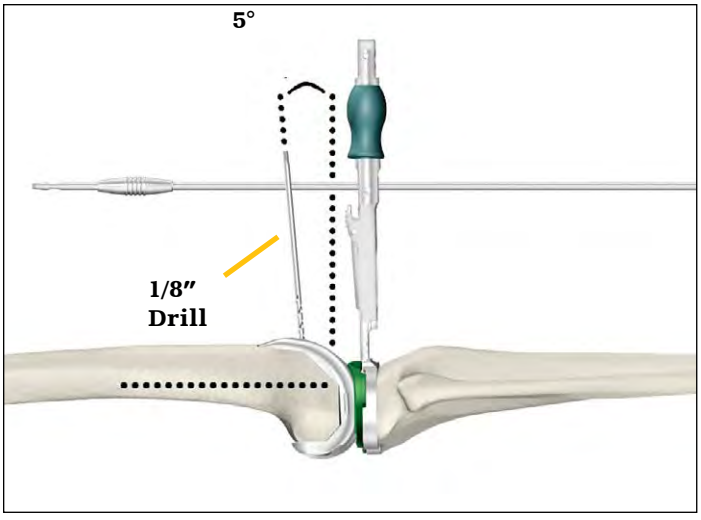
If Headed Nails are placed in the anterior-vertical Pin-holes with the Headed Nail Impactor Extractor (applicable only to sizes 3, 4, 5, 6, 7 and 8) of the Universal Tibial Template, ensure that the Tibial Insert Trial is inserted posterior to the Headed Nails.

Perform a trial reduction to assess overall component fit, ligament stability and joint range of motion.

- **Note:** Ensure all excess debris (bone and soft tissue) is cleared from the Universal Tibial Template.

Tibial Trial assessment

For an optional tibial alignment check, insert a Universal Alignment Rod into the most anterior hole of the Tibial Alignment Handle and check alignment.



Place the knee in full extension and assess overall alignment in the A/P and M/L planes.

One of the 1/8″ Drills can be inserted into the lateral hole on the anterior surface of the Femoral Trial to aid in alignment.

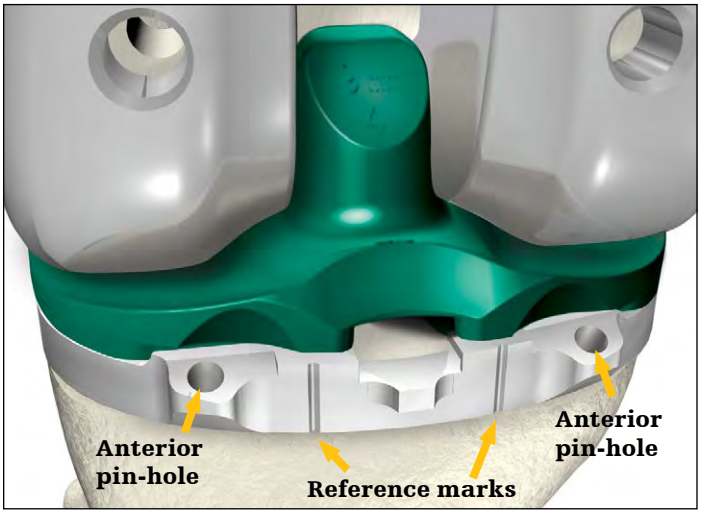


Figure 52

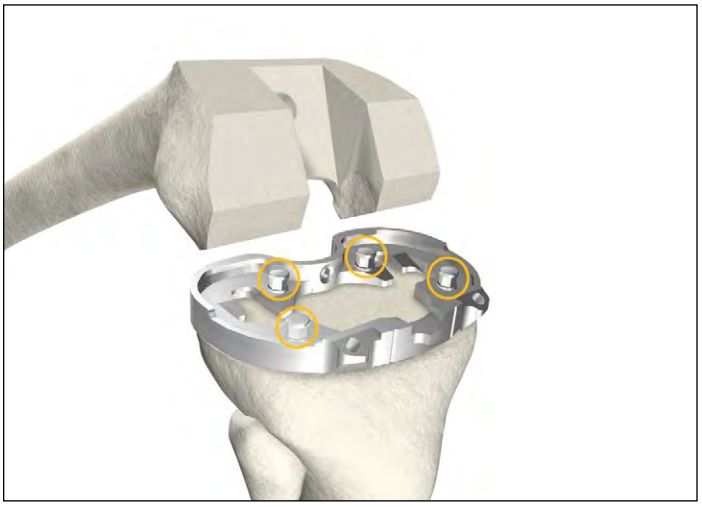


Figure 53

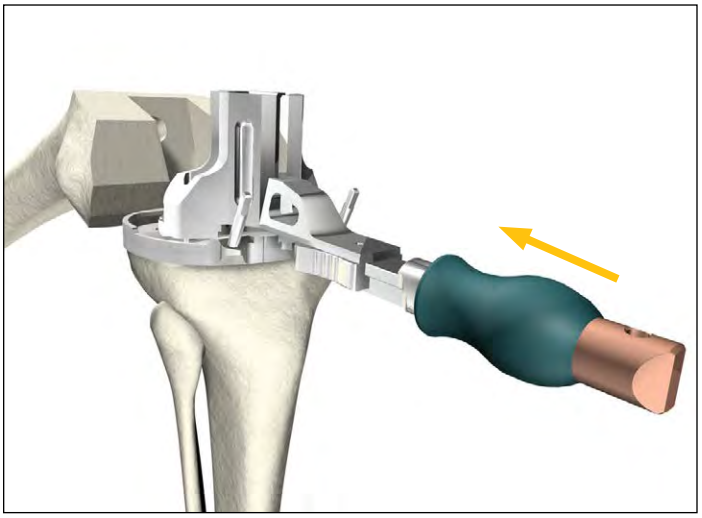


Figure 54

There are two options to secure the Universal Tibial Template to the tibia:

Option 1: Once satisfactory alignment and tibial component orientation are achieved, remove the PS or CR Femoral Trial. Place two Headless or Fluted Headless 1/8″ Pins in the anterior holes of the Universal Tibial Template, disassemble the Tibial Insert Trial from the Universal Tibial Template and secure by pinning.

Option 2: Once satisfactory alignment and tibial component orientation are achieved, mark the anterior tibial cortex in line with the reference marks on the anterior border of the Universal Tibial Template. Remove the PS or CR Femoral Trial and disassemble the Tibial Trial Insert from the Universal Tibial Template. Reposition the Universal Tibial Template (if required) by aligning the anterior reference marks on the template with the reference marks on the anterior cortex. The template is positioned flush to the anterior tibial cortex. Place two Headless Pins or Fluted Headless 1/8″ Pins in the anterior holes to secure the Universal Tibial Template.

If additional fixation is required after either Option 1 or 2 are used, place up to four Headed Nails in the holes on the Universal Tibial Template into the tibial plateau by tapping them in place using the Headed Nail Impactor Extractor.

Trials may be reassembled to the pinned template for any subsequent trial reductions.

Tibial keel punching

Assemble the appropriate Keel Punch Guide to the Universal Tibial Template by inserting, at a slight angle to the top of the Universal Tibial Template, into the two locating slots toward the posterior portion of the Universal Tibial Template. Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template **(See Assembly Figures 6a, 6b and 6c)**.

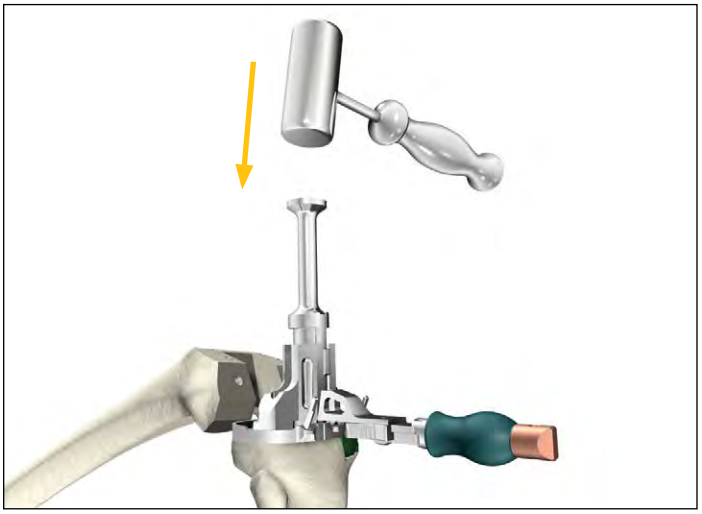


Figure 55

Place the appropriate Keel Punch (cemented or cementless) into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide.

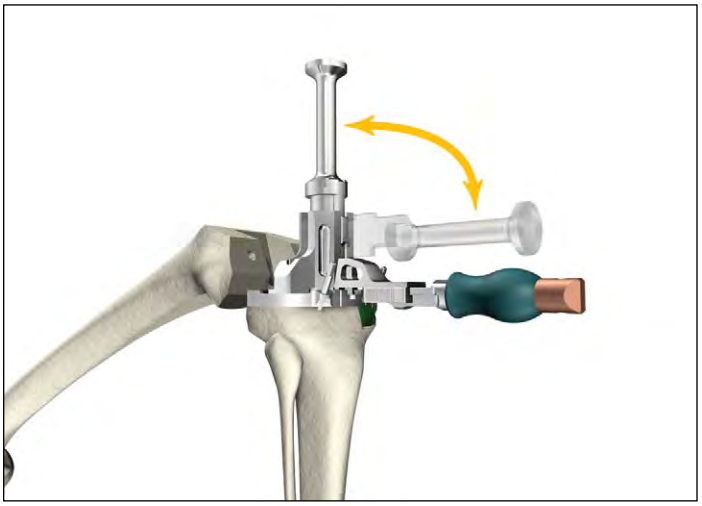


Figure 56

To extract the Keel Punch, lift up on the Keel Punch Guide handle and pull the handle to cantilever the Keel Punch out of the tibia.

Remove the Headless Pins or Fluted Headless 1/8″ Pins with the Headless Pin Extractor (or Headed Nails with the Headed Nail Impactor Extractor) and remove the Universal Tibial Template.

Figure 57

Patella preparation

Determine the total thickness of the patella by using the Patella Caliper.

There are two options for the patella preparation: bone removing method and bone remaining method.

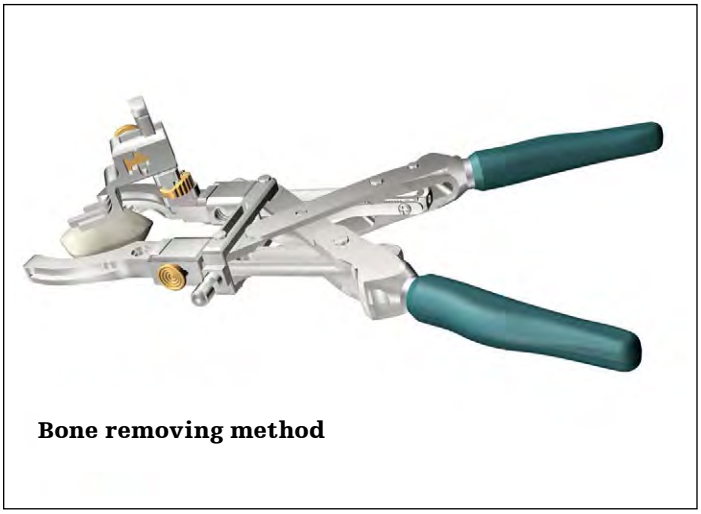


Figure 58

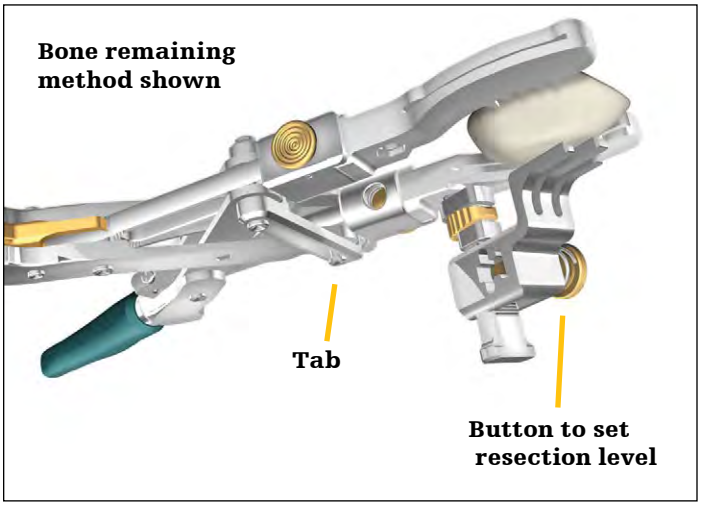


Figure 59

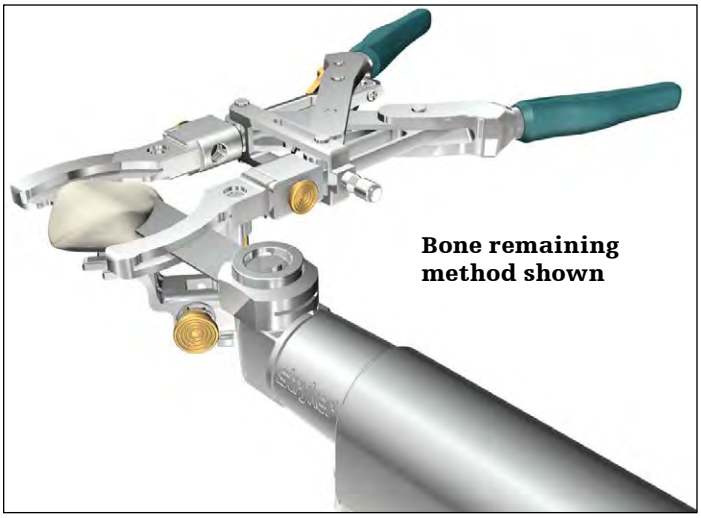


Figure 60

Option 1 – Bone removing method

Assemble Patella Clamp jaws to the Patella Clamp. Attach the Patella Stylus to the circular hole on the topside of either jaw by squeezing the gold tab (**See Assembly Figures 7a and 7b)**.

The Patella Stylus may swivel in this position to sweep over the highest portion of the articular surface.

The Patella Stylus references the articular surface of the patella in order to determine how much bone to remove.

Set the desired resection amount on the Patella Stylus by pressing the gold button and moving the body of the Patella Stylus to the resection line.

Close the Patella Clamp around the patella.

The resection level should be set to match the thickness of the appropriate size patella implant.

Ensure that the Patella Stylus is touching the desired point(s) on the articular surface of the patella.

Make resection through one of the resection slots.

Option 2 – Bone remaining method

Assemble Patella Clamp jaws to the Patella Clamp. Attach the Patella Stylus to the hex-shaped hole on the bottom side of either jaw by squeezing the gold tab **(See Assembly Figures 7a and 7b)**.

The Patella Stylus locks in a position that will ensure the referencing prongs are pointed toward the clamping area.

The Patella Stylus determines how much bone will remain.

Set the desired resection amount on the Patella Stylus by pressing the gold button and moving the body of the Patella Stylus to the resection line.

Close the Patella Clamp around the patella.

- **Note:** The resection level should not be set at a value less than 12mm.

Ensure that the Patella Stylus is touching the desired point(s) on the patella tendon.

Make resection through one of the resection slots.

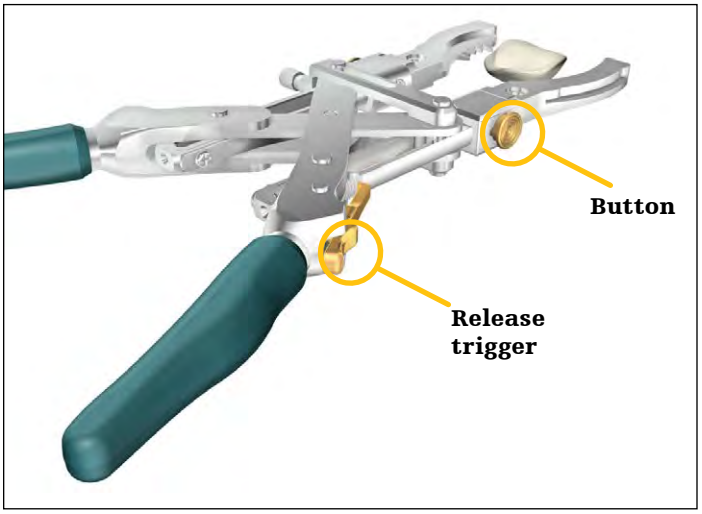


Figure 61

(The following applies to both bone removing method and bone remaining method)

Disengage the Patella Clamp by pressing the gold release trigger.

Press the gold buttons on the Patella Clamp to remove the Patella Clamp jaws.

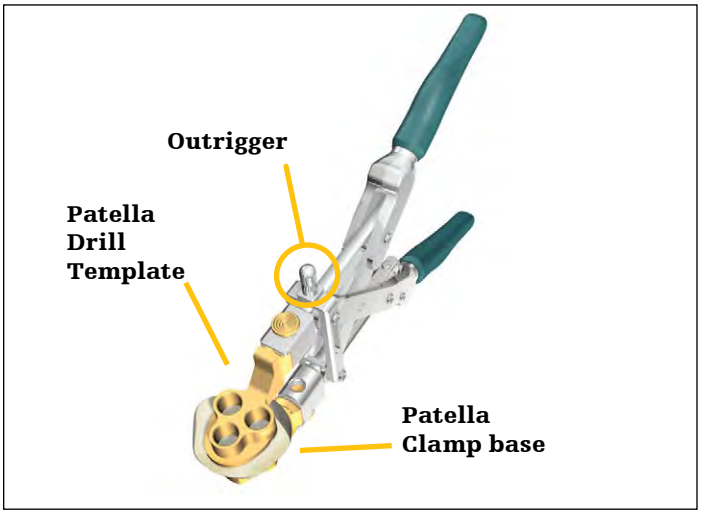


Figure 62

Assess the size of the patella with a Patella Drill Template (Symmetric and Asymmetric are available).

Assemble the desired Patella Drill Template and the Patella Clamp Base to the Patella Clamp. These are inserted in the same fashion as the Patella Clamp jaws **(See Assembly Figure 7a)**. Assemble the Patella Clamp Base first with the Patella Clamp's outrigger pointing superiorly.

Close the Patella Clamp around the patella so that the Patella Clamp Base is touching the patella tendon and the base of the Patella Drill Template is touching the resected surface of the patella. Align the Patella Drill Template so that it is horizontal with respect to the poles of the patella.

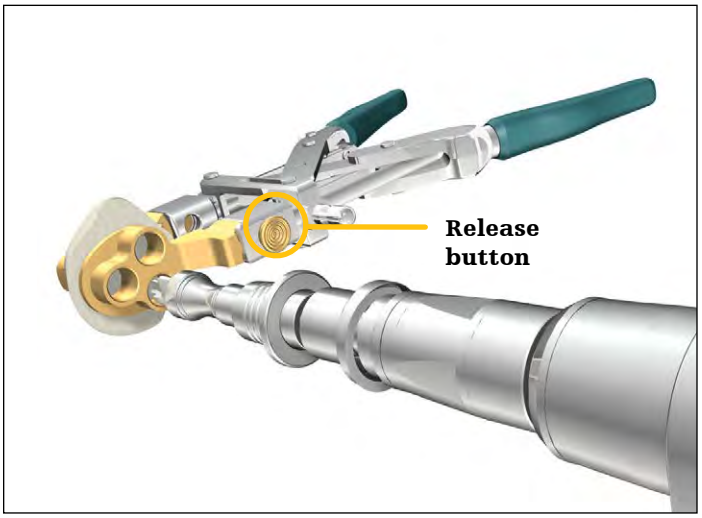


Figure 63

Attach the All-Poly Patella Drill with Stop or the Metal Back Patella Drill (for cementless patella) to the Universal Driver and drill through each fixation peg hole of the Patella Drill Template.

Disengage the Patella Clamp by pressing the release trigger. Press the gold buttons on the Patella Clamp to remove the Patella Template.

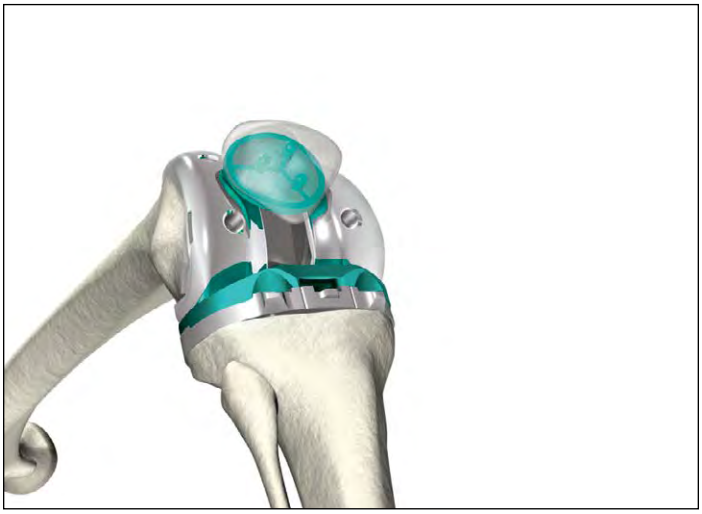


Figure 64

Patella Trial assessment

Remove any residual cartilage and wash away all debris. Place correct size Patella Trial (Symmetric or Asymmetric) onto the prepared patella.

Replace all Trials and assess patellar tracking by taking the knee through a range of motion (ROM). The patella should track normally throughout the ROM without tendency for tilting or lateral subluxation

Component implantation

Figure 65

If needed, prepare the resected bone surfaces using the Bone File, which is attached to the Impaction Handle.

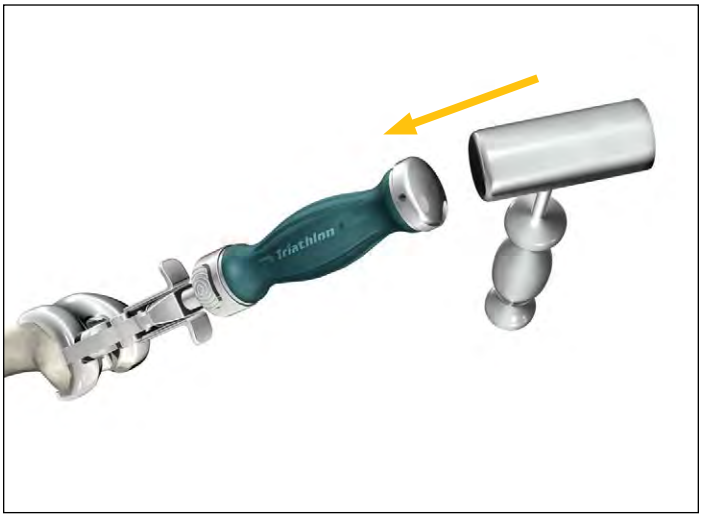


Figure 66

PS or CR Femoral Component – Cemented/Cementless

Attach the Femoral Impactor Extractor to the Impaction Handle and attach to the appropriate size and side Femoral Component **(See Assembly Figures 3a and 3b)**. If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application. Place the Femoral Component on the femur and impact it until fully seated.

Posterior Stabilized Knee: If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), assemble the pegs to the Femoral Component using the 1/8″ Hex Drive and the Slip Torque Handle prior to implantation **(See Assembly Figures 8a and 8b)**.

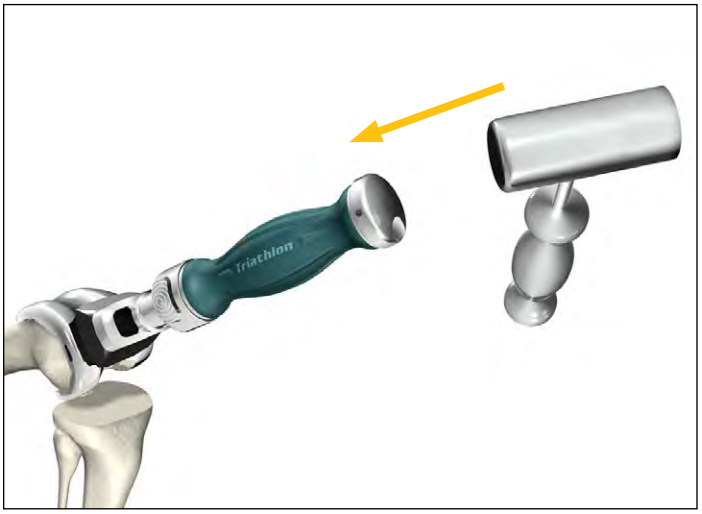


Figure 67

The Femoral Impactor can be attached to the Impaction Handle to further seat the Femoral Component onto the prepared femur.

- **Note:** Clear all excess bone cement (does not apply to cementless component).

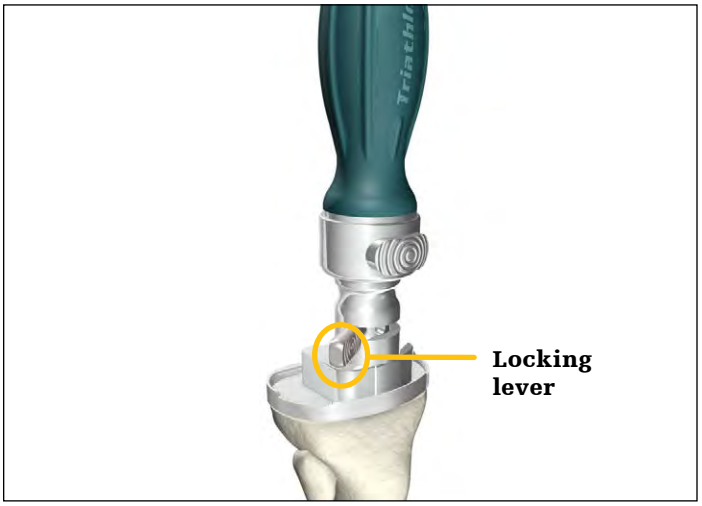


Figure 68

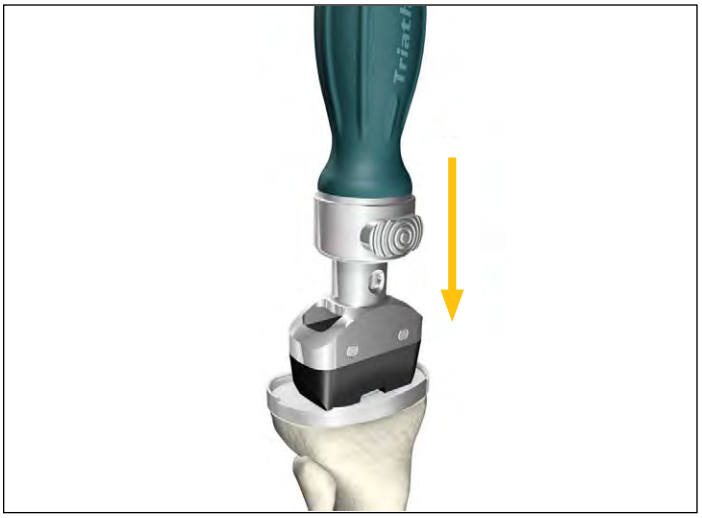


Figure 69

Primary Tibial Baseplate – Cemented/Cementless

Connect the Tibial Baseplate Impactor Extractor to the Impaction Handle. To connect this assembly to the Primary Tibial Baseplate, ensure the locking lever is in the unlocked position and place the head onto the Primary Tibial Baseplate straddling the central island. Ensure the Tibial Baseplate Impactor Extractor sits flat on the top surface of the Primary Tibial Baseplate and move the locking lever to the locked position.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Introduce the Tibial Baseplate onto the prepared tibia and impact until the baseplate is seated. Unlock the locking lever and remove the assembly from the Tibial Baseplate.

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle.

Place the Tibial Baseplate Impactor on to the Primary Tibial Baseplate straddling the central island. Ensure the Tibial Baseplate Impactor sits flat on the top surface of the Primary Tibial Baseplate.

Impact until the Primary Tibial Baseplate is fully seated.

- **Note:** Clear all excess bone cement (does not apply to cementless component) while maintaining position of the Tibial Baseplate.

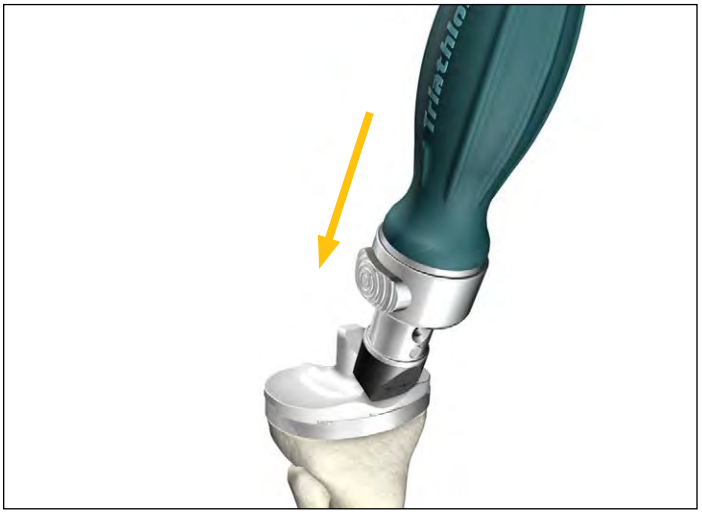


Figure 70

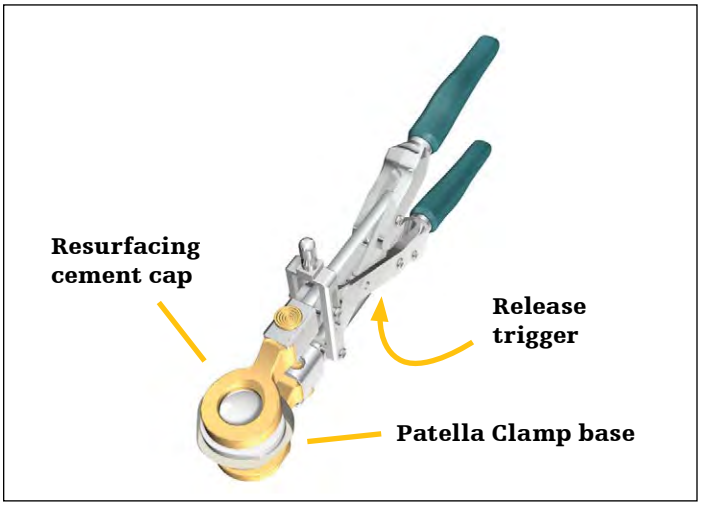


Figure 71

Closure

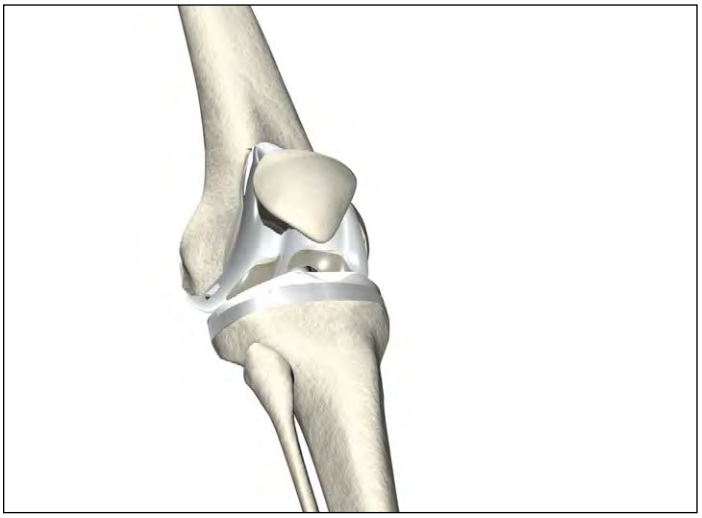


Figure 72

CR, CS, PS or PSR Tibial Insert

Prior to assembly of the appropriate Tibial Insert, the PS or CR Tibial Trial Insert may be placed on the Primary Tibial Baseplate to once more assess joint stability and range of motion.

To assemble the appropriate Tibial Insert, distract the joint and angle the insert posteriorly into the Primary Tibial Baseplate. The posterior lip of the Tibial Insert must fit beneath the lip on the posterior Primary Tibial Baseplate wall.

Attach the Tibial Insert Impactor to the Impaction Handle and impact to snap the Insert in place anteriorly. The appropriate Tibial Insert is fully seated once the locking wire locks under the barbs on the anterior/interior surface of the Primary Tibial Baseplate wall.

Symmetric or Asymmetric Patella

Assemble the Patella Cement Cap and the Patella Clamp Base to the Patella Clamp **(See Assembly Figure 9)**.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

- **Note:** In cementless scenarios, if necessary, use a curette to mark the locations of the fixation peg holes.

Place the Patella Component onto the prepared patella, making certain the fixation peg holes are aligned to the corresponding holes.

Seat the Patella Component onto the prepared patella by clamping the Patella Cement Cap, Patella Clamp Base and Patella Clamp assembly.

- **Note:** Ensure that the silicon O-ring of the Patella Cement Cap is placed on the articulating surface of the Patella Component.
- **Note:** Leave the assembly clamped to the patella while excess cement is cleared and polymerization is complete.

Disengage the Patella Clamp by pressing the gold release trigger.

Assess the joint in flexion and extension.

For cemented components

After cement polymerization and removal of all residual cement, thoroughly irrigate the joint. Hemostasis is achieved after deflation of the tourniquet. Close soft tissues in the normal layered fashion.

Assembly instructions

Many of the Triathlon Knee System Instruments have unique mechanisms incorporated to assist surgeons and OR staff in a simplified, efficient surgical experience. Therefore, assembly instructions have been included in the first section of this surgical technique to assist with instruments that may be preassembled on the back table, as well as other instruments that need to be assembled.

All of the mechanisms that allow instruments to be adjusted and/or assembled have been color-coded. Those that correspond to femoral preparation are black, those for tibial preparation are bronze and those for patella preparation are gold.

Black **Bronze** **Gold**

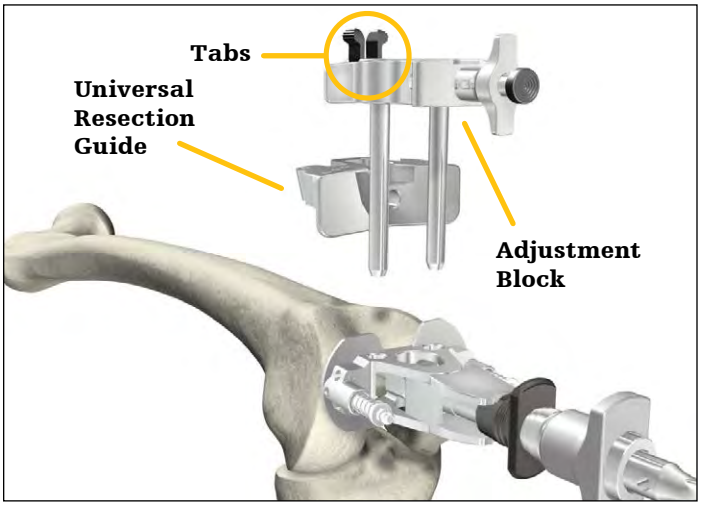


Figure 1a

Universal Resection Guide, Adjustment Block and Femoral Alignment Guide assembly:

Attach the Universal Resection Guide to the Adjustment Block by squeezing the black tabs on Adjustment Block and sliding into the Universal Resection Guide.

Release the black tabs and ensure that the Universal Resection Guide is securely snapped into place.

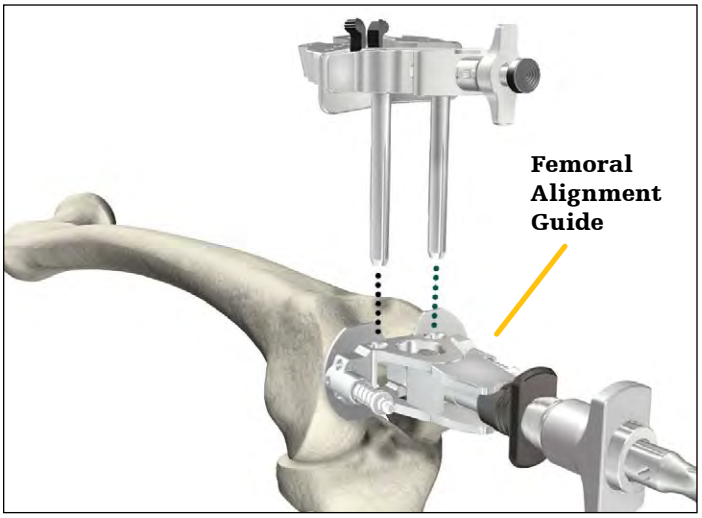


Figure 1b

Insert the two posts of the Adjustment Block into the holes on the Femoral Alignment Guide (for use on the left or right side). Ensure that the black button on the Adjustment Block is aligned with the black knob on the Femoral Alignment Guide.

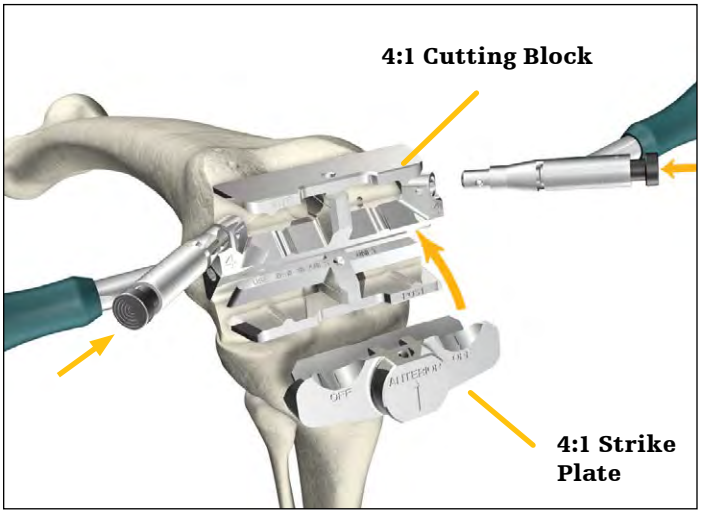


Figure 2a

4:1 Cutting Block, Modular Handle, 4:1 Strike Plate and 4:1 Modular Capture assembly:

Insert the 4:1 Strike Plate into the anterior chamfer of the 4:1 Cutting Block until it clicks into place.

Press the black button on the Modular Handle and insert it into the hole shown. Release the black button and turn the Modular Handle until it clicks into place.

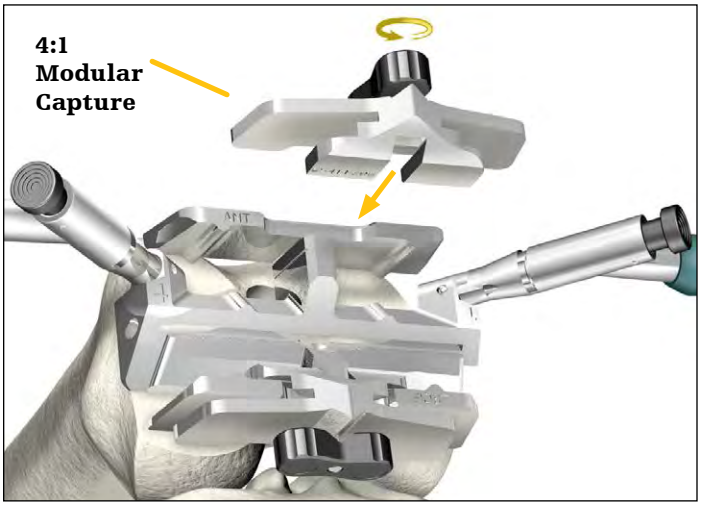


Figure 2b

To attach the 4:1 Modular Capture, turn the black "bow-tie" knob and cam to disengage the magnet from the capture surface.

Attach the 4:1 Modular Capture to the anterior or posterior resection surfaces by positioning it to straddle the central web.

Once fully seated, turn the "bow-tie" knob to engage the magnet with the captured surface

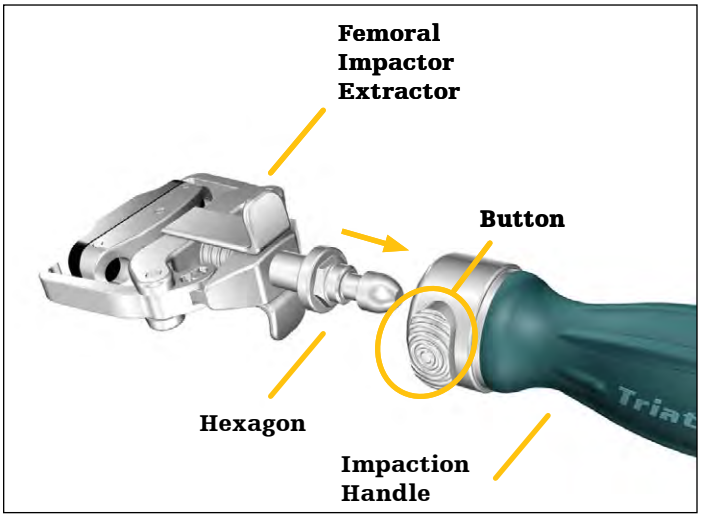


Figure 3a

Femoral Impactor Extractor, Impaction Handle and Femoral Trial or Femoral Component assembly:

Snap the Femoral Impactor Extractor into the Impaction Handle.

Ensure the hexagon on the Femoral Impactor Extractor is fully seated in the Impaction Handle. When fully seated, there will be an audible snap.

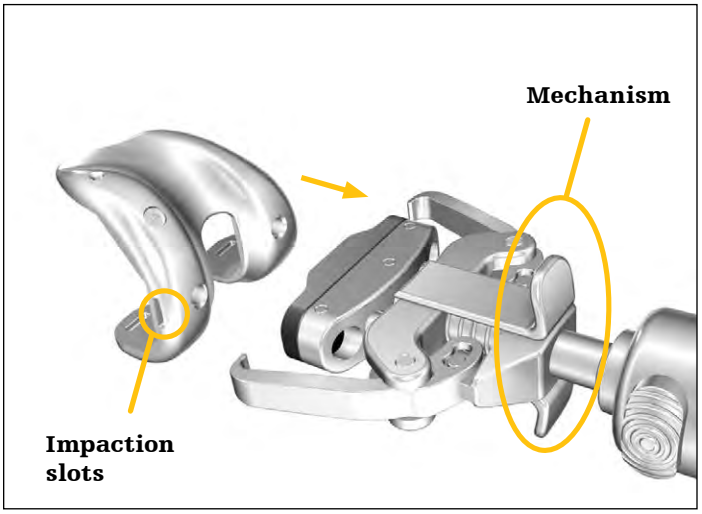


Figure 3b

Turn the Impaction Handle counterclockwise until there is enough space (approximately 10mm) between the black impaction surface and the ends of the jaws to insert the Femoral Trial or Femoral Component.

Pull back on the mechanism to open the jaws. Engage the jaws into the impaction slots on the Femoral Trial or Femoral Component.

Turn the Impaction Handle clockwise to tighten, ensuring the impaction surface locks against the distal condyles of the Femoral Trial or Femoral Component.

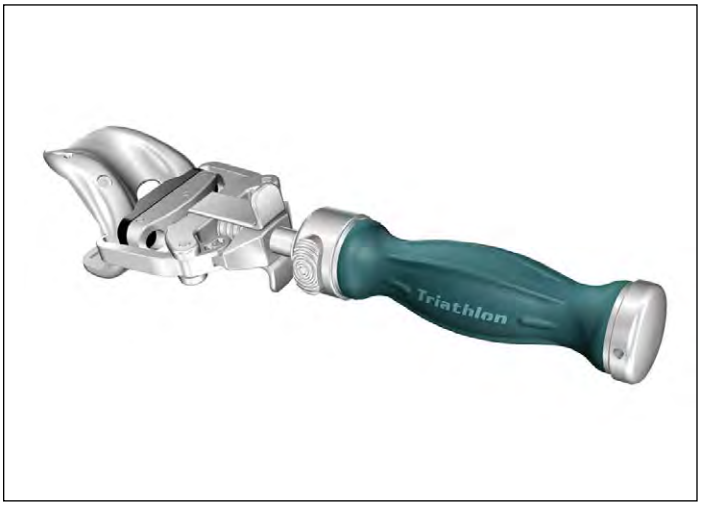


Figure 3c

Final assembly.

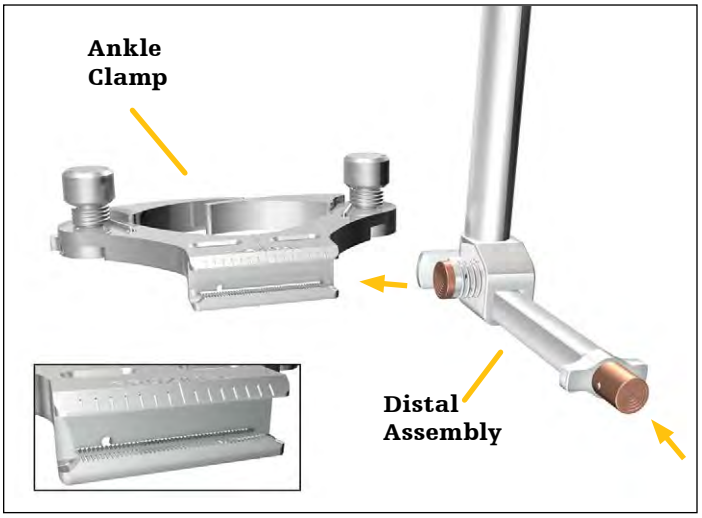


Figure 4a

Tibial Alignment Ankle Clamp EM, Tibial Alignment Distal Assembly EM, Tibial Alignment Proximal Rod EM, Tibial Stylus, Tibial Resection Guide Modular Capture and Tibial Adjustment Housing assembly:

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining).

Press the bronze button on the Distal Assembly and slide into the grooves on the Ankle Clamp. Ensure that the "proximal" side of the Ankle Clamp is showing **(See inset)**.

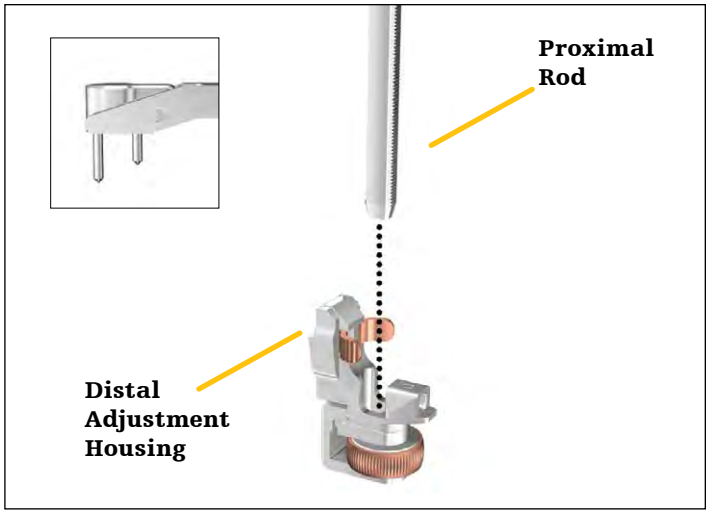


Figure 4b

Press the bronze wheel on the Tibial Adjustment Housing with your thumb and insert the Proximal Rod. Ensure that the two fixation pins on the superior portion of the Proximal Rod are facing posteriorly.

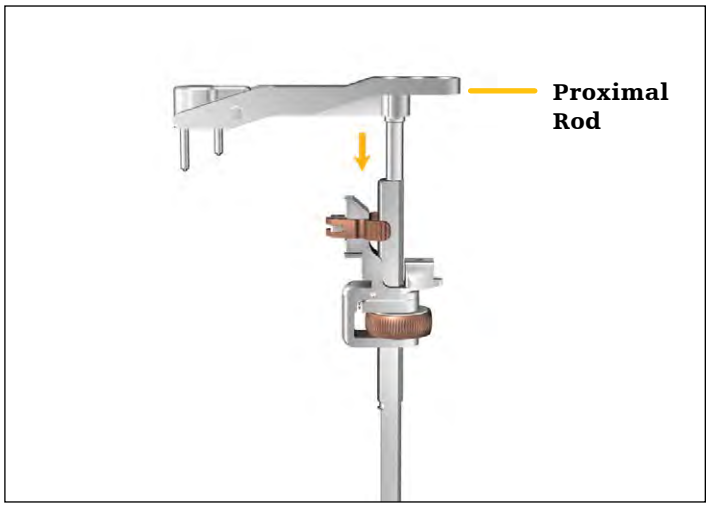


Figure 4c

Slide the Proximal Rod until the Tibial Adjustment Housing engages the teeth on the Proximal Rod.

Release the bronze wheel to lock into place.

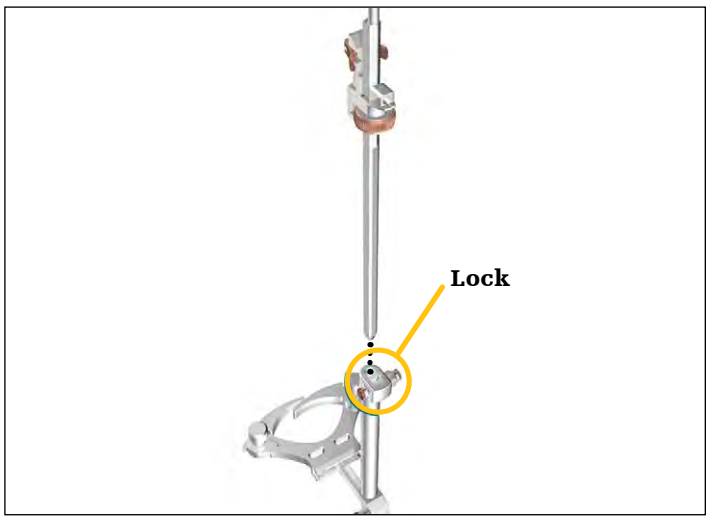


Figure 4d

Ensure that the bronze lock on the Distal Assembly is unlocked prior to insertion.

Insert the Proximal Rod and Tibial Adjustment Housing assembly into the hole on the top of the Distal Assembly with the fixation pins on the superior portion of the Proximal Rod facing posteriorly.

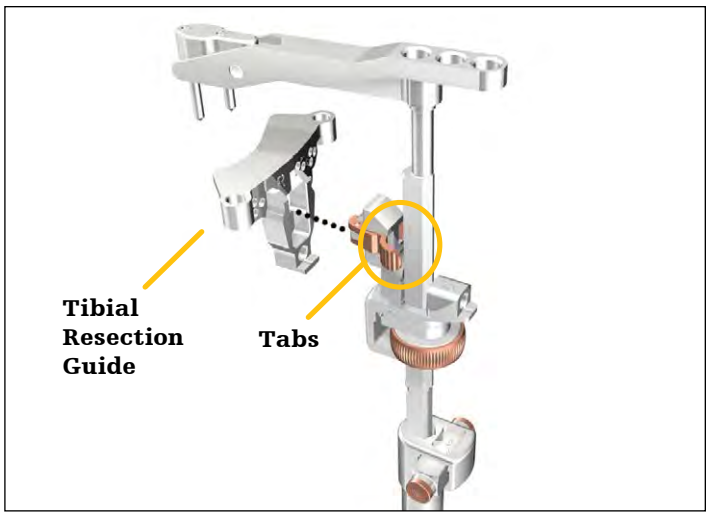


Figure 4e

Squeeze the bronze tabs on the Tibial Adjustment Housing and insert the entire assembly into the Tibial Resection Guide.

Release the bronze tabs and ensure that the Tibial Resection Guide is locked in place.

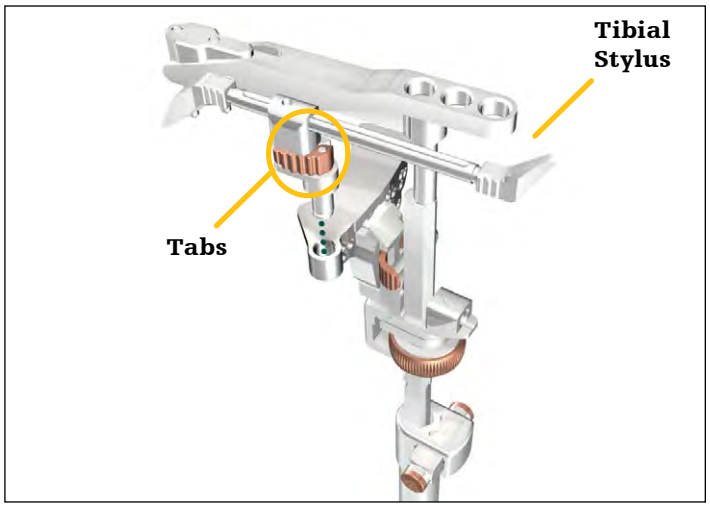


Figure 4f

Squeeze the bronze tab on the Tibial Stylus and insert the post into the appropriate side of the Tibial Resection Guide.

Insert the posts into the Tibial Resection Guide holes and slide the Tibial Resection Guide Modular Capture into place.

Release the bronze tab to lock the Tibial Resection Guide Modular Capture into the Tibial Resection Guide.

Figure 4g

Final assembly.

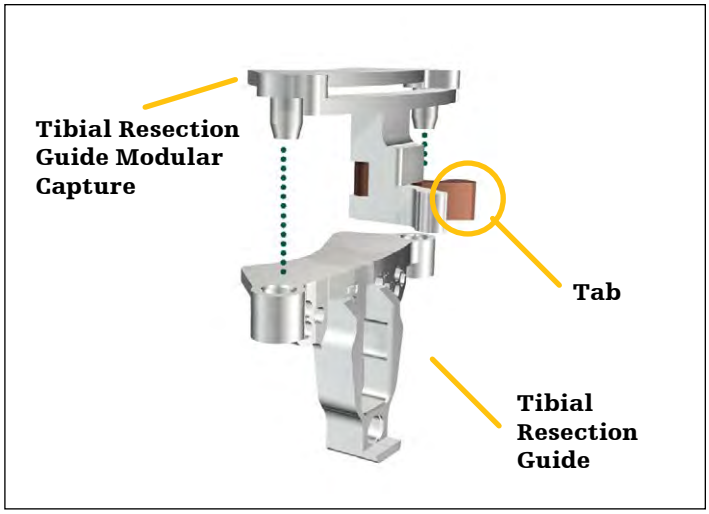


Figure 4h

Squeeze the bronze tab on the Tibial Resection Guide Modular Capture to attach it to the Tibial Resection Guide. Locate the posts on the bottom of the Tibial Resection Guide Modular Capture and the post holes on the top surface of the Tibial Resection Guide.

Insert the posts into the Tibial Resection Guide holes and slide the Tibial Resection Guide Modular Capture into place.

Release the bronze tab to lock the Tibial Resection Guide Modular Capture into the Tibial Resection.

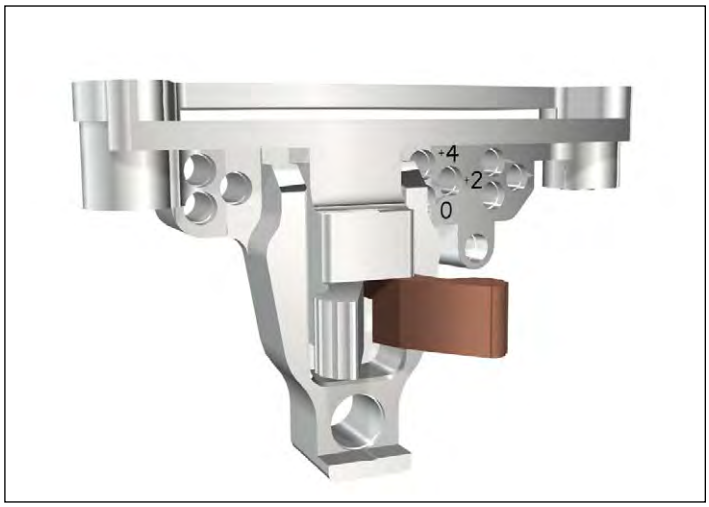


Figure 4i

Final assembly.

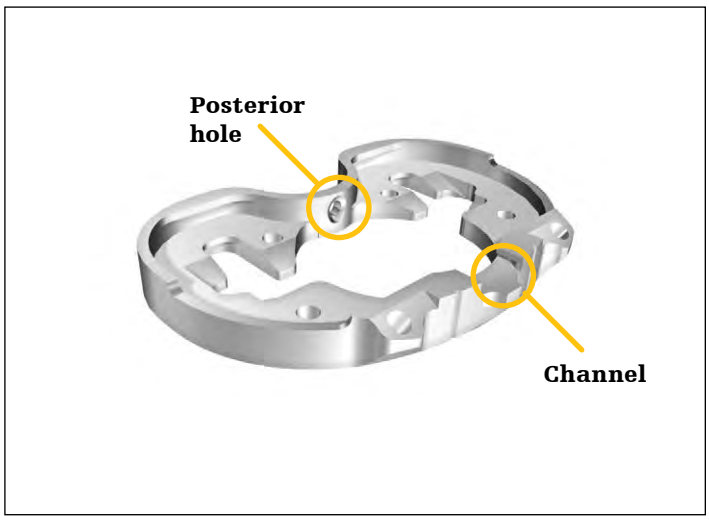


Figure 5a

Universal Tibial Template, Alignment Handle and PS or CR Tibial Insert Trial assembly:

Posterior hole and Channel of Universal Tibial Template **(referenced in Assembly 7B)**.

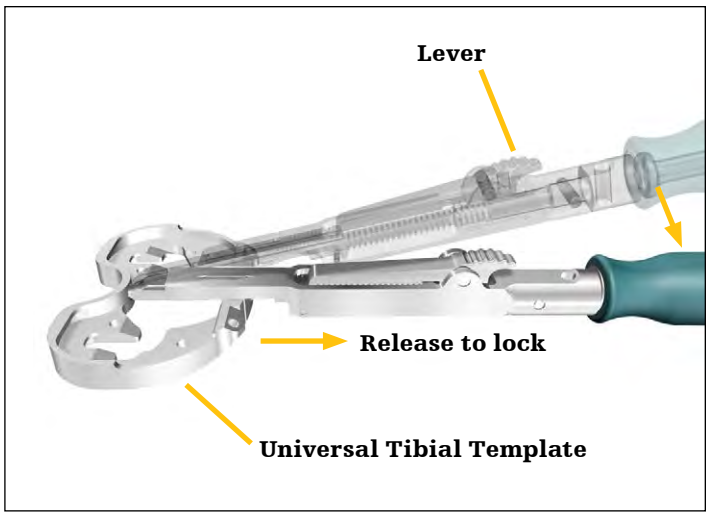


Figure 5b

Depress and hold the lever on the anterior position of the Alignment Handle. Insert the spring-loaded tip of the Alignment Handle into the central posterior hole of the Universal Tibial Template. Hold the handle at a slight angle to the top surface of the template.

Compress the spring-loaded tip by pushing it forward and lower the Alignment Handle into the channel on the anterior portion of the Universal Tibial Template. Release the spring tension and allow the Alignment Handle to engage the Universal Tibial Template.

Release the lever to secure the assembly.

Figure 5c

Position a PS or CR Tibial Insert Trial to the Universal Tibial Template by first positioning it posteriorly, at a 20-30° angle to the template and then fully seat it anteriorly.

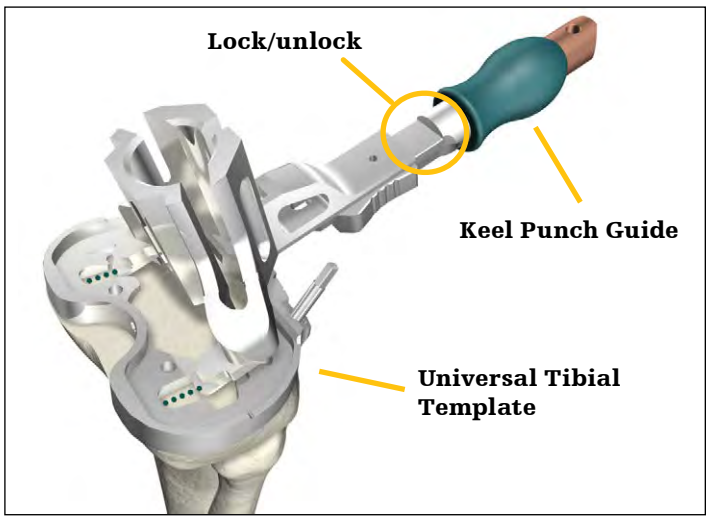


Figure 6a

Universal Tibial Template and Keel Punch Guide assembly:

Ensure that the handle of the Keel Punch Guide is unlocked – pull back on the handle to unlock.

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting the Keel Punch Guide (at a slight angle to the Universal Tibial Template) into the two locating slots towards the posterior portion of the Universal Tibial Template.

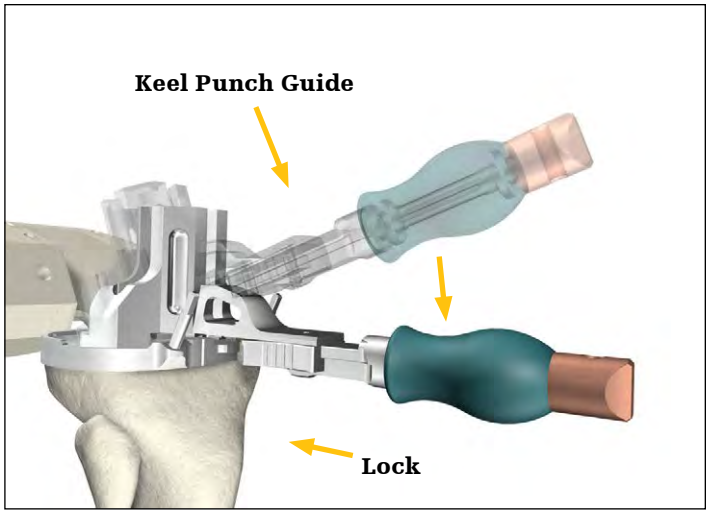


Figure 6b

Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle of the Keel Punch Guide to lock it to the Universal Tibial Template.

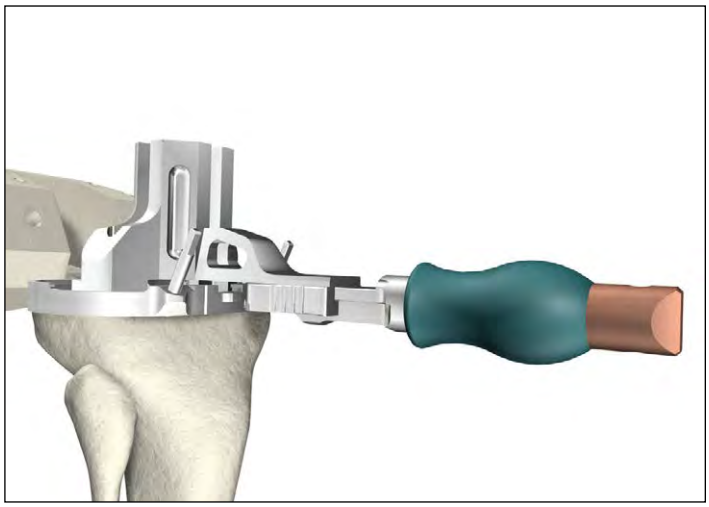


Figure 6c

Final assembly.

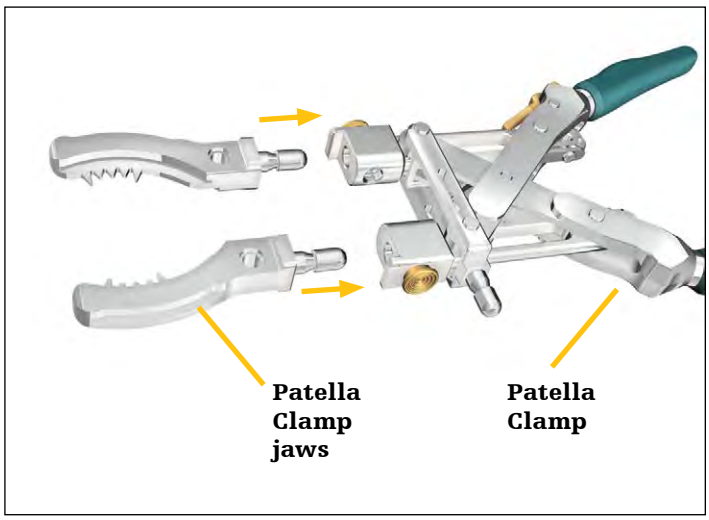


Figure 7a

Patella Clamp, Patella Stylus and Patella Clamp jaws assembly (this may also be used to assemble the Patella Clamp Base, Patella Drill Template and Patella Cement Cap to the Patella Clamp):

Snap the Patella Clamp jaws into the holes on the Patella Clamp.

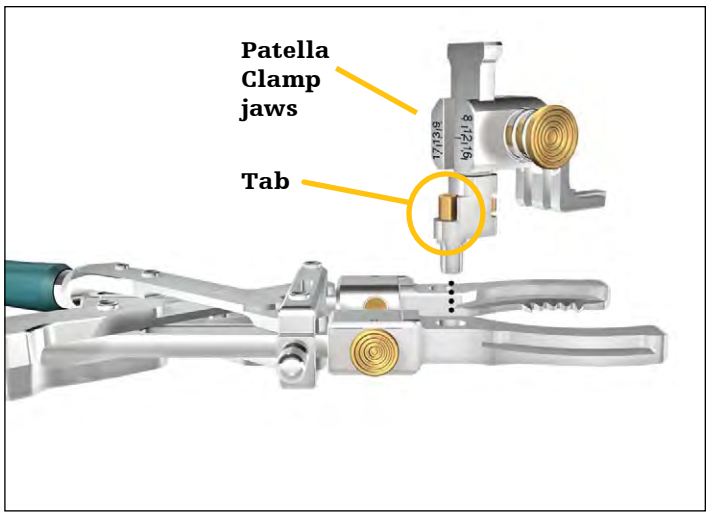


Figure 7b

Squeeze the gold tab on the Patella Stylus and insert the post into the hole on either jaw. Use the holes on the top surface of the jaws if using the bone removing method or on the bottom surface if using the bone remaining method.

The top surface has circular holes, which allow the Stylus to rotate and the bottom surface has hex-shaped holes fixing the Patella Stylus in the center of the patella.

Release the gold tab to lock in the Patella Stylus.

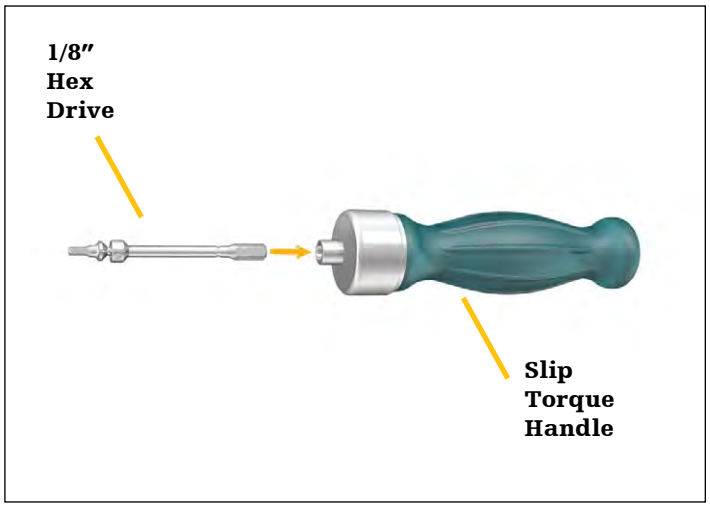


Figure 8a

1/8" Hex Drive, Slip Torque Handle and Modular Femoral Distal Fixation Pegs assembly:

Snap the 1/8" Hex Drive into the Slip Torque Handle.

Figure 8b

Insert the tip of the 1/8" Hex Drive into the Modular Femoral Distal Fixation Peg and turn the Slip Torque Handle to tighten.

Instruments

Ref #	Description	Quantity in kit
Miscellaneous instruments kit contents		
3170-0000	1/8″ Drill	2
6541-4-003 or 6541-4-003A	Headless Pins - 3″	4
6541-4-300	Headed Nail Impactor Extractor (Optional)	1
6541-4-400	Blade Runner	1
6541-4-515	Headed Nails - 1 1/2″ (Optional)	2
6541-4-516	5/16″ IM Rod	1
6541-4-518	1/8″ Peg Drill	1
6541-4-525	1/4″ Peg Drill	1
6541-4-538	3/8″ IM Drill	1
6541-4-575	Headed Nails - 3/4″ (Optional)	2
6541-4-602	Universal Alignment Rods	2
6541-4-610	Adjustable Spacer Block (Optional)	1
6541-4-700	Bone File (Optional)	1
6541-4-709	Box Chisel	1
6541-4-710	Posterior Osteophyte Removal Tool (Optional)	1
6541-4-800	T-Handle Driver	1
6541-4-801	Universal Driver	1
6541-4-802	1/8″ Hex Drive (Optional)	1
6541-4-803	Slap Hammer	1
6541-4-804	Headless Pin Extractor	1
6541-4-805	Tibial Baseplate Impactor Extractor	1
6541-4-806	Universal Alignment Handle	1
6541-4-807	Femoral Impactor Extractor	1
6541-4-808	Modular Handle	2
6541-4-809	Headless Pin Driver	1
6541-4-810	Impaction Handle	2
6541-4-811	Femoral Impactor	1
6541-4-812	Tibial Baseplate Impactor	1
6541-4-813	Tibial Insert Impactor	1
6541-4-825	Slip Torque Handle (Optional)	1
6541-8-004	Triathlon Miscellaneous Upper Tray	1
6541-8-104	Triathlon Miscellaneous Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 42

Instruments

Ref #	Description	Quantity in kit
Patella preparation and trialing kit contents		
5550-T-278	Symmetric Patella Trial 27mm x 8mm	1
5550-T-298	Symmetric Patella Trial 29mm x 8mm	1
5550-T-319	Symmetric Patella Trial 31mm x 9mm	1
5550-T-339	Symmetric Patella Trial 33mm x 9mm	1
5550-T-360	Symmetric Patella Trial 36mm x 10mm	1
5550-T-391	Symmetric Patella Trial 39mm x 11mm	1
5551-T-299	Asymmetric Patella Trial 29mm (S/I) x 33mm (M/L) x 9mm	1
5551-T-320	Asymmetric Patella Trial 32mm (S/I) x 36mm (M/L) x 10mm	1
5551-T-350	Asymmetric Patella Trial 35mm (S/I) x 39mm (M/L) x 10mm	1
5551-T-381	Asymmetric Patella Trial 38mm (S/I) x 42mm (M/L) x 11mm	1
5551-T-401	Asymmetric Patella Trial 40mm (S/I) x 44mm (M/L) x 11mm	1
6541-3-522	Metal-Backed Patella Drill	1
6541-3-524	All-Poly Patella Drill w/ Stop	1
6541-3-600	Patella Clamp	1
6541-3-601	Patella Stylus	1
6541-3-602	Patella Caliper	1
6541-3-617	Asymmetric Patella Drill Template - 29mm	1
6541-3-618	Asymmetric Patella Drill Template - 33mm	1
6541-3-619	Asymmetric Patella Drill Template - 35mm	1
6541-3-620	Asymmetric Patella Drill Template - 38mm	1
6541-3-621	Asymmetric Patella Drill Template - 40mm	1
6541-3-627	Symmetric Patella Drill Template - 27mm	1
6541-3-629	Symmetric Patella Drill Template - 29mm	1
6541-3-631	Symmetric Patella Drill Template - 31mm	1
6541-3-633	Symmetric Patella Drill Template - 33mm	1
6541-3-636	Symmetric Patella Drill Template - 36mm	1
6541-3-639	Symmetric Patella Drill Template - 39mm	1
6541-3-702	Small Patella Clamp Jaw Right	1
6541-3-703	Small Patella Clamp Jaw Left	1
6541-3-704	Large Patella Clamp Jaw Right	1
6541-3-705	Large Patella Clamp Jaw Left	1
6541-3-800	Patella Cement Cap	1
6541-3-801	Patella Clamp Base	1
8050-5001L	Left Lateral Tibial Retractor	1
8050-5001R	Right Lateral Tibial Retractor	1
8050-5002	Anterior Femoral Retractor	1
6541-8-005	Patella Preparation and Trialing - Upper Tray	1
6541-8-105	Patella Preparation and Trialing - Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 39

Instruments

Ref #	Description	Quantity in kit
Size 3-6 femoral and tibial preparation kit contents		
6541-1-600	Adjustment Block	1
6541-1-603	Femoral Sizer	1
6541-1-605	Femoral Stylus	1
6541-1-657	Femoral Alignment Guide	1
6541-1-703	#3 4:1 Cutting Block	1
6541-1-704	#4 4:1 Cutting Block	1
6541-1-705	#5 4:1 Cutting Block	1
6541-1-706	#6 4:1 Cutting Block	1
6541-1-721	Universal Resection Guide	1
6541-1-723	Modular Capture - Distal Resection	1
6541-1-805	4:1 Strike Plate	1
6541-1-806	4:1 Modular Capture	2
6541-2-013	Size 1-3 Keel Punch	1
6541-2-046	Size 4-6 Keel Punch	1
6541-2-429	Tibial Stylus	1
6541-2-600	Tibial Alignment Jig IM	1
6541-2-603	#3 Universal Tibial Template	1
6541-2-604	#4 Universal Tibial Template	1
6541-2-605	#5 Universal Tibial Template	1
6541-2-606	#6 Universal Tibial Template	1
6541-2-609	Tibial Alignment Ankle Clamp EM	1
6541-2-610	Tibial Alignment Distal Assembly EM	1
6541-2-611	Tibial Alignment Proximal Rod EM	1
6541-2-700	Tibial Resection Guide Right	1
6541-2-701	Tibial Resection Guide Left	1
6541-2-702	Tibial Resection Guide Modular Capture Right	1
6541-2-703	Tibial Resection Guide Modular Capture Left	1
6541-2-704	Tibial Adjustment Housing - 0° slope	1
6541-2-705	Tibial Adjustment Housing - 3° slope	1
6541-2-713	Size 1-3 Keel Punch Guide	1
6541-2-748	Size 4-8 Keel Punch Guide	1
6541-2-807	Tibial Alignment Handle	1
6541-8-002	Triathlon Size 3-6 Upper Tray	1
6541-8-102	Triathlon Size 3-6 Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 36

Instruments

Ref #	Description	Quantity in kit
Size 3-6 PS femoral and tibial trialing kit contents		
5511-T-301	PS Femoral Trial #3 Left	1
5511-T-302	PS Femoral Trial #3 Right	1
5511-T-401	PS Femoral Trial #4 Left	1
5511-T-402	PS Femoral Trial #4 Right	1
5511-T-501	PS Femoral Trial #5 Left	1
5511-T-502	PS Femoral Trial #5 Right	1
5511-T-601	PS Femoral Trial #6 Left	1
5511-T-602	PS Femoral Trial #6 Right	1
5532-T-309A or 5532-T-309B*	PS Tibial Insert Trial #3 - 9mm	1
5532-T-311A or 5532-T-311B*	PS Tibial Insert Trial #3 - 11mm	1
5532-T-313A or 5532-T-313B*	PS Tibial Insert Trial #3 - 13mm	1
5532-T-316A or 5532-T-316B*	PS Tibial Insert Trial #3 - 16mm	1
5532-T-319A or 5532-T-319B*	PS Tibial Insert Trial #3 - 19mm	1
5532-T-409A or 5532-T-409B*	PS Tibial Insert Trial #4 - 9mm	1
5532-T-411A or 5532-T-411B*	PS Tibial Insert Trial #4 - 11mm	1
5532-T-413A or 5532-T-413B*	PS Tibial Insert Trial #4 - 13mm	1
5532-T-416A or 5532-T-416B*	PS Tibial Insert Trial #4 - 16mm	1
5532-T-419A or 5532-T-419B*	PS Tibial Insert Trial #4 - 19mm	1
5532-T-509A or 5532-T-509B*	PS Tibial Insert Trial #5 - 9mm	1
5532-T-511A or 5532-T-511B*	PS Tibial Insert Trial #5 - 11mm	1
5532-T-513A or 5532-T-513B*	PS Tibial Insert Trial #5 - 13mm	1
5532-T-516A or 5532-T-516B*	PS Tibial Insert Trial #5 - 16mm	1
5532-T-519A or 5532-T-519B*	PS Tibial Insert Trial #5 - 19mm	1
5532-T-609A or 5532-T-609B*	PS Tibial Insert Trial #6 - 9mm	1
5532-T-611A or 5532-T-611B*	PS Tibial Insert Trial #6 - 11mm	1
5532-T-613A or 5532-T-613B*	PS Tibial Insert Trial #6 - 13mm	1
5532-T-616A or 5532-T-616B*	PS Tibial Insert Trial #6 - 16mm	1
5532-T-619A or 5532-T-619B*	PS Tibial Insert Trial #6 - 19mm	1
6541-5-713	#3 MIS PS Box Cutting Guide	1
6541-5-714	#4 MIS PS Box Cutting Guide	1
6541-5-715	#5 MIS PS Box Cutting Guide	1
6541-5-716	#6 MIS PS Box Cutting Guide	1
6541-8-009	Triathlon 3-6 PS Upper Tray	1
6541-8-109	Triathlon 3-6 PS Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 35

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Instruments

Ref #	Description	Quantity in kit
Size 3-6 CR femoral and tibial trialing kit contents		
5510-T-301	CR Femoral Trial #3 Left	1
5510-T-302	CR Femoral Trial #3 Right	1
5510-T-401	CR Femoral Trial #4 Left	1
5510-T-402	CR Femoral Trial #4 Right	1
5510-T-501	CR Femoral Trial #5 Left	1
5510-T-502	CR Femoral Trial #5 Right	1
5510-T-601	CR Femoral Trial #6 Left	1
5510-T-602	CR Femoral Trial #6 Right	1
5530-T-309A or 5530-T-309B*	CR Tibial Insert Trial #3 - 9mm	1
5530-T-311A or 5530-T-311B*	CR Tibial Insert Trial #3 - 11mm	1
5530-T-313A or 5530-T-313B*	CR Tibial Insert Trial #3 - 13mm	1
5530-T-316A or 5530-T-316B*	CR Tibial Insert Trial #3 - 16mm	1
5530-T-319A or 5530-T-319B*	CR Tibial Insert Trial #3 - 19mm	1
5530-T-409A or 5530-T-409B*	CR Tibial Insert Trial #4 - 9mm	1
5530-T-411A or 5530-T-411B*	CR Tibial Insert Trial #4 - 11mm	1
5530-T-413A or 5530-T-413B*	CR Tibial Insert Trial #4 - 13mm	1
5530-T-416A or 5530-T-416B*	CR Tibial Insert Trial #4 - 16mm	1
5530-T-419A or 5530-T-419B*	CR Tibial Insert Trial #4 - 19mm	1
5530-T-509A or 5530-T-509B*	CR Tibial Insert Trial #5 - 9mm	1
5530-T-511A or 5530-T-511B*	CR Tibial Insert Trial #5 - 11mm	1
5530-T-513A or 5530-T-513B*	CR Tibial Insert Trial #5 - 13mm	1
5530-T-516A or 5530-T-516B*	CR Tibial Insert Trial #5 - 16mm	1
5530-T-519A or 5530-T-519B*	CR Tibial Insert Trial #5 - 19mm	1
5530-T-609A or 5530-T-609B*	CR Tibial Insert Trial #6 - 9mm	1
5530-T-611A or 5530-T-611B*	CR Tibial Insert Trial #6 - 11mm	1
5530-T-613A or 5530-T-613B*	CR Tibial Insert Trial #6 - 13mm	1
5530-T-616A or 5530-T-616B*	CR Tibial Insert Trial #6 - 16mm	1
5530-T-619A or 5530-T-619B*	CR Tibial Insert Trial #6 - 19mm	1
6541-8-008	Triathlon 3-6 CR Upper Tray	1
6541-8-108	Triathlon 3-6 CR Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 31

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Instruments

Ref #	Description	Quantity in kit
Size 1, 8 PS preparation and trialing kit contents		
5511-T-101	PS Femoral Trial # 1 Left	1
5511-T-102	PS Femoral Trial # 1 Right	1
5511-T-801	PS Femoral Trial # 8 Left	1
5511-T-802	PS Femoral Trial # 8 Right	1
5532-T-109A or 5532-T-109B*	PS Tibial Insert Trial #1 - 9mm	1
5532-T-111A or 5532-T-111B*	PS Tibial Insert Trial #1 - 11mm	1
5532-T-113A or 5532-T-113B*	PS Tibial Insert Trial #1 - 13mm	1
5532-T-116A or 5532-T-116B*	PS Tibial Insert Trial #1 - 16mm	1
5532-T-119A or 5532-T-119B*	PS Tibial Insert Trial #1 - 19mm	1
5532-T-809A or 5532-T-809B*	PS Tibial Insert Trial #8 - 9mm	1
5532-T-811A or 5532-T-811B*	PS Tibial Insert Trial #8 - 11mm	1
5532-T-813A or 5532-T-813B*	PS Tibial Insert Trial #8 - 13mm	1
5532-T-816A or 5532-T-816B*	PS Tibial Insert Trial #8 - 16mm	1
5532-T-819A or 5532-T-819B*	PS Tibial Insert Trial #8 - 19mm	1
6541-1-701	#1 4:1 Cutting Block	1
6541-1-708	#8 4:1 Cutting Block	1
6541-1-711	#1 PS Box Cutting Guide	1
6541-1-718	#8 PS Box Cutting Guide	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-601	#1 Universal Tibial Template	1
6541-2-608	#8 Universal Tibial Template	1
6541-8-113	Triathlon 1 and 8 PS Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 23

Size 1, 8 CR preparation and trialing kit contents		
5510-T-101	CR Femoral Trial # 1 Left	1
5510-T-102	CR Femoral Trial # 1 Right	1
5510-T-801	CR Femoral Trial # 8 Left	1
5510-T-802	CR Femoral Trial # 8 Right	1
5530-T-109A or 5530-T-109B*	CR Tibial Insert Trial #1 - 9mm	1
5530-T-111A or 5530-T-111B*	CR Tibial Insert Trial #1 - 11mm	1
5530-T-113A or 5530-T-113B*	CR Tibial Insert Trial #1 - 13mm	1
5530-T-116A or 5530-T-116B*	CR Tibial Insert Trial #1 - 16mm	1
5530-T-119A or 5530-T-119B*	CR Tibial Insert Trial #1 - 19mm	1
5530-T-809A or 5530-T-809B*	CR Tibial Insert Trial #8 - 9mm	1
5530-T-811A or 5530-T-811B*	CR Tibial Insert Trial #8 - 11mm	1
5530-T-813A or 5530-T-813B*	CR Tibial Insert Trial #8 - 13mm	1
5530-T-816A or 5530-T-816B*	CR Tibial Insert Trial #8 - 16mm	1
5530-T-819A or 5530-T-819B*	CR Tibial Insert Trial #8 - 19mm	1
6541-1-701	#1 4:1 Cutting Block	1
6541-1-708	#8 4:1 Cutting Block	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-601	#1 Universal Tibial Template	1
6541-2-608	#8 Universal Tibial Template	1
6541-8-112	Triathlon 1 and 8 CR Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 21

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Instruments

Ref #	Description	Quantity in kit
Size 2, 7 PS preparation and trialing kit contents		
5511-T-201	PS Femoral Trial # 2 Left	1
5511-T-202	PS Femoral Trial # 2 Right	1
5511-T-701	PS Femoral Trial # 7 Left	1
5511-T-702	PS Femoral Trial # 7 Right	1
5532-T-209A or 5532-T-209B*	PS Tibial Insert Trial # 2 - 9mm	1
5532-T-211A or 5532-T-211B*	PS Tibial Insert Trial # 2 - 11mm	1
5532-T-213A or 5532-T-213B*	PS Tibial Insert Trial # 2 - 13mm	1
5532-T-216A or 5532-T-216B*	PS Tibial Insert Trial # 2 - 16mm	1
5532-T-219A or 5532-T-219B*	PS Tibial Insert Trial # 2 - 19mm	1
5532-T-709A or 5532-T-709B*	PS Tibial Insert Trial # 7 - 9mm	1
5532-T-711A or 5532-T-711B*	PS Tibial Insert Trial # 7 - 11mm	1
5532-T-713A or 5532-T-713B*	PS Tibial Insert Trial # 7 - 13mm	1
5532-T-716A or 5532-T-716B*	PS Tibial Insert Trial # 7 - 16mm	1
5532-T-719A or 5532-T-719B*	PS Tibial Insert Trial # 7 - 19mm	1
6541-1-702	#2 4:1 Cutting Block	1
6541-1-707	#7 4:1 Cutting Block	1
6541-5-712	#2 PS Box Cutting Guide	1
6541-5-717	#7 PS Box Cutting Guide	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
6541-8-022	Triathlon 2 and 7 PS Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 23
Size 2, 7 CR preparation and trialing kit contents		
5510-T-201	CR Femoral Trial # 2 Left	1
5510-T-202	CR Femoral Trial # 2 Right	1
5510-T-701	CR Femoral Trial # 7 Left	1
5510-T-702	CR Femoral Trial # 7 Right	1
5530-T-209A or 5530-T-209B*	CR Tibial Insert Trial # 2 - 9mm	1
5530-T-211A or 5530-T-211B*	CR Tibial Insert Trial # 2 - 11mm	1
5530-T-213A or 5530-T-213B*	CR Tibial Insert Trial # 2 - 13mm	1
5530-T-216A or 5530-T-216B*	CR Tibial Insert Trial # 2 - 16mm	1
5530-T-219A or 5530-T-219B*	CR Tibial Insert Trial # 2 - 19mm	1
5530-T-709A or 5530-T-709B*	CR Tibial Insert Trial # 7 - 9mm	1
5530-T-711A or 5530-T-711B*	CR Tibial Insert Trial # 7 - 11mm	1
5530-T-713A or 5530-T-713B*	CR Tibial Insert Trial # 7 - 13mm	1
5530-T-716A or 5530-T-716B*	CR Tibial Insert Trial # 7 - 16mm	1
5530-T-719A or 5530-T-719B*	CR Tibial Insert Trial # 7 - 19mm	1
6541-1-702	#2 4:1 Cutting Block	1
6541-1-707	#7 4:1 Cutting Block	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
6541-8-021	Triathlon 2 and 7 CR Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 21

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Instruments

Ref #	Description	Quantity
Size 1-8 max PS tibial trialing kit contents		
5532-T-122A*	PS Tibial Insert Trial # 1 - 22mm	1
5532-T-125A*	PS Tibial Insert Trial # 1 - 25mm	1
5532-T-222A*	PS Tibial Insert Trial # 2 - 22mm	1
5532-T-225A*	PS Tibial Insert Trial # 2 - 25mm	1
5532-T-322A*	PS Tibial Insert Trial # 3 - 22mm	1
5532-T-325A*	PS Tibial Insert Trial # 3 - 25mm	1
5532-T-422A*	PS Tibial Insert Trial # 4 - 22mm	1
5532-T-425A*	PS Tibial Insert Trial # 4 - 25mm	1
5532-T-522A*	PS Tibial Insert Trial # 5 - 22mm	1
5532-T-525A*	PS Tibial Insert Trial # 5 - 25mm	1
5532-T-622A*	PS Tibial Insert Trial # 6 - 22mm	1
5532-T-625A*	PS Tibial Insert Trial # 6 - 25mm	1
5532-T-722A*	PS Tibial Insert Trial # 7 - 22mm	1
5532-T-725A*	PS Tibial Insert Trial # 7 - 25mm	1
5532-T-822A*	PS Tibial Insert Trial # 8 - 22mm	1
5532-T-825A*	PS Tibial Insert Trial # 8 - 25mm	1
6541-8-120	Triathlon 1-8 Max PS - Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 18

Triathlon Cementless Baseplate preparation		
6541-6-013	Sizes 1-3 Cementless Keel Punch	1
6541-6-046	Sizes 4-6 Cementless Keel Punch	1
6541-6-078	Sizes 7-8 Cementless Keel Punch	1
6541-8-003	Triathlon Cementless Case	1

Triathlon PS box preparation (optional) part numbers		
6541-5-212	Sizes 1-2 Triathlon PS Femoral Finishing Punch	1
6541-5-234	Sizes 3-4 Triathlon PS Femoral Finishing Punch	1
6541-5-256	Sizes 5-6 Triathlon PS Femoral Finishing Punch	1
6541-5-278	Sizes 7-8 Triathlon PS Femoral Finishing Punch	1
6541-5-814	Sizes 1-4 Triathlon PS Femoral Box Trial/Protector	1
6541-5-858	Sizes 5-8 Triathlon PS Femoral Box Trial/Protector	1
6541-8-122	Triathlon PS Box Preparation Sizes 1-8 Tray	1

Sterile Pins (optional) part numbers		
7650-2038A	Fluted Headless 1/8″ Pin (3.5″)	4
6541-4-004	Headed Threaded Pin Short (3.2″)	4
6541-4-006	Headless Threaded Pin Short (3.2″)	4

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Instruments

Ref #	Description	Quantity in kit
CR Solid Insert trialing tray		
5530-T-109Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 9mm	1
5530-T-110Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 10mm	1
5530-T-111Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 11mm	1
5530-T-112Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 12mm	1
5530-T-113Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 13mm	1
5530-T-114Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 14mm	1
5530-T-116Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 16mm	1
5530-T-119Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 19mm	1
5530-T-209Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 9mm	1
5530-T-210Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 10mm	1
5530-T-211Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 11mm	1
5530-T-212Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 12mm	1
5530-T-213Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 13mm	1
5530-T-214Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 14mm	1
5530-T-216Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 16mm	1
5530-T-219Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 19mm	1
5530-T-309Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 9mm	1
5530-T-310Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 10mm	1
5530-T-311Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 11mm	1
5530-T-312Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 12mm	1
5530-T-313Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 13mm	1
5530-T-314Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 14mm	1
5530-T-316Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 16mm	1
5530-T-319Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 19mm	1
5530-T-409Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 9mm	1
5530-T-410Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 10mm	1
5530-T-411Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 11mm	1
5530-T-412Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 12mm	1
5530-T-413Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 13mm	1
5530-T-414Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 14mm	1
5530-T-416Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 16mm	1
5530-T-419Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 19mm	1
5530-T-509Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 9mm	1
5530-T-511Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 11mm	1
5530-T-512Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 12mm	1
5530-T-513Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 13mm	1
5530-T-514Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 14mm	1
5530-T-516Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 16mm	1
5530-T-519Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 19mm	1

Instruments

Ref #	Description	Quantity in kit
CR Solid Insert trialing tray (continued)		
5530-T-609Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 9mm	1
5530-T-610Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 10mm	1
5530-T-611Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 11mm	1
5530-T-612Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 12mm	1
5530-T-613Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 13mm	1
5530-T-614Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 14mm	1
5530-T-616Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 16mm	1
5530-T-619Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 19mm	1
5530-T-709Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 9mm	1
5530-T-710Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 10mm	1
5530-T-711Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 11mm	1
5530-T-712Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 12mm	1
5530-T-713Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 13mm	1
5530-T-714Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 14mm	1
5530-T-716Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 16mm	1
5530-T-719Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 19mm	1
5530-T-809Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 9mm	1
5530-T-810Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 10mm	1
5530-T-811Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 11mm	1
5530-T-812Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 12mm	1
5530-T-813Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 13mm	1
5530-T-814Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 14mm	1
5530-T-816Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 16mm	1
5530-T-819Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 19mm	1
6541-9-100	Triathlon CR Insert Trial Tray (Size 1-8)	1
		Total quantity 65

Instruments

Ref #	Description	Quantity in kit
PS Solid Insert trialing tray		
5532-T-109Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 9mm	1
5532-T-110Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 10mm	1
5532-T-111Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 11mm	1
5532-T-112Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 12mm	1
5532-T-113Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 13mm	1
5532-T-114Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 14mm	1
5532-T-116Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 16mm	1
5532-T-119Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 19mm	1
5532-T-122Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 22mm	1
5532-T-209Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 9mm	1
5532-T-210Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 10mm	1
5532-T-211Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 11mm	1
5532-T-212Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 12mm	1
5532-T-213Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 13mm	1
5532-T-214Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 14mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-219Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 19mm	1
5532-T-222Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 22mm	1
5532-T-309Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 9mm	1
5532-T-310Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 10mm	1
5532-T-311Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 11mm	1
5532-T-312Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 12mm	1
5532-T-313Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 13mm	1
5532-T-314Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 14mm	1
5532-T-316Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 16mm	1
5532-T-319Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 19mm	1
5532-T-322Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 22mm	1
5532-T-409Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 9mm	1
5532-T-410Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 10mm	1
5532-T-411Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 11mm	1
5532-T-412Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 12mm	1
5532-T-413Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 13mm	1
5532-T-414Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 14mm	1
5532-T-416Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 16mm	1
5532-T-419Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 19mm	1

Instruments

Ref #	Description	Quantity in kit
PS Solid Insert trialing tray (continued)		
5532-T-422Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 22mm	1
5532-T-509Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 9mm	1
5532-T-510Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 10mm	1
5532-T-511Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 11mm	1
5532-T-512Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 12mm	1
5532-T-513Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 13mm	1
5532-T-514Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 14mm	1
5532-T-516Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 16mm	1
5532-T-519Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 19mm	1
5532-T-522Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 22mm	1
5532-T-609Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 9mm	1
5532-T-610Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 10mm	1
5532-T-611Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 11mm	1
5532-T-612Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 12mm	1
5532-T-613Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 13mm	1
5532-T-614Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 14mm	1
5532-T-616Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 16mm	1
5532-T-619Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 19mm	1
5532-T-622Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 22mm	1
5532-T-709Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 9mm	1
5532-T-710Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 10mm	1
5532-T-711Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 11mm	1
5532-T-712Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 12mm	1
5532-T-713Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 13mm	1
5532-T-714Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 14mm	1
5532-T-716Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 16mm	1
5532-T-719Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 19mm	1
5532-T-722Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 22mm	1
5532-T-809Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 9mm	1
5532-T-810Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 10mm	1
5532-T-811Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 11mm	1
5532-T-812Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 12mm	1
5532-T-813Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 13mm	1
5532-T-814Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 14mm	1
5532-T-816Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 16mm	1
5532-T-819Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 19mm	1
5532-T-822Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 22mm	1
6541-9-102	Triathlon PS Insert Trial Tray (Size 1-8)	1
		Total quantity 73

Note: The above tray is optional to accommodate 10mm, 12mm and 14mm trials. All trials of other thickness listed in this protocol are interchangeable in all existing trays.

Instruments

Ref #	Description	Quantity in kit
CS Solid Insert trialing tray		
5531-T-109Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 9mm	1
5531-T-110Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 10mm	1
5531-T-111Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 11mm	1
5531-T-112Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 12mm	1
5531-T-113Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 13mm	1
5531-T-114Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 14mm	1
5531-T-116Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 16mm	1
5531-T-119Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 19mm	1
5531-T-122Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 22mm	1
5531-T-209Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 9mm	1
5531-T-210Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 10mm	1
5531-T-211Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 11mm	1
5531-T-212Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 12mm	1
5531-T-213Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 13mm	1
5531-T-214Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 14mm	1
5531-T-216Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 16mm	1
5531-T-219Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 19mm	1
5531-T-222Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 22mm	1
5531-T-309Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 9mm	1
5531-T-310Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 10mm	1
5531-T-311Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 11mm	1
5531-T-312Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 12mm	1
5531-T-313Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 13mm	1
5531-T-314Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 14mm	1
5531-T-316Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 16mm	1
5531-T-319Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 19mm	1
5531-T-322Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 22mm	1
5531-T-409Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 9mm	1
5531-T-410Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 10mm	1
5531-T-411Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 11mm	1
5531-T-412Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 12mm	1
5531-T-413Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 13mm	1
5531-T-414Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 14mm	1
5531-T-416Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 16mm	1
5531-T-419Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 19mm	1
5531-T-422Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 22mm	1
5531-T-509Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 9mm	1
5531-T-510Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 10mm	1
5531-T-511Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 11mm	1
5531-T-512Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 12mm	1
5531-T-513Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 13mm	1
5531-T-514Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 14mm	1

Instruments

Ref #	Description	Quantity in kit
CS Solid Insert trialing tray (continued)		
5531-T-516Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 16mm	1
5531-T-519Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 19mm	1
5531-T-522Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 22mm	1
5531-T-609Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 9mm	1
5531-T-610Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 10mm	1
5531-T-611Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 11mm	1
5531-T-612Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 12mm	1
5531-T-613Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 13mm	1
5531-T-614Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 14mm	1
5531-T-616Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 16mm	1
5531-T-619Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 19mm	1
5531-T-622Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 22mm	1
5531-T-709Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 9mm	1
5531-T-710Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 10mm	1
5531-T-711Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 11mm	1
5531-T-712Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 12mm	1
5531-T-713Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 13mm	1
5531-T-714Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 14mm	1
5531-T-716Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 16mm	1
5531-T-719Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 19mm	1
5531-T-722Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 22mm	1
5531-T-809Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 9mm	1
5531-T-810Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 10mm	1
5531-T-811Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 11mm	1
5531-T-812Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 12mm	1
5531-T-813Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 13mm	1
5531-T-814Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 14mm	1
5531-T-816Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 16mm	1
5531-T-819Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 19mm	1
5531-T-822Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 22mm	1
6541-9-101	Triathlon CS Insert Trial Tray (Size 1-8)	1
		Total quantity 73
LTEMK46	Triathlon CR and Primary Baseplate Acetate Templates	1
LTEMK47	Triathlon PS and Primary Baseplate Acetate Templates	1

Implants

Ref #	Description	Sizes	Quantity
Triathlon CR Femoral Component - Cemented part numbers			
5510-F-X01	Triathlon CR Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5510-F-X02	Triathlon CR Femoral Component - Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon CR Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5517-F-X01	Triathlon CR Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5517-F-X02	Triathlon CR Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Component - Cemented part numbers			
5515-F-X01	Triathlon PS Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5515-F-X02	Triathlon PS Femoral Component -Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5516-F-X01	Triathlon PS Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5516-F-X02	Triathlon PS Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Cemented			
5520-B-X00	Triathlon Primary Tibial Baseplate-Cemented	X= 0,1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite			
5526-B-X00	Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite	X= 1,2,3,4,5,6,7,8	1 each size
Modular Femoral Distal Fixation Peg part number			
5575-X-000	Modular Femoral Distal Fixation Peg (2 per pack)		

Ref #	Description	Sizes	Quantity
Triathlon CR Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5530-P-X09	Triathlon CR Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X10	Triathlon CR Tibial Insert - Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X11	Triathlon CR Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X12	Triathlon CR Tibial Insert - Conventional Polyethylene 12mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X13	Triathlon CR Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X14	Triathlon CR Tibial Insert - Conventional Polyethylene 14mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X16	Triathlon CR Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X19	Triathlon CR Tibial Insert - Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5530-G-X09 or 5530-G-X09-E	Triathlon CR Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X10-E	Triathlon CR Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X11 or 5530-G-X11-E	Triathlon CR Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X12-E	Triathlon CR Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X13 or 5530-G-X13-E	Triathlon CR Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X14-E	Triathlon CR Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X16 or 5530-G-X16-E	Triathlon CR Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X19 or 5530-G-X19-E	Triathlon CR Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size

Implants

Ref #	Description	Sizes	Quantity
Triathlon CS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5531-P-X09	Triathlon CS Tibial Insert - Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X10	Triathlon CS Tibial Insert - Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X11	Triathlon CS Tibial Insert - Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X12	Triathlon CS Tibial Insert - Conventional Polyethylene 12mm	X = 0*,,2,3,4,5,6,7,8	1 each size
5531-P-X13	Triathlon CS Tibial Insert - Conventional Polyethylene 13mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X14	Triathlon CS Tibial Insert - Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X16	Triathlon CS Tibial Insert - Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X19	Triathlon CS Tibial Insert - Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X22	Triathlon CS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5531-G-X09 or 5531-G-X09-E	Triathlon CS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X10-E	Triathlon CS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X11 or 5531-G-X11-E	Triathlon CS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X12-E	Triathlon CS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X13 or 5531-G-X13-E	Triathlon CS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X14-E	Triathlon CS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X16 or 5531-G-X16-E	Triathlon CS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X19 or 5531-G-X19-E	Triathlon CS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X22 or 5531-G-X22-E	Triathlon CS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5532-P-X09	Triathlon PS Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X10	Triathlon PS Tibial Insert - Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X11	Triathlon PS Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X12	Triathlon PS Tibial Insert - Conventional Polyethylene 12mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X13	Triathlon PS Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X14	Triathlon PS Tibial Insert - Conventional Polyethylene 14mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X16	Triathlon PS Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X19	Triathlon PS Tibial Insert - Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X22	Triathlon PS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size

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Implants

Ref #	Description	Sizes	Quantity
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers (continued)			
X3 Inserts			
5532-G-X09 or 5532-G-X09-E	Triathlon PS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X10-E	Triathlon PS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X11 or 5532-G-X11-E	Triathlon PS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X12-E	Triathlon PS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X13 or 5532-G-X13-E	Triathlon PS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X14-E	Triathlon PS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X16 or 5532-G-X16-E	Triathlon PS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X19 or 5532-G-X19-E	Triathlon PS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X22 or 5532-G-X22-E	Triathlon PS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PSR Tibial Inserts – X3 part numbers			
8532-G-X09-E	Triathlon PSR Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X10-E	Triathlon PSR Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X11-E	Triathlon PSR Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X12-E	Triathlon PSR Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X14-E	Triathlon PSR Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X16-E	Triathlon PSR Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X19-E	Triathlon PSR Tibial Insert – X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X22-E	Triathlon PSR Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size

Note: PS tibia insert trial can be used for both PS and PSR inserts

Symmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5550-L-278	Symmetric Patella - Conventional Polyethylene	S27mm x 8mm	1 each size
5550-L-298	Symmetric Patella - Conventional Polyethylene	S29mm x 8mm	1 each size
5550-L-319	Symmetric Patella - Conventional Polyethylene	S31mm x 9mm	1 each size
5550-L-339	Symmetric Patella - Conventional Polyethylene	S33mm x 9mm	1 each size
5550-L-360	Symmetric Patella - Conventional Polyethylene	S36mm x 10mm	1 each size
5550-L-391	Symmetric Patella - Conventional Polyethylene	S39mm x 11mm	1 each size
X3 Patellas			
5550-G-278 or 5550-G-278-E	Symmetric Patella - X3	S27mm x 8mm	1 each size
5550-G-298 or 5550-G-298-E	Symmetric Patella - X3	S29mm x 8mm	1 each size
5550-G-319 or 5550-G-319-E	Symmetric Patella - X3	S31mm x 9mm	1 each size
5550-G-339 or 5550-G-339-E	Symmetric Patella - X3	S33mm x 9mm	1 each size
5550-G-360 or 5550-G-360-E	Symmetric Patella - X3	S36mm x 10mm	1 each size
5550-G-391 or 5550-G-391-E	Symmetric Patella - X3	S39mm x 11mm	1 each size

Implants

Ref #	Description	Sizes	Quantity
Asymmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5551-L-299	Asymmetric Patella - Conventional Polyethylene	A29mm (S/I*) x 9mm	1 each size
5551-L-320	Asymmetric Patella - Conventional Polyethylene	A32mm (S/I*) x 10mm	1 each size
5551-L-350	Asymmetric Patella - Conventional Polyethylene	A35mm (S/I*) x 10mm	1 each size
5551-L-381	Asymmetric Patella - Conventional Polyethylene	A38mm (S/I*) x 11mm	1 each size
5551-L-401	Asymmetric Patella - Conventional Polyethylene	A40mm (S/I*) x 11mm	1 each size
X3 Patellas			
5551-G-299 or 5551-G-299-E	Asymmetric Patella - X3	A29mm (S/I*) x 9mm	1 each size
5551-G-320 or 5551-G-320-E	Asymmetric Patella - X3	A32mm (S/I*) x 10mm	1 each size
5551-G-350 or 5551-G-350-E	Asymmetric Patella - X3	A35mm (S/I*) x 10mm	1 each size
5551-G-381 or 5551-G-381-E	Asymmetric Patella - X3	A38mm (S/I*) x 11mm	1 each size
5551-G-401 or 5551-G-401-E	Asymmetric Patella - X3	A40mm (S/I*) x 11mm	1 each size

*S/I - Superior/Inferior

Asymmetric Patella – Metal-Backed Beaded w/ Peri-Apatite*+			
Conventional Polyethylene Patellas			
5554-L-320+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A32mm (S/I*) x 10mm	1
5554-L-350+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A35mm (S/I*) x 10mm	1
5554-L-381+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A38mm (S/I*) x 11mm	1
5554-L-401+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A40mm (S/I*) x 11mm	1

*S/I – Superior/Inferior

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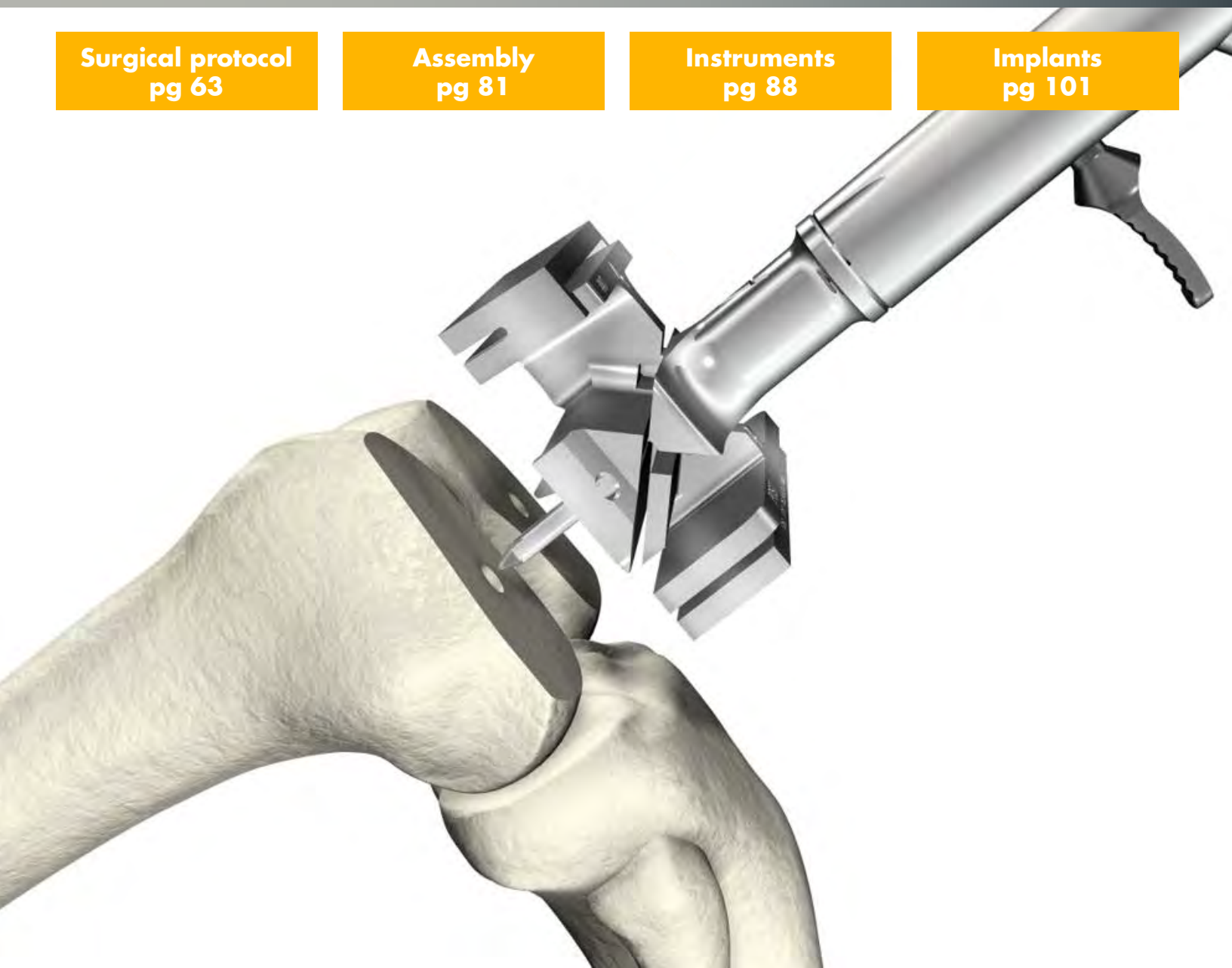
Triathlon® Knee System

Express instruments



Contents

Exposure

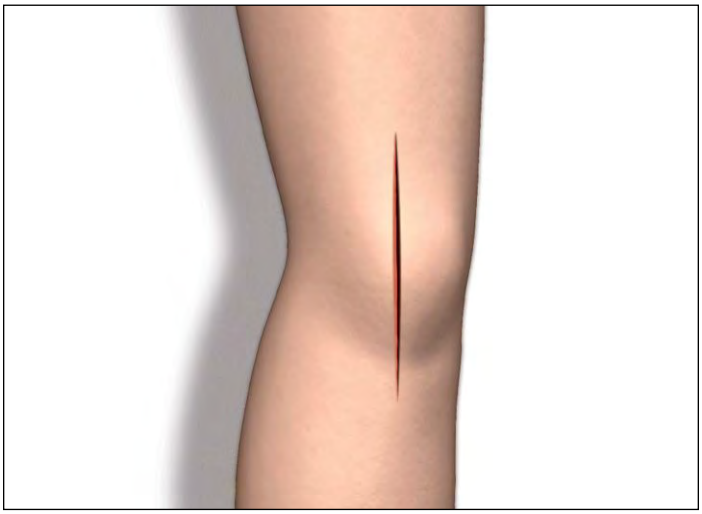


Figure 1

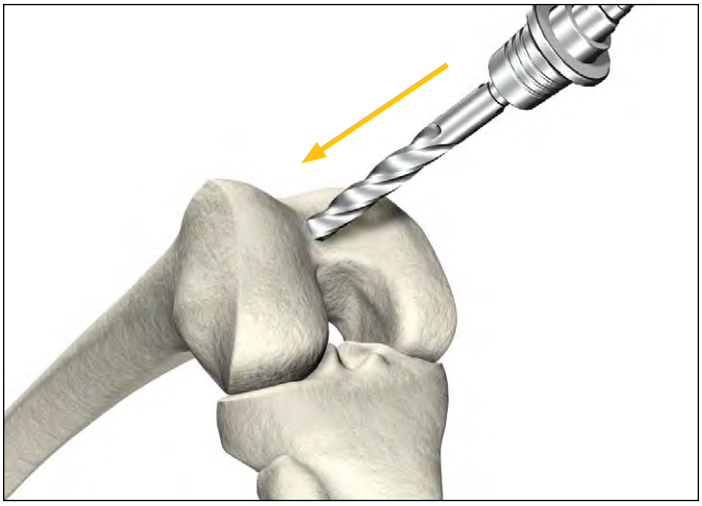


Figure 2

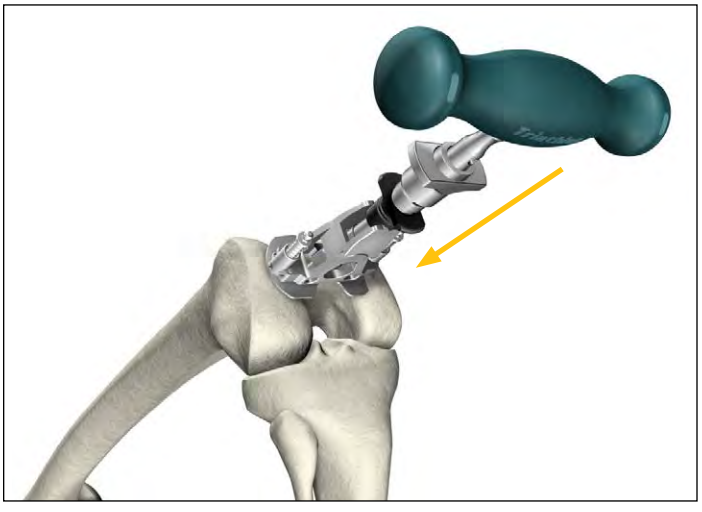


Figure 3

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Exposure

Triathlon Total Knee arthroplasty can be performed through any standard approach. A standard anterior midline incision or other suitable approaches such as mid-vastus, sub-vastus or quadriceps sparing may be used based on surgeon preference.

Any previous incision can be used or incorporated to decrease the risk of skin slough. The capsule is entered through a medial parapatellar approach.

Femoral intramedullary alignment

The Universal Driver allows for attachment of all drills and pins. The Universal Driver may be attached directly to a reamer, drill or a Jacobs Chuck.

There are two options available for femoral intramedullary alignment: the FLEX IM Rod or the 5/16" IM Rod

Option 1: Flex IM Rod

Locate the IM drill hole; it is as close to the PCL insertion as possible and slightly medial to the midline of the distal femur.

Attach the 3/8" IM drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur.

The hole should not be enlarged and the drill should not be "toggled." The FLEX IM Rod that references this hole will be easier to insert as it conforms to the anterior bow of the femur without the resistance felt with rigid IM Rods.

Attach the T-Handle driver to the FLEX IM Rod. The "ANTERIOR" engraving on the FLEX IM Rod should be aligned to the Triathlon logo of the T-Handle.

Insert the IM Rod into the Femoral Alignment Guide. These guides are designed for use on either the left or right knee and may be set between 5°, 6° and 7° of the valgus.

Set the instrument to the desired angle by pulling back on the black knob of the Femoral Alignment Guide and placing it in the appropriate notch. Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be parallel to the transepicondylar axis.

Femoral preparation

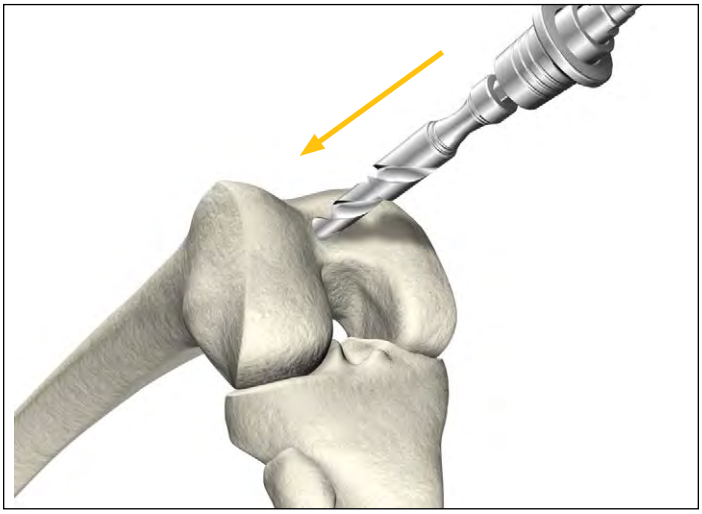


Figure 4

Option 2: 5/16" IM Rod

Locate the IM drill hole. It is approximately 1cm anterior to the femoral attachment of the posterior cruciate ligament and slightly medial to the midline of the distal femur.

Identification of landmarks may be aided by removal of osteophytes from the margins of the intercondylar notch.

Attach the 3/8" IM Drill to the Universal Driver and drill into the IM canal. The first diameter will create a tight fit around the IM Rod. If further clearance is desired, continue to drill until the larger step diameter opens the hole. This will allow the IM canal to dictate the position of the rod and avoids the need to "toggle" the drill to create clearance.

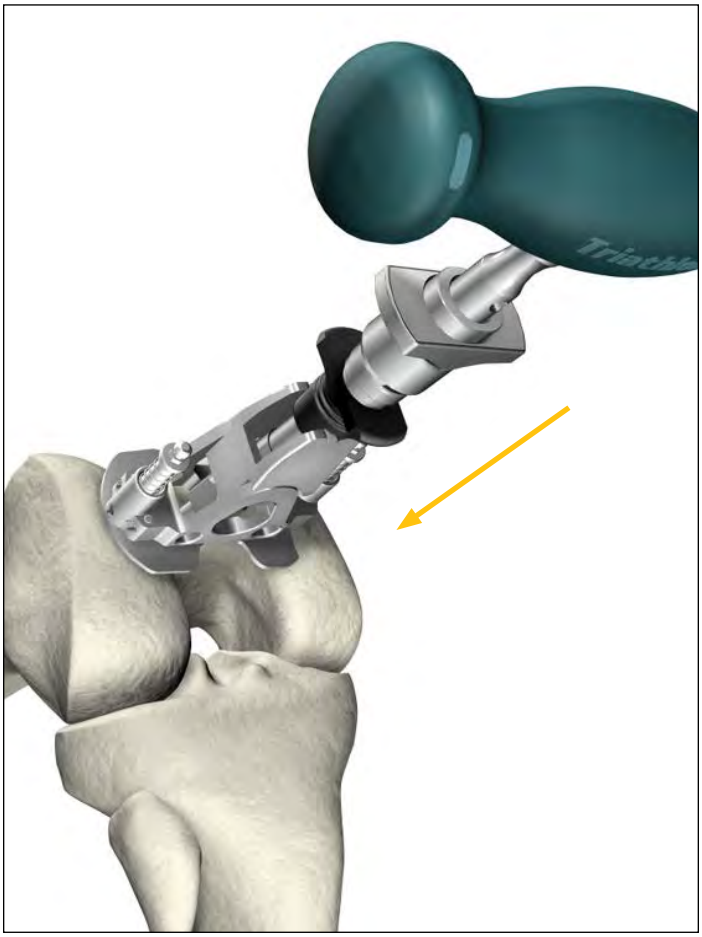


Figure 5

Attach the T-Handle Driver to the 5/16" IM Rod. Insert the IM Rod into the Femoral Alignment Guide. The Femoral Alignment Guide is designed for use on either the left or right knee and may be set to 5, 6 or 7° of valgus. Set the instrument to the desired angle by pulling back on the black knob of the Femoral Alignment Guide and placing it in the appropriate notch. Advance the rod, with attached guide, slowly up the IM canal until the desired depth is reached.

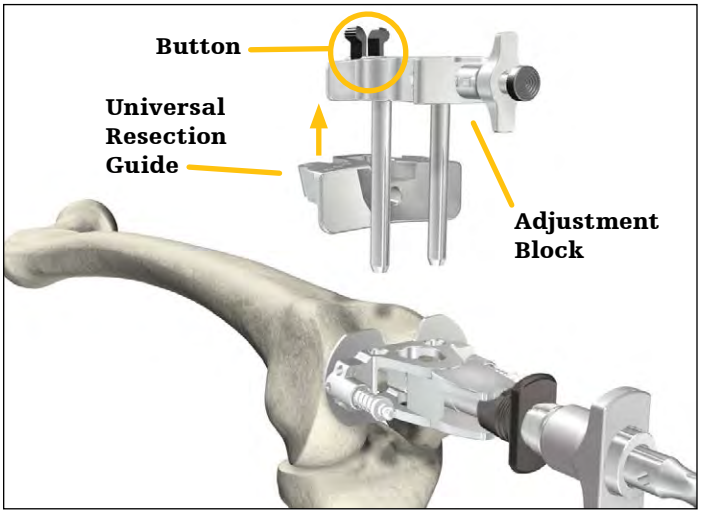


Figure 6

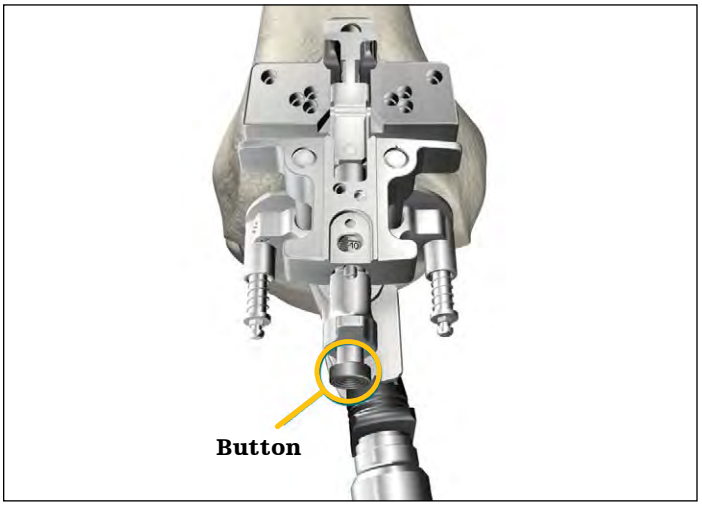


Figure 7

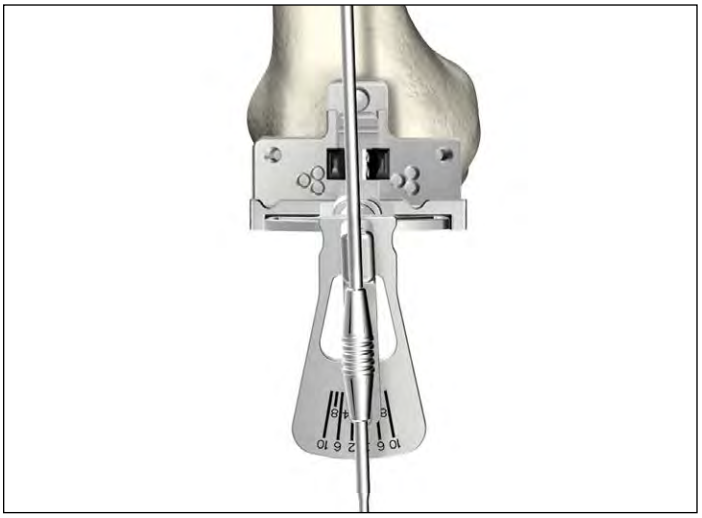


Figure 8

Snap the Universal Resection Guide onto the Adjustment Block and insert the posts of the Adjustment Block into the two holes in the Femoral Alignment Guide.

Place the Femoral Alignment Guide in contact with the more prominent distal femoral condyle and align the guide in neutral position. Although the posterior condyles and the epicondyles may be used as landmarks for rotation, determining I/E rotation is not necessary at this time.

Impact the distal captured pins in the Femoral Alignment Guide to aid in stabilization.

- **Note:** Impacting a distal capture pin that does not make contact with the femoral condyle may result in a change in the alignment setting.

Pin the Universal Resection Guide to the anterior femur using Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins. Insert the pins into the Headless Pin Driver (which is inserted into the Universal Driver) and drill through the set of holes marked "0" on the Universal Resection Guide. The pins are automatically released from the driver as it is pulled back.

The Adjustment Block allows for an 8mm (the distal thickness of the Femoral Component) and 10mm (used to aid in the correction of a flexion contracture) resection level. Press the black button on the end of the Adjustment Block and pull to set the resection to the desired level.

Pin the Universal Resection Guide to the anterior femur.

- **Note:** If the medial '0' pin-hole is too close to the edge of the bone (on smaller femurs), use the holes marked "2" which are closer to the center of the bone.

Surgeons may verify alignment prior to resection using the Universal Goniometer. Insert Universal Goniometer tongue into the resection slot of a distal resection guide and insert the Universal Alignment Rod into the EM Universal Goniometer. Intraoperative alignment is verified when alignment rod intersects center of femoral head and surgeon confirms the corresponding angle referenced on the goniometer is satisfactory.

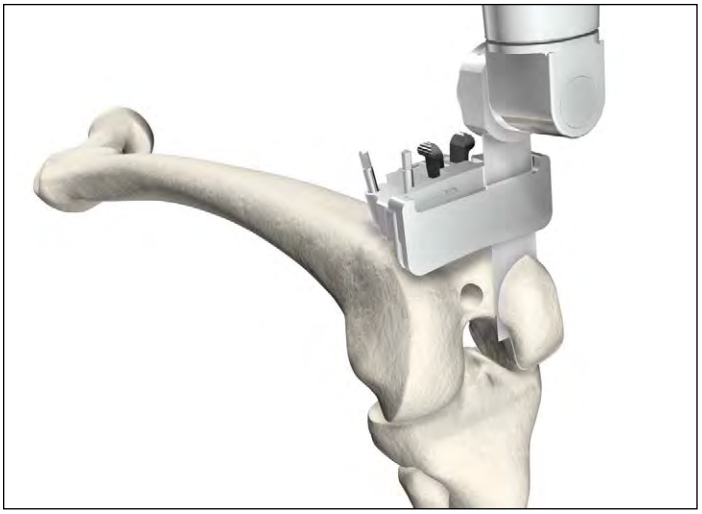


Figure 9

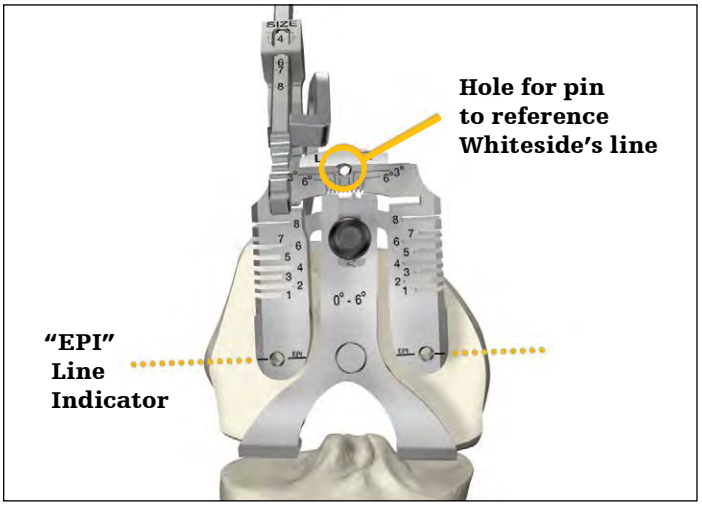


Figure 10

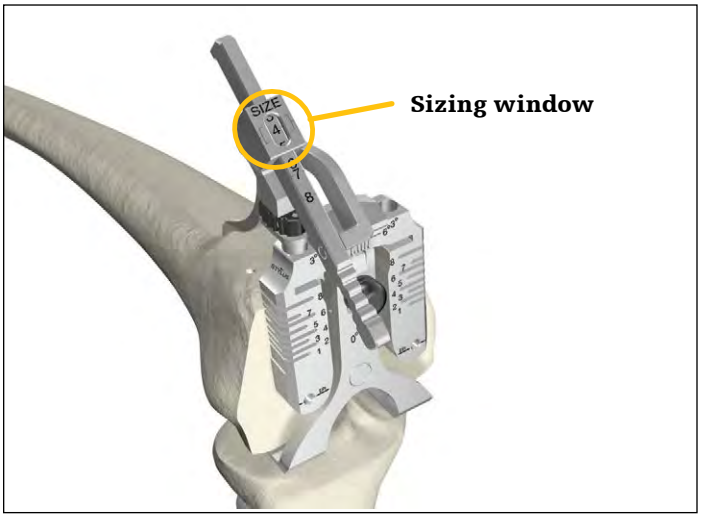


Figure 11

After the Universal Resection Guide is pinned in place, remove the IM Rod. The Femoral Alignment Guide and the Adjustment Block may be removed by squeezing the black tabs on the Adjustment Block.

The distal femoral resection is made. An optional Modular Capture - Distal Resection - may be attached to the Universal Resection Guide. Squeeze the black tabs on the Modular Capture - Distal Resection to insert into the Universal Resection Guide. When using a modular capture, a .050" (1.25mm) blade is used.

Remove the Modular Capture and check the resection for flatness. Remove the Headless Pins or Fluted Headless 1/8" Pins by placing the Headless Pin Extractor over the pin and place it flush on the Distal Resection Guide. Squeeze the handle approximately four times, ensuring that after each squeeze, the Headless Pin Extractor is placed flush with the Distal Resection Guide. This will allow the tongue on the Headless Pin Extractor to back out the pin. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin. Remove the Universal Resection Guide.

Femoral sizing

Assemble the Femoral Sizer with the Femoral Stylus in the appropriate lateral hole, setting the Stylus length to an approximate size. Set the rotation to "LEFT" for a left leg and "RIGHT" for a right leg and adjust to the desired amount of external rotation.

A secondary rotational check can be made by lining up the epicondyles with the reference lines marked "EPI". A tertiary check is to assess Whiteside's line with a pin through the hole in the top of the guide.

In the event of a hypoplastic femoral condyle:
Pin the Femoral Sizer through the EPI hole on the unaffected side for stability. Rotate the Femoral Sizer and assess rotation using the rotational checks mentioned above.

Position the assembly flush on the resected distal femur, sliding the feet of the Femoral Sizer under the posterior condyles. The Femoral Stylus point should be placed on the lateral cortex.

It is important that the Femoral Stylus point rest on bone and not on soft tissue. The size is determined by the position of the scribe mark on the Femoral Stylus shaft within the sizing window.

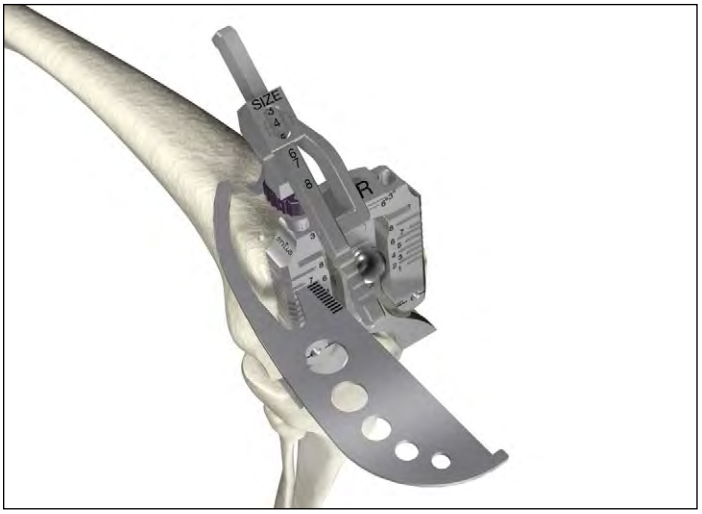


Figure 12

It is recommended that the anterior resection level be checked to further confirm the correct size by sliding a Blade Runner through the sizing guide's size-specific anterior slots and assessing the resection.

Once size confirmation is complete, attach the 1/8" Peg Drill to the Universal Driver and create fixation Pin-holes (for the 4:1 Cutting Block) through the holes on the face of the Femoral Sizer marked "EPI".

Locate the fixation pegs of the appropriate size Express 4:1 Cutting Block into the pin-holes created on the distal femur.

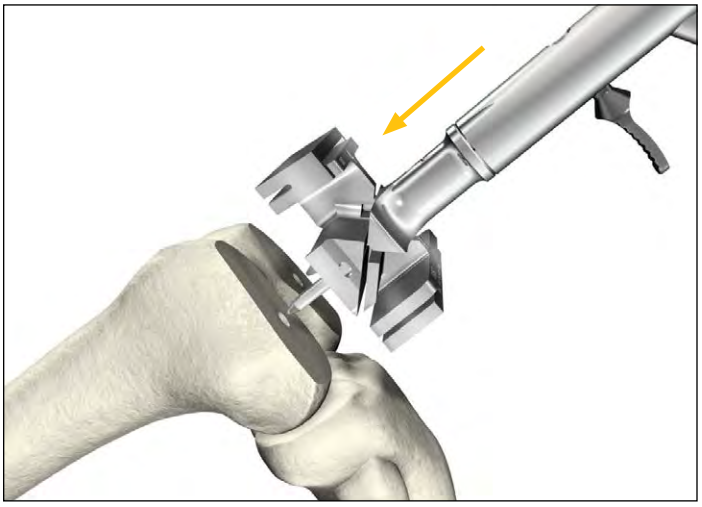


Figure 13

Impact the 4:1 Impactor Extractor until the 4:1 Cutting Block is seated flush onto the distal femur and remains seated throughout use of the cutting guide. Pins should be utilized for further stabilization.

- **Note:** Do not impact the 4:1 Cutting Block without the 4:1 Impactor Extractor in place.
- **Note:** Check run-out of the anterior cut. If there is a pronounced positive step, consider selecting the next smaller size 4:1 Cutting Block if the anterior femur preparation is not adequate. Conversely, if there is potential for notching the anterior cortex consider selecting the next larger size 4:1 Cutting Block.

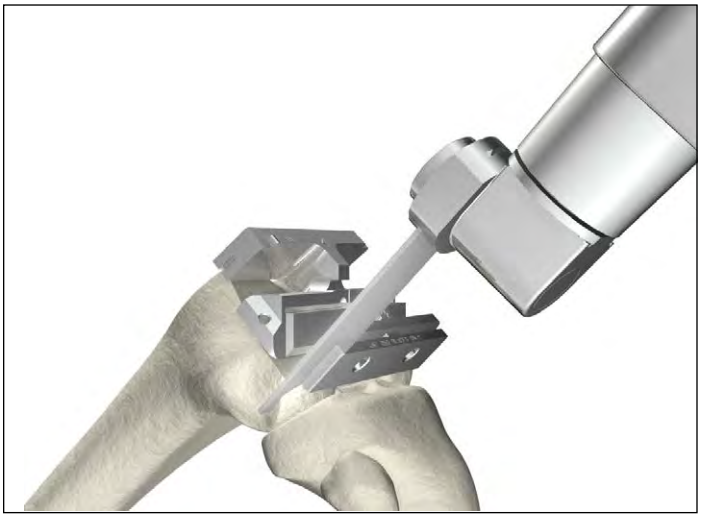


Figure 14

Femoral anterior, posterior and chamfer resections

Complete the remaining four femoral bone resections.

The use of a .050" (1.25mm) thick sawblade is recommended.

The order of bone resections is not critical; however, a recommended sequence for improved stability of the 4:1 Cutting Block is:

1. Anterior cortex. **2.** Posterior condyles.

3. Posterior chamfer. **4.** Anterior chamfer.

- **Note:** Cutting the anterior chamfer later helps stabilize the cutting guide.

Remove the 4:1 Cutting Block.

Femoral preparation

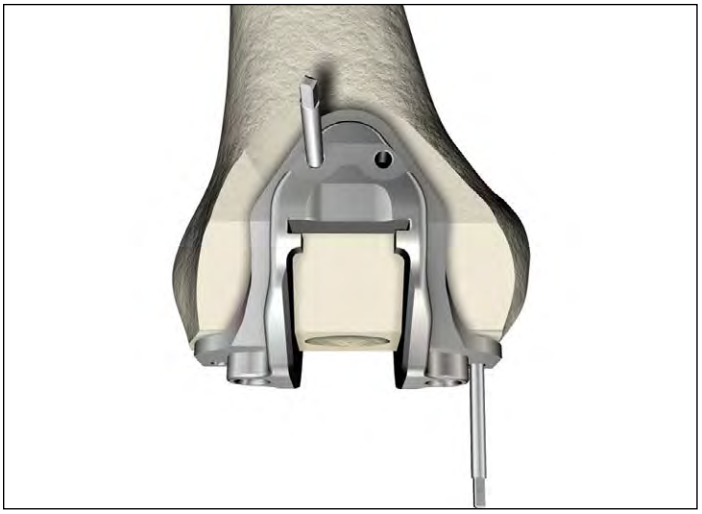


Figure 15

PS box preparation

If it is determined that a PS Femoral Component will be used, the distal femur must be prepared for the PS box.

Place the appropriate sized PS Box Cutting Guide on the resected distal femur.

- **Note:** The appropriate size is the same as the size 4:1 Cutting Block that was used to prepare the distal femur. For example, if a size 3 "4:1 Cutting Block" was used to prepare the distal femur, select the size 3 PS Box Cutting Guide.

M/L placement of the guide is based primarily on best coverage of the distal bone and alignment of the box opening with the intercondylar notch.

- **Optional surgical tip:** Use a CR Femoral Trial of the same size to identify the preferred M/L position of the PS Box Cutting Guide.

  - Place the appropriate sized CR Femoral Trial on to the prepared femur.
  - Adjust the M/L placement of the Femoral Trial to achieve the desired position of the Femoral Component.
  - Using a surgical marking pen, mark the location of the distal peg prep holes through the CR Femoral Trial.
  - Remove the CR Femoral Trial and line up the PS Box Cutting Guide on the distal femur with the previously marked holes.

Pin the PS Box Cutting Guide in place using Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins.

- **Optional surgical tip:** To provide the appropriate anterior/posterior and medial/lateral stability with a minimal number of pins, place one pin distally and one pin anteriorly (or both pins distally).

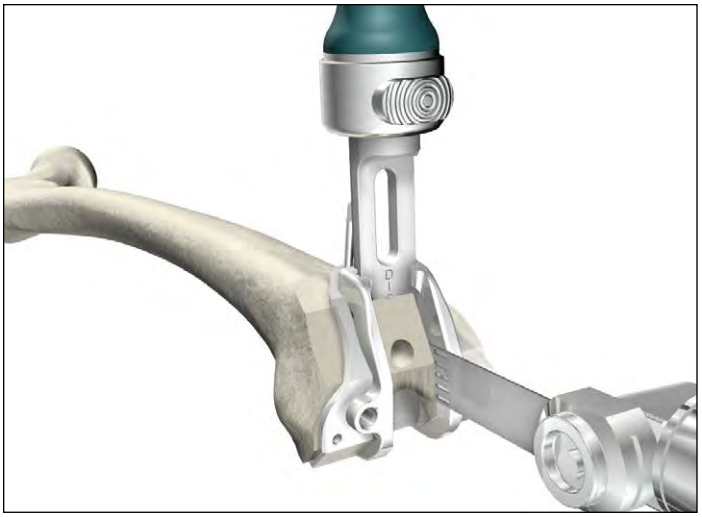


Figure 16

There are two ways to continue the PS box preparation:

Option 2: Chisel and saw:
Cut the cortical rim on both sides of the posterior-most portion of the intercondylar notch using the oscillating saw. Assemble the Box Chisel and insert into the slot. Impact the Box Chisel with a mallet until seated to the stop. Leave the Box Chisel in place to act as a reference plane. Cut the medial and lateral edges of the box with an oscillating saw to complete the bone resection as shown in **Figure 16**. Avoid biasing the blade during resection for optimal bone conservation.

Attach the Slap Hammer to the Box Chisel. Remove the Box Chisel from the PS Box Cutting Guide and remove the bone.

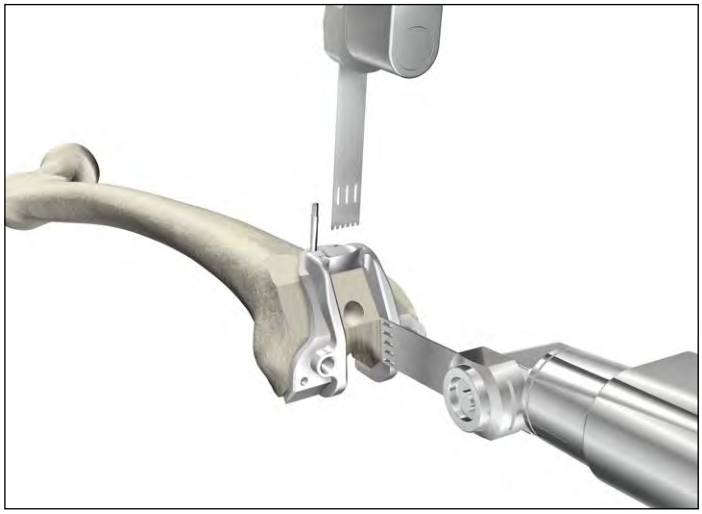


Figure 17

Option 2: Saw only: Use a reciprocating saw or a narrow oscillating saw through the proximal slot to resect the distal portion of the femur. An oscillating saw can be used to resect the medial and lateral borders of the intercondylar notch to the proximal portion of the cutting guide.

- **Note:** After completion of options A or B, the surgeon may choose to use the optional and recommended Triathlon PS Femoral Finishing Punch to complete preparation of the box.

Prior to trialing with a PS Femoral Trial, assure the box is prepared properly and remove all remaining bone from the prepared box.

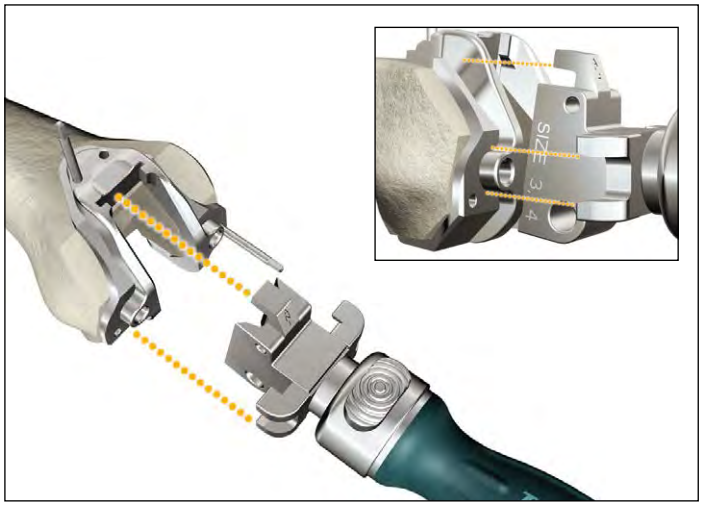


Figure 18

If the optional Triathlon PS Femoral Box Finishing Punch is chosen:

The chisel should be fully removed from the PS Box Cutting Guide prior to using the Triathlon PS Femoral Box Finishing Punch.

Secure the appropriate size Triathlon PS Femoral Box Finishing Punch to the Triathlon Impaction Handle. There are four Triathlon PS Femoral Box Finishing Punches (Size 1-2, Size 3-4, Size 5-6 and Size 7-8).

Properly orient the Triathlon PS Femoral Box Finishing Punch, assuring the anterior side is facing upwards. The box finishing instruments are listed with implants in current catalog.

Impact the Triathlon PS Femoral Box Finishing Punch through the PS Box Cutting Guide until properly seated. The Triathlon PS Femoral Box Finishing Punch is properly seated when the stop of the Finishing Punch is centered over the PS Box Cutting Guide drill holes. **See Figures 19 and 20**, which depict the Triathlon PS Femoral Box Finishing Punch properly seated on the PS Box Cutting Guide. There should be a gap between the anterior nose of the Triathlon PS Femoral Box Finishing Punch and the PS Box Cutting Guide.

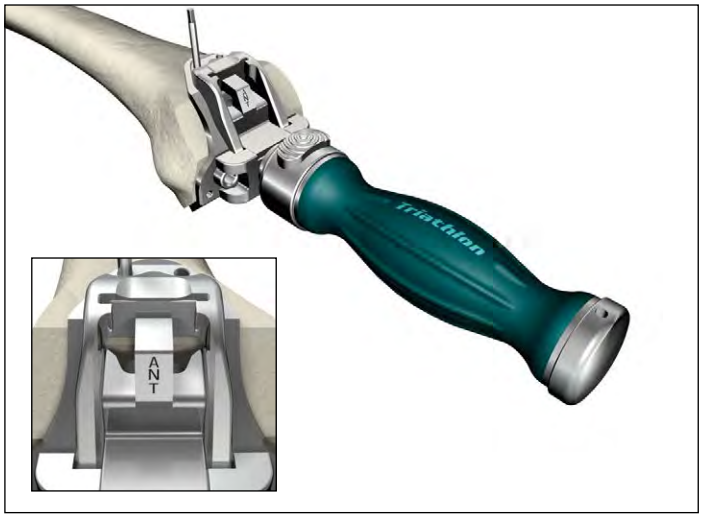


Figure 19

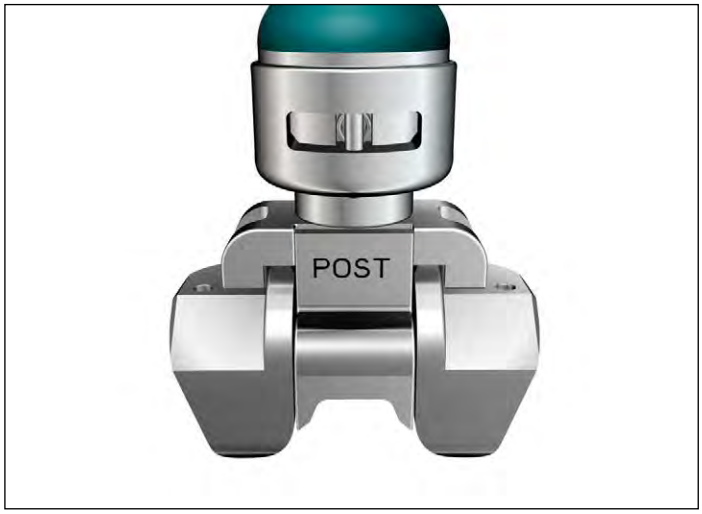


Figure 20

Attach the Slap Hammer to the PS Femoral Box Finishing Punch. Remove the PS Femoral Box Finishing Punch from the PS Box Cutting Guide and remove the bone.

- **Note:** The Triathlon PS Femoral Box Finishing Punch is designed to be used with the PS Box Cutting Guide and should not be impacted onto the prepared distal femur without the PS Box Cutting Guide in place.

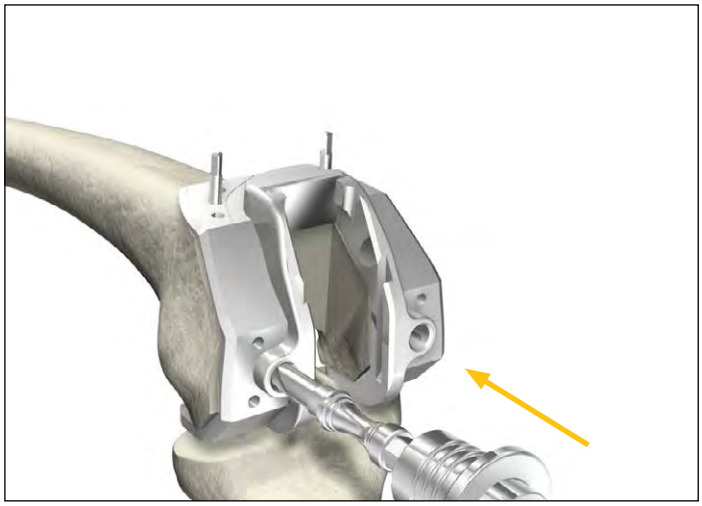


Figure 21

If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), the location holes may be prepared at this stage using the 1/4" Peg Drill attached to the Universal Driver. (The peg holes may also be prepared later through the PS Femoral Trial).

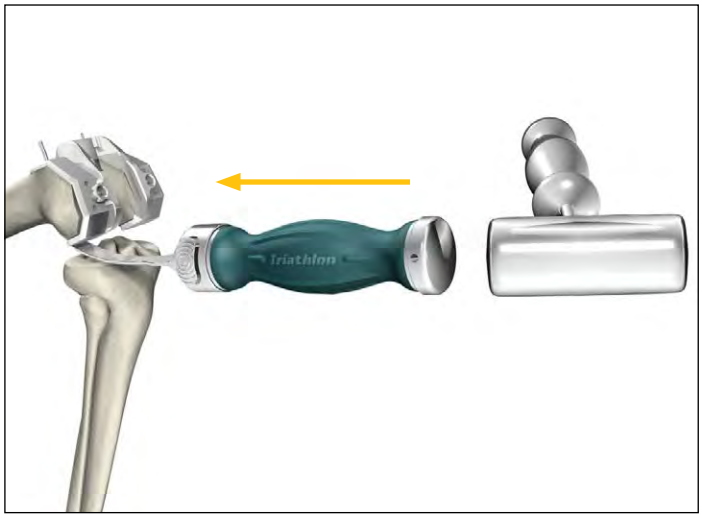


Figure 22

Attach the Posterior Osteophyte Removal Tool to the Impaction Handle and remove the osteophytes beyond the posterior aspect of the PS Box Cutting Guide.

Remove the Headless Pins or Fluted Headless 1/8" Pins with the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

Remove the PS Box Cutting Guide using the Slap Hammer.

- **Note:** If it is difficult to reach the posterior osteophytes in a tight knee, the tibial resection can be made and then the osteophytes can more easily be removed.

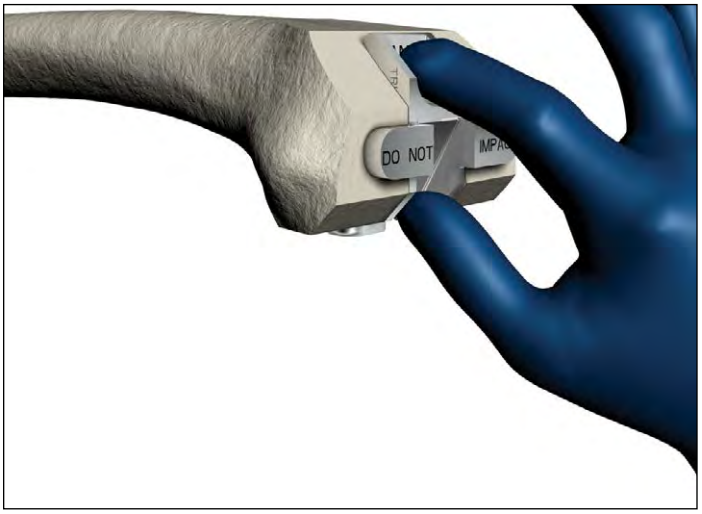


Figure 23

If the optional and recommended Triathlon PS Femoral Box Trial/Protector is chosen:

Remove the PS Box Cutting Guide.

Place by hand **(not through impaction)** the appropriate size Triathlon PS Femoral Box Trial/Protector into the prepared box to assure accuracy of the box preparation. There are two Triathlon PS Femoral Box Trial/Protectors (Size 1-4 and Size 5-8). **See Figure 23** for proper orientation.

The box trial/protector is fully seated when both the distal and posterior "wings" are flush with the bone.

▸ **Note:** Triathlon PS Femoral Box Trial/Protector assesses the accuracy of M/L box width and box depth.

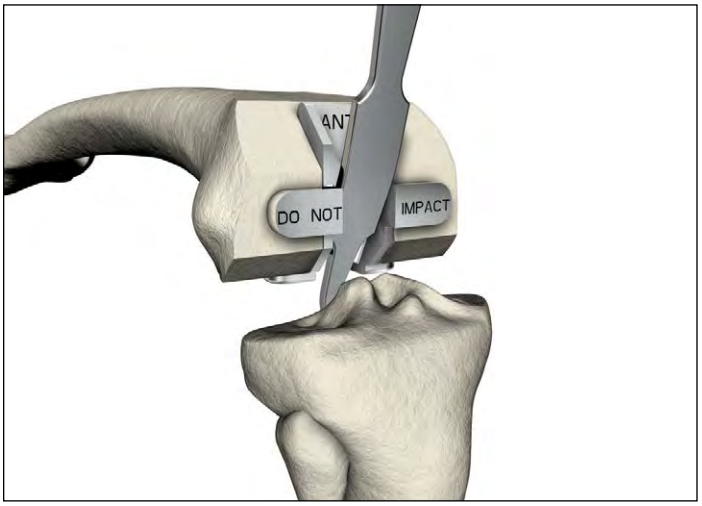


Figure 24

To protect the prepared femoral box prior to trialing with a Femoral Component, place the Triathlon PS Femoral Box Trial/Protector into the prepared box by hand (not through impaction). Ensure the box trial is fully seated on the distal and posterior resections as described above in the box trialing step.

- The Triathlon PS Femoral Box Trial/Protector features a slot in which a retractor can be placed to lever against the distal femur during tibial subluxation.
- If preferred, select an extraction tool that fits into the retractor hole for ease of removal.
- Remove the PS Femoral Box Trial/Protector prior to assembling and implanting the Triathlon PS Femoral Component.

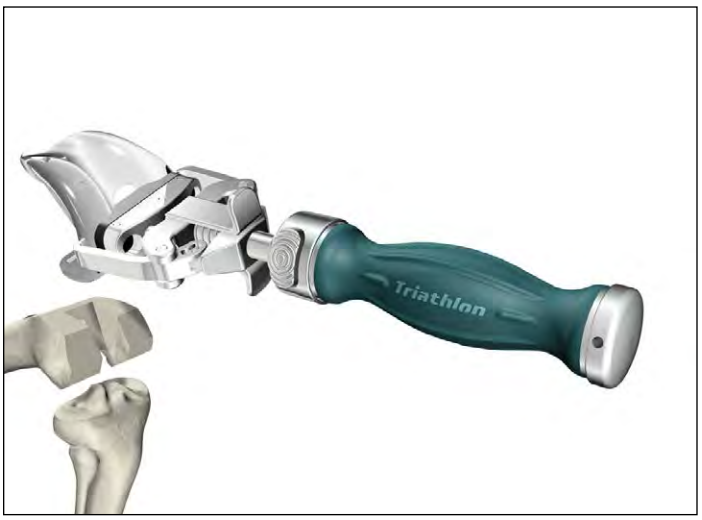


Figure 25

Femoral Trial assessment

(The remaining portion of the technique should be used for a Posterior Stabilized or Cruciate Retaining Knee)

Assemble the appropriate size and side (Left/Right) PS or CR Femoral Trial to the Femoral Impactor Extractor with the Impaction Handle **(See Assembly Figures 2a and 2b)**.

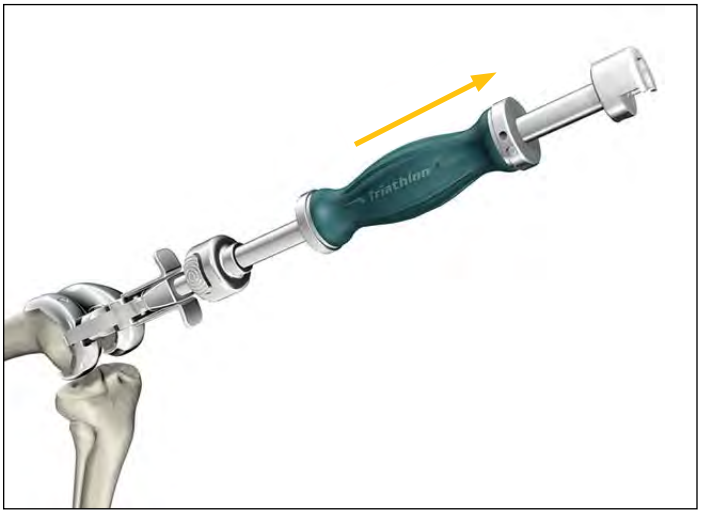


Figure 26

Attach the Femoral Impactor Extractor to the Slap Hammer and remove the PS or CR Femoral Trial from the femur.

Tibial preparation

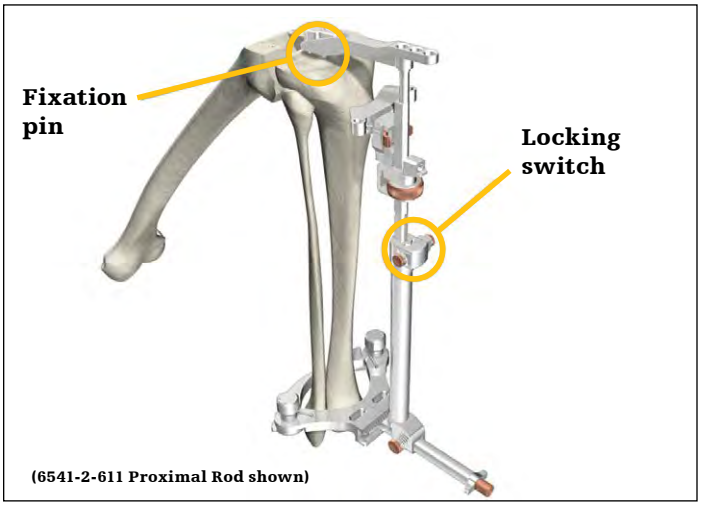


Figure 27

There are two options for tibial preparation: extramedullary (EM) referencing alignment and intramedullary (IM) referencing alignment.

The Tibial Resection Guide, available in left and right configurations and the Universal Resection Guide are designed to avoid soft tissue impingement.

Option 1 - Extramedullary referencing

The tibial resection assembly has five parts: the appropriate Tibial Resection Guide, the Ankle Clamp, the Distal Assembly, the Proximal Rod and the Tibial Adjustment Housing. These are assembled first.

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilizing) and 3° slope (cruciate retaining).

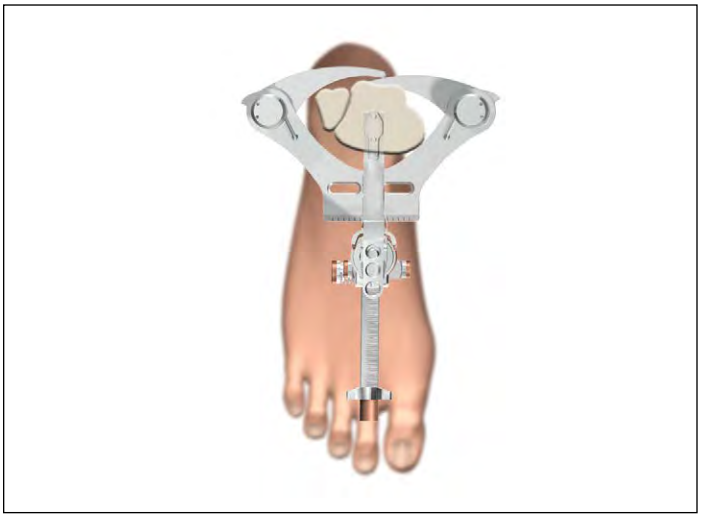


Figure 28

Flexion/extension alignment

Place the ankle clamp around the ankle and unlock the locking switch.

Flexion/extension alignment is correct when the long axis of the assembly parallels the mid-coronal plane of the tibia. Flexion/extension alignment can be checked by verifying that the long axis of the assembly is parallel to the tibia.

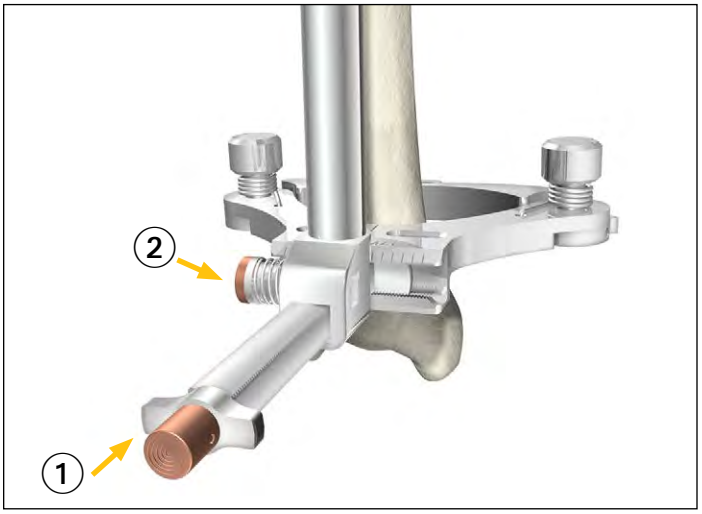


Figure 29

Varus/valgus alignment

Medial/lateral offset can be adjusted by pushing the bronze button ① and sliding the assembly medially until the shaft intersects the center of the tibia. Once triaxial alignment is achieved, release the bronze button.

Tibial slope adjustment

- **Note:** if the proximal rod is parallel to the tibia, the slope is 0° or 3° depending on which tibial adjustment housing is used. Tibial slope can be adjusted by pressing the bronze button ②.

Rotational alignment

Rotate the entire assembly to ensure that the base of the assembly is aligned with the center of the ankle. The center of the ankle is generally in line with the second metatarsal. Once alignment is confirmed, set the bronze locking switch on the Distal Assembly to the locked position.

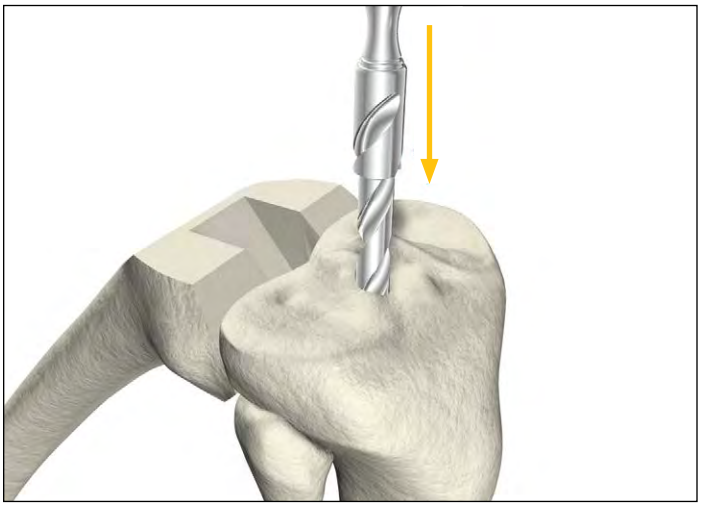


Figure 30

Option 2 – Intramedullary referencing

Attach the 3/8" IM Drill to the Universal Driver and create a hole in the location determined by the preoperative X-rays.

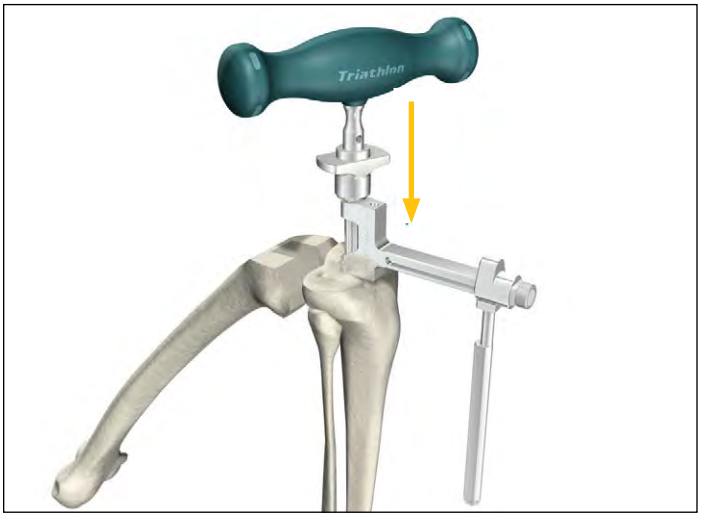


Figure 31

Attach the T-Handle Driver to the 5/16" IM Rod and slowly pass into the canal, ensuring clearance. Remove the 5/16" IM Rod and insert it into the body of the Tibial Alignment Jig IM. The assembly is then inserted into the canal beyond the isthmus.

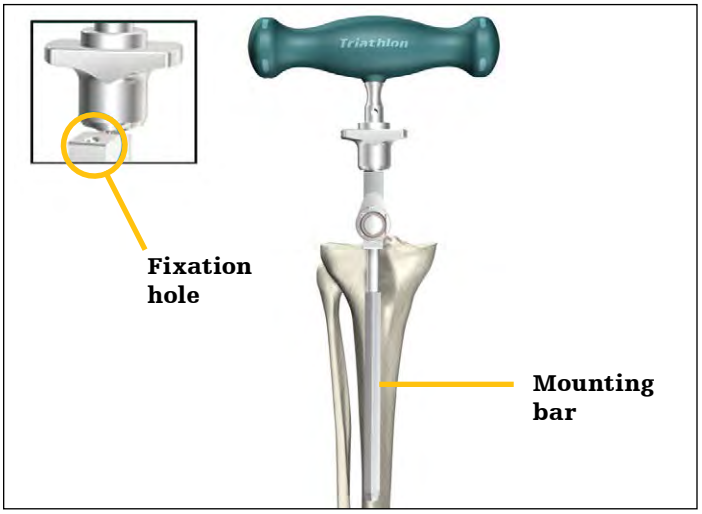


Figure 32

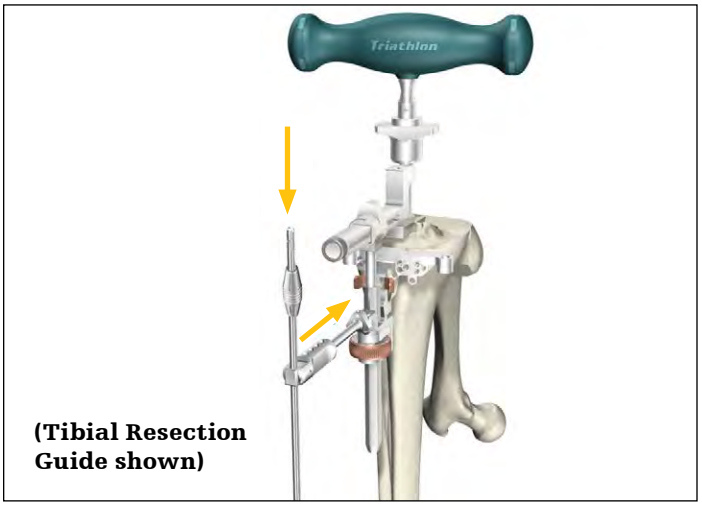


Figure 33

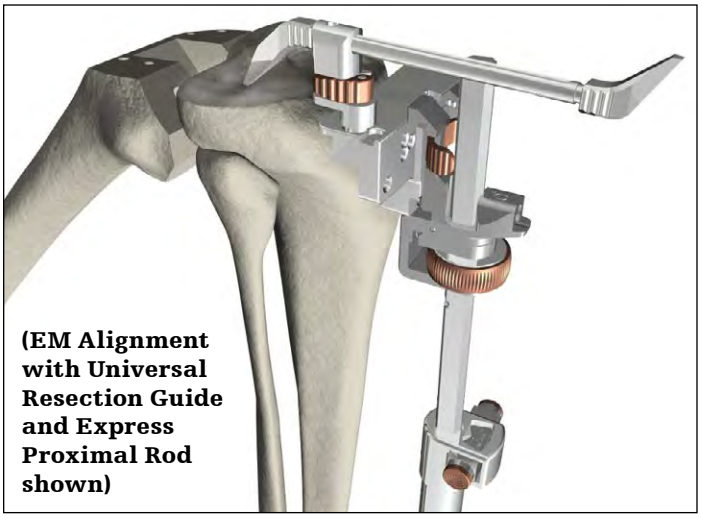


Figure 34

Rotational alignment

With the body of the tibial alignment jig im resting on the proximal tibia, proper rotational alignment is achieved by rotating the instrument about the 5/16" im rod so that the vertical mounting bar is over the medial 1/3 of the tibial tubercle. One of the headless pins or the 1/8" drill is then inserted into the fixation hole to fix rotation **(see inset)**.

Varus/valgus alignment

Assemble the appropriate Tibial Resection Guide (left, right or Universal Resection Guide) on the Tibial Adjustment Housing.

- **Note:** The Tibial Adjustment Housing is available in 0° slope (optional) and 3° slope.

Attach the assembly onto the mounting bar by pressing the bronze wheel on the Tibial Adjustment Housing. Attach the Universal Alignment Handle to the Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment.

When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.

[The following applies to both extramedullary and intramedullary alignment.]

Establish tibial resection level

The Tibial Stylus attaches to the Tibial Resection Guide or Universal Resection Guide with the "9" end referencing the lowest level of the unaffected compartment.

9mm of bone will be resected. Alternatively, if the "2" end of the Tibial Stylus is used, the amount of bone resected will be 2mm below the tip of the Stylus.

The height of the Tibial Resection Guide, Tibial Stylus and Tibial Adjustment Housing can be adjusted using the bronze wheel on the Tibial Adjustment Housing. For coarse adjustment, press the bronze wheel and slide the assembly up or down. For fine adjustment, turn the bronze wheel to the right to move the assembly up the Proximal Rod or turn left to move the assembly down the Proximal Rod. Once the final position is chosen, two Headless Pins are drilled into the "0" neutral holes securing the level of the Tibial Resection Guide.

- **Note:** Rotate the bronze wheel one extra turn, as the Stylus should be under tension to ensure the minimum amount of bone necessary is resected.

Remove all alignment instruments leaving only the Tibial Resection Guide in place.

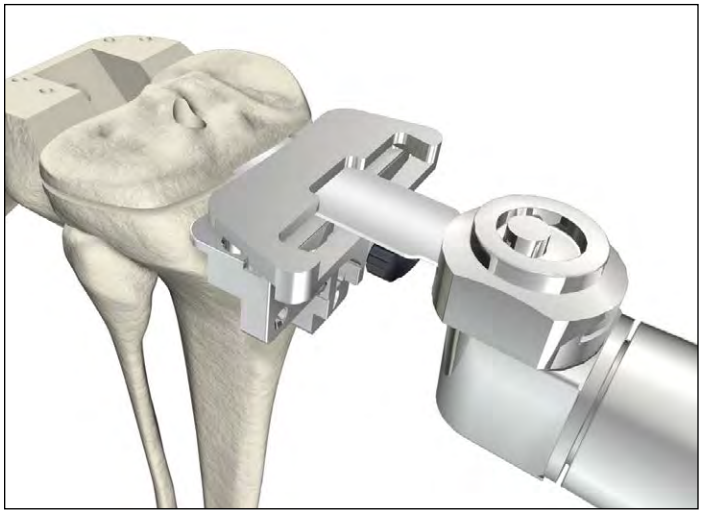


Figure 35

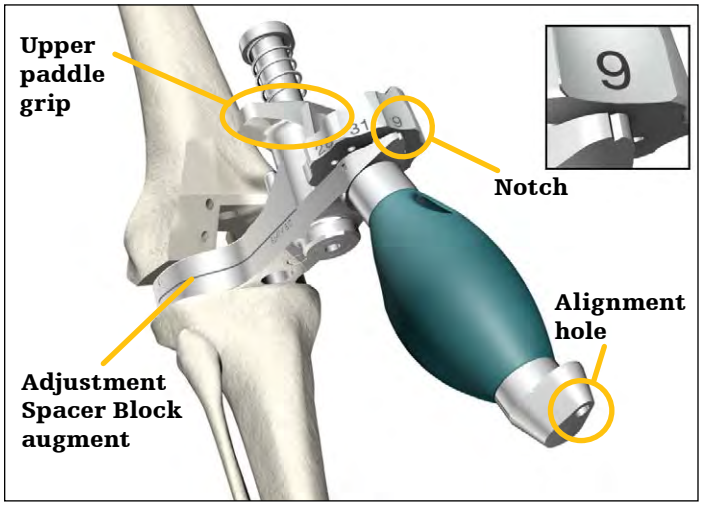


Figure 36

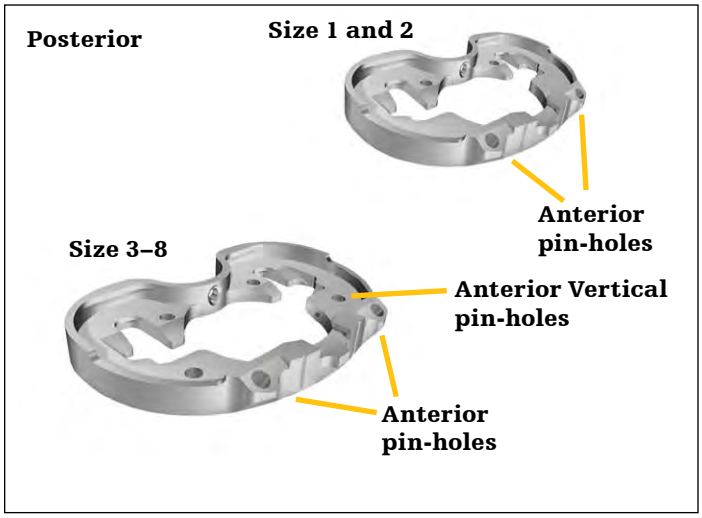


Figure 37

Tibial resection

Resect the proximal tibia. An optional Tibial Resection Guide Modular Capture (Left or Right) may be added.

Remove the Tibial Resection Guide.

Gap balancing and tibial sizing

Flexion and extension gaps

The flexion gap (90º) and extension gap (0º) may be assessed using the optional Adjustable Spacer Block. The numbers on the thumbwheel correspond to the implant insert thickness. Align the notch with the appropriate thickness.

A Universal Alignment Rod can be placed through the hole on the Adjustable Spacer Block to check alignment. Gap assessment may also be performed during trial assessment.

Tibial component sizing

The Tibial Alignment Handle, Universal Tibial Template and Tibial Insert Trial are used to size the tibia, perform a trial reduction and assess overall component fit, ligament stability and joint range of motion.

Once the surgeon has determined alignment, the Universal Tibial Template has multiple Pin-holes that can be used to secure the template in the desired position.

If Headed Nails are placed in the anterior-vertical Pin-holes with the Headed Nail Impactor Extractor (applicable only to sizes 3, 4, 5, 6, 7 and 8) of the Universal Tibial Template, ensure that the Tibial Insert Trial is inserted posterior to the Headed Nails.

Select the tibial insert trial size that correlates to the tibial template and of desired thickness.

- **Note:** Lightly impact the tibial insert trial if required. In the event that excessive resistance or misalignment is encountered during insertion of the Tibial Insert Trial, remove, reposition and reinsert the Tibial Insert Trial. Ensure all excess debris (bone and soft tissue) is cleared from the Tibial Template.

After trial reduction, the Tibial Insert Trial can be removed by hand or with the aid of a blunt instrument.

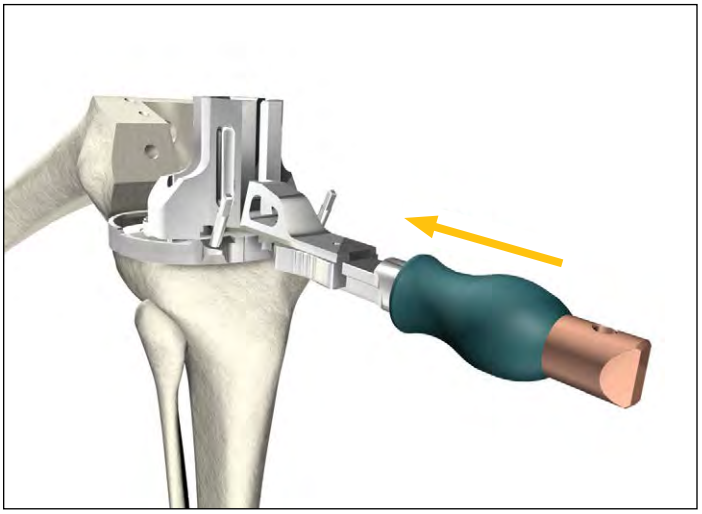


Figure 38

Tibial keel punching

Assemble the appropriate Keel Punch Guide to the Universal Tibial Template by inserting at a slight angle to the top of the Universal Tibial Template (into the two locating slots toward the posterior portion of the Universal Tibial Template). Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

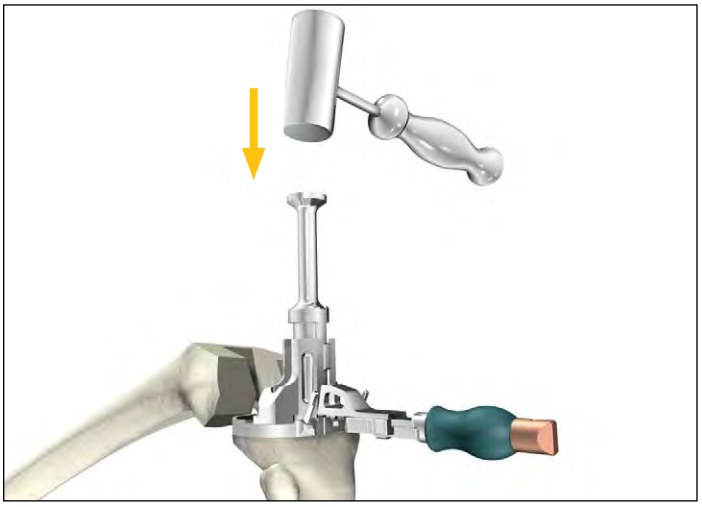


Figure 39

Place the appropriate Keel Punch (cemented or cementless) into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide. In sclerotic bone, the use of a saw prior to the Keel Punch may be advisable.

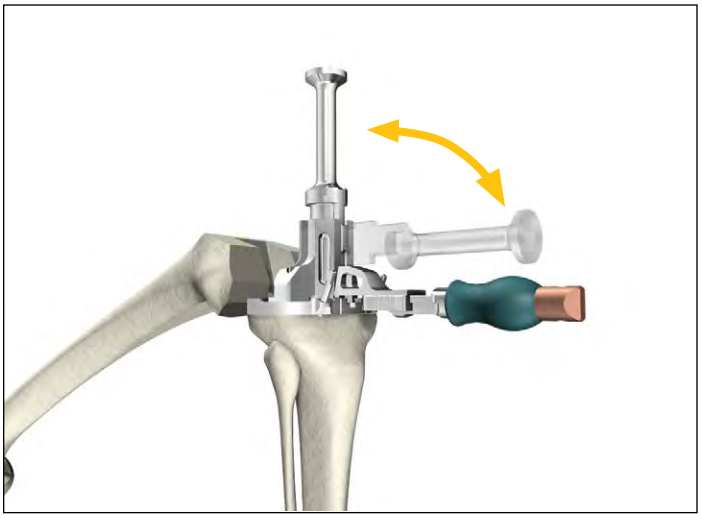


Figure 40

To extract the Keel Punch, lift up on the Keel Punch Guide Handle and pull the handle down to cantilever the Keel Punch out of the tibia.

Remove the Headless Pins with the Headless Pin Extractor (or Headed Nails with the Headed Nail Impactor Extractor) and remove the Universal Tibial Template.

Patellar preparation

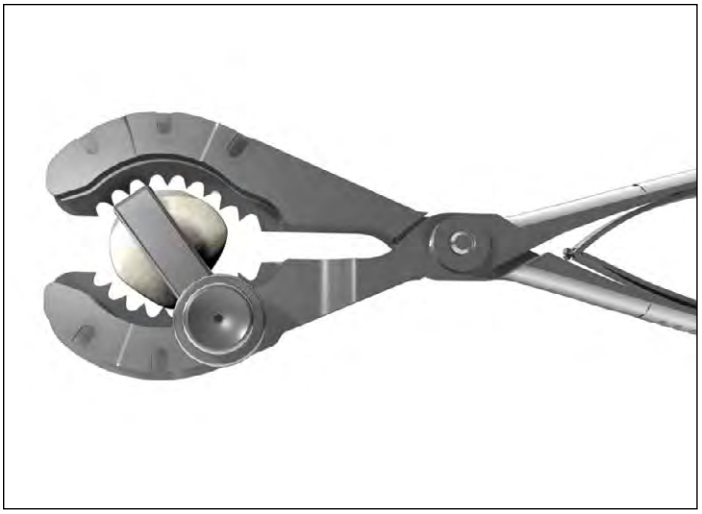


Figure 41

Remove all osteophytes and synovial insertions around the patella and measure thickness using the Patella Caliper. After determining the depth of the cut with the Patella Caliper, affix the Patella Stylus in the appropriate slot of the Slotted Patella Resection Guide and capture the patella between the jaws of the saw guide. Using .050" non-offset sawblade, resect the patella.

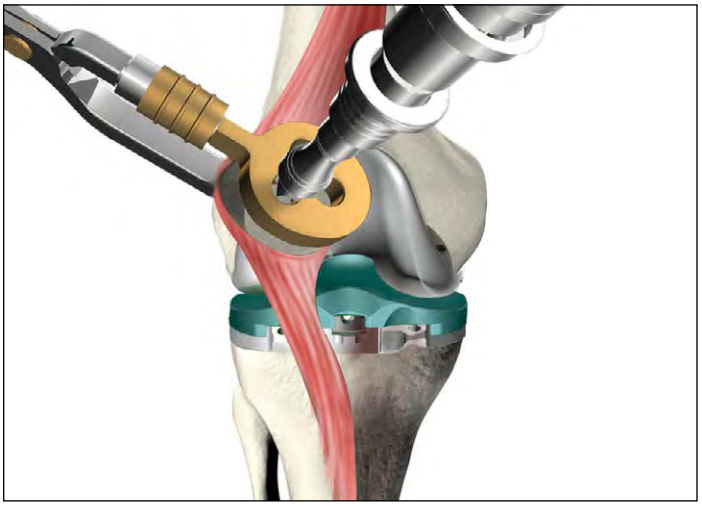


Figure 42

Choose the appropriate size Express Symmetric Patella Drill Template or Express Asymmetric Patella Drill Template and insert into the Patella Clamp.

Center the chosen patellar drill guide over the patella with the clamp perpendicular to the trochlear groove. Drill three fixation holes with the appropriate drill (Metal-Backed Patella or All Poly).

If a cemented component is to be used, prepare the resected bone surfaces for bone cement application.

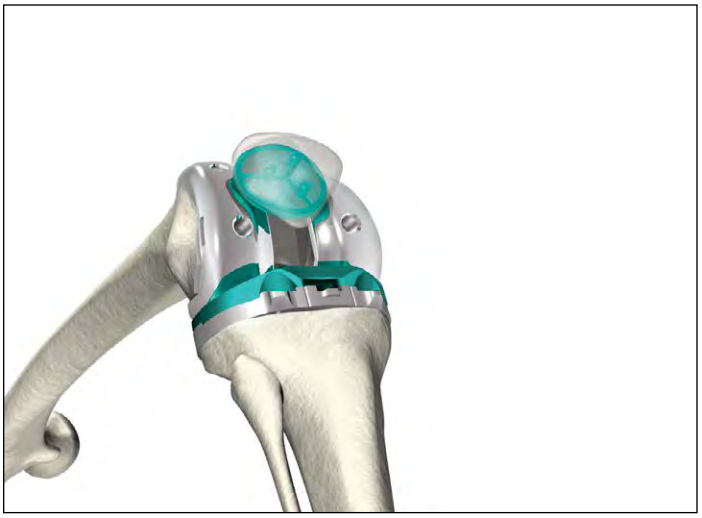


Figure 43

Patella Trial assessment

Remove any residual cartilage and wash away all debris. Place correct size Patella Trial (Symmetric or Asymmetric) onto the prepared patella.

Replace all Trials and assess patellar tracking by taking the knee through a ROM.

The patella should track normally throughout the ROM without tendency for tilting or lateral subluxation.

Figure 44

Component implantation

Figure 45

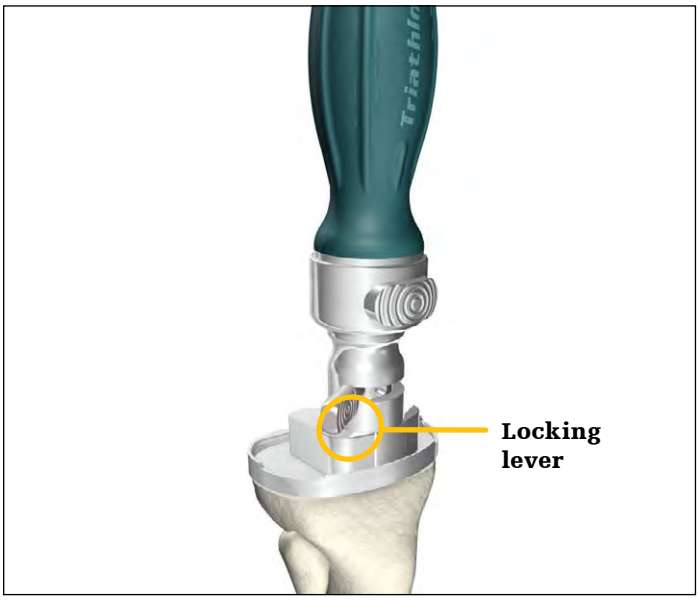


Figure 46

If needed, prepare the resected bone surfaces using the Bone File, which is attached to the Impaction Handle.

Femoral Component - Cemented/Cementless

Attach the Femoral Impactor Extractor to the Impaction Handle and attach to the appropriate size and side Femoral Component. If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application. Place the Femoral Component on the femur and impact it until fully seated.

- Posterior Stabilized Knee: If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), assemble the pegs to the Femoral Component using the 1/8" Hex Drive and the Slip Torque Handle prior to implantation.

The Femoral Impactor can be attached to the Impaction Handle to further seat the Femoral Component onto the prepared femur.

▸ **Note:** Clear all excess bone cement (does not apply to cementless component).

Primary Tibial Baseplate - Cemented/Cementless

Connect the Tibial Baseplate Impactor Extractor to the Impaction Handle. If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Introduce the Primary Tibial Baseplate onto the prepared tibia and impact until the baseplate is seated. Unlock the locking lever and remove the assembly from the Primary Tibial Baseplate.

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle.

Impact until the Primary Tibial Baseplate is fully seated.

▸ **Note:** Clear all excess bone cement while maintaining position of the Primary Tibial Baseplate.

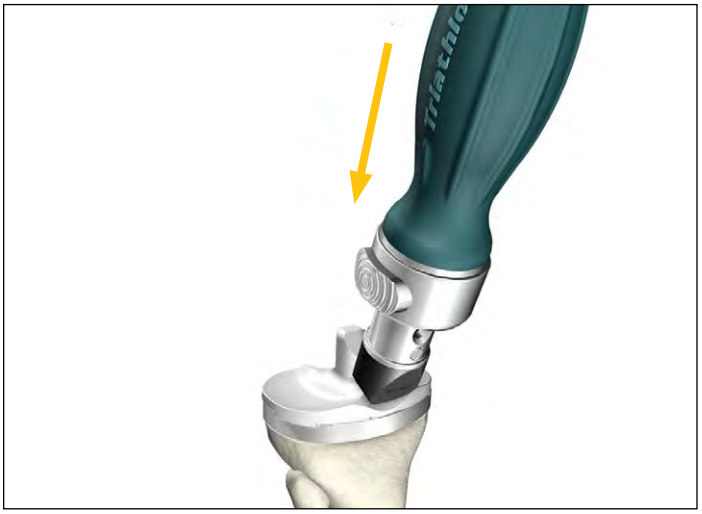


Figure 47

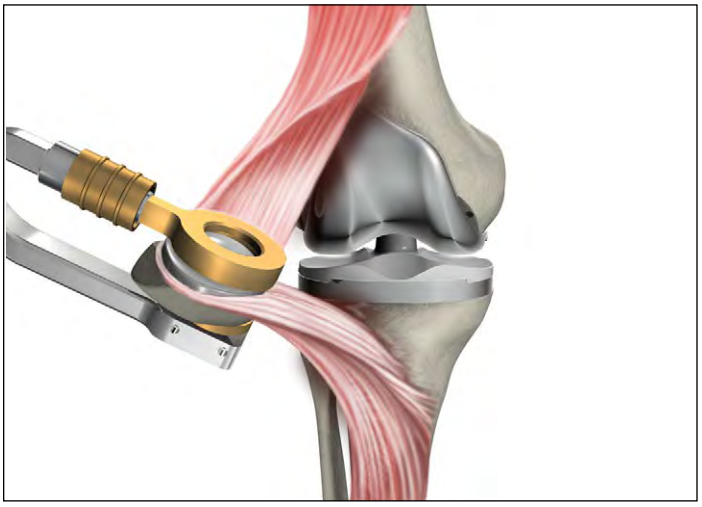


Figure 48

Closure

Figure 49

CR, CS, PS or PSR Tibial Insert

Prior to assembly of the appropriate Tibial Insert, the PS or CR Tibial Trial Insert may be placed on the Primary Tibial Baseplate to once more assess joint stability and range of motion.

To assemble the appropriate Tibial Insert, distract the joint and angle the insert posteriorly into the Primary Tibial Baseplate. The posterior lip of the Tibial Insert must fit beneath the lip on the posterior Primary Tibial Baseplate wall.

Attach the Tibial Insert Impactor to the Impaction Handle and impact to snap the Insert in place anteriorly. The appropriate Tibial Insert is fully seated once the locking wire locks under the barbs on the anterior/interior surface of the Primary Tibial Baseplate wall.

Patellar Component - Cemented/Cementless

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Place the Patella Component onto the prepared patella, making certain the fixation peg holes are aligned to the corresponding holes. Insert the Express Cement Cap into the Patella Clamp.

Seat the Patellar Component onto the prepared patella by clamping the Patella Clamp.

Leave the assembly clamped to the patella while excess cement is cleared and polymerization is complete (cemented only).

Remove the Patella Clamp.

Assess the joint in flexion and extension.

For cemented components

After cement polymerization and removal of all residual cement, thoroughly irrigate the joint. Close soft tissues in the normal layered fashion.

Assembly instructions

Many of the Triathlon Knee System Instruments have unique mechanisms incorporated to assist surgeons and OR staff in a simplified, efficient surgical experience. Therefore, assembly instructions have been included in the first section of this surgical technique to assist with instruments that may be preassembled on the back table, as well as other instruments that need to be assembled.

All of the mechanisms that allow instruments to be adjusted and/or assembled have been color-coded. Those that correspond to femoral preparation are black, those for tibial preparation are bronze and those for patella preparation are gold.

Black **Bronze** **Gold**

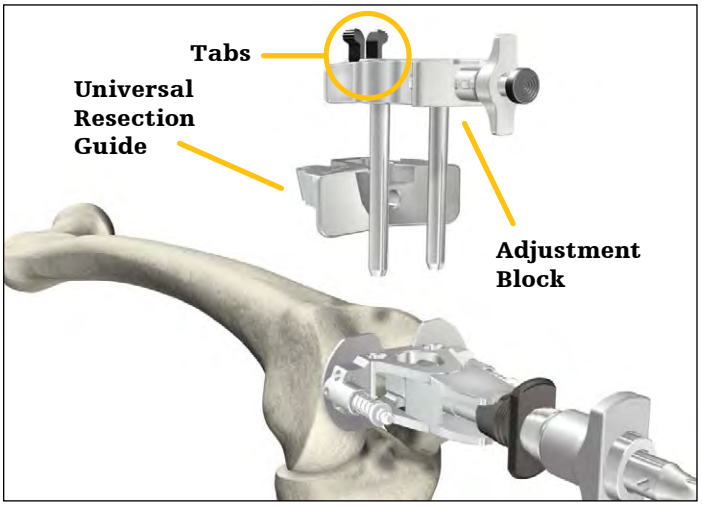


Figure 1a

Universal Resection Guide, Adjustment Block and Femoral Alignment Guide assembly:

Attach the Universal Resection Guide to the Adjustment Block by squeezing the black tabs on Adjustment Block and sliding into the Universal Resection Guide.

Release the black tabs and ensure that the Universal Resection Guide is securely snapped into place.

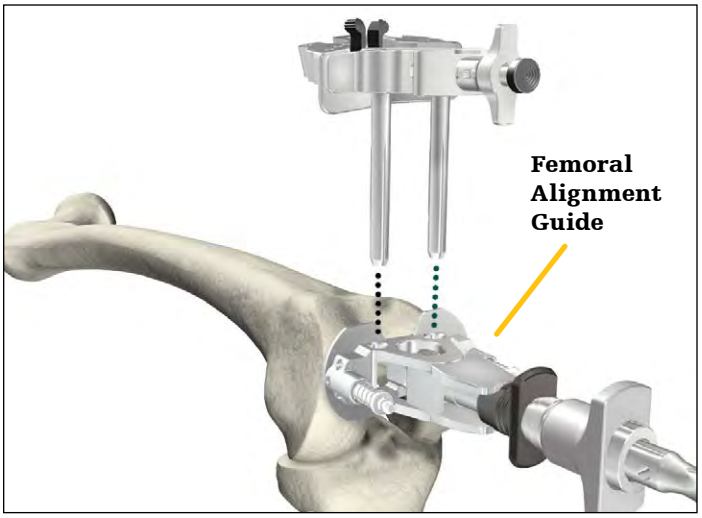


Figure 1b

Insert the two posts of the Adjustment Block into the holes on the Femoral Alignment Guide (for use on the left or right side). Ensure that the black button on the Adjustment Block is aligned with the black knob on the Femoral Alignment Guide.

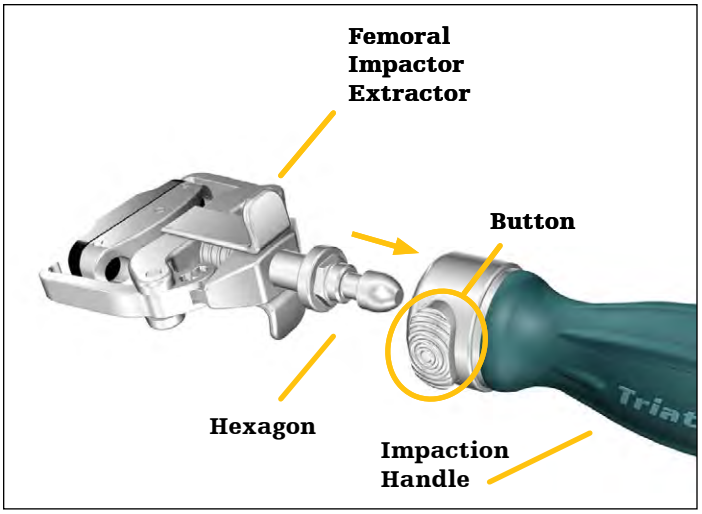


Figure 2a

Femoral Impactor Extractor, Impaction Handle and Femoral Trial or Femoral Component assembly:

Snap the Femoral Impactor Extractor into the Impaction Handle.

Ensure the hexagon on the Femoral Impactor Extractor is fully seated in the Impaction Handle. When fully seated, there will be an audible snap.

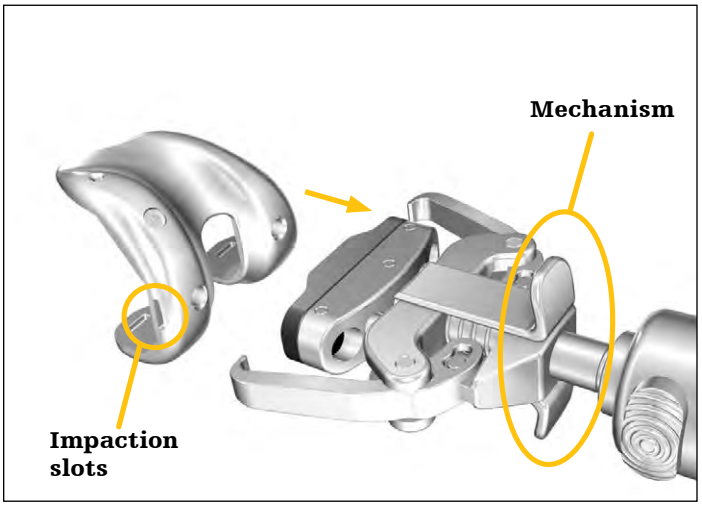


Figure 2b

Turn the Impaction Handle counterclockwise until there is enough space (approximately 10mm) between the black impaction surface and the ends of the jaws to insert the Femoral Trial or Femoral Component.

Pull back on the mechanism to open the jaws. Engage the jaws into the impaction slots on the Femoral Trial or Femoral Component.

Turn the Impaction Handle clockwise to tighten, ensuring the impaction surface locks against the distal condyles of the Femoral Trial or Femoral Component.

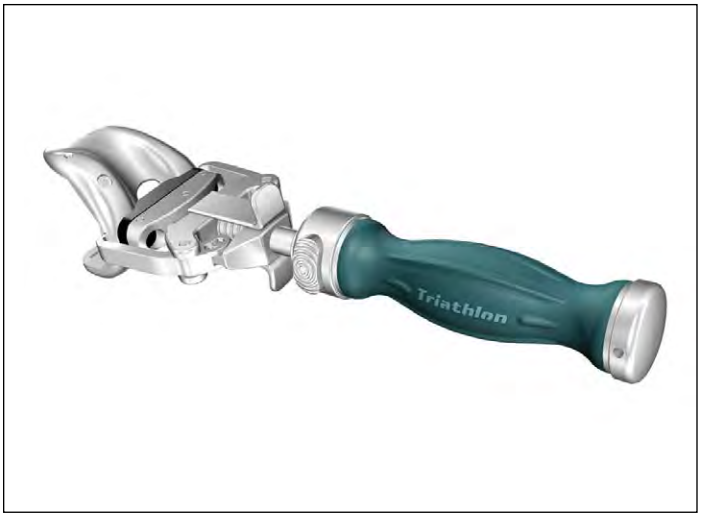


Figure 2c

Final assembly.

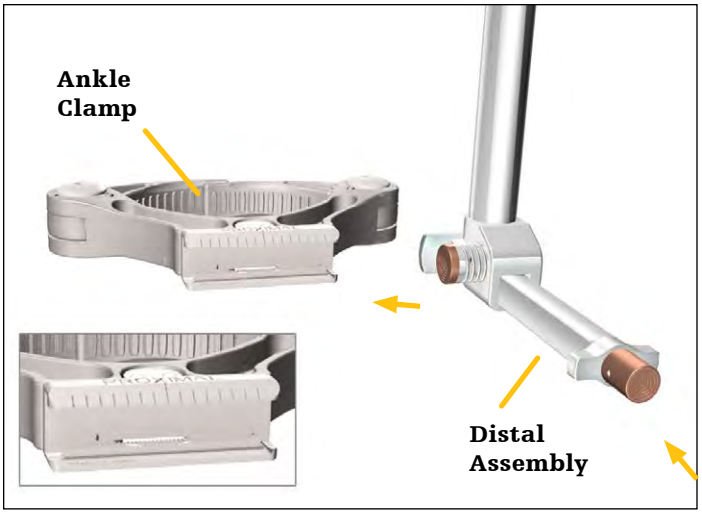


Figure 3a

Tibial Alignment Ankle Clamp EM, Tibial Alignment Distal Assembly EM, Tibial Alignment Proximal Rod EM, Tibial Stylus, Tibial Resection Guide Modular Capture and Tibial Adjustment Housing assembly:

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining).

Press the bronze button on the Distal Assembly and slide into the grooves on the Ankle Clamp. Ensure that the "proximal" side of the Ankle Clamp is showing **(See inset)**.

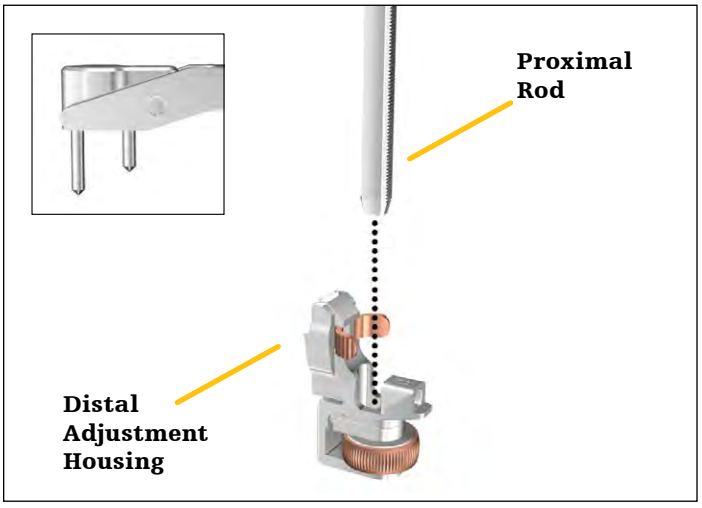


Figure 3b

Press the bronze wheel on the Tibial Adjustment Housing with your thumb and insert the Proximal Rod. Ensure that the two fixation pins on the superior portion of the Proximal Rod are facing posteriorly.

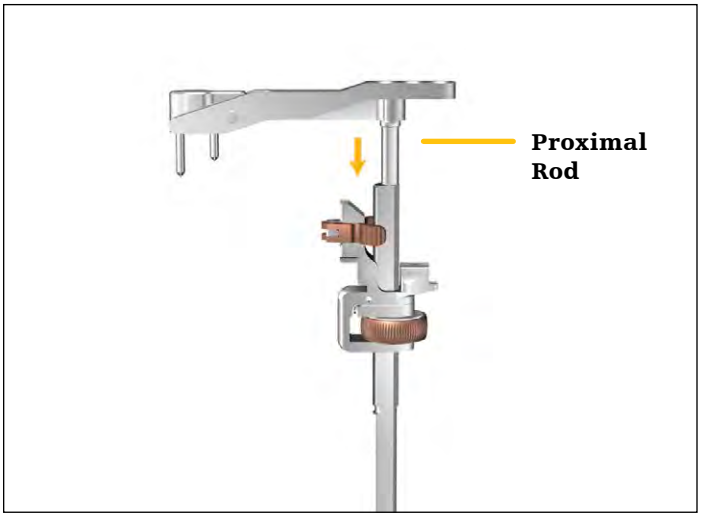


Figure 3c

Slide the Proximal Rod until the Tibial Adjustment Housing engages the teeth on the Proximal Rod.

Release the bronze wheel to lock into place.

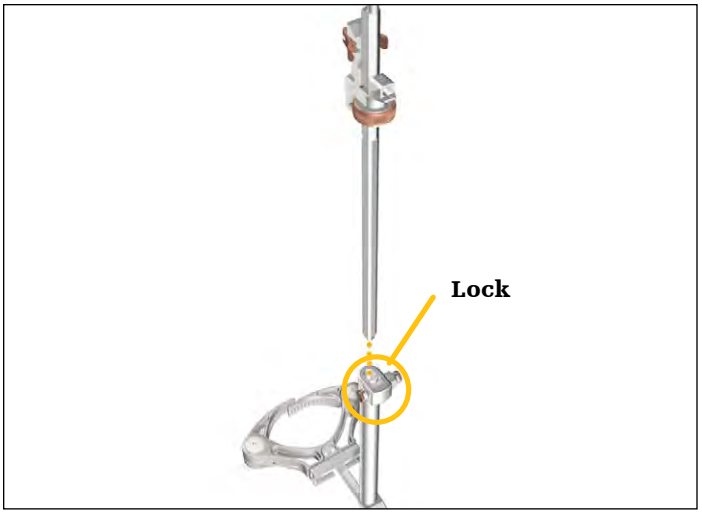


Figure 3d

Ensure that the bronze lock on the Distal Assembly is unlocked prior to insertion.

Insert the Proximal Rod and Tibial Adjustment Housing assembly into the hole on the top of the Distal Assembly with the fixation pins on the superior portion of the Proximal Rod facing posteriorly.

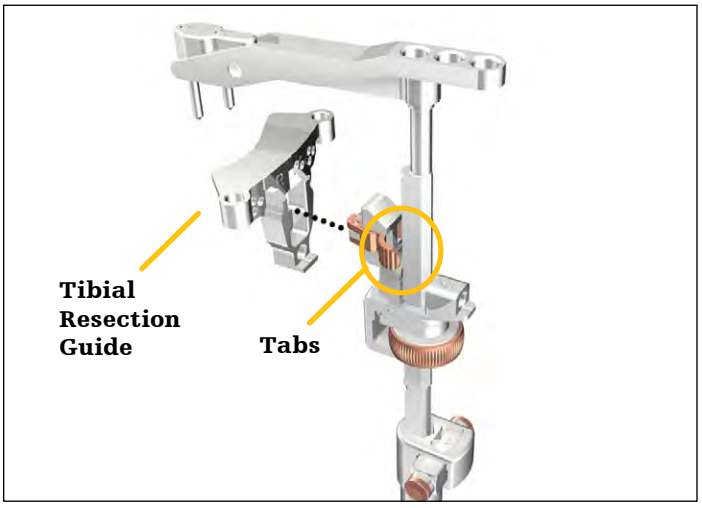


Figure 3e

Squeeze the bronze tabs on the Tibial Adjustment Housing and insert the entire assembly into the Tibial Resection Guide.

Release the bronze tabs and ensure that the Tibial Resection Guide is locked in place.

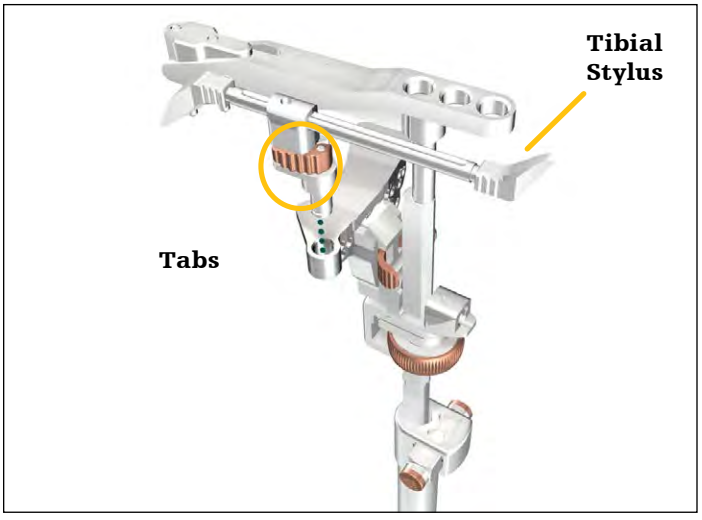


Figure 3f

Squeeze the bronze tab on the Tibial Stylus and insert the post into the appropriate side of the Tibial Resection Guide.

Insert the posts into the Tibial Resection Guide holes and slide the Tibial Resection Guide Modular Capture into place.

Release the bronze tab to lock the Tibial Resection Guide Modular Capture into the Tibial Resection Guide.

Figure 3g

Final assembly.

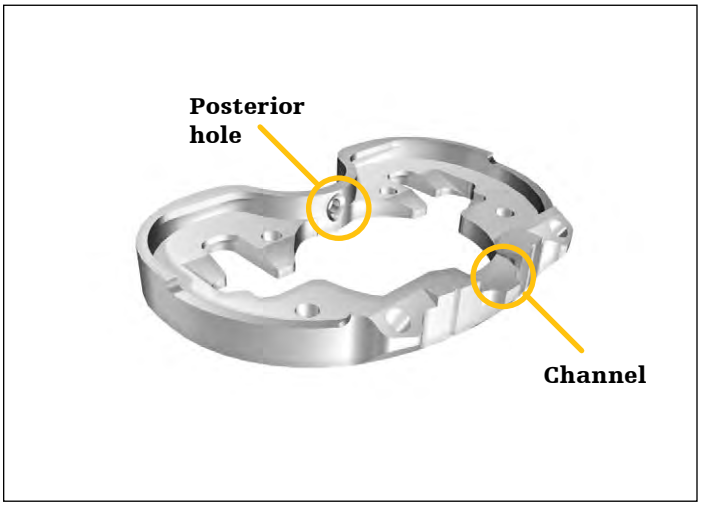


Figure 4a

Universal Tibial Template, Alignment Handle and PS or CR Tibial Insert Trial assembly:

Posterior hole and Channel of Universal Tibial Template **(instructions below)**.

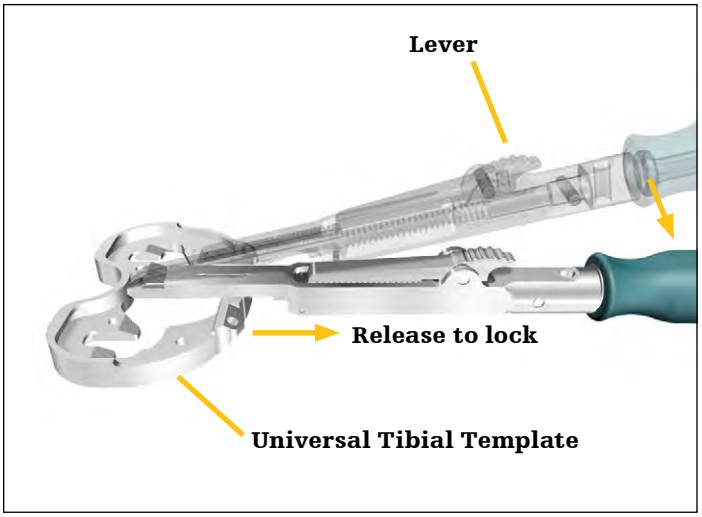


Figure 4b

Depress and hold the lever on the anterior position of the Alignment Handle. Insert the spring-loaded tip of the Alignment Handle into the central posterior hole of the Universal Tibial Template. Hold the handle at a slight angle to the top surface of the template.

Compress the spring-loaded tip by pushing it forward and lower the Alignment Handle into the channel on the anterior portion of the Universal Tibial Template. Release the spring tension and allow the Alignment Handle to engage the Universal Tibial Template.

Release the lever to secure the assembly.

Figure 4c

Position a PS or CR Tibial Insert Trial to the Universal Tibial Template by first positioning it posteriorly, at a 20-30° angle to the template and then fully seat it anteriorly.

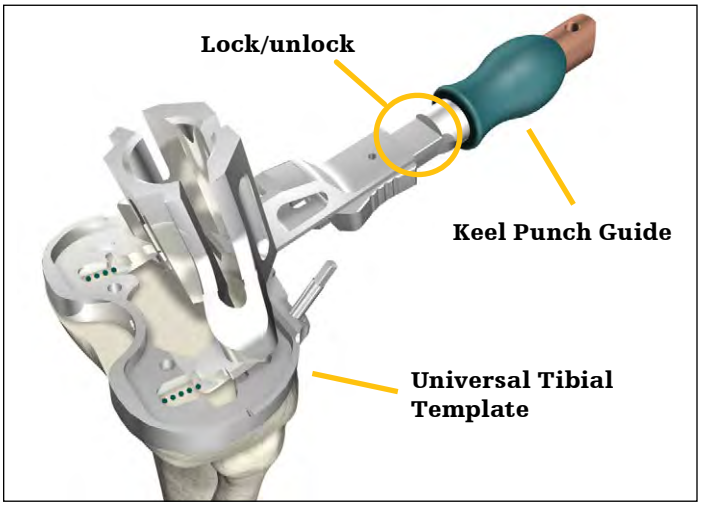


Figure 5a

Universal Tibial Template and Keel Punch Guide assembly:

Ensure that the handle of the Keel Punch Guide is unlocked – pull back on the handle to unlock.

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting the Keel Punch Guide (at a slight angle to the Universal Tibial Template) into the two locating slots towards the posterior portion of the Universal Tibial Template.

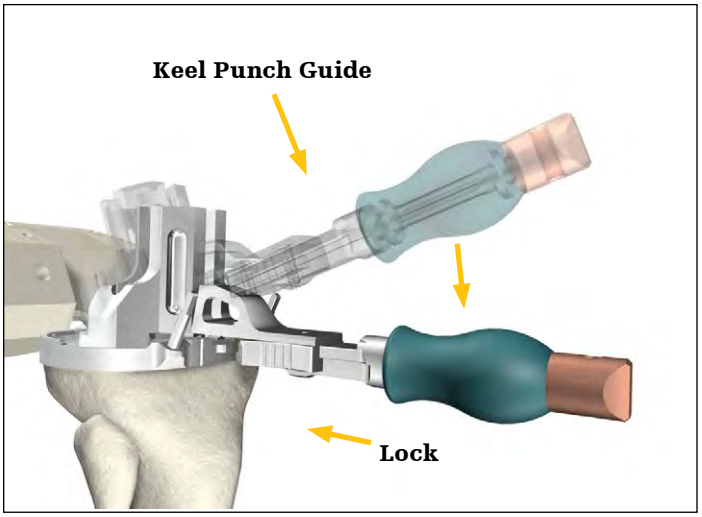


Figure 5b

Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle of the Keel Punch Guide to lock it to the Universal Tibial Template.

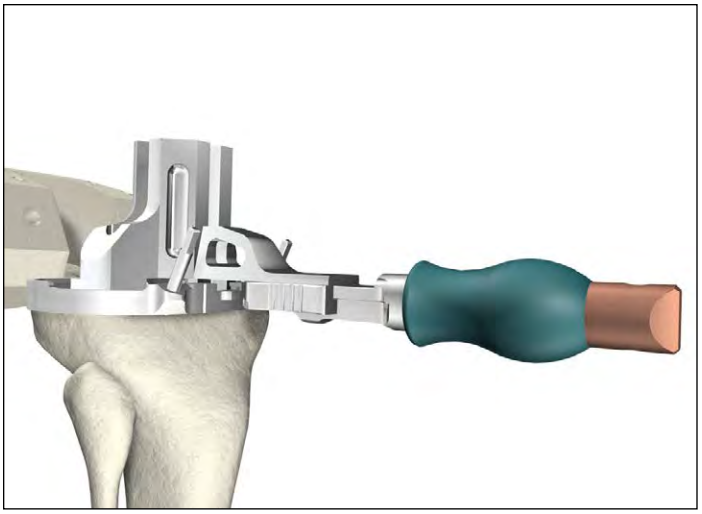


Figure 5c

Final assembly.

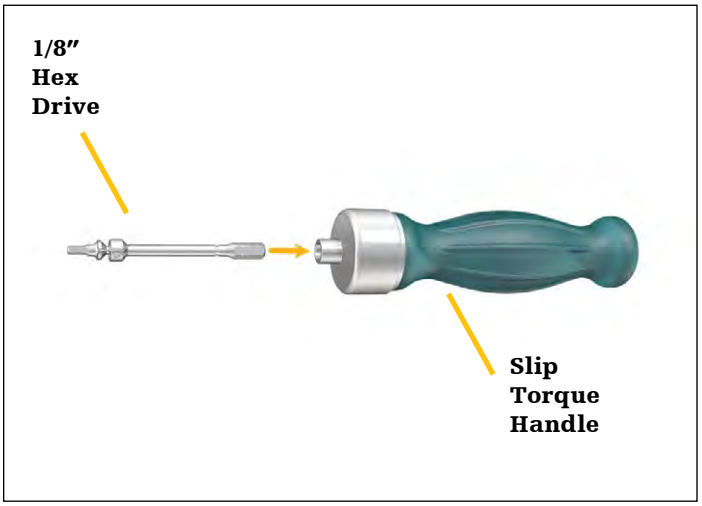


Figure 6a

1/8" Hex Drive, Slip Torque Handle and Modular Femoral Distal Fixation Pegs assembly:

Snap the 1/8" Hex Drive into the Slip Torque Handle.

Figure 6b

Insert the tip of the 1/8" Hex Drive into the Modular Femoral Distal Fixation Peg and turn the Slip Torque Handle to tighten.

Instruments

Ref #	Description	Quantity in kit
Miscellaneous Instruments Kit contents		
3170-0000	1/8″ Drill	2
6541-4-003 or 6541-4-003A	Headless Pins - 3″	4
6541-4-300	Headed Nail Impactor Extractor (Optional)	1
6541-4-400	Blade Runner	1
6541-4-515	Headed Nails - 1 1/2″ (Optional)	2
6541-4-516	5/16″ IM Rod	1
6541-4-518	1/8″ Peg Drill	1
6541-4-525	1/4″ Peg Drill	1
6541-4-538	3/8″ IM Drill	1
6541-4-575	Headed Nails - 3/4″ (Optional)	2
6541-4-602	Universal Alignment Rods	2
6541-4-610	Adjustable Spacer Block (Optional)	1
6541-4-700	Bone File (Optional)	1
6541-4-709	Box Chisel	1
6541-4-710	Posterior Osteophyte Removal Tool (Optional)	1
6541-4-800	T-Handle Driver	1
6541-4-801	Universal Driver	1
6541-4-802	1/8″ Hex Drive (Optional)	1
6541-4-803	Slap Hammer	1
6541-4-804	Headless Pin Extractor	1
6541-4-805	Tibial Baseplate Impactor Extractor	1
6541-4-806	Universal Alignment Handle	1
6541-4-807	Femoral Impactor Extractor	1
6541-4-809	Headless Pin Driver	1
6541-4-808	Modular Handle	2
6541-4-810	Impaction Handle	2
6541-4-811	Femoral Impactor	1
6541-4-812	Tibial Baseplate Impactor	1
6541-4-813	Tibial Insert Impactor	1
6541-4-825	Slip Torque Handle (Optional)	1
6541-8-004	Triathlon Miscellaneous Upper Tray	1
6541-8-104	Triathlon Miscellaneous Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 42

Instruments

Ref #	Description	Quantity in kit
Patella preparation and trialing kit contents		
6633-7-736	Slotted Patella Resection Guide	1
6633-7-738	Patella Stylus	1
7650-1454	Patella Caliper	1
6541-3-524	All-Poly Patella Drill w/Stop	1
6541-3-617E	Express Asymmetric Patella Drill Template - 29mm	1
6541-3-618E	Express Asymmetric Patella Drill Template - 32mm	1
6541-3-619E	Express Asymmetric Patella Drill Template - 35mm	1
6541-3-620E	Express Asymmetric Patella Drill Template - 38mm	1
6541-3-621E	Express Asymmetric Patella Drill Template - 40mm	1
6541-3-627E	Express Symmetric Patella Drill Template - 27mm	1
6541-3-629E	Express Symmetric Patella Drill Template - 29mm	1
6541-3-631E	Express Symmetric Patella Drill Template - 31mm	1
6541-3-633E	Express Symmetric Patella Drill Template - 33mm	1
6541-3-636E	Express Symmetric Patella Drill Template - 36mm	1
6541-3-639E	Express Symmetric Patella Drill Template - 39mm	1
6541-3-800E	Express Cement Cap	1
6633-7-744	Patella Clamp	1
5550-T-278	Symmetric Patella Trial 27mm x 8mm	1
5550-T-298	Symmetric Patella Trial 29mm x 8mm	1
5550-T-319	Symmetric Patella Trial 31mm x 9mm	1
5550-T-339	Symmetric Patella Trial 33mm x 9mm	1
5550-T-360	Symmetric Patella Trial 36mm x 10mm	1
5550-T-391	Symmetric Patella Trial 39mm x 11mm	1
5551-T-299	Asymmetric Patella Trial 29mm (S/I) x 33mm (M/L) x 9mm	1
5551-T-320	Asymmetric Patella Trial 32mm (S/I) x 36mm (M/L) x 10mm	1
5551-T-350	Asymmetric Patella Trial 35mm (S/I) x 39mm (M/L) x 10mm	1
5551-T-381	Asymmetric Patella Trial 38mm (S/I) x 42mm (M/L) x 11mm	1
5551-T-401	Asymmetric Patella Trial 40mm (S/I) x 44mm (M/L) x 11mm	1
6541-3-522	Metal-Backed Patella Drill w/Stop	1
6541-8-005E	Patellar Preparation - Upper Tray	1
6541-8-105E	Patellar Preparation - Lower Tray	1
6541-7-806	MIS 4:1 Impactor/Extractor	1
6541-1-701E	#1 Express 4:1 Cutting Block (Optional)	1
6541-1-708E	#8 Express 4:1 Cutting Block (Optional)	1
6541-9-000	Triathlon Case	1
		Total quantity 35

Instruments

Ref #	Description	Quantity in kit
Size 3-6 femoral and tibial preparation kit contents		
6541-1-600	Adjustment Block	1
6541-1-603	Femoral Sizer	1
6541-1-605	Femoral Stylus	1
6541-1-657	Femoral Alignment Guide	1
6541-1-703E	#3 Express 4:1 Cutting Block	1
6541-1-704E	#4 Express 4:1 Cutting Block	1
6541-1-705E	#5 Express 4:1 Cutting Block	1
6541-1-706E	#6 Express 4:1 Cutting Block	1
6541-1-721	Universal Resection Guide	1
6541-1-723	Modular Capture - Distal Resection	1
6541-2-013	Size 1-3 Keel Punch	1
6541-2-046	Size 4-6 Keel Punch	1
6541-2-429	Tibial Stylus	1
6541-2-600	Tibial Alignment Jig IM (Optional)	1
6541-2-603	#3 Universal Tibial Template	1
6541-2-604	#4 Universal Tibial Template	1
6541-2-605	#5 Universal Tibial Template	1
6541-2-606	#6 Universal Tibial Template	1
6541-2-609	Tibial Alignment Ankle Clamp EM	1
6541-2-610	Tibial Alignment Distal Assembly EM	1
6541-2-611E	Tibial Alignment Proximal Rod EM	1
6541-2-700	Tibial Resection Guide Right	1
6541-2-701	Tibial Resection Guide Left	1
6541-2-702	Tibial Resection Guide Modular Capture Right	1
6541-2-703	Tibial Resection Guide Modular Capture Left	1
6541-2-704	Tibial Adjustment Housing - 0° slope (Optional)	1
6541-2-705	Tibial Adjustment Housing - 3° slope	1
6541-2-713	Size 1-3 Keel Punch Guide	1
6541-2-748	Size 4-8 Keel Punch Guide	1
6541-2-807	Tibial Alignment Handle	1
6541-8-002	Triathlon Size 3-6 Upper Tray	1
6541-8-102	Triathlon Size 3-6 Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 33

Instruments

Ref #	Description	Quantity in kit
Size 3-6 PS femoral and tibial trialing kit contents		
5511-T-301	PS Femoral Trial #3 Left	1
5511-T-302	PS Femoral Trial #3 Right	1
5511-T-401	PS Femoral Trial #4 Left	1
5511-T-402	PS Femoral Trial #4 Right	1
5511-T-501	PS Femoral Trial #5 Left	1
5511-T-502	PS Femoral Trial #5 Right	1
5511-T-601	PS Femoral Trial #6 Left	1
5511-T-602	PS Femoral Trial #6 Right	1
5532-T-309A or 5532-T-309B*	PS Tibial Insert Trial #3 - 9mm	1
5532-T-311A or 5532-T-311B*	PS Tibial Insert Trial #3 - 11mm	1
5532-T-313A or 5532-T-313B*	PS Tibial Insert Trial #3 - 13mm	1
5532-T-316A or 5532-T-316B*	PS Tibial Insert Trial #3 - 16mm	1
5532-T-319A or 5532-T-319B*	PS Tibial Insert Trial #3 - 19mm	1
5532-T-409A or 5532-T-409B*	PS Tibial Insert Trial #4 - 9mm	1
5532-T-411A or 5532-T-411B*	PS Tibial Insert Trial #4 - 11mm	1
5532-T-413A or 5532-T-413B*	PS Tibial Insert Trial #4 - 13mm	1
5532-T-416A or 5532-T-416B*	PS Tibial Insert Trial #4 - 16mm	1
5532-T-419A or 5532-T-419B*	PS Tibial Insert Trial #4 - 19mm	1
5532-T-509A or 5532-T-509B*	PS Tibial Insert Trial #5 - 9mm	1
5532-T-511A or 5532-T-511B*	PS Tibial Insert Trial #5 - 11mm	1
5532-T-513A or 5532-T-513B*	PS Tibial Insert Trial #5 - 13mm	1
5532-T-516A or 5532-T-516B*	PS Tibial Insert Trial #5 - 16mm	1
5532-T-519A or 5532-T-519B*	PS Tibial Insert Trial #5 - 19mm	1
5532-T-609A or 5532-T-609B*	PS Tibial Insert Trial #6 - 9mm	1
5532-T-611A or 5532-T-611B*	PS Tibial Insert Trial #6 - 11mm	1
5532-T-613A or 5532-T-613B*	PS Tibial Insert Trial #6 - 13mm	1
5532-T-616A or 5532-T-616B*	PS Tibial Insert Trial #6 - 16mm	1
5532-T-619A or 5532-T-619B*	PS Tibial Insert Trial #6 - 19mm	1
6541-5-713	#3 MIS PS Box Cutting Guide	1
6541-5-714	#4 MIS PS Box Cutting Guide	1
6541-5-715	#5 MIS PS Box Cutting Guide	1
6541-5-716	#6 MIS PS Box Cutting Guide	1
6541-8-009	Triathlon 3-6 PS Upper Tray	1
6541-8-109	Triathlon 3-6 PS Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 35

*This product is not CE marked in accordance with applicable EU regulations and directives. Stryker is not marketing or distributing this product in the EU. Any reference to this product is for presentation purposes only.

Instruments

Ref #	Description	Quantity in kit
Size 3-6 CR femoral and tibial trialing kit contents		
5510-T-301	CR Femoral Trial #3 Left	1
5510-T-302	CR Femoral Trial #3 Right	1
5510-T-401	CR Femoral Trial #4 Left	1
5510-T-402	CR Femoral Trial #4 Right	1
5510-T-501	CR Femoral Trial #5 Left	1
5510-T-502	CR Femoral Trial #5 Right	1
5510-T-601	CR Femoral Trial #6 Left	1
5510-T-602	CR Femoral Trial #6 Right	1
5530-T-309A or 5530-T-309B*	CR Tibial Insert Trial #3 - 9mm	1
5530-T-311A or 5530-T-311B*	CR Tibial Insert Trial #3 - 11mm	1
5530-T-313A or 5530-T-313B*	CR Tibial Insert Trial #3 - 13mm	1
5530-T-316A or 5530-T-316B*	CR Tibial Insert Trial #3 - 16mm	1
5530-T-319A or 5530-T-319B*	CR Tibial Insert Trial #3 - 19mm	1
5530-T-409A or 5530-T-409B*	CR Tibial Insert Trial #4 - 9mm	1
5530-T-411A or 5530-T-411B*	CR Tibial Insert Trial #4 - 11mm	1
5530-T-413A or 5530-T-413B*	CR Tibial Insert Trial #4 - 13mm	1
5530-T-416A or 5530-T-416B*	CR Tibial Insert Trial #4 - 16mm	1
5530-T-419A or 5530-T-419B*	CR Tibial Insert Trial #4 - 19mm	1
5530-T-509A or 5530-T-509B*	CR Tibial Insert Trial #5 - 9mm	1
5530-T-511A or 5530-T-511B*	CR Tibial Insert Trial #5 - 11mm	1
5530-T-513A or 5530-T-513B*	CR Tibial Insert Trial #5 - 13mm	1
5530-T-516A or 5530-T-516B*	CR Tibial Insert Trial #5 - 16mm	1
5530-T-519A or 5530-T-519B*	CR Tibial Insert Trial #5 - 19mm	1
5530-T-609A or 5530-T-609B*	CR Tibial Insert Trial #6 - 9mm	1
5530-T-611A or 5530-T-611B*	CR Tibial Insert Trial #6 - 11mm	1
5530-T-613A or 5530-T-613B*	CR Tibial Insert Trial #6 - 13mm	1
5530-T-616A or 5530-T-616B*	CR Tibial Insert Trial #6 - 16mm	1
5530-T-619A or 5530-T-619B*	CR Tibial Insert Trial #6 - 19mm	1
6541-8-008	Triathlon 3-6 CR Upper Tray	1
6541-8-108	Triathlon 3-6 CR Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 31

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Instruments

Ref #	Description	Quantity in kit
Size 1,8 PS preparation and trialing kit contents		
5511-T-101	PS Femoral Trial #1 Left	1
5511-T-102	PS Femoral Trial #1 Right	1
5511-T-801	PS Femoral Trial #8 Left	1
5511-T-802	PS Femoral Trial #8 Right	1
5532-T-109A or 5532-T-109B*	PS Tibial Insert Trial #1 - 9mm	1
5532-T-111A or 5532-T-111B*	PS Tibial Insert Trial #1 - 11mm	1
5532-T-113A or 5532-T-113B*	PS Tibial Insert Trial #1 - 13mm	1
5532-T-116A or 5532-T-116B*	PS Tibial Insert Trial #1 - 16mm	1
5532-T-119A or 5532-T-119B*	PS Tibial Insert Trial #1 - 19mm	1
5532-T-809A or 5532-T-809B*	PS Tibial Insert Trial #8 - 9mm	1
5532-T-811A or 5532-T-811B*	PS Tibial Insert Trial #8 - 11mm	1
5532-T-813A or 5532-T-813B*	PS Tibial Insert Trial #8 - 13mm	1
5532-T-816A or 5532-T-816B*	PS Tibial Insert Trial #8 - 16mm	1
5532-T-819A or 5532-T-819B*	PS Tibial Insert Trial #8 - 19mm	1
6541-5-711	#1 MIS PS Box Cutting Guide	1
6541-5-718	#8 MIS PS Box Cutting Guide	1
6541-2-078	Size 7-8 Keel Punch (Optional)	1
6541-2-601	#1 Universal Tibial Template (Optional)	1
6541-2-608	#8 Universal Tibial Template (Optional)	1
6541-8-113	Triathlon 1 and 8 PS Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 21
LTEMK46	Triathlon CR and Primary Baseplate Acetate Templates	1
LTEMK47	Triathlon PS and Primary Baseplate Acetate Templates	1
		Total quantity 2
Size 1,8 CR preparation and trialing kit contents		
5510-T-101	CR Femoral Trial #1 Left	1
5510-T-102	CR Femoral Trial #1 Right	1
5510-T-801	CR Femoral Trial #8 Left	1
5510-T-802	CR Femoral Trial #8 Right	1
5530-T-109A or 5530-T-109B*	CR Tibial Insert Trial #1 - 9mm	1
5530-T-111A or 5530-T-111B*	CR Tibial Insert Trial #1 - 11mm	1
5530-T-113A or 5530-T-113B*	CR Tibial Insert Trial #1 - 13mm	1
5530-T-116A or 5530-T-116B*	CR Tibial Insert Trial #1 - 16mm	1
5530-T-119A or 5530-T-119B*	CR Tibial Insert Trial #1 - 19mm	1
5530-T-809A or 5530-T-809B*	CR Tibial Insert Trial #8 - 9mm	1
5530-T-811A or 5530-T-811B*	CR Tibial Insert Trial #8 - 11mm	1
5530-T-813A or 5530-T-813B*	CR Tibial Insert Trial #8 - 13mm	1
5530-T-816A or 5530-T-816B*	CR Tibial Insert Trial #8 - 16mm	1
5530-T-819A or 5530-T-819B*	CR Tibial Insert Trial #8 - 19mm	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-601	#1 Universal Tibial Template	1
6541-2-608	#8 Universal Tibial Template	1
6541-8-112	Triathlon 1 and 8 CR Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 19

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Instruments

Ref #	Description	Quantity in kit
Size 2, 7 PS Preparation and Trialing Kit contents		
5511-T-201	PS Femoral Trial #2 Left	1
5511-T-202	PS Femoral Trial #2 Right	1
5511-T-701	PS Femoral Trial #7 Left	1
5511-T-702	PS Femoral Trial #7 Right	1
5532-T-209A or 5532-T-209B*	PS Tibial Insert Trial #2 - 9mm	1
5532-T-211A or 5532-T-211B*	PS Tibial Insert Trial #2 - 11mm	1
5532-T-213A or 5532-T-213B*	PS Tibial Insert Trial #2 - 13mm	1
5532-T-216A or 5532-T-216B*	PS Tibial Insert Trial #2 - 16mm	1
5532-T-219A or 5532-T-219B*	PS Tibial Insert Trial #2 - 19mm	1
5532-T-709A or 5532-T-709B*	PS Tibial Insert Trial #7 - 9mm	1
5532-T-711A or 5532-T-711B*	PS Tibial Insert Trial #7 - 11mm	1
5532-T-713A or 5532-T-713B*	PS Tibial Insert Trial #7 - 13mm	1
5532-T-716A or 5532-T-716B*	PS Tibial Insert Trial #7 - 16mm	1
5532-T-719A or 5532-T-719B*	PS Tibial Insert Trial #7 - 19mm	1
6541-1-702E	#2 Express 4:1 Cutting Block (Optional)	1
6541-1-707E	#7 Express 4:1 Cutting Block (Optional)	1
6541-5-712	#2 MIS PS Box Cutting Guide	1
6541-5-717	#7 MIS PS Box Cutting Guide	1
6541-2-078	Size 7-8 Keel Punch (Optional)	1
6541-2-602	#2 Universal Tibial Template (Optional)	1
6541-2-607	#7 Universal Tibial Template (Optional)	1
6541-8-022	Triathlon 2 and 7 PS Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 23
Size 2, 7 CR Preparation and Trialing Kit contents		
5510-T-201	CR Femoral Trial #2 Left	1
5510-T-202	CR Femoral Trial #2 Right	1
5510-T-701	CR Femoral Trial #7 Left	1
5510-T-702	CR Femoral Trial #7 Right	1
5530-T-209A or 5530-T-209B*	CR Tibial Insert Trial #2 - 9mm	1
5530-T-211A or 5530-T-211B*	CR Tibial Insert Trial #2 - 11mm	1
5530-T-213A or 5530-T-213B*	CR Tibial Insert Trial #2 - 13mm	1
5530-T-216A or 5530-T-216B*	CR Tibial Insert Trial #2 - 16mm	1
5530-T-219A or 5530-T-219B*	CR Tibial Insert Trial #2 - 19mm	1
5530-T-709A or 5530-T-709B*	CR Tibial Insert Trial #7 - 9mm	1
5530-T-711A or 5530-T-711B*	CR Tibial Insert Trial #7 - 11mm	1
5530-T-713A or 5530-T-713B*	CR Tibial Insert Trial #7 - 13mm	1
5530-T-716A or 5530-T-716B*	CR Tibial Insert Trial #7 - 16mm	1
5530-T-719A or 5530-T-719B*	CR Tibial Insert Trial #7 - 19mm	1
6541-1-702E	#2 Express 4:1 Cutting Block	1
6541-1-707E	#7 Express 4:1 Cutting Block	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
6541-8-021	Triathlon 2 and 7 CR Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 21

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Instruments

Ref #	Description	Quantity in kit
Size 1-8 Max PS Tibial Trialing Kit contents		
5532-T-122A*	PS Tibial Insert Trial # 1 - 22mm	1
5532-T-125A*	PS Tibial Insert Trial # 1 - 25mm	1
5532-T-222A*	PS Tibial Insert Trial # 2 - 22mm	1
5532-T-225A*	PS Tibial Insert Trial # 2 - 25mm	1
5532-T-322A*	PS Tibial Insert Trial # 3 - 22mm	1
5532-T-325A*	PS Tibial Insert Trial # 3 - 25mm	1
5532-T-422A*	PS Tibial Insert Trial # 4 - 22mm	1
5532-T-425A*	PS Tibial Insert Trial # 4 - 25mm	1
5532-T-522A*	PS Tibial Insert Trial # 5 - 22mm	1
5532-T-525A*	PS Tibial Insert Trial # 5 - 25mm	1
5532-T-622A*	PS Tibial Insert Trial # 6 - 22mm	1
5532-T-625A*	PS Tibial Insert Trial # 6 - 25mm	1
5532-T-722A*	PS Tibial Insert Trial # 7 - 22mm	1
5532-T-725A*	PS Tibial Insert Trial # 7 - 25mm	1
5532-T-822A*	PS Tibial Insert Trial # 8 - 22mm	1
5532-T-825A*	PS Tibial Insert Trial # 8 - 25mm	1
6541-8-120	Triathlon 1-8 Max PS - Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 18
CR Solid Insert Trialing tray		
5530-T-109Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 9mm	1
5530-T-110Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 10mm	1
5530-T-111Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 11mm	1
5530-T-112Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 12mm	1
5530-T-113Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 13mm	1
5530-T-114Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 14mm	1
5530-T-116Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 16mm	1
5530-T-119Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 19mm	1
5530-T-209Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 9mm	1
5530-T-210Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 10mm	1
5530-T-211Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 11mm	1
5530-T-212Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 12mm	1
5530-T-213Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 13mm	1
5530-T-214Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 14mm	1
5530-T-216Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 16mm	1
5530-T-219Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 19mm	1
5530-T-309Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 9mm	1
5530-T-310Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 10mm	1
5530-T-311Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 11mm	1
5530-T-312Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 12mm	1
5530-T-313Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 13mm	1

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Instruments

Ref #	Description	Quantity
CR Solid Insert Trialing Tray (continued)		
5530-T-314Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 14mm	1
5530-T-316Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 16mm	1
5530-T-319Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 19mm	1
5530-T-409Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 9mm	1
5530-T-410Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 10mm	1
5530-T-411Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 11mm	1
5530-T-412Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 12mm	1
5530-T-413Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 13mm	1
5530-T-414Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 14mm	1
5530-T-416Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 16mm	1
5530-T-419Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 19mm	1
5530-T-509Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 9mm	1
5530-T-511Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 11mm	1
5530-T-512Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 12mm	1
5530-T-513Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 13mm	1
5530-T-514Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 14mm	1
5530-T-516Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 16mm	1
5530-T-519Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 19mm	1
5530-T-609Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 9mm	1
5530-T-610Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 10mm	1
5530-T-611Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 11mm	1
5530-T-612Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 12mm	1
5530-T-613Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 13mm	1
5530-T-614Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 14mm	1
5530-T-616Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 16mm	1
5530-T-619Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 19mm	1
5530-T-709Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 9mm	1
5530-T-710Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 10mm	1
5530-T-711Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 11mm	1
5530-T-712Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 12mm	1
5530-T-713Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 13mm	1
5530-T-714Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 14mm	1
5530-T-716Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 16mm	1
5530-T-719Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 19mm	1
5530-T-809Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 9mm	1
5530-T-810Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 10mm	1
5530-T-811Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 11mm	1
5530-T-812Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 12mm	1
5530-T-813Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 13mm	1
5530-T-814Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 14mm	1
5530-T-816Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 16mm	1
5530-T-819Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 19mm	1
6541-9-100	Triathlon CR Insert Trial Tray (Size 1-8)	1
		Total quantity 65

Instruments

Ref #	Description	Quantity
PS Solid Insert Trialing Tray		
5532-T-109Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 9mm	1
5532-T-110Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 10mm	1
5532-T-111Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 11mm	1
5532-T-112Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 12mm	1
5532-T-113Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 13mm	1
5532-T-114Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 14mm	1
5532-T-116Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 16mm	1
5532-T-119Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 19mm	1
5532-T-122Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 22mm	1
5532-T-209Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 9mm	1
5532-T-210Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 10mm	1
5532-T-211Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 11mm	1
5532-T-212Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 12mm	1
5532-T-213Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 13mm	1
5532-T-214Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 14mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-219Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 19mm	1
5532-T-222Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 22mm	1
5532-T-309Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 9mm	1
5532-T-310Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 10mm	1
5532-T-311Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 11mm	1
5532-T-312Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 12mm	1
5532-T-313Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 13mm	1
5532-T-314Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 14mm	1
5532-T-316Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 16mm	1
5532-T-319Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 19mm	1
5532-T-322Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 22mm	1
5532-T-409Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 9mm	1
5532-T-410Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 10mm	1
5532-T-411Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 11mm	1
5532-T-412Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 12mm	1
5532-T-413Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 13mm	1
5532-T-414Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 14mm	1
5532-T-416Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 16mm	1
5532-T-419Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 19mm	1
5532-T-422Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 22mm	1
5532-T-509Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 9mm	1
5532-T-510Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 10mm	1
5532-T-511Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 11mm	1
5532-T-512Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 12mm	1
5532-T-513Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 13mm	1
5532-T-514Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 14mm	1
5532-T-516Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 16mm	1
5532-T-519Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 19mm	1

Instruments

Ref #	Description	Quantity
PS Solid Insert Trialing Tray (continued)		
5532-T-522Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 22mm	1
5532-T-609Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 9mm	1
5532-T-610Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 10mm	1
5532-T-611Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 11mm	1
5532-T-612Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 12mm	1
5532-T-613Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 13mm	1
5532-T-614Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 14mm	1
5532-T-616Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 16mm	1
5532-T-619Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 19mm	1
5532-T-622Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 22mm	1
5532-T-709Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 9mm	1
5532-T-710Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 10mm	1
5532-T-711Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 11mm	1
5532-T-712Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 12mm	1
5532-T-713Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 13mm	1
5532-T-714Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 14mm	1
5532-T-716Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 16mm	1
5532-T-719Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 19mm	1
5532-T-722Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 22mm	1
5532-T-809Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 9mm	1
5532-T-810Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 10mm	1
5532-T-811Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 11mm	1
5532-T-812Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 12mm	1
5532-T-813Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 13mm	1
5532-T-814Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 14mm	1
5532-T-816Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 16mm	1
5532-T-819Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 19mm	1
5532-T-822Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 22mm	1
6541-9-102	Triathlon PS Insert Trial Tray (Size 1-8)	1
		Total quantity 73

Note: The above tray is optional to accommodate 10mm, 12mm and 14mm trials. All trials of other thickness listed in this protocol are interchangeable in all existing trays.

CS Solid Insert Trialing Tray

5531-T-109Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 9mm	1
5531-T-110Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 10mm	1
5531-T-111Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 11mm	1
5531-T-112Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 12mm	1
5531-T-113Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 13mm	1
5531-T-114Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 14mm	1
5531-T-116Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 16mm	1
5531-T-119Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 19mm	1
5531-T-122Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 22mm	1
5531-T-209Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 9mm	1
5531-T-210Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 10mm	1
5531-T-211Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 11mm	1
5531-T-212Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 12mm	1
5531-T-213Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 13mm	1
5531-T-214Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 14mm	1
5531-T-216Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 16mm	1
5531-T-219Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 19mm	1
5531-T-222Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 22mm	1
5531-T-309Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 9mm	1

Instruments

Ref #	Description	Quantity
CS Solid Insert Trialing Tray (continued)		
5531-T-310Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 10mm	1
5531-T-311Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 11mm	1
5531-T-312Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 12mm	1
5531-T-313Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 13mm	1
5531-T-314Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 14mm	1
5531-T-316Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 16mm	1
5531-T-319Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 19mm	1
5531-T-322Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 22mm	1
5531-T-409Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 9mm	1
5531-T-410Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 10mm	1
5531-T-411Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 11mm	1
5531-T-412Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 12mm	1
5531-T-413Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 13mm	1
5531-T-414Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 14mm	1
5531-T-416Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 16mm	1
5531-T-419Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 19mm	1
5531-T-422Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 22mm	1
5531-T-509Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 9mm	1
5531-T-510Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 10mm	1
5531-T-511Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 11mm	1
5531-T-512Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 12mm	1
5531-T-513Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 13mm	1
5531-T-514Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 14mm	1
5531-T-516Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 16mm	1
5531-T-519Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 19mm	1
5531-T-522Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 22mm	1
5531-T-609Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 9mm	1
5531-T-610Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 10mm	1
5531-T-611Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 11mm	1
5531-T-612Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 12mm	1
5531-T-613Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 13mm	1
5531-T-614Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 14mm	1
5531-T-616Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 16mm	1
5531-T-619Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 19mm	1
5531-T-622Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 22mm	1
5531-T-709Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 9mm	1
5531-T-710Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 10mm	1
5531-T-711Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 11mm	1
5531-T-712Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 12mm	1
5531-T-713Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 13mm	1
5531-T-714Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 14mm	1
5531-T-716Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 16mm	1
5531-T-719Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 19mm	1
5531-T-722Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 22mm	1
5531-T-809Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 9mm	1
5531-T-810Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 10mm	1
5531-T-811Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 11mm	1
5531-T-812Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 12mm	1
5531-T-813Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 13mm	1
5531-T-814Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 14mm	1
5531-T-816Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 16mm	1
5531-T-819Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 19mm	1
5531-T-822Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 22mm	1
6541-9-101	Triathlon CS Insert Trial Tray (Size 1-8)	1
		Total quantity 73

Note: The above tray is optional to accommodate 10mm, 12mm and 14mm trials. All trials of other thickness listed in this protocol are interchangeable in all existing trays.

Instruments

Ref #	Description	Quantity
Triathlon Cementless Baseplate preparation		
6541-6-013	Sizes 1-3 Cementless Keel Punch	1
6541-6-046	Sizes 4-6 Cementless Keel Punch	1
6541-6-078	Sizes 7-8 Cementless Keel Punch	1
6541-8-003	Triathlon Cementless Case	1
Triathlon PS box preparation (optional) part numbers		
6541-5-212	Sizes 1-2 Triathlon PS Femoral Finishing Punch	1
6541-5-234	Sizes 3-4 Triathlon PS Femoral Finishing Punch	1
6541-5-256	Sizes 5-6 Triathlon PS Femoral Finishing Punch	1
6541-5-278	Sizes 7-8 Triathlon PS Femoral Finishing Punch	1
6541-5-814	Sizes 1-4 Triathlon PS Femoral Box Trial/Protector	1
6541-5-858	Sizes 5-8 Triathlon PS Femoral Box Trial/Protector	1
6541-8-122	Triathlon PS Box Preparation Sizes 1-8 Tray	1
Sterile Pins (optional) part numbers		
7650-2038A	Fluted Headless 1/8″ Pin (3.5″)	4
6541-4-004	Headed Threaded Pin Short (3.2″)	4
6541-4-006	Headless Threaded Pin Short (3.2″)	4

Implants

Ref #	Description	Sizes	Quantity
Triathlon CR Femoral Component - Cemented part numbers			
5510-F-X01	Triathlon CR Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5510-F-X02	Triathlon CR Femoral Component - Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon CR Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5517-F-X01	Triathlon CR Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5517-F-X02	Triathlon CR Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Component - Cemented part numbers			
5515-F-X01	Triathlon PS Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5515-F-X02	Triathlon PS Femoral Component - Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5516-F-X01	Triathlon PS Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5516-F-X02	Triathlon PS Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Cemented			
5520-B-X00	Triathlon Primary Tibial Baseplate-Cemented	X= 0,1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite			
5526-B-X00	Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite	X= 1,2,3,4,5,6,7,8	1 each size
Modular Femoral Distal Fixation Peg part number			
5575-X-000	Modular Femoral Distal Fixation Peg (2 per pack)		

Ref #	Description	Sizes	Quantity
Triathlon CR Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5530-P-X09	Triathlon CR Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X10	Triathlon CR Tibial Insert - Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X11	Triathlon CR Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X12	Triathlon CR Tibial Insert - Conventional Polyethylene 12mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X13	Triathlon CR Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X14	Triathlon CR Tibial Insert - Conventional Polyethylene 14mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X16	Triathlon CR Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X19	Triathlon CR Tibial Insert - Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5530-G-X09 or 5530-G-X09-E	Triathlon CR Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X10-E	Triathlon CR Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X11 or 5530-G-X11-E	Triathlon CR Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X12-E	Triathlon CR Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X13 or 5530-G-X13-E	Triathlon CR Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X14-E	Triathlon CR Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X16 or 5530-G-X16-E	Triathlon CR Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X19 or 5530-G-X19-E	Triathlon CR Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size

Implants

Ref #	Description	Sizes	Quantity
Triathlon CS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5531-P-X09	Triathlon CS Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X10	Triathlon CS Tibial Insert - Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X11	Triathlon CS Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X12	Triathlon CS Tibial Insert - Conventional Polyethylene 12mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X13	Triathlon CS Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X14	Triathlon CS Tibial Insert - Conventional Polyethylene 14mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X16	Triathlon CS Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X19	Triathlon CS Tibial Insert - Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X22	Triathlon CS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5531-G-X09 or 5531-G-X09-E	Triathlon CS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X10-E	Triathlon CS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X11 or 5531-G-X11-E	Triathlon CS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X12-E	Triathlon CS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X13 or 5531-G-X13-E	Triathlon CS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X14-E	Triathlon CS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X16 or 5531-G-X16-E	Triathlon CS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X19 or 5531-G-X19-E	Triathlon CS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X22 or 5531-G-X22-E	Triathlon CS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5532-P-X09	Triathlon PS Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X10	Triathlon PS Tibial Insert - Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X11	Triathlon PS Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X12	Triathlon PS Tibial Insert - Conventional Polyethylene 12mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X13	Triathlon PS Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X14	Triathlon PS Tibial Insert - Conventional Polyethylene 14mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X16	Triathlon PS Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X19	Triathlon PS Tibial Insert - Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X22	Triathlon PS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size

Implants

Ref #	Description	Sizes	Quantity
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers (continued)			
X3 Inserts			
5532-G-X09 or 5532-G-X09-E	Triathlon PS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X10-E	Triathlon PS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X11 or 5532-G-X11-E	Triathlon PS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X12-E	Triathlon PS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X13 or 5532-G-X13-E	Triathlon PS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X14-E	Triathlon PS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X16 or 5532-G-X16-E	Triathlon PS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X19 or 5532-G-X19-E	Triathlon PS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X22 or 5532-G-X22-E	Triathlon PS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PSR Tibial Inserts – X3 part numbers			
8532-G-X09-E	Triathlon PSR Tibial Insert – X3 9mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X10-E	Triathlon PSR Tibial Insert – X3 10mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X11-E	Triathlon PSR Tibial Insert – X3 11mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X12-E	Triathlon PSR Tibial Insert – X3 12mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X14-E	Triathlon PSR Tibial Insert – X3 14mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X16-E	Triathlon PSR Tibial Insert – X3 16mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X19-E	Triathlon PSR Tibial Insert – X3 19mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X22-E	Triathlon PSR Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size

Note: PS tibia insert trial can be used for both PS and PSR inserts

Symmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5550-L-278	Symmetric Patella - Conventional Polyethylene	S27mm x 8mm	1 each size
5550-L-298	Symmetric Patella - Conventional Polyethylene	S29mm x 8mm	1 each size
5550-L-319	Symmetric Patella - Conventional Polyethylene	S31mm x 9mm	1 each size
5550-L-339	Symmetric Patella - Conventional Polyethylene	S33mm x 9mm	1 each size
5550-L-360	Symmetric Patella - Conventional Polyethylene	S36mm x 10mm	1 each size
5550-L-391	Symmetric Patella - Conventional Polyethylene	S39mm x 11mm	1 each size
X3 Patellas			
5550-G-278 or 5550-G-278-E	Symmetric Patella - X3	S27mm x 8mm	1 each size
5550-G-298 or 5550-G-298-E	Symmetric Patella - X3	S29mm x 8mm	1 each size
5550-G-319 or 5550-G-319-E	Symmetric Patella - X3	S31mm x 9mm	1 each size
5550-G-339 or 5550-G-339-E	Symmetric Patella - X3	S33mm x 9mm	1 each size
5550-G-360 or 5550-G-360-E	Symmetric Patella - X3	S36mm x 10mm	1 each size
5550-G-391 or 5550-G-391-E	Symmetric Patella - X3	S39mm x 11mm	1 each size

Implants

Ref #	Description	Sizes	Quantity
Asymmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5551-L-299	Asymmetric Patella - Conventional Polyethylene	A29mm (S/I*) x 9mm	1 each size
5551-L-320	Asymmetric Patella - Conventional Polyethylene	A32mm (S/I*) x 10mm	1 each size
5551-L-350	Asymmetric Patella - Conventional Polyethylene	A35mm (S/I*) x 10mm	1 each size
5551-L-381	Asymmetric Patella - Conventional Polyethylene	A38mm (S/I*) x 11mm	1 each size
5551-L-401	Asymmetric Patella - Conventional Polyethylene	A40mm (S/I*) x 11mm	1 each size
X3 Patellas			
5551-G-299 or 5551-G-299-E	Asymmetric Patella - X3	A29mm (S/I*) x 9mm	1 each size
5551-G-320 or 5551-G-320-E	Asymmetric Patella - X3	A32mm (S/I*) x 10mm	1 each size
5551-G-350 or 5551-G-350-E	Asymmetric Patella - X3	A35mm (S/I*) x 10mm	1 each size
5551-G-381 or 5551-G-381-E	Asymmetric Patella - X3	A38mm (S/I*) x 11mm	1 each size
5551-G-401 or 5551-G-401-E	Asymmetric Patella - X3	A40mm (S/I*) x 11mm	1 each size

*S/I - Superior/Inferior

Asymmetric Patella – Metal-Backed Beaded w/ Peri-Apatite*+			
Conventional Polyethylene Patellas			
5554-L-320+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A32mm (S/I*) x 10mm	1
5554-L-350+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A35mm (S/I*) x 10mm	1
5554-L-381+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A38mm (S/I*) x 11mm	1
5554-L-401+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A40mm (S/I*) x 11mm	1

*S/I – Superior/Inferior

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Triathlon® Knee System

MIS instruments

Contents

Exposure

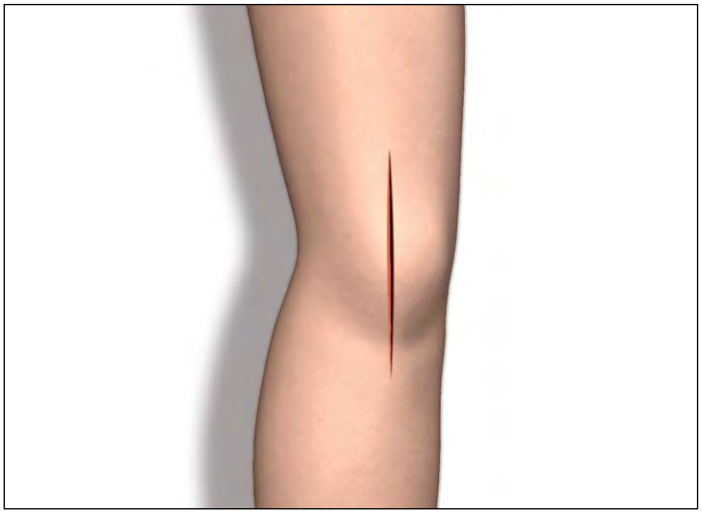

Figure 1

Tibial preparation

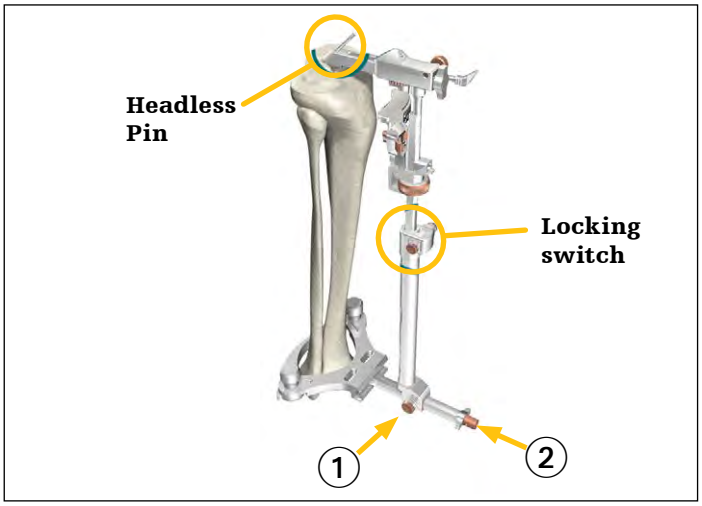

Figure 2

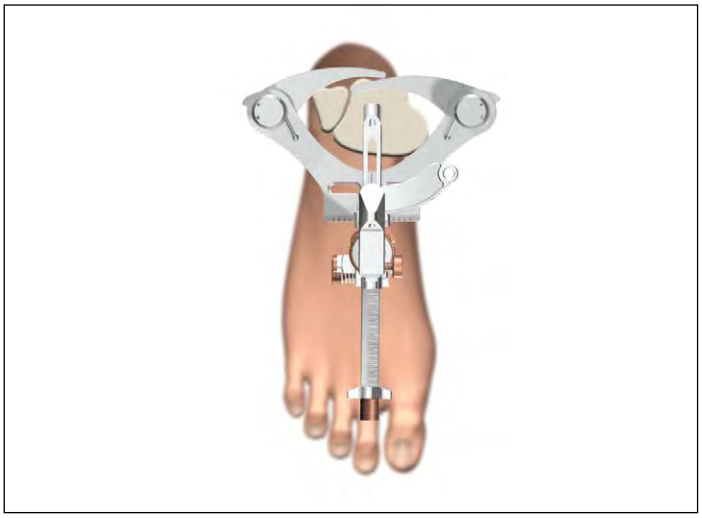

Figure 3

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Exposure

A standard anterior midline incision is utilized. Any previous incision can be used or incorporated to decrease risk of skin slough.

The capsule is entered through a modified mid-vastus approach, which makes a 6-12cm skin incision medial to the patella from just above the tibial tubercle to just above the patella.

Use a soft tissue approach that allows adequate patella visualization and sufficient.

This surgical technique describes cutting the tibia first, followed by the femur and then patella. The sequence may be varied based upon surgeon preference.

Tibial preparation

If the patella or tibia is resected early in the procedure, then an appropriate sized Tibial Protector Plate or Patella Protector Plate may be applied to prevent damage from retractors or sawblades.

In some patients it may be difficult to cut the femur first and get proper rotation due to the tibia being in the way of the placement of the Femoral Sizer. In these cases it may be beneficial to cut the distal femur, then tibia and then go back to size and finish the femoral cuts.

The tibia is prepared using the Triathlon extramedullary alignment system. Retractors may be placed medially, laterally and posteriorly to expose the tibial plateau for preparation. Optional side-specific Lateral Tibial Retractors are available. It is important to remove all osteophytes, menisci and remaining soft tissues. Menisci can be removed before or after the bone cut. If the PCL has been retained, an optional Anterior Femoral Retractor is available to cradle the PCL for increased exposure. The knee is flexed anywhere from 45° to more than 90° of flexion depending on surgeon preference. The tibia may be subluxed or dislocated as required.

The tibial plateau referencing arm of the Proximal Rod is placed on the proximal tibia just anterior to the ACL insertion. A rongeur may remove any osteophytes that prevent satisfactory positioning.

Rotational alignment

The assembly must be in the proper rotational alignment. The most common landmark referenced is the tibial tubercle. The assembly should be aligned with the medial third of the tibial tubercle.

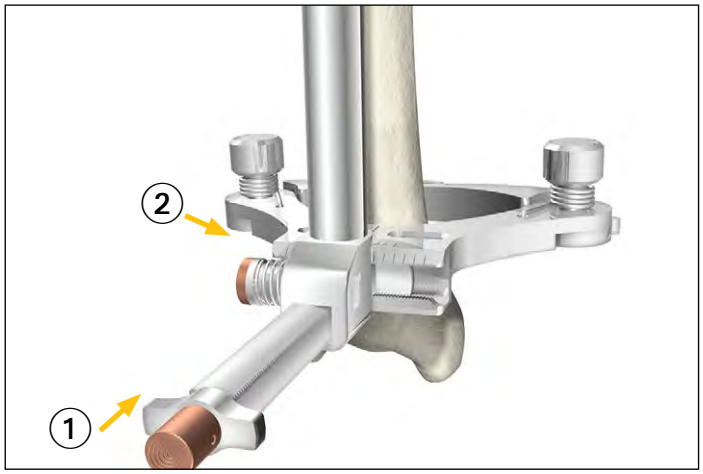

Figure 4

Once the rotational alignment is determined, a Headless Pin is placed through the posterior fixation hole in the proximal assembly to lock it in place. Either the anterior or posterior fixation holes may be used to set the flexion extension and rotational alignment.

Varus-valgus alignment

Once the proximal portion of the assembly is fixed, varus-valgus alignment can be attained by adjusting the Distal Assembly to the proper medial/lateral position. The position should be in the center of the talus, not the center of the ankle. The center of the talus usually resides 5 to 10mm medial to the mid-point between the medial and lateral malleoli.

Medial/lateral offset can be adjusted by pushing the bronze button on the anterior portion of the Distal Assembly ①. Once alignment is achieved, the bronze button is released and the assembly is fixed in place.

Attach the Universal Alignment Handle to the Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment.

When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.

The proper tibial resection should be 0° in the coronal plane of the tibia.

Flexion-extension alignment

Once rotational alignment is determined, the ankle clamp is placed proximal to the ankle. The Distal Assembly locking switch, located approximately halfway up the rod, is then locked. Adjustments to the flexion extension alignment can be made by depressing the button located on the inferior left hand side of the Distal Assembly ②.

Flexion and extension alignment is proper when the long axis of the assembly parallels the weight-bearing axis of the tibia in both the coronal and sagittal planes. Usually, there is less space between the assembly and the tibia proximally than there is distally. Alignment can be verified using the Universal Alignment Handle and Universal Alignment Rod, which can be assembled to the anterior inferior hole on the Tibial Adjustment Housing.

The proper tibial resection should be 0° to 3° in the sagittal plane, depending on surgeon preference and the type of implant used.

- **Note:** It is important that there is no anterior slope in the tibial resection.

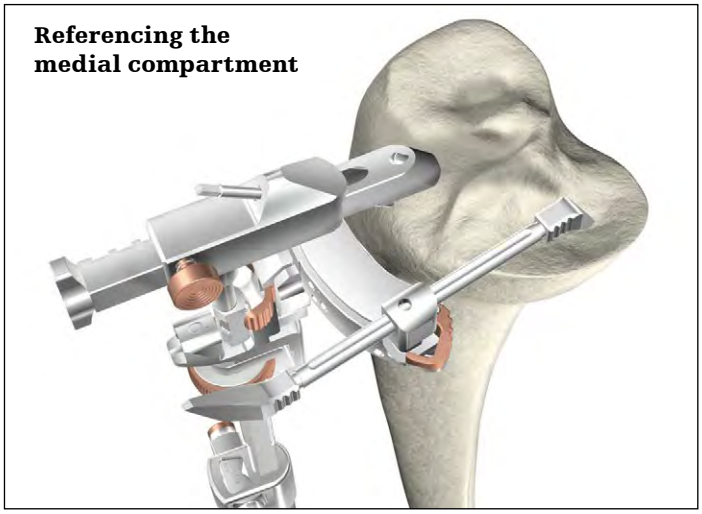

Figure 5

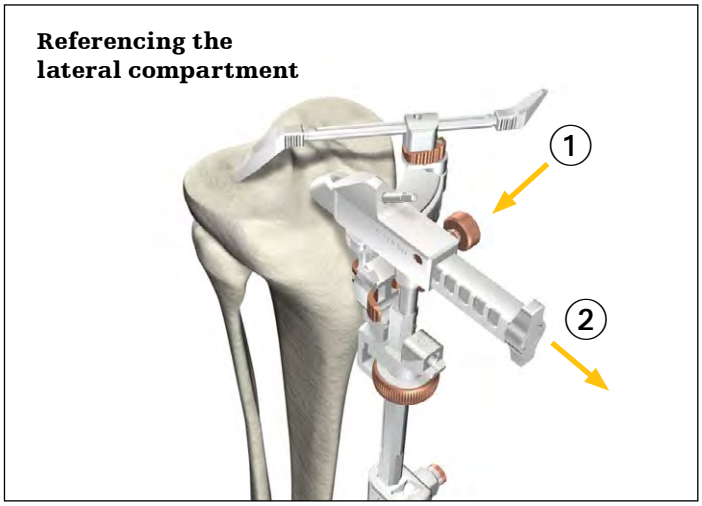

Figure 6

Establishing the tibial resection level

Once the tibial assembly is fixed in place, the tibial resection level must be established using the Tibial Stylus. This attaches to the Tibial Resection Guide referencing either the lowest level of the affected compartment or the highest level of the unaffected compartment. Typically, in a varus knee, the lateral compartment is relatively unaffected so placing the "9" referencing end on the unaffected lateral side will insure at least a 9mm thickness for the tibial component. If the surgeon desires a thicker tibial component or if there is a defect on the medial side of the tibia necessitating resection, further resection can be made.

To reference the lateral compartment, retraction of the proximal rod arm is performed by pressing the bronze button ① and sliding the arm away from the knee ②.

Alternatively, by placing the Tibial Resection Guide with the "2" referencing end, the resection carried out would be 2mm lower then the point chosen. For a coarse gross adjustment, the bronze wheel can be pressed and the assembly slid up or down. For the final fine adjustment, the bronze wheel is turned to the right to move the assembly up the proximal rod or turned left to move the assembly down the proximal rod.

- **Tip:** When using the Stylus, it is important to make sure the construct is under tension. This will ensure adequate resection levels.

Once the final position is chosen, two Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins are drilled into the "0" neutral holes securing the level of the Tibial Resection Guide. For additional stability, the oblique "X" pinhole can be utilized. Once the Tibial Resection Guide is secured, all alignment instruments are removed.

Alternatively, one can reference a 14mm resection off of the ACL footprint. This correlates with a 10mm resection level off of the lateral tibial plateau and an 8mm resection off of the medial tibial plateau.

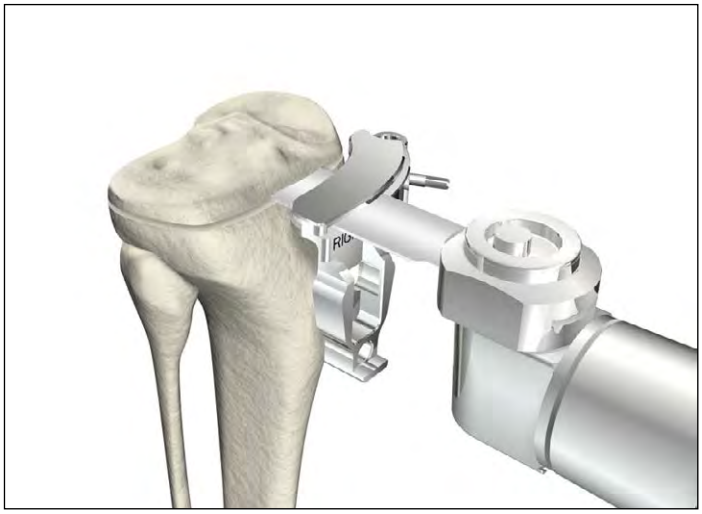

Figure 7

Final tibial resection

Prior to final tibial resection, an optional external alignment check may be performed. Attach the Universal Alignment Handle to the Tibial Resection Guide and insert a Universal Alignment Rod into the handle.

Alignment is correct when the rod intersects the center of the ankle and parallels the axis of the tibia in the sagittal view.

Once all alignment instruments are removed leaving the Tibial Resection Guide in place, the proximal tibia is osteotomized using either the right or left captured or uncaptured Tibial Resection Guide. If the entire resection cannot be completed, the guide is removed and the resection completed freehand. Care must always be taken not to injure the patella tendon or collateral ligaments. Often some bone is left unresected near the posterior aspect of the lateral tibial plateau and the anterior aspect of the lateral tibial plateau near Gerdy's tubercle. Once the resection guide is removed, final resection can be completed either with an oscillating saw or a rongeur.

- **Note:** Leaving the pins in place will allow for an additional 2mm or 4mm of tibial resection. The pins must be removed prior to cutting the tibial keel.

Femoral preparation

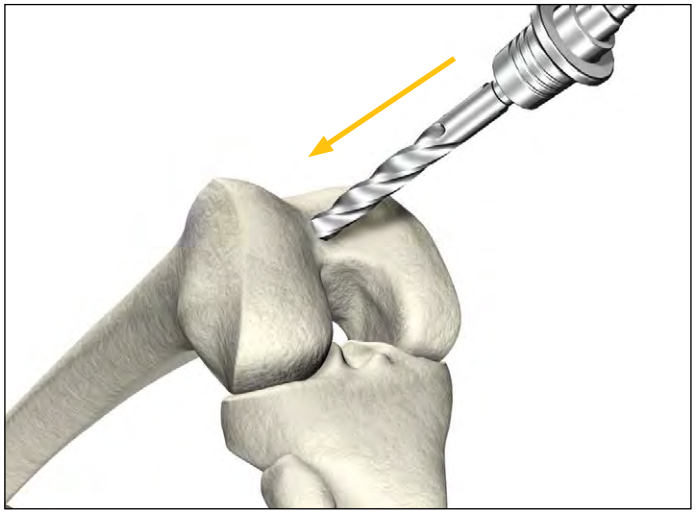

Figure 8

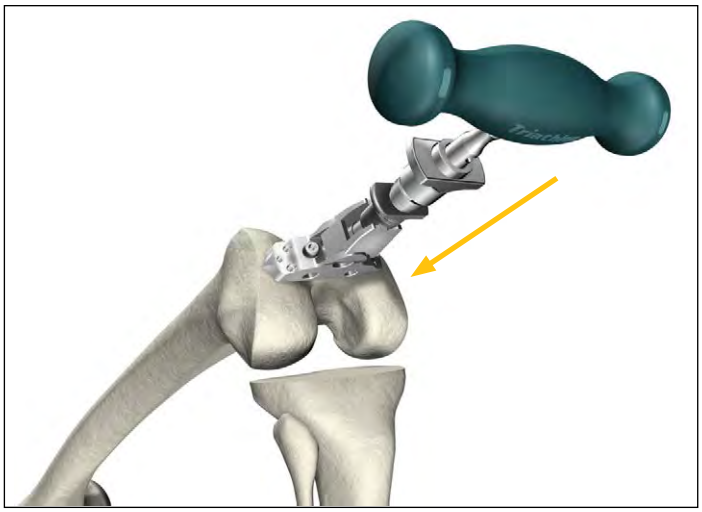

Figure 9

Femoral intramedullary alignment

The universal driver allows for attachment of all drills and pins. The universal driver may be attached directly to a reamer, drill or a Jacobs chuck.

There are two options available for femoral intramedullary alignment: the FLEX IM Rod or the 5/16" IM Rod.

Option A: Flex IM Rod

Locate the IM Drill hole; it is as close to the PCL insertion as possible and slightly medial to the midline of the distal femur.

Attach the 3/8" IM drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur.

The hole should not be enlarged and the drill should not be "toggled." The FLEX IM Rod that references this hole will be easier to insert as it conforms to the anterior bow of the femur without the resistance felt with rigid IM Rods.

Attach the T-Handle driver to the FLEX IM Rod. The "ANTERIOR" engraving on the FLEX IM Rod should be aligned to the Triathlon logo of the T-Handle.

Insert the IM Rod into the Femoral Alignment Guide. These guides are designed for use on either the left or right knee and may be set between 2° and 9° of valgus.

Set the instrument to the desired angle by pulling back on the black knob of the MIS Femoral Alignment Guide and placing it in the appropriate notch. Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be parallel to the transepicondylar axis. Insert the IM Rod into the Femoral Alignment Guide. These guides are designed for use on either the left or right knee and may be set between 2° and 9° of the valgus.

Set the instrument to the desired angle. Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be aligned to the posterior condyles.

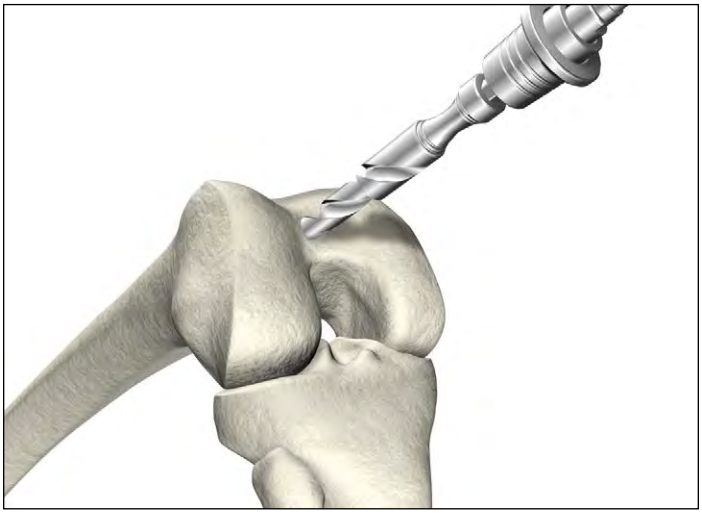

Figure 10

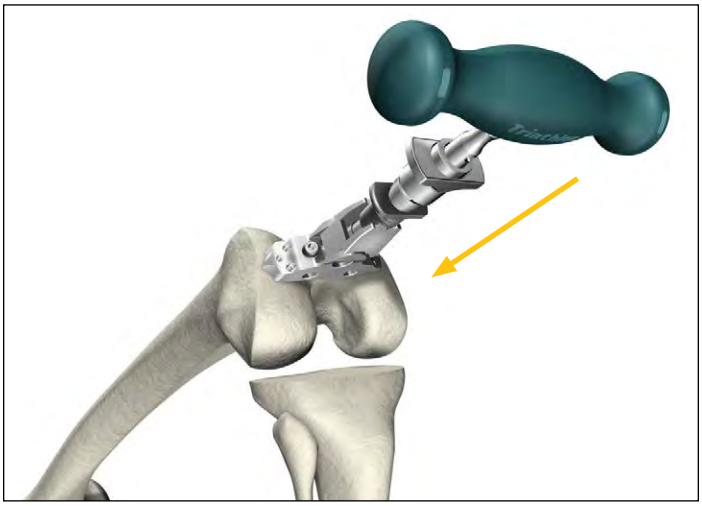

Figure 11

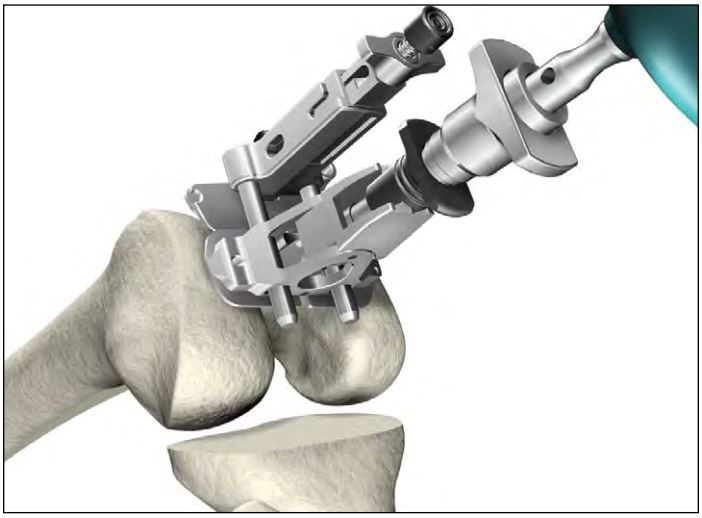

Figure 12

Option 2: 5/16" IM Rod

Locate the IM drill hole; it is approximately 1cm anterior to the femoral attachment of the posterior cruciate ligament and slightly medial to the midline of the distal femur.

Identification of landmarks may be aided by removal of osteophytes from the margins of the intercondylar notch.

Attach the 3/8" IM Drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur. The first diameter will create a tight fit around the IM Rod. If further clearance is desired, continue to drill until the larger step diameter opens the hole. This will allow the IM canal to dictate the position of the rod avoiding the need to "toggle" the drill to create clearance.

Attach the T-Handle Driver to the 5/16" IM Rod. Insert the IM Rod into the MIS Femoral Alignment Guide. The MIS Femoral Alignment Guide is designed for use on either the left or right knee and may be set between 2° and 9° of valgus

- **Note:** This is typically set between 5° and 7°.

Set the instrument to the desired angle by pulling back on the black knob of the MIS Femoral Alignment Guide and placing it in the appropriate notch.

Advance the rod, with attached guide, slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle.

Snap the MIS Distal Resection Guide onto the MIS Adjustment Block and insert the posts of the MIS Adjustment Block into the two holes in the MIS Femoral Alignment Guide.

Place the MIS Femoral Alignment Guide in contact with the more prominent distal femoral condyle and align the guide in neutral I/E rotation. The guide face is angled at 3° and has a tick mark to reference Whiteside's line to set I/E rotation, if desired.

Insert Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins into the converging pinholes on the MIS Femoral Alignment Guide to aid in stabilization.

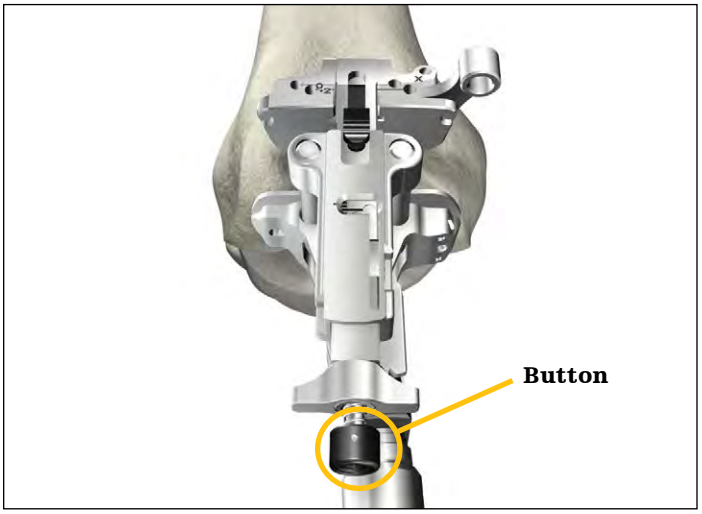

Figure 13

Position the leg in 45°-60° of flexion.

The MIS Adjustment Block allows for a 2mm through 12mm resection level.

Press the black button on the end of the MIS Adjustment Block and push/pull the carrier to set the resection to the desired level.

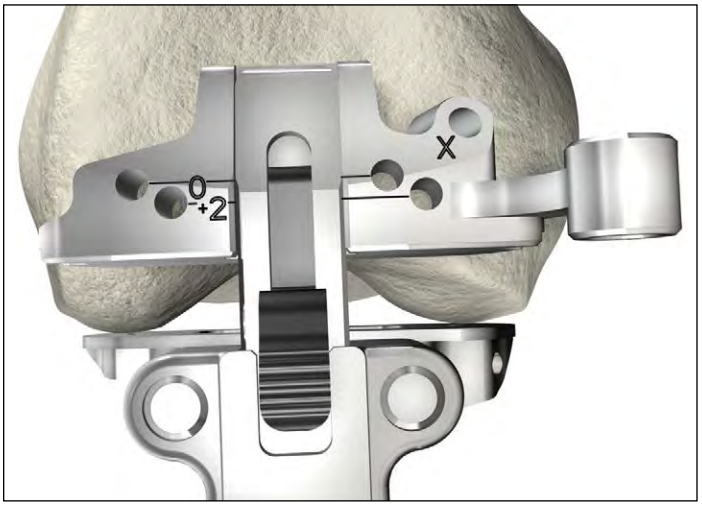

Figure 14

The Triathlon MIS Knee System Instruments allow for a clear view of the bone that is being resected to ensure the appropriate level is set.

Slide the Adjustment Block Assembly posteriorly within the Femoral Alignment Guide until the MIS Distal Resection Guide contacts the anterior surface of the femur.

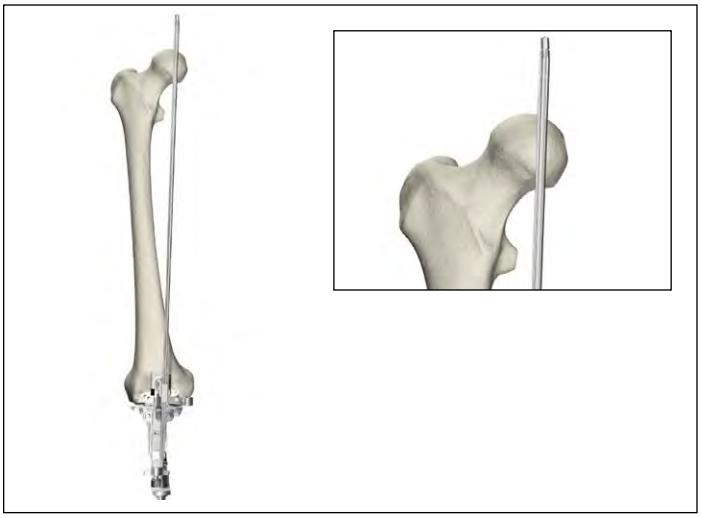

Figure 15

Optional check

Prior to pinning the MIS Distal Resection Guide to the femur, an optional external alignment check may be performed. Attach the Universal Alignment Handle to the MIS Resection Guide and insert a Universal Alignment Rod into the handle.

Alignment is correct when the rod intersects the center of the femoral head and parallels the axis of the femur in the lateral view.

Once satisfactory alignment is achieved, remove the Universal Alignment Handle and the Universal Alignment Rod.

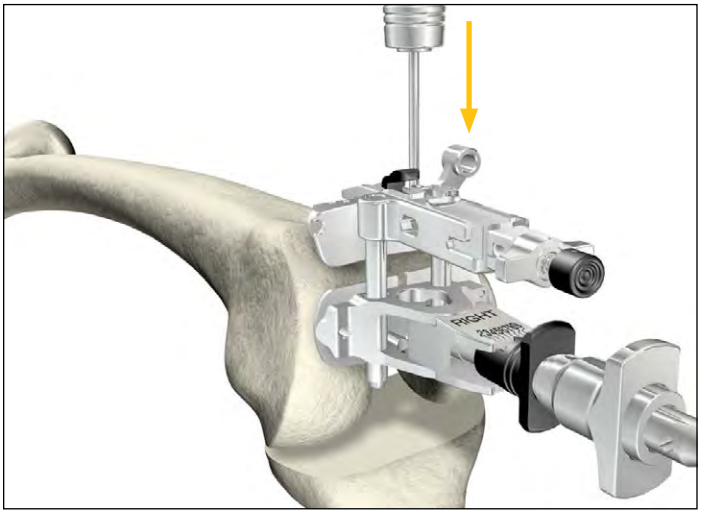

Figure 16

Pin the MIS Distal Resection Guide to the anterior femur using Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins. Insert the pins into the Headless Pin Driver (which is inserted into the Universal Driver) and drill through the set of holes marked "0" on the MIS Distal Resection Guide. The pins are automatically released from the driver as it is pulled back.

- **Note:** Ensure that 1/2" of the pin is protruding from all guides after insertion. This will aid in pin removal.

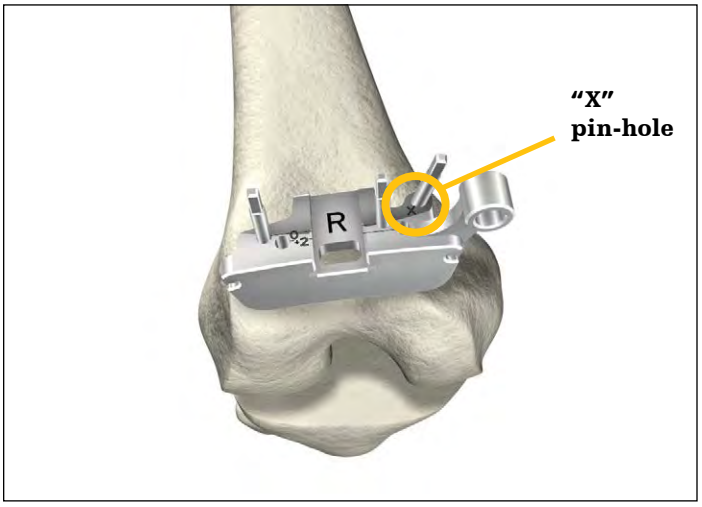

Figure 17

Pinning through the "X" pin-hole will aid in further securing the guide.

After the MIS Distal Resection Guide is pinned in place, remove Headless Pins from the Femoral Alignment Guide and remove the IM Rod. Press the black button on the top of the Adjustment Block to remove the Femoral Alignment Guide and the Adjustment Block.

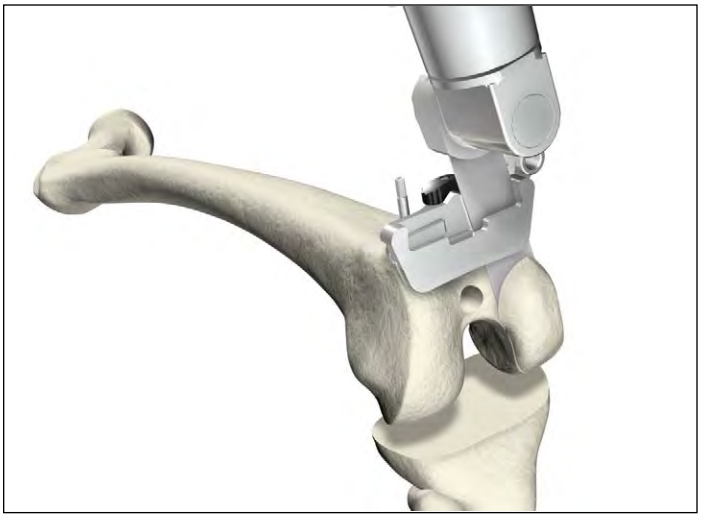

Figure 18

Distal femoral resection

The distal resection level may be altered by repositioning the MIS Distal Resection Guide in the two holes. This will remove an additional 2mm of bone.

Once the final resection level is determined, the distal femoral resection is made. An optional Modular Capture can be attached to the MIS Distal Resection Guide.

The Triathlon MIS Knee System Instruments are designed to provide control of the sawblade during bone resections. When using captures or cutting through slots, a .050" (1.25mm) thick blade is used.

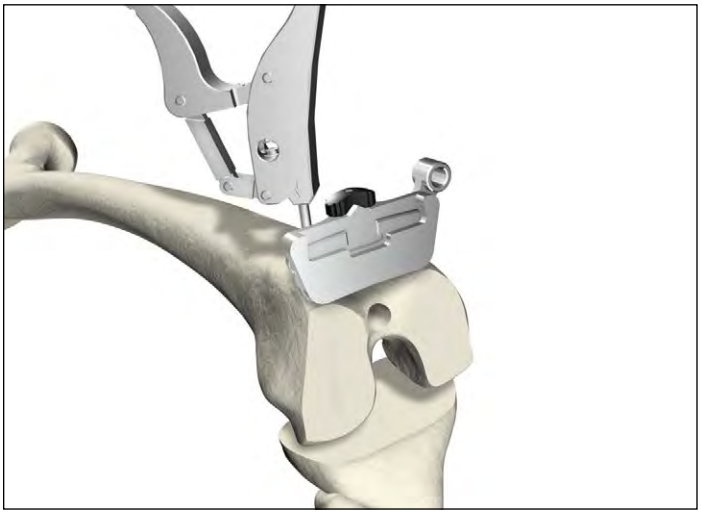

Figure 19

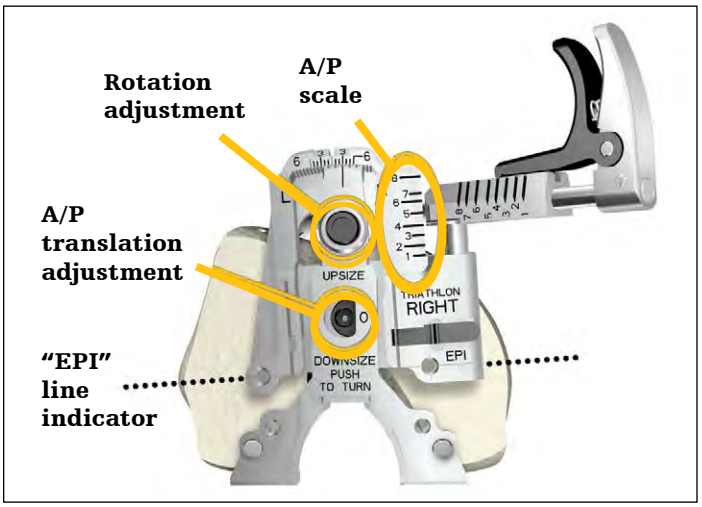

Figure 20

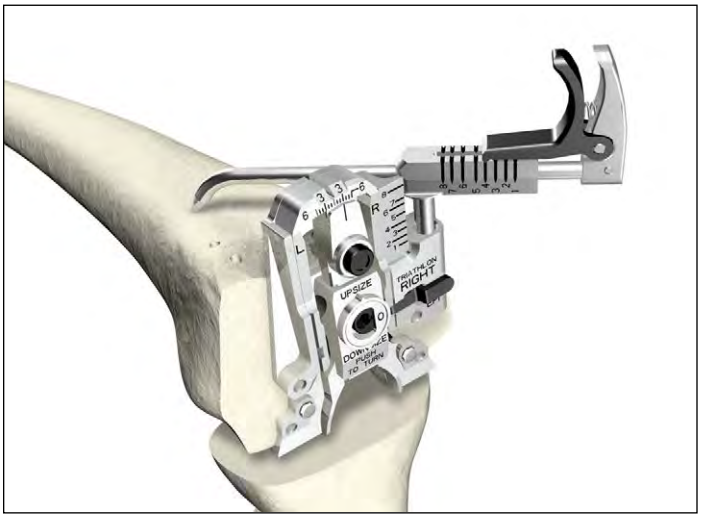

Figure 21

Remove the modular capture and check the resection for flatness.

Remove the Headless Pins or Fluted Headless 1/8" Pins from the MIS Distal Resection Guide by placing the Headless Pin Extractor over the pin and place it flush on the Guide. Squeeze the handle approximately three times, ensuring that after each squeeze, the Headless Pin Extractor is placed flushed with the MIS Distal Resection Guide. This will allow the tongue on the Headless Pin Extractor to back out the pin. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

- **Note:** If the "X" pin-hole is used, the pin must be removed prior to repositioning or removing the MIS Distal Resection Guide.

Femoral A/P sizing

Preassemble the MIS Femoral Sizer Body (Left or Right) onto the MIS Femoral Sizer Adjustment Housing

Place the MIS Femoral Sizer Assembly onto the resected distal femur, sliding the feet of the Sizer under the posterior condyles.

External rotation (0-6° Left or Right) is set by depressing the black button on the top of the Femoral A/P Sizer and rotating mediolateral.
For mechanical alignment set rotation in order to cut parallel to the epicondylar axis.

Assemble the MIS Femoral Stylus to the MIS Femoral Sizer and extend the Stylus over the lateral flange to rest on the anterior cortex of the femur at the desired run-out point of the anterior resection.

- **Note:** The MIS Femoral Stylus uses two sizing references. First, read the A/P scale by viewing the position of the indicator lip of the Femoral Stylus against the A/P scale on the medial side of the A/P sizer. Second, adjust the superior/inferior position of the Stylus to match the first A/P scale reading. Check to verify the two sizing references match. If the A/P scale reading then changes, reset the S/I Stylus position to the newly indicated reading. Repeat steps until the two readings converge.

It is important that the Femoral Stylus point rest on bone and not soft tissue or an osteophyte. In an MIS procedure this may be hard to see.

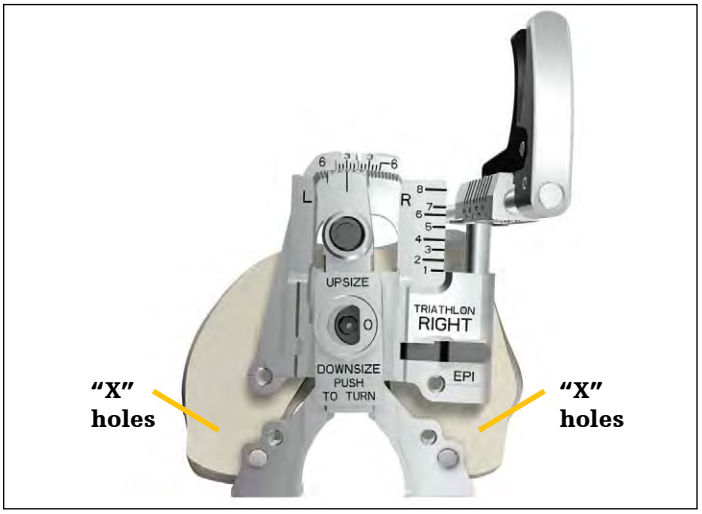

Figure 22

The Femoral Sizer may be pinned in place through the holes marked "X" with Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins.

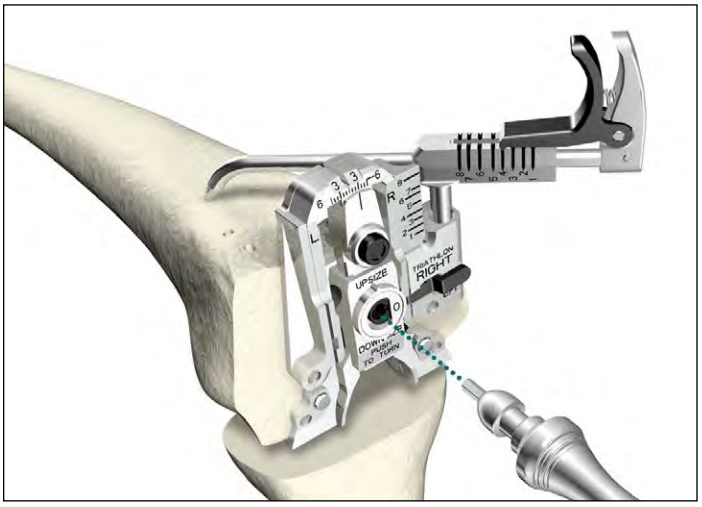

Figure 23

▸ **Note:** If the Femoral Stylus reads in between sizes, an optional A/P translation feature may be used. Simply use the Hex Driver found on the reverse side of the Femoral Flexion Impactor to translate the A/P Femoral Sizer up or down 1.5mm. (Triathlon Primary prosthesis grows in the anterior direction approximately 3mm between sizes.)

A tertiary check to verify external rotation is to assess A/P axis with the Blade Runner through the slot in the top of the guide.

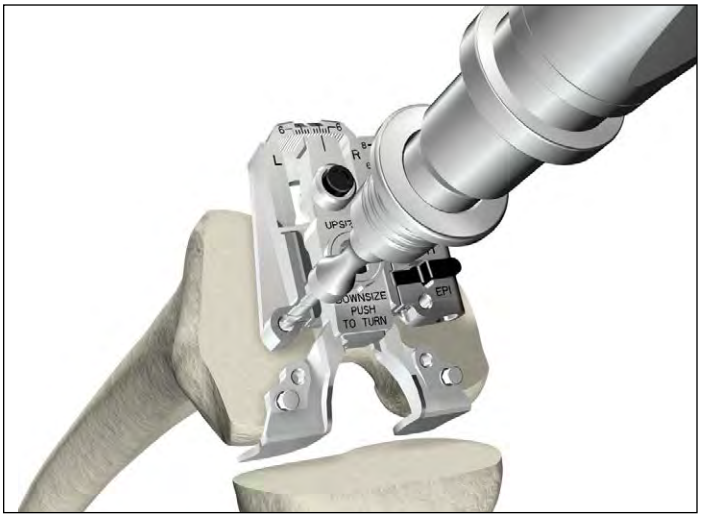

Figure 24

Once size confirmation is complete, attach the 1/8" Peg Drill to the Universal Driver and create fixation pin-holes (for the 4:1 Cutting Block) through the holes on the face of the Femoral Sizer marked "EPI".

Remove the Headless Pins or Fluted Headless 1/8" Pins using the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

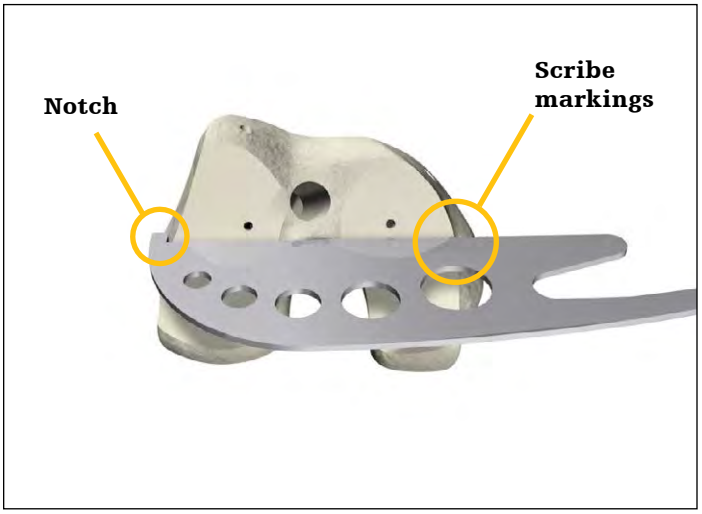

Figure 25

As a secondary sizing check, use the Blade Runner to check the M/L width of the Femoral Component.

Line the Blade Runner up with the epicondyles and determine the component size. Ensure that the notch of the Blade Runner is on the outside of the femur. The Blade Runner scribe marks correspond to component sizes 1 through 8. If the M/L width is between sizes, the 4:1 Cutting Block can be downsized if needed.

- **Note:** For accurate size determination, ensure that all osteophytes on the medial and lateral condyles are removed prior to sizing.

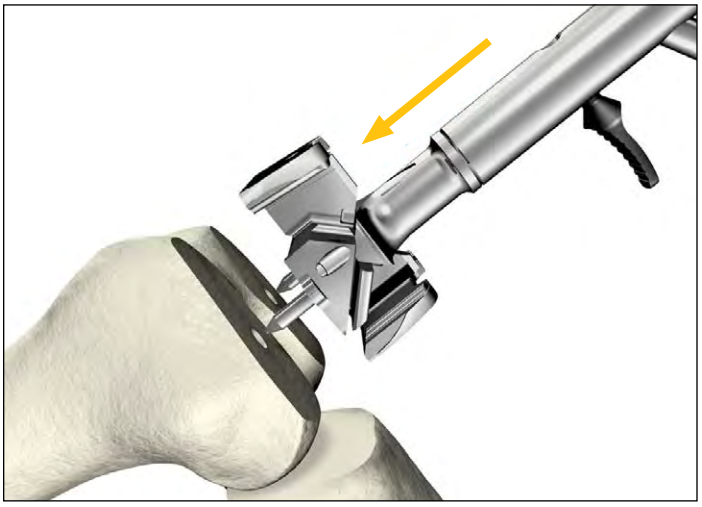

Figure 26

Femoral anterior, posterior and chamfer resections

Locate the fixation pegs of the appropriate size 4:1 Cutting Block into the pin-holes created on the distal femur and remain seated throughout the use of the cutting guide.

Attach the 4:1 Impactor Extractor to the 4:1 Cutting Block.

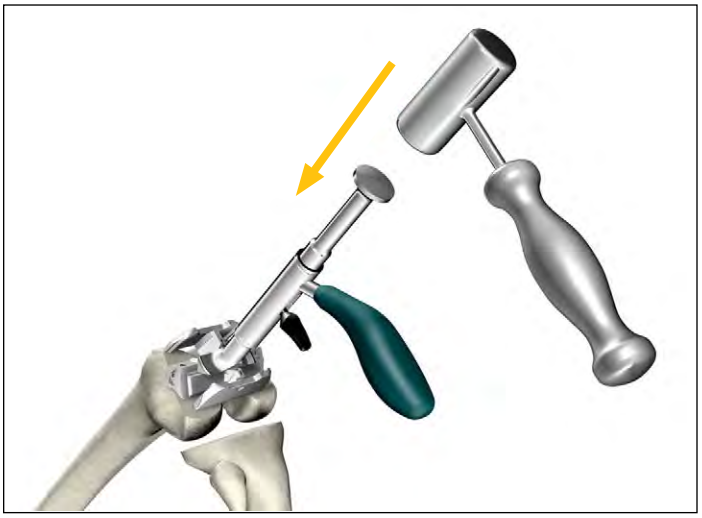

Figure 27

Impact the 4:1 Impactor Extractor until the 4:1 Cutting Block is seated flush onto the distal femur.

- **Note:** Do not impact the 4:1 Cutting Block without the 4:1 Impactor Extractor in place.
- **Note:** Check run-out of the anterior cut. If there is a pronounced positive step, consider selecting the next smaller size 4:1 Cutting Block if the anterior femur preparation is not adequate. Conversely, if there is potential for notching the anterior cortex consider selecting the next larger size 4:1 Cutting Block.

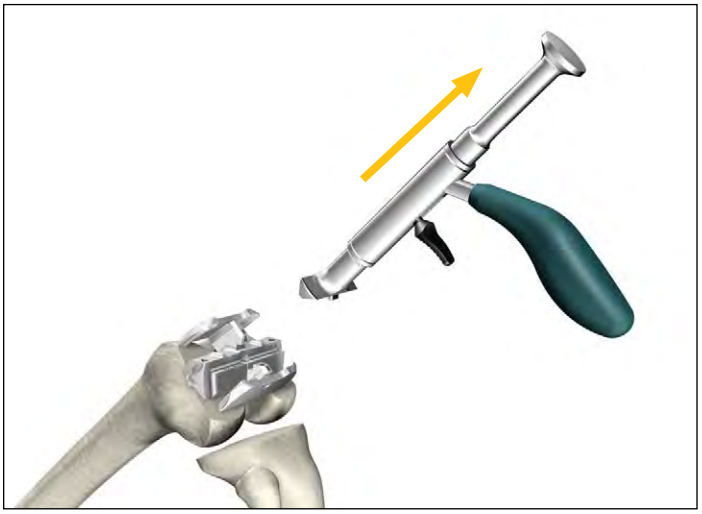

Figure 28

Remove the 4:1 Impactor Extractor from the 4:1 Cutting Block.

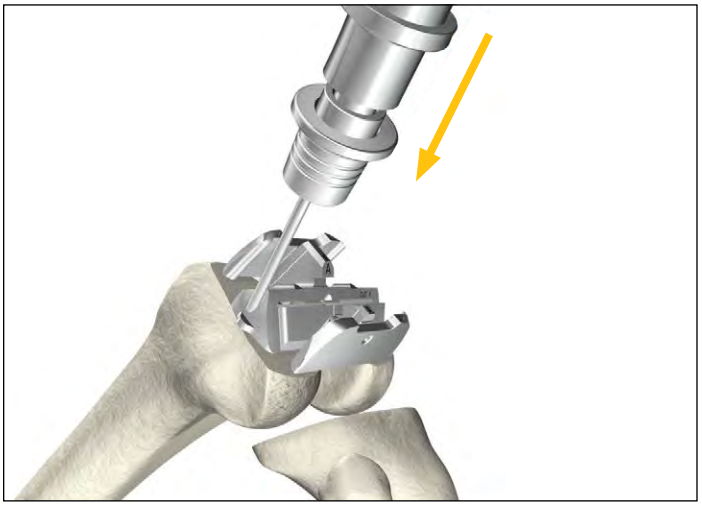

Figure 29

Headless Pins, Headless Threaded Pins, Fluted Headless 1/8″ Pins or Headed Threaded Pins should be utilized for further stabilization.

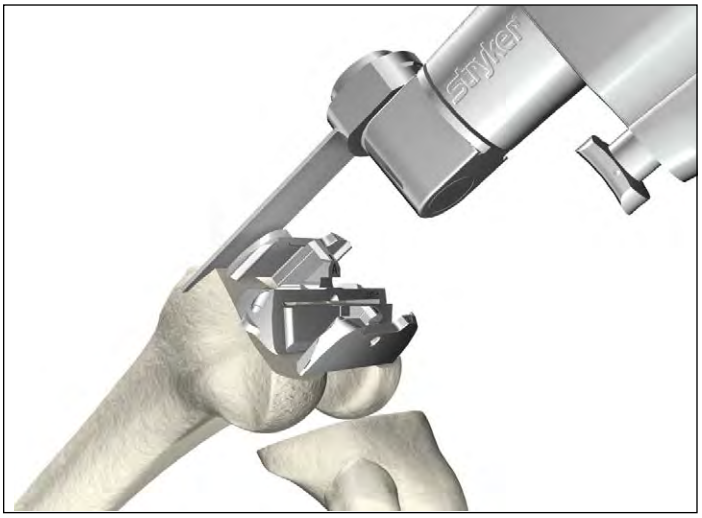

Figure 30

The use of a .050″ (1.25mm) thick sawblade is recommended.

- **Note:** Check run-out of the anterior cut. If there is a pronounced positive step, consider selecting the next smaller size 4:1 Cutting Block if the anterior femur preparation is not adequate.

Complete the remaining four femoral bone resections.

The order of bone resections is not critical; however, a recommended sequence for improved stability of the 4:1 Cutting Block is:

1. Anterior cortex. The 4:1 Modular Capture may be added for the anterior resection.

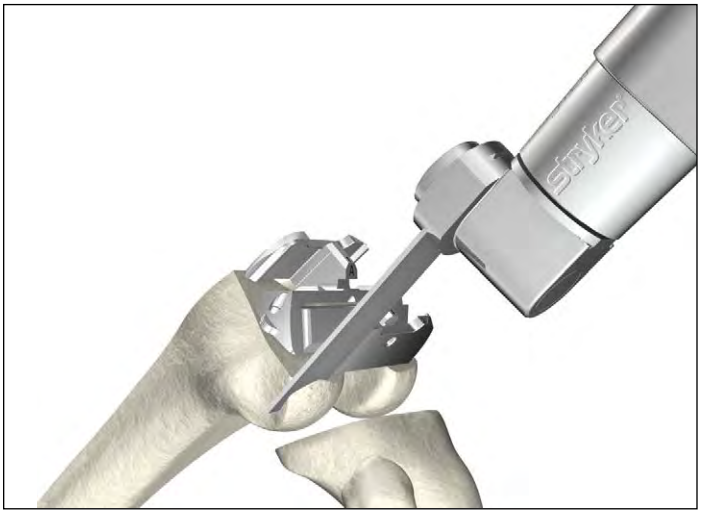

Figure 31

2. Posterior condyles. The 4:1 Modular Capture may be added for the posterior resection.

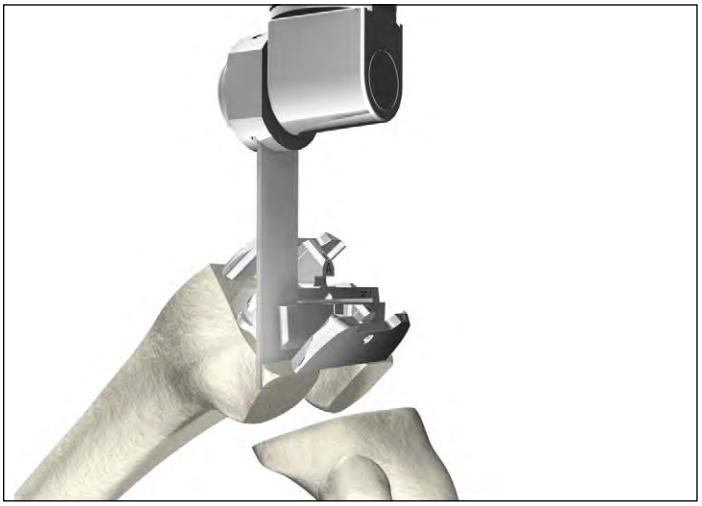

Figure 32

3. Posterior chamfer through the permanent capture on the 4:1 Cutting Block.

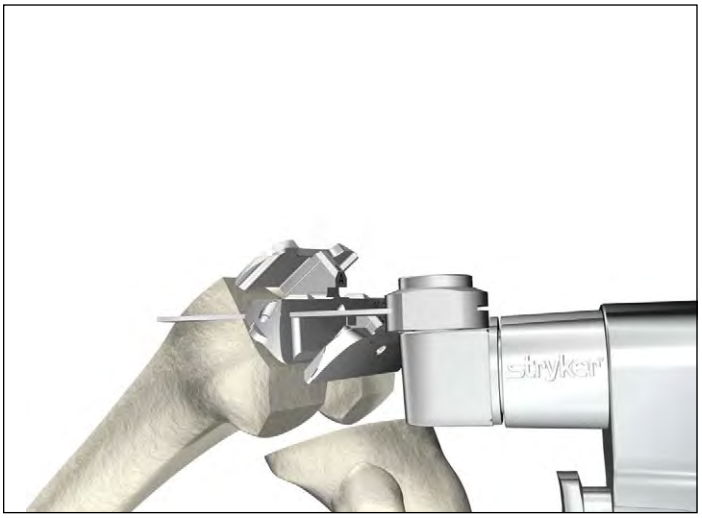

Figure 33

4. Anterior chamfer through the permanent capture on the 4:1 Cutting Block.

When performing the anterior chamfer resection, the sawblade should pass over the midline of the femur so that the center portion of bone is resected.

Care should be taken not to bias the blade while resecting the bone, as it will cause excess friction between the blade and the 4:1 Cutting Block.

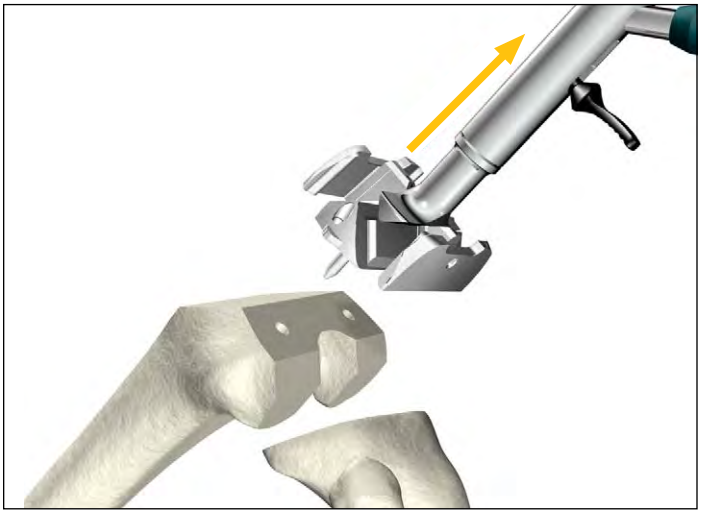

Figure 34

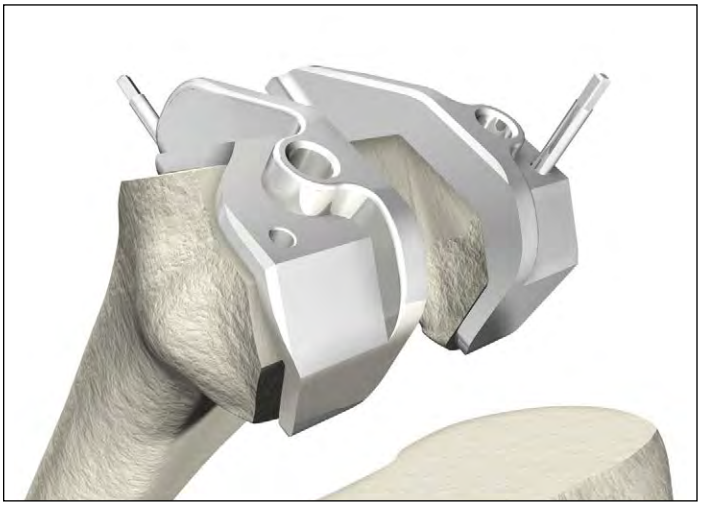

Figure 35

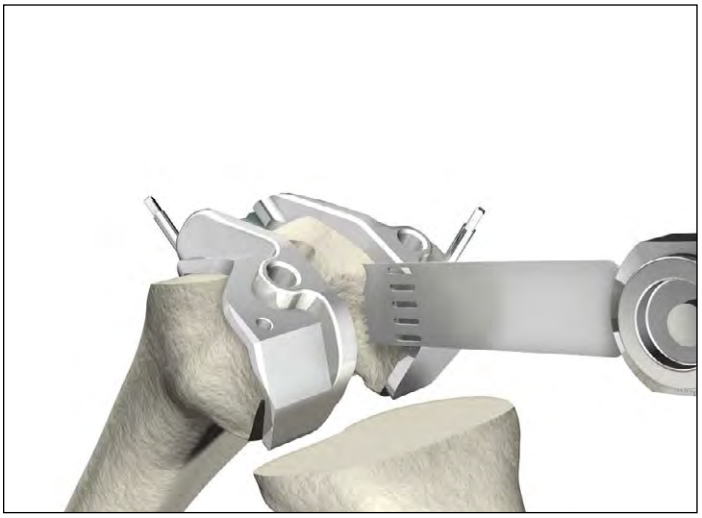

Figure 36

Remove the 4:1 Cutting Block.

If preparing for a Cruciate Retaining Knee, where no PS box preparation is needed, proceed to Femoral Trial assessment.

PS box preparation

If the surgeon has chosen a PS knee, then the intercondylar notch must be resected. In order to accomplish this, the PS box guide is placed onto the distal femur using the femoral trial Impactor/Extractor. Since the width of the distal portion of the guide represents the exact width of the implant, it should be centered and placed in the desired position flush with the distal resection.

- **Optional surgical tip:** Use a CR Femoral Trial of the same size to identify the preferred M/L position of the PS Box Cutting Guide.

The box guide is then pinned to the femur using the Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins through one of the holes on the anterior surface, as well as one of the holes on the distal surface of the cutting guide.

- **Note:** The appropriate size is the same as the size 4:1 Cutting Block that was used to prepare the distal femur. For example, if a size 3 "4:1 Cutting Block" was used to prepare the distal femur, select the size 3 PS Box Cutting Guide.

The intercondylar region can be resected in two ways. The surgeon may elect to resect the proximal portion of the intracondylar notch using the box chisel. First, using the inside surfaces of the box opening as guides, score the posterior cortex on both sides of the posterior portion of the intercondylar notch as well as the anterior using an oscillating saw. The chisel is assembled to the impaction handle and then placed within the slot of the box cutting guide with the surface reading "distal" towards the distal portion of the femur. The chisel is then impacted until fully seated and left in place. The rest of the box is then resected using either a reciprocating saw or oscillating saw taking care to make a flush resection. Attach the Slap Hammer to the Box Chisel. Remove the Box Chisel from the PS Box Cutting Guide and remove the bone.

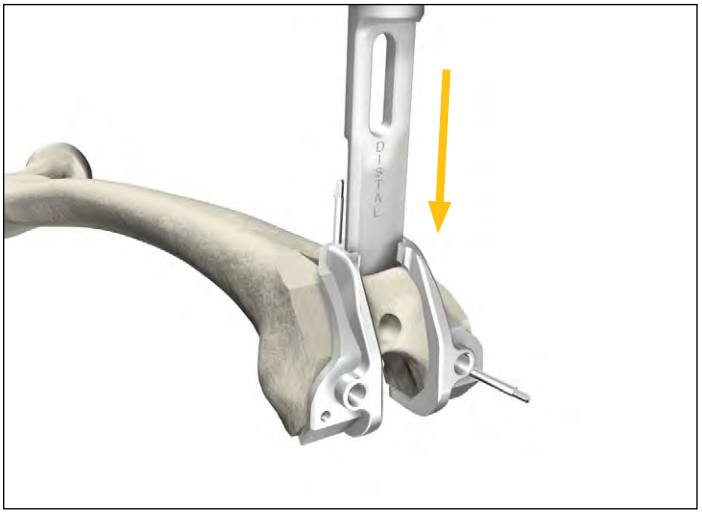

Figure 37

Alternatively, a small reciprocating saw can be used to resect the medial and lateral borders of the intercondylar notch to the proximal portion of the cutting guide. A thin, narrow oscillating saw is then used through the proximal slot to resect the distal portion of the femur. The cuts are connected and the intracondylar bone is removed. Care should be taken, especially when using saw medially and laterally, to avoid injury to the tibial plateau and either a retractor should be used to lift the distal femur from below or the tibial plateau can be protected with the optional appropriately sized Tibial Protector Plate.

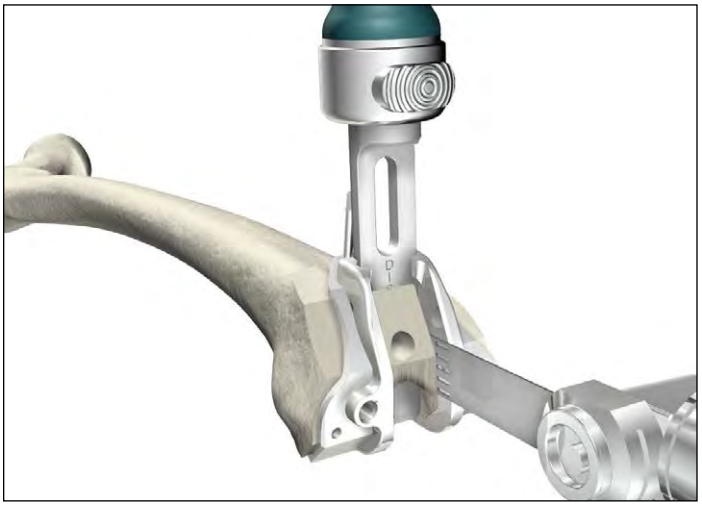

Figure 38

▸ **Note:** In order to prepare a proper rectangular box, care should be taken not to bias the sawblade. Preparation of a proper rectangular shape will facilitate an accurate implantation of the PS component with minimal bone resection.

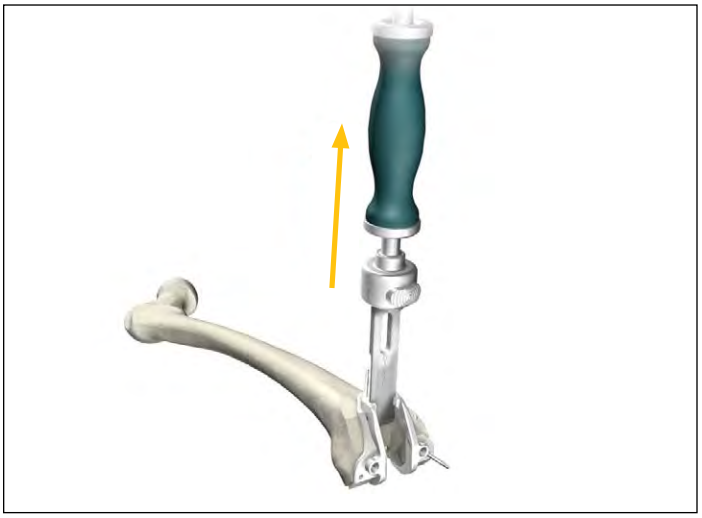

Figure 39

Attach the Slap Hammer to the Box Chisel. Remove the Box Chisel from the PS Box Cutting Guide and remove the bone.

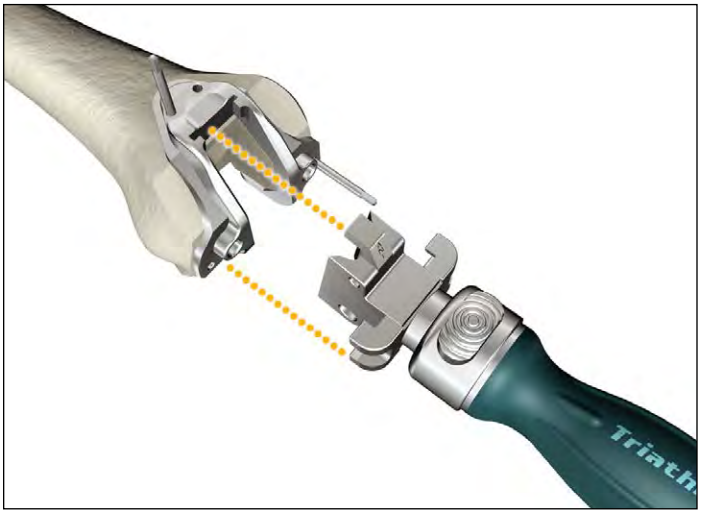

Figure 40

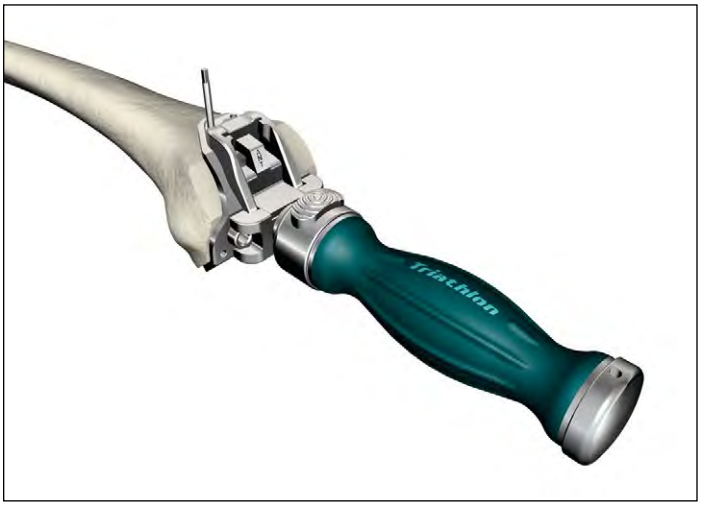

Figure 41

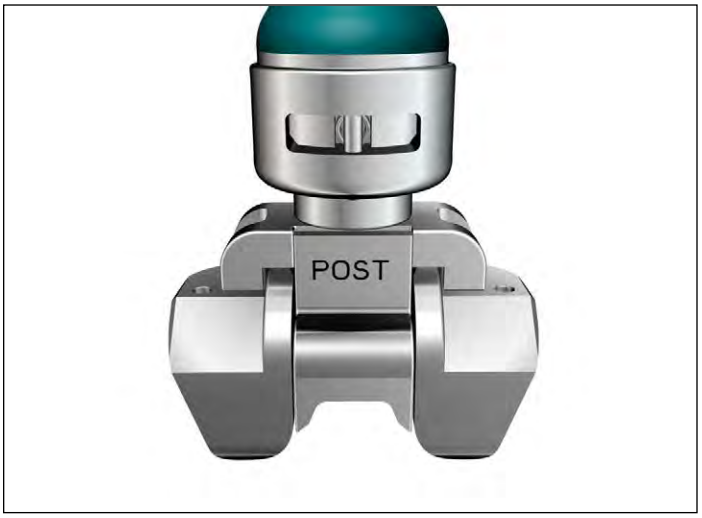

Figure 42

If the optional Triathlon PS Femoral Box Finishing Punch is chosen:

The chisel should be fully removed from the PS Box Cutting Guide prior to using the Triathlon PS Femoral Box Finishing Punch.

Secure the appropriate size Triathlon PS Femoral Box Finishing Punch to the Triathlon Impaction Handle. There are four Triathlon PS Femoral Box Finishing Punches (Size 1-2, Size 3-4, Size 5-6 and Size 7-8).

Properly orient the Triathlon PS Femoral Box Finishing Punch, assuring the anterior side is facing upwards. The box finishing instruments are listed with implants in current catalog.

Impact the Triathlon PS Femoral Box Finishing Punch through the PS Box Cutting Guide until properly seated. The Triathlon PS Femoral Box Finishing Punch is properly seated when the stop of the Finishing Punch is centered over the PS Box Cutting Guide drill holes. **See Figures 40 and 41**, which depict the Triathlon PS Femoral Box Finishing Punch properly seated on the PS Box Cutting Guide. There should be a gap between the anterior nose of the Triathlon PS Femoral Box Finishing Punch and the PS Box Cutting Guide.

Attach the Slap Hammer to the PS Femoral Box Finishing Punch. Remove the PS Femoral Box Finishing Punch from the PS Box Cutting Guide and remove the bone.

- **Note:** The Triathlon PS Femoral Box Finishing Punch is designed to be used with the PS Box Cutting Guide and should not be impacted onto the prepared distal femur without the PS Box Cutting Guide in place.

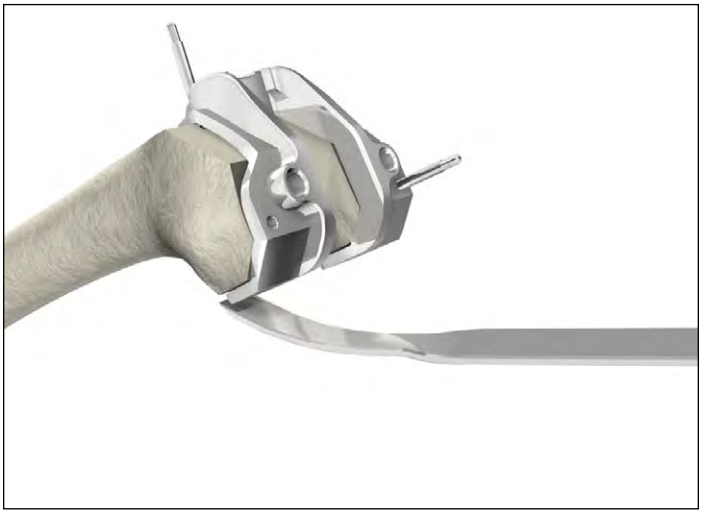

Figure 43

To avoid impingement of the Femoral Component and improve flexion, any curved osteotome or the optional Posterior Osteophyte Removal Tool may be used to remove the osteophytes beyond the posterior aspect of the PS Box Cutting Guide.

Remove the Headless Pins or Fluted Headless 1/8″ Pins with the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

Remove the PS Box Cutting Guide using the MIS Femoral Trial Impactor/Extractor.

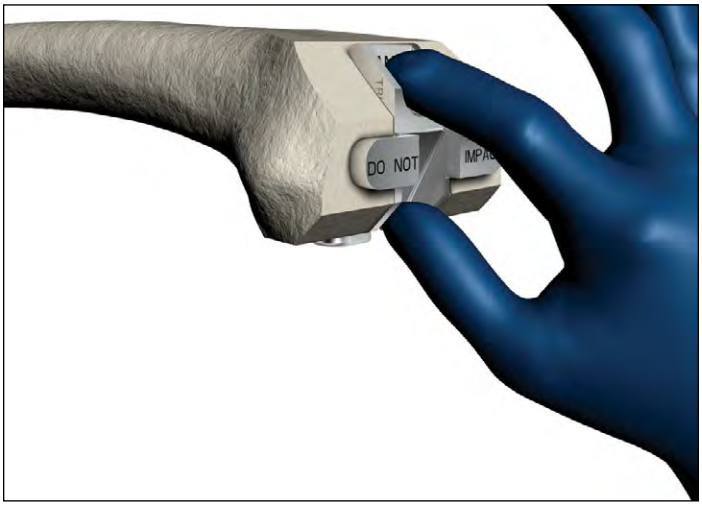

Figure 44

If the optional and recommended Triathlon PS Femoral Box Trial/Protector is chosen:

Remove the PS Box Cutting Guide.

Place by hand **(not through impaction)** the appropriate size Triathlon PS Femoral Box Trial/Protector into the prepared box to assure accuracy of the box preparation. There are two Triathlon PS Femoral Box Trial/Protectors (Size 1-4 and Size 5-8). **See Figure 44** for proper orientation.

The box trial/protector is fully seated when both the distal and posterior "wings" are flush with the bone.

- **Note:** Triathlon PS Femoral Box Trial/Protector assesses the accuracy of M/L box width and box depth.

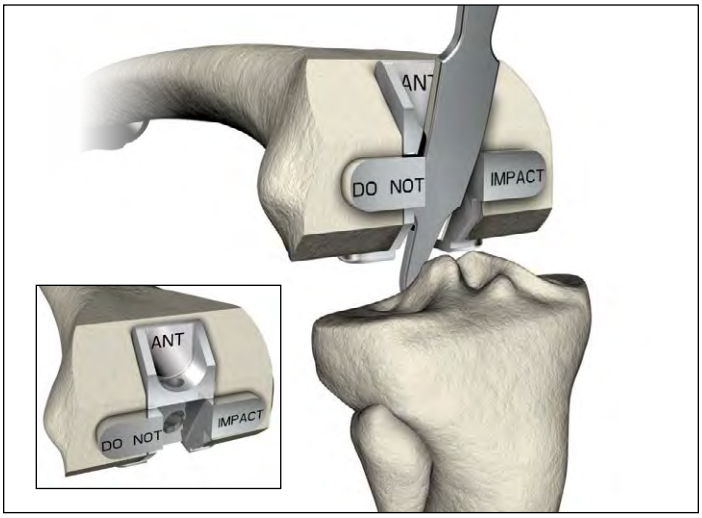

Figure 45

To protect the prepared femoral box prior to trialing with a Femoral Component, place the Triathlon PS Femoral Box Trial/Protector into the prepared box by hand (not through impaction). Ensure the box trial is fully seated on the distal and posterior resections as described above in the box trialing step.

- The Triathlon PS Femoral Box Trial/Protector features a slot in which a retractor can be placed to lever against the distal femur during tibial subluxation.
- If preferred, select an extraction tool that fits into the retractor hole for ease of removal.
- Remove the PS Femoral Box Trial/Protector prior to assembling and implanting the Triathlon PS Femoral Component.

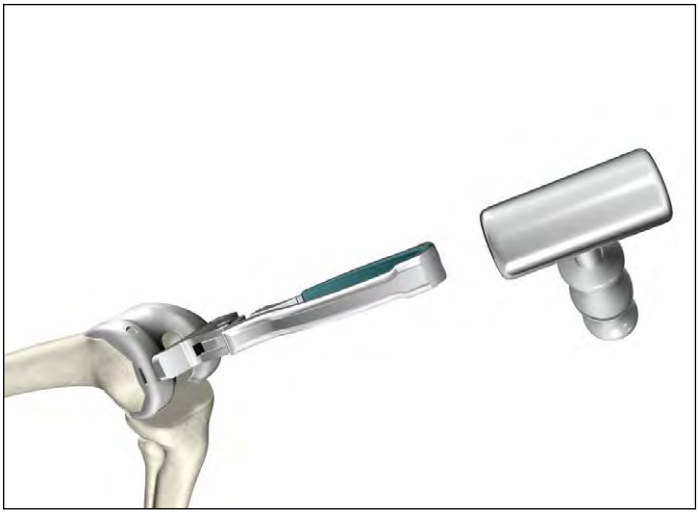

Figure 46

Femoral Trial assessment

(The remaining portion of the technique should be used for a Posterior Stabilized or Cruciate Retaining Knee).

Assemble the appropriate size and side (Left/Right) PS or CR Femoral Trial to the MIS Femoral Trial Extractor.

Impact the PS or CR Femoral Trial onto the prepared distal femur. Use the Femoral Trial Extractor to ensure the Femoral Trial is aligned with the distal plane.

Remove the MIS Femoral Trial Extractor and assess the fit of the PS or CR Femoral Trial. Care must be taken to ensure that all of the osteophytes beyond the end of the posterior femoral condyles are removed.

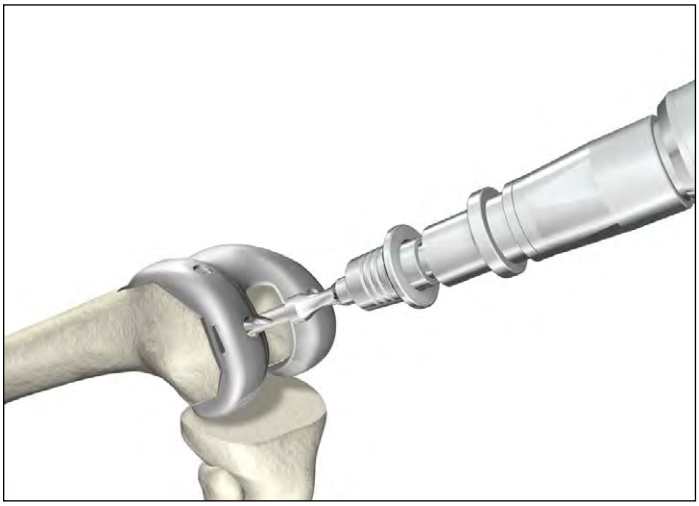

Figure 47

Cruciate Retaining Knee: Attach the 1/4″ Peg Drill to the Universal Driver and create the Femoral Distal Fixation Peg holes. The Posterior Osteophyte Removal Tool or any curved osteotome may be used to remove posterior osteophytes.

Posterior Stabilized Knee: If the Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), use the 1/4'' Peg Drill, attached to the Universal Driver to prepare the distal femoral peg holes.

- **Note:** For the cementless PS femoral component, peg preparation is required because fixation pegs are a standard feature.

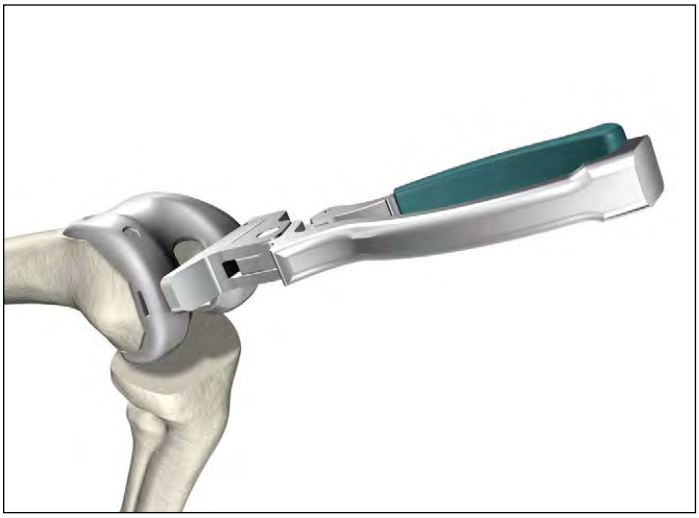

Figure 48

Attach the Femoral Trial Extractor to the PS or CR Femoral Trial and remove from the femur (unless proceeding to balance gaps and trial assessment).

Tibial preparation

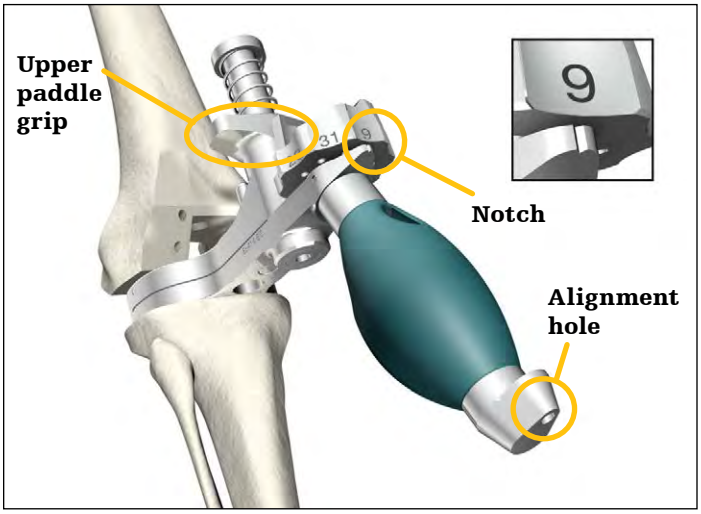

Figure 49

Gap balancing and tibial sizing

Flexion and extension gaps

The flexion gap (90°) and extension gap (0°) may be assessed using the optional Adjustable Spacer Block. The numbers on the thumb wheel correspond to the implant insert thickness. Align the notch with the appropriate thickness.

A Universal Alignment Rod can be placed through the hole on the Adjustable Spacer Block to check alignment.

Gap assessment may also be performed during trial assessment.

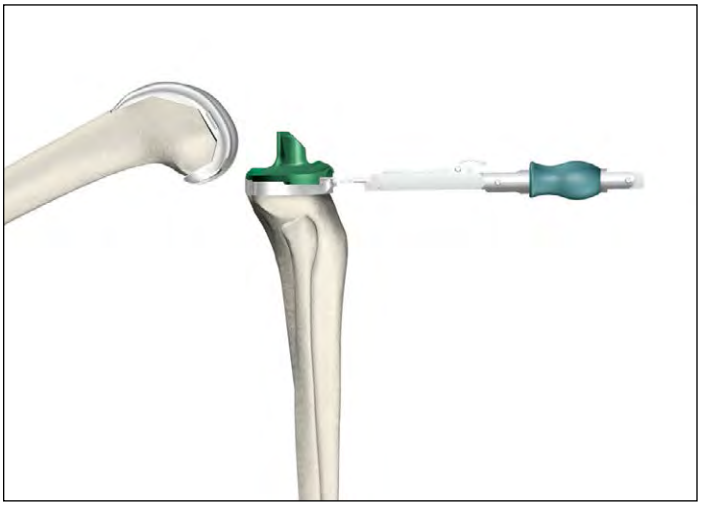

Figure 50

Tibial component sizing

Place the PS or CR Femoral Trial on the femur using the MIS Femoral Trial Extractor.

Assemble a Universal Tibial Template, Alignment Handle and a CR, CS or PS Tibial Insert Trial.

Place the assembly on the resected tibial plateau and choose the Tibial Template size that best addresses rotation and coverage.

Perform a trial reduction to assess overall component fit, ligament stability and joint range of motion.

Select the insert trial size that correlates to the Tibial Template of desired thickness

- **Note:** Do not impact the Tibial Insert Trial. In the event that excessive resistance or misalignment is encountered during insertion of the Tibial Insert Trial, remove, reposition and reinsert the Tibial Insert Trial. Ensure all excess debris (bone and soft tissue) is cleared from the Universal Tibial Template.

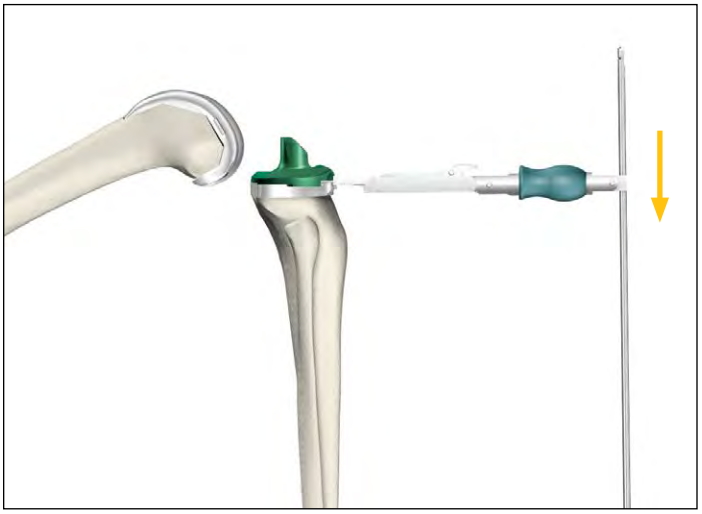

Figure 51

Tibial Trial assessment

For an optional tibial alignment check, insert a Universal Alignment Rod into the most anterior hole of the Alignment Handle and check alignment.

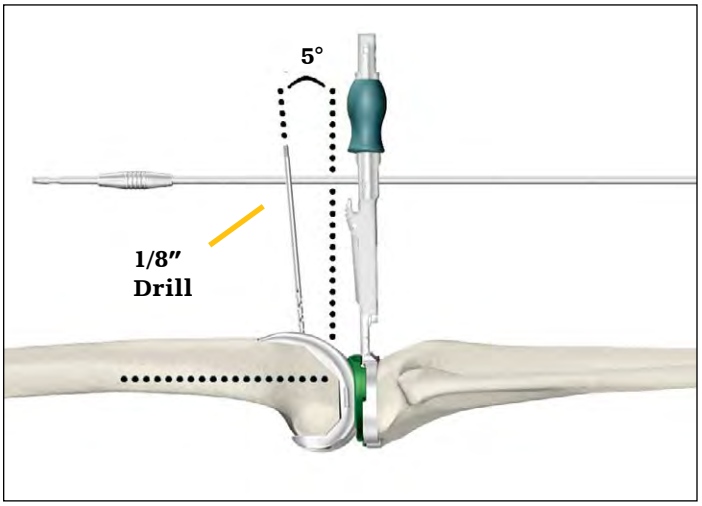

Figure 52

Extend the knee to full extension and assess overall alignment in the A/P and M/L planes.

A 1/8″ Drill can be inserted into the lateral hole on the anterior surface of the Femoral Trial to aid in alignment

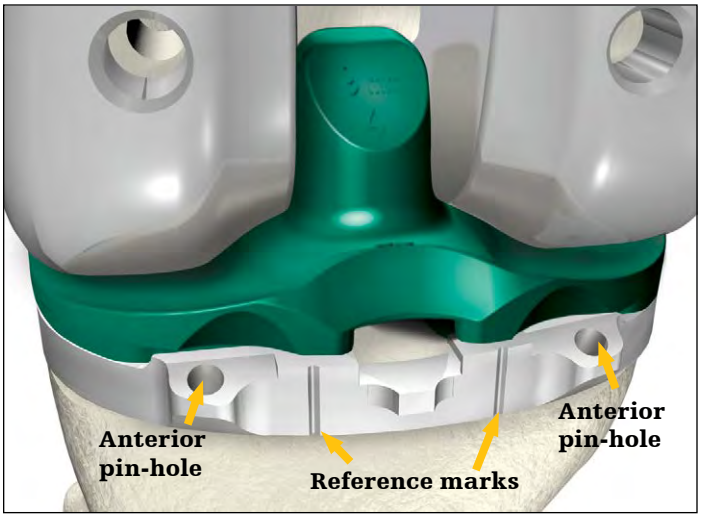

Figure 53

There are two options to secure the Universal Tibial Template to the tibia:

Option 1: Once satisfactory alignment and tibial component orientation are achieved, remove the PS or CR Femoral Trial. Place two Headless Pins or Fluted Headless 1/8″ Pins in the anterior holes to secure the Universal Tibial Template. Disassemble the Tibial Insert Trial from the Universal Tibial Template.

Option 2: Once satisfactory alignment and tibial component orientation are achieved, mark the anterior tibial cortex in line with the reference marks on the anterior border of the Universal Tibial Template. Remove the PS or CR Femoral Trial and disassemble the Tibial Insert Trial from the Universal Tibial Template. Reposition the Universal Tibial Template (if required) by aligning the anterior reference marks on the template with the reference marks on the anterior cortex. The template is positioned flush to the anterior tibial cortex. Place two Headless Pins or Fluted Headless 1/8″ Pins in the anterior holes to secure the Universal Tibial Template.

- **Note:** The Tibial Insert Trial can be removed by hand or with the aid of a retractor.

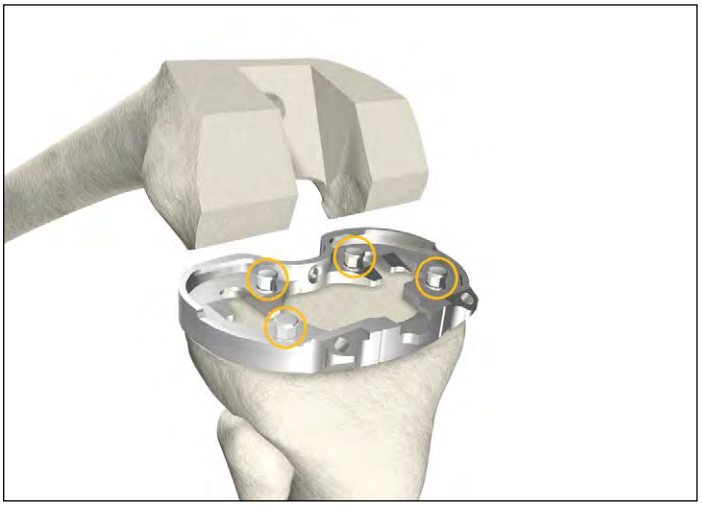

Figure 54

If additional fixation is required after either Option 1 or 2 are used, place up to four optional Headed Nails in the holes on the Universal Tibial Template into the tibial plateau by tapping them in place using the Headed Nail Impactor Extractor.

Trials may be reassembled to the pinned template for any subsequent trial reductions.

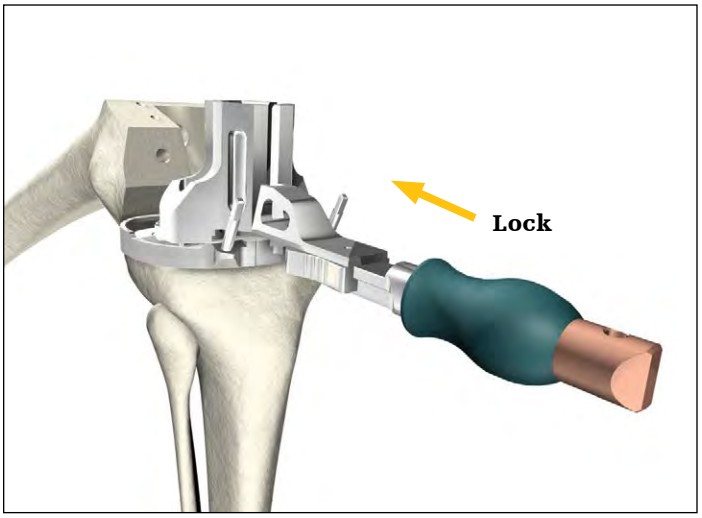

Figure 55

Tibial keel punching

Making sure the punch guide is in the unlocked position, assemble the appropriate size Keel Punch Guide to the Universal Tibial Template. Place the posterior tabs at a slight angle into the two locating slots toward the posterior portion of the Universal Tibial Template. Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

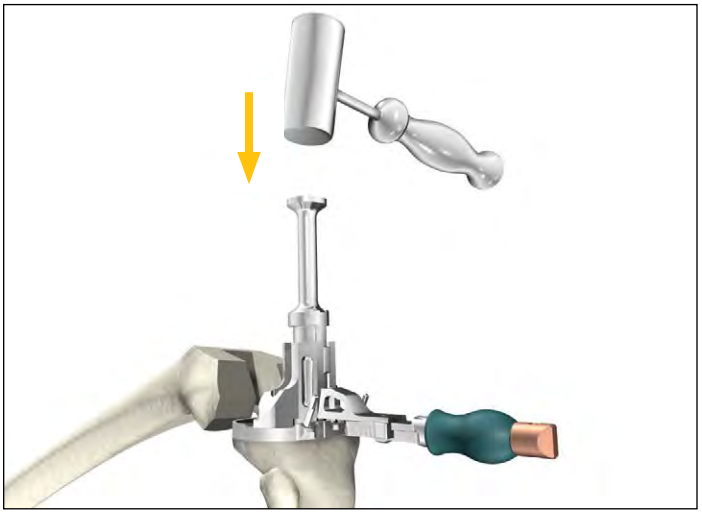

Figure 56

Place the appropriate Keel Punch (cemented or cementless) into the Keel Punch Guide. Use a mallet to impact the punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide.

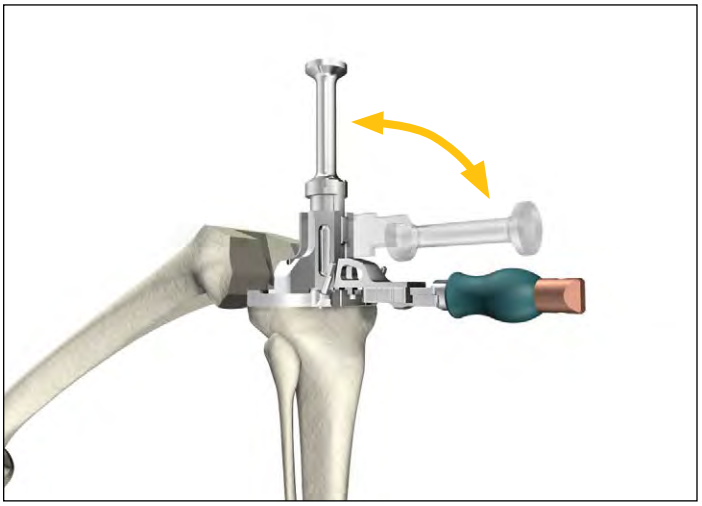

Figure 57

To extract the Keel Punch, lift up on the Keel Punch handle and pull the handle down to cantilever the Keel Punch out of the tibia.

Unlock and remove the Keel Punch Guide.

Remove all pins with the Headless Pin Driver (or Headed Nails with the Headed Nail Impactor Extractor) and remove the Universal Tibial Template (unless using again for patella trial assessment).

Figure 58

Patella preparation

Determine the total thickness of the patella by using the Patella Caliper.

There are two options for the patella preparation: bone removing method and bone remaining method.

The patella should be prepared with the leg in full extension and the patellar bone turned 90° to the joint line.

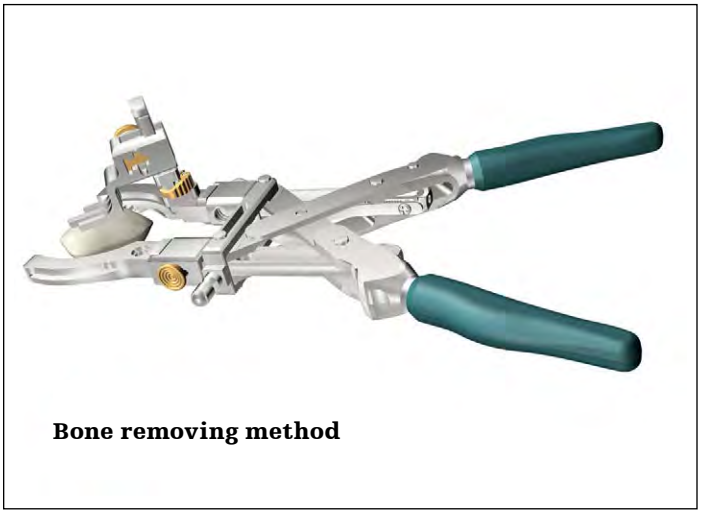

Figure 59

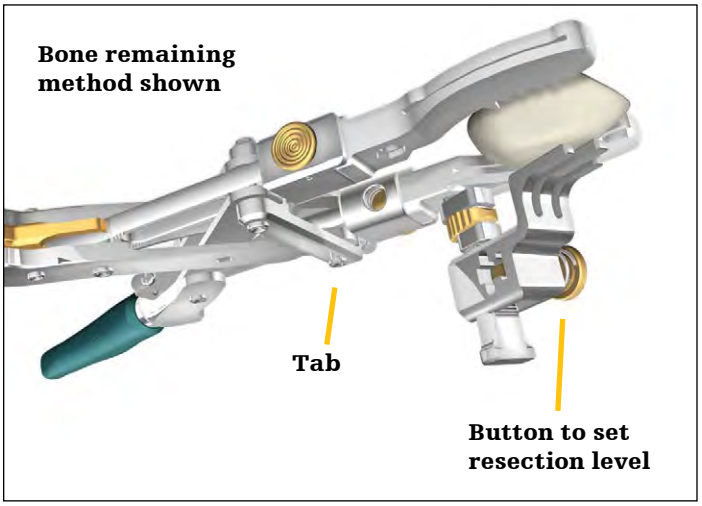

Figure 60

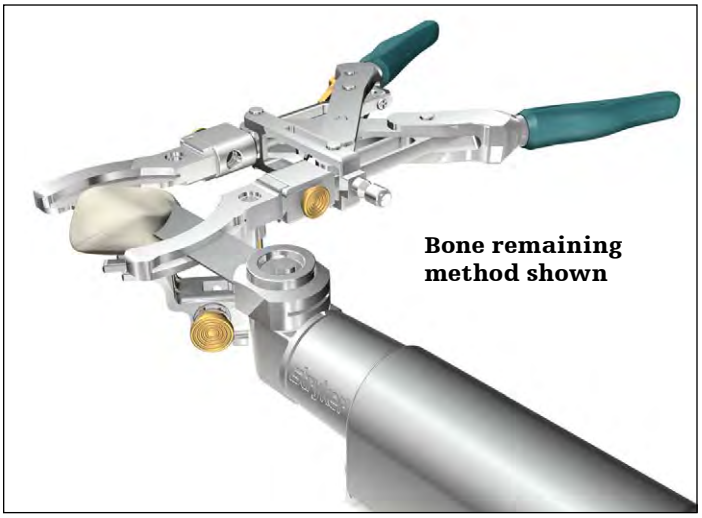

Figure 61

Option 1 – Bone removing method

Assemble Patella Clamp jaws to the Patella Clamp. Attach the Patella Stylus to the circular hole on the top side of either jaw by squeezing the gold tab

The Patella Stylus may swivel in this position to sweep over the highest portion of the articular surface.

The Patella Stylus references the articular surface of the patella in order to determine how much bone to remove.

Set the desired resection amount on the Patella Stylus by pressing the gold button and moving the body of the Patella Stylus to the resection line.

The resection level should be set to match the thickness of the appropriate size patella implant.

Ensure that the Patella Stylus is touching the desired point(s) on the articular surface of the patella.

Close the Patella Clamp around the patella. Make resection through one of the resection slots.

Option 2– Bone remaining method

Assemble Patella Clamp jaws to the Patella Clamp. Attach the Patella Stylus to the hex-shaped hole on the bottom side of either jaw by squeezing the gold tab.

The Patella Stylus locks in a position that will ensure the referencing prongs are pointed toward the clamping area.

The Patella Stylus determines how much bone will remain.

- **Note:** The resection level should not be set at a value less than 12mm.

Close the Patella Clamp around the patella.

Ensure that the Patella Stylus is touching the desired point(s) on the patella tendon.

Make resection through one of the resection slots.

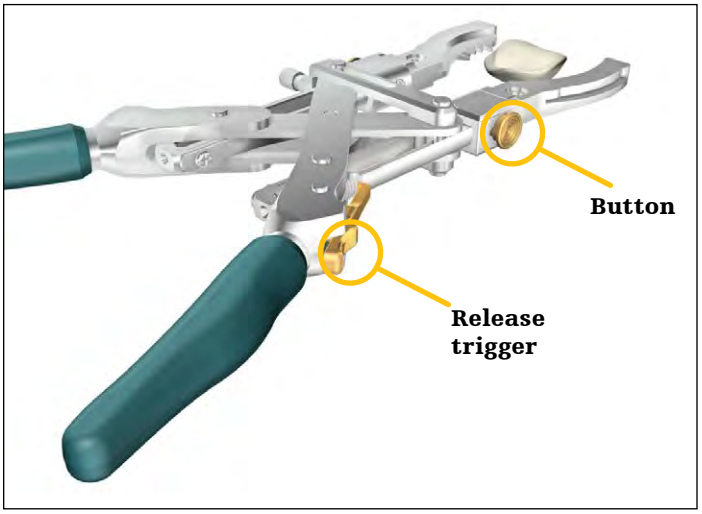

Figure 62

(The following applies to both bone removing method and bone remaining method)

Disengage the Patella Clamp by pressing the gold release trigger.

Press the gold buttons on the Patella Clamp to remove the Patella Clamp jaws.

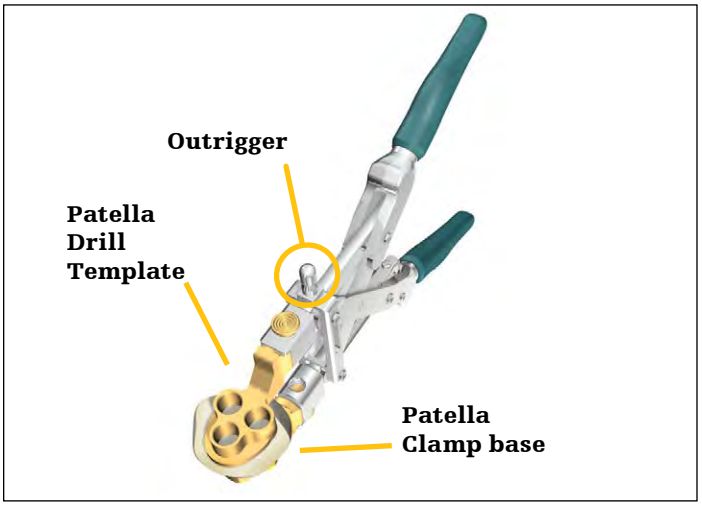

Figure 63

Assess the size of the patella with a Patella Drill Template (Symmetric and Asymmetric are available).

Assemble the desired Patella Drill Template and the Patella Clamp Base to the Patella Clamp. These are inserted in the same fashion as the Patella Clamp jaws. Assemble the Patella Clamp Base first with the Patella Clamp's outrigger pointing superiorly.

Close the Patella Clamp around the patella so that the Patella Clamp Base is touching the patella tendon and the base of the Patella Drill Template is touching the resected surface of the patella. Align the Patella Drill Template so that it is horizontal with respect to the poles of the patella.

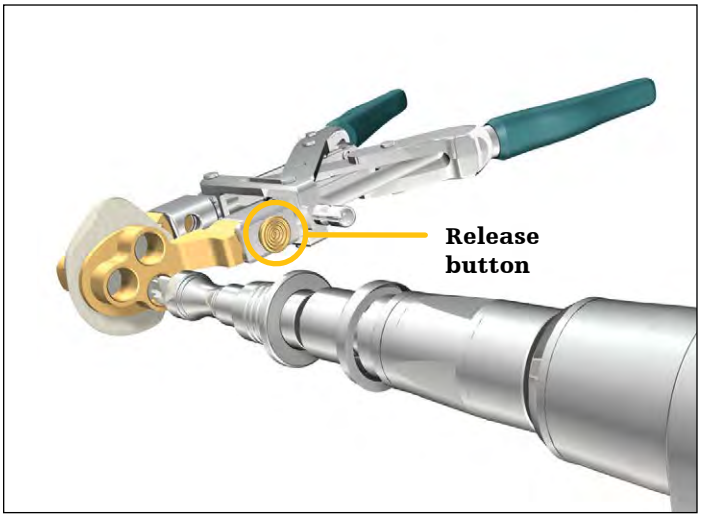

Figure 64

Attach the All-Poly Patella Drill with Stop or the Metal Back Patella Drill (for cementless patella) to the Universal Driver and drill through each fixation peg hole of the Patella Drill Template.

Disengage the Patella Clamp by pressing the release trigger. Press the gold buttons on the Patella Clamp to remove the Patella Template.

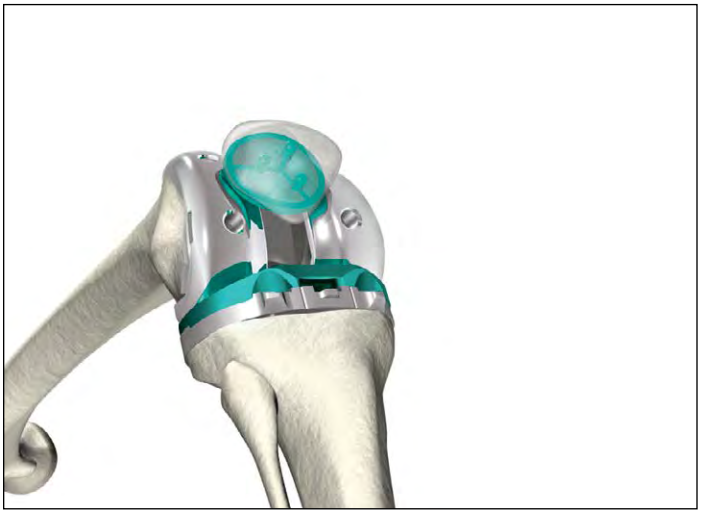

Figure 65

Patella Trial assessment

Remove any residual cartilage and wash away all debris. Place correct size Patella Trial (Symmetric or Asymmetric) onto the prepared patella.

Replace all Trials and assess patellar tracking by taking the knee through a ROM.

Component Implantation

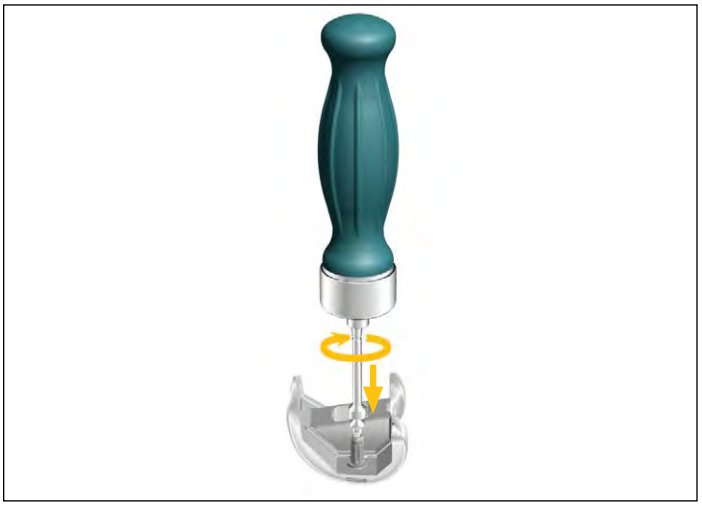

Figure 66

If modular Femoral Distal Fixation Pegs are desired in a PS cemented knee, they are added at this point.

Insert the tip of the 1/8'' Hex Drive into the Modular Femoral Distal Fixation Peg and turn the Slip Torque Handle to tighten.

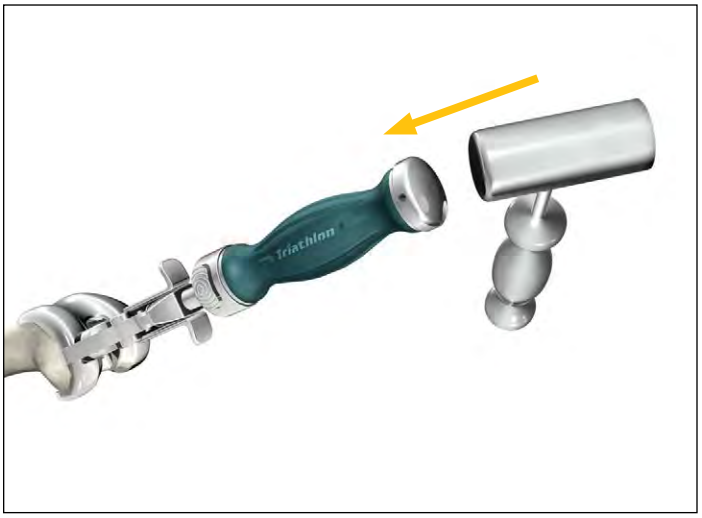

Figure 67

PS or CR Femoral Component – Cemented/ Cementless

Attach the Femoral Impactor Extractor to the Impaction Handle and attach to the appropriate size and side Femoral Component.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Place the Femoral Component on the femur and impact it until fully seated.

Posterior Stabilized Knee: If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), assemble the pegs to the Femoral Component using the 1/8" Hex Drive and the Slip Torque Handle prior to implantation.

Figure 68

The Femoral Flexion Impactor or the Femoral Impactor can be attached to the Impaction Handle to further seat the Femoral Component onto the prepared femur.

- **Note:** Clear all excess bone cement (does not apply to cementless component).

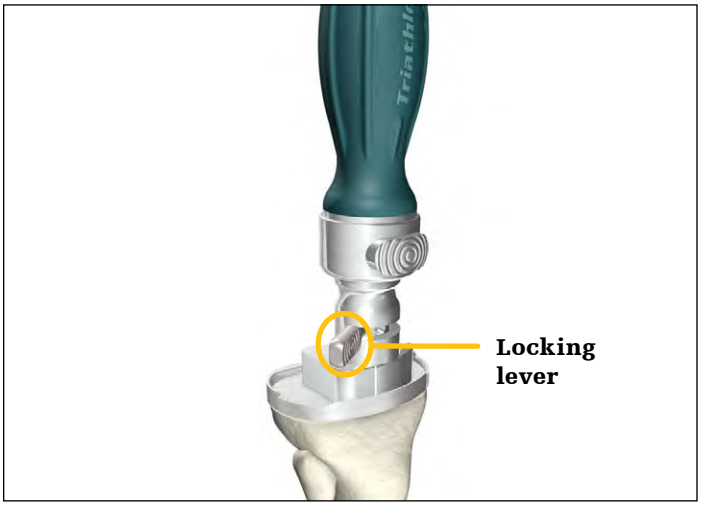

Figure 69

Component Implantation Primary Tibial Baseplate – Cemented/Cementless

Connect the Tibial Baseplate Impactor Extractor to the Impaction Handle. To connect this assembly to the Primary Tibial Baseplate, ensure the locking lever is in the unlocked position and place the head onto the Primary Tibial Baseplate straddling the central island. Ensure the Tibial Baseplate Impactor Extractor sits flat on the top surface of the Primary Tibial Baseplate and move the locking lever to the locked position.

Introduce the Tibial Baseplate onto the prepared tibia and impact until the baseplate is seated. Unlock the locking lever and remove the assembly from the Tibial Baseplate.

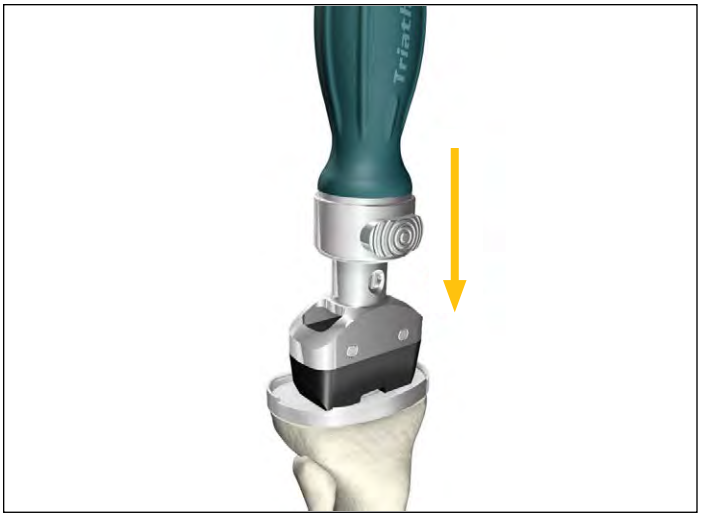

Figure 70

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle.

Place the Tibial Baseplate Impactor on to the Primary Tibial Baseplate straddling the central island.

Ensure the Tibial Baseplate Impactor sits flat on the top surface of the Primary Tibial Baseplate.

Impact until the Primary Tibial Baseplate is fully seated.

- **Note:** Clear all excess bone cement (does not apply to cementless component) while maintaining position of the Tibial Baseplate.

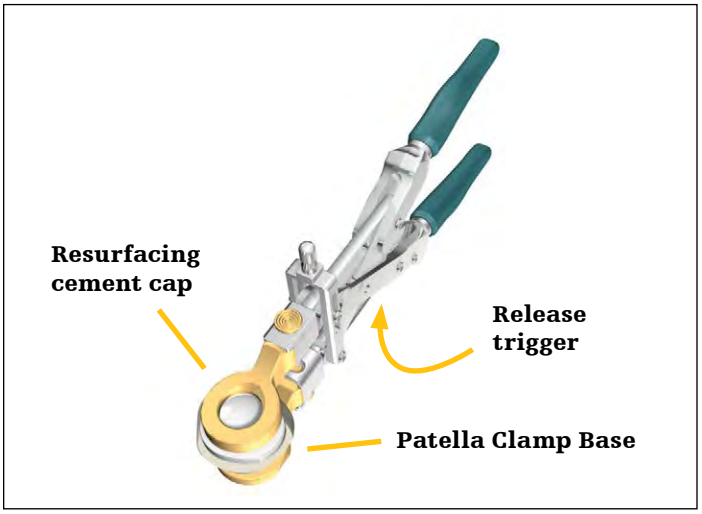

Figure 71

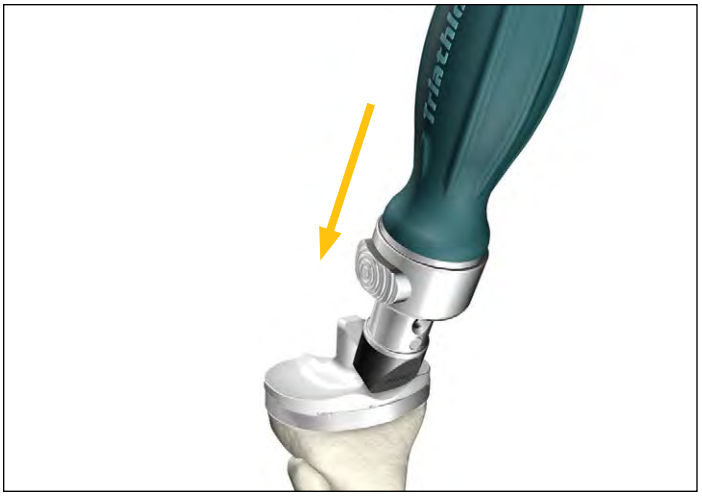

Figure 72

Closure

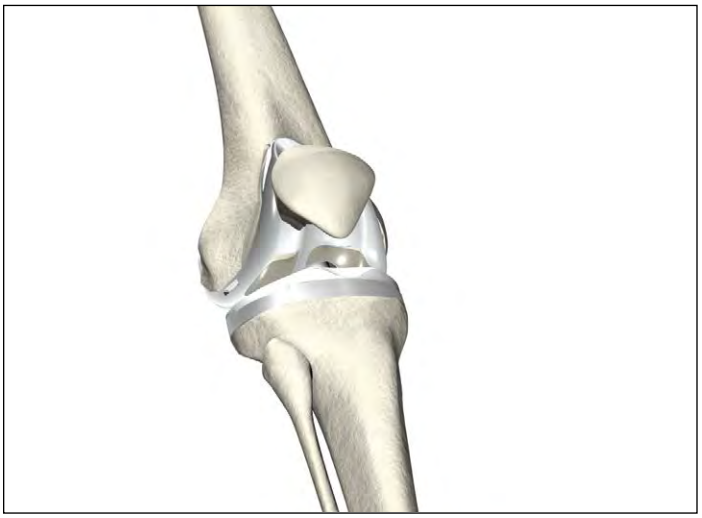

Figure 73

Symmetric or Asymmetric Patella

Assemble the Patella Cement Cap and the Patella Clamp Base to the Patella Clamp.

- **Note:** In cementless scenarios, if necessary, use a curette to mark the locations of the fixation peg holes.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Place the Patella Component onto the prepared patella, making certain the fixation peg holes are aligned to the corresponding holes.

Seat the Patella Component onto the prepared patella by clamping the Patella Cement Cap, Patella Clamp Base and Patella Clamp assembly.

- **Note:** Ensure that the silicon O-ring of the Patella Cement Cap is placed on the articulating surface of the Patella Component.
- **Note:** Leave the assembly clamped to the patella while excess cement is cleared and polymerization is complete.

Disengage the Patella Clamp by pressing the gold release trigger.

Tibial Insert

Prior to assembly of the Tibial Insert, the Tibial Insert Trial may be placed on the Tibial Baseplate to once more assess joint stability and range of motion.

To assemble the Tibial Insert, distract the joint and angle the insert posteriorly into the Tibial Baseplate. The posterior lip of the Tibial Insert must fit beneath the lip on the posterior Tibial Baseplate wall.

Attach the Tibial Insert Impactor to the Impaction Handle and impact to snap the Insert in place anteriorly. The Tibial Insert is fully seated once the locking wire locks under the barbs on the anterior/interior surface of the Tibial Baseplate wall.

Assess the joint in flexion and extension.

Close soft tissues in the normal layered fashion.

Optional navigation

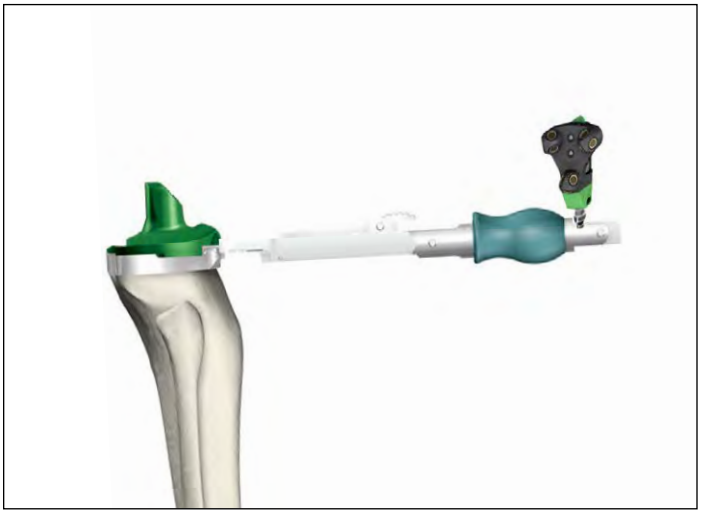

Figure 74

Tibial rotation can be navigated by using the Navigated Tibial Alignment Handle (6541-2-808) which attaches to the trial baseplate and dedicated navigation instrumentation.

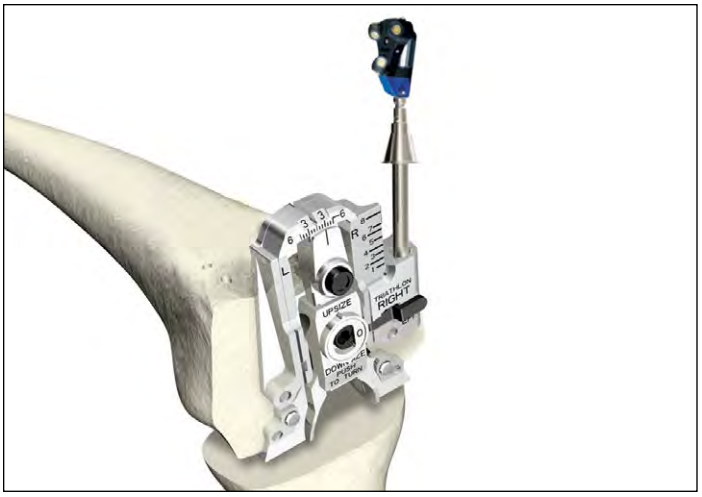

Figure 75

Femoral rotation can be obtained using the MIS Femoral Navigated Stylus (6541-5-610) which attaches to the MIS A/P Sizer and dedicated navigation instrumentation.

Figure 76

The Triathlon Navigated Adapter (6541-4-401) attaches to Triathlon instruments such as the MIS Tibial Resection Guides and MIS distal resection guides and dedicated navigation instruments.

Optional navigation

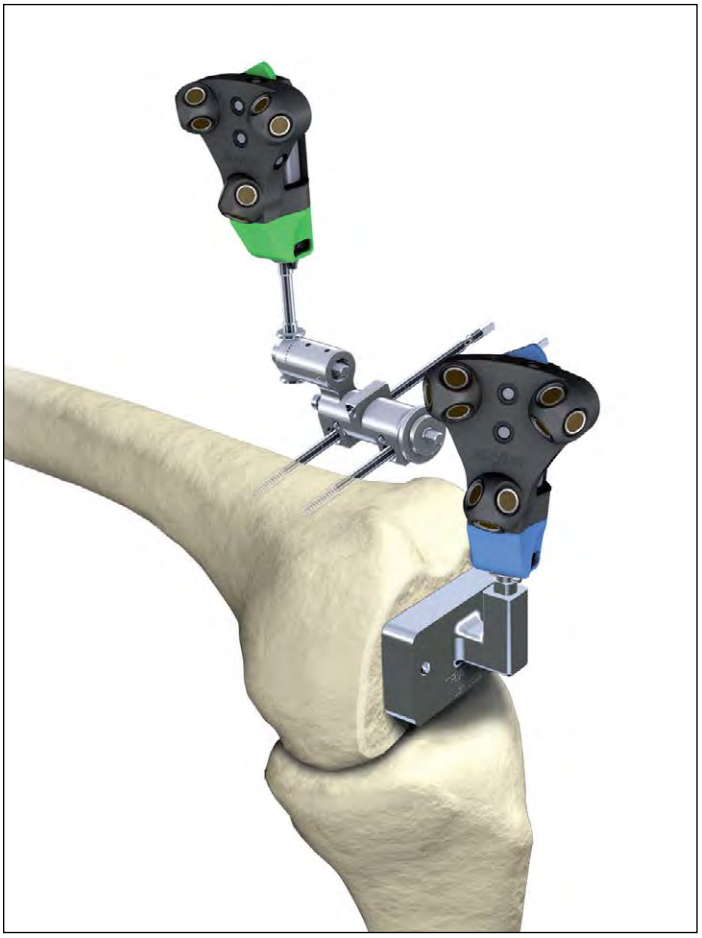

Figure 77

A Navigated Drill Template for AP alignment is available for Stryker Triathlon implant systems. Navigated Drill Template-Triathlon can be selected in the user settings, if automatic sizing is enabled. It can be used to prepare the rotational alignment and AP position of the 4:1 Cutting Block. The Navigated Drill Template-Triathlon can replace the conventional AP sizer.

With the Navigated Drill Template-Triathlon, an additional frontal view of the anterior cortex is displayed. The anterior cortex view gives a preview of the position and size of the uncovered bone resection against the given flexion/ extension of the distal femur cut and the AP implant position.

Assembly instructions

Assembly instructions are included in the first section of this surgical technique to assist with instruments that may be preassembled on the back table, as well as other instruments that need to be assembled. All of the actuating mechanisms that allow instruments to be adjusted and/or assembled have been color-coded. Those that correspond to femoral preparation are black, those for tibial preparation are bronze and those for patella preparation are gold.

Black **Bronze** **Gold**

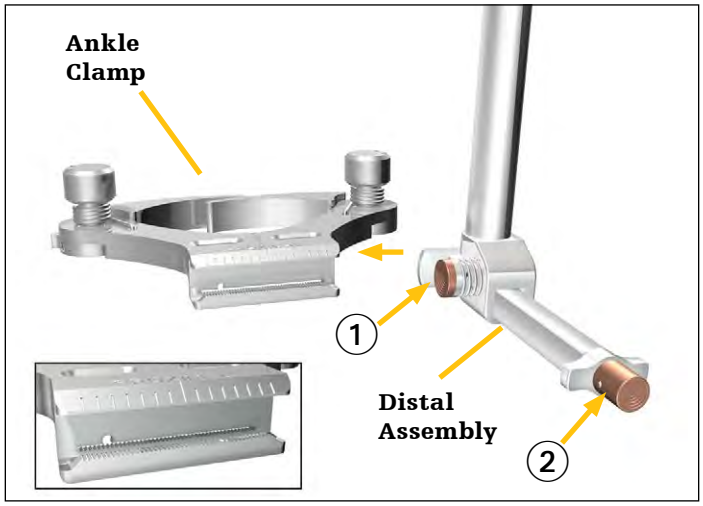

Figure 1a

Tibial Alignment Ankle Clamp EM, Tibial Alignment Distal Assembly EM, MIS Proximal Rod EM, Tibial Stylus, MIS Tibial Resection Guide and Tibial Adjustment Housing assembly:

Press the bronze button ① and advance the Distal Assembly arm forward approximately halfway.

Press the bronze button ② on the Distal Assembly; put the arm into the grooves on the Ankle Clamp. Ensure that the side of the Ankle Clamp reading "proximal" is visible from above.

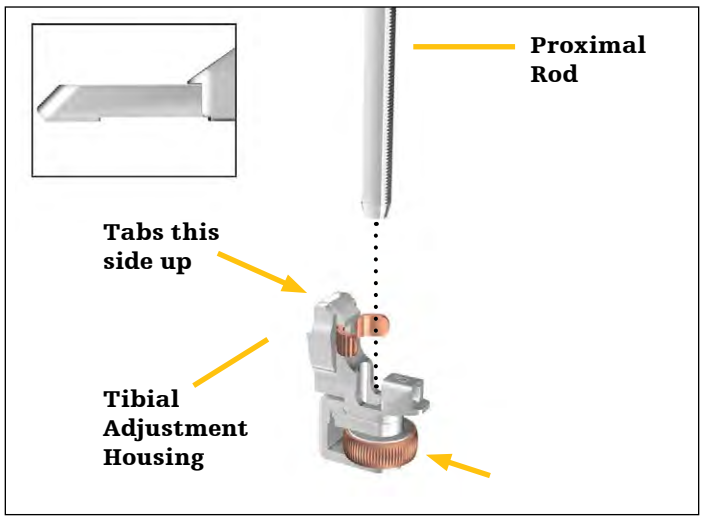

Figure 1b

Press the bronze wheel on the inferior portion of the Tibial Adjustment Housing with your thumb and insert the Proximal Rod from the superior side.

With the bronze wheel depressed, slide the Tibial Adjustment Housing up to approximately 5cm from the arm of the Proximal Rod.

Release the bronze wheel to engage the teeth of the Proximal Rod and lock the Adjustment Housing in place.

- **Note:** The Tibial Adjustment Housing is available in 0° slope (posterior stabilized) and 3° slope (cruciate retaining).

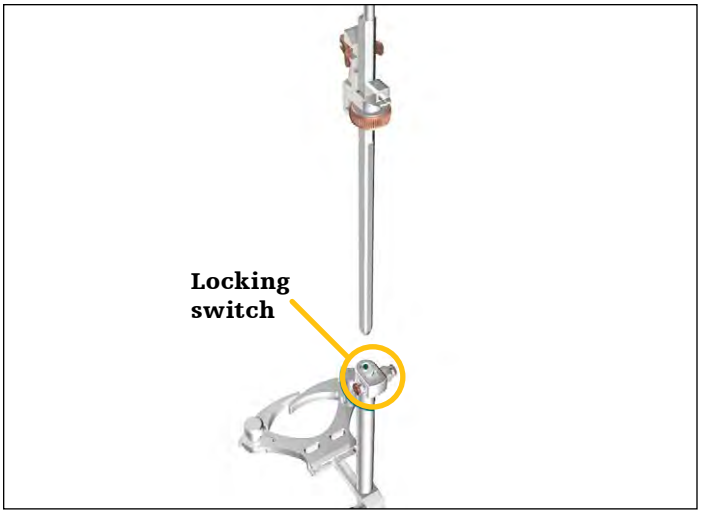

Figure 1c

Ensure that the bronze slide lock on the superior portion of the Distal Assembly is in the unlocked position prior to insertion of the Proximal Rod and Tibial Adjustment Housing assembly.

Insert the Proximal Rod and Tibial Adjustment Housing assembly into the hole on the superior portion of the Distal Assembly.

- **Note:** Ensure the Proximal Rod arm extends in the same direction as the assembled Ankle Clamp.

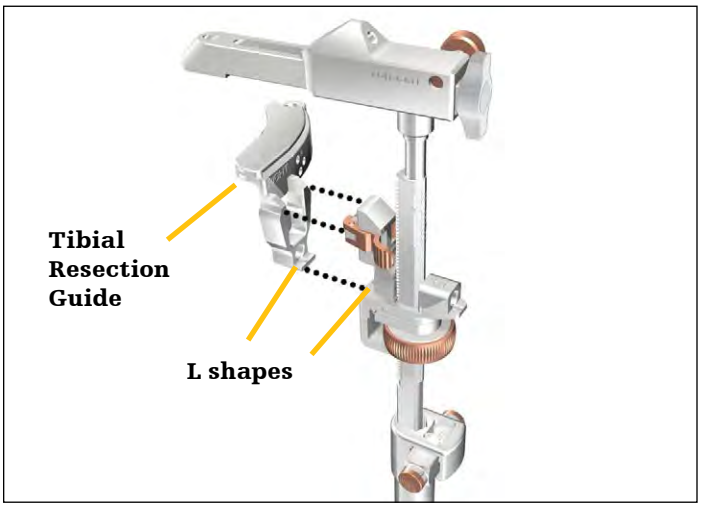

Figure 1d

Squeeze the bronze tabs on the Tibial Adjustment Housing and assemble the MIS Captured, MIS Uncaptured or Standard Uncaptured Tibial Resection Guide with the resection surface facing up.

Release the bronze tabs and ensure that the Tibial Resection Guide is locked in place.

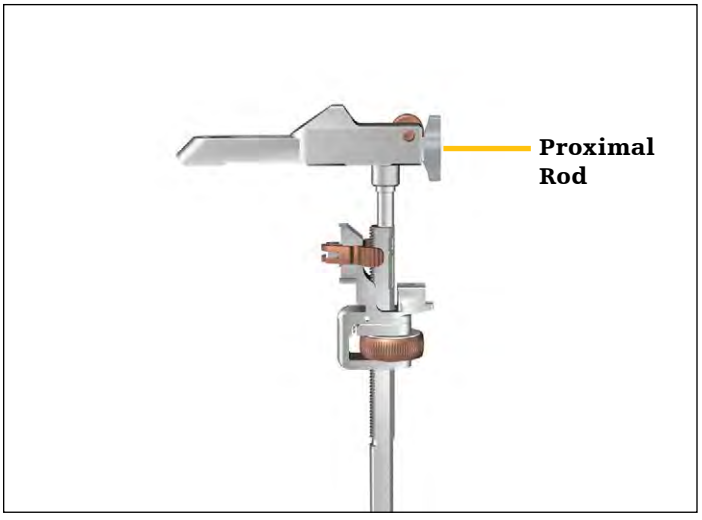

Figure 1e

The MIS Proximal Rod has a retractable tibial plateau referencing arm. Ensure that the arm position is fully extended; to extend or retract the fixation arm, depress the bronze button on the left side of the MIS Proximal Rod and slide the fixation arm.

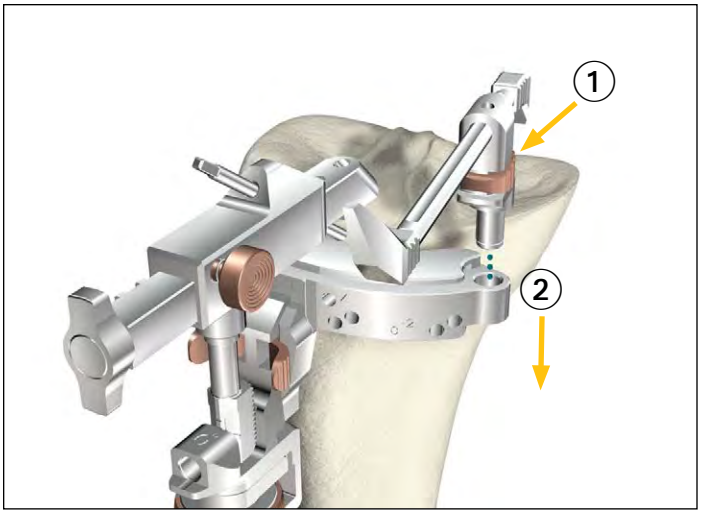

Figure 1f

Squeeze the bronze swing trigger on the Tibial Stylus and insert the post into either the medial or lateral hole located on the resection plane of the Tibial Resection Guide.

Release the bronze swing trigger to lock the Tibial Stylus in place.

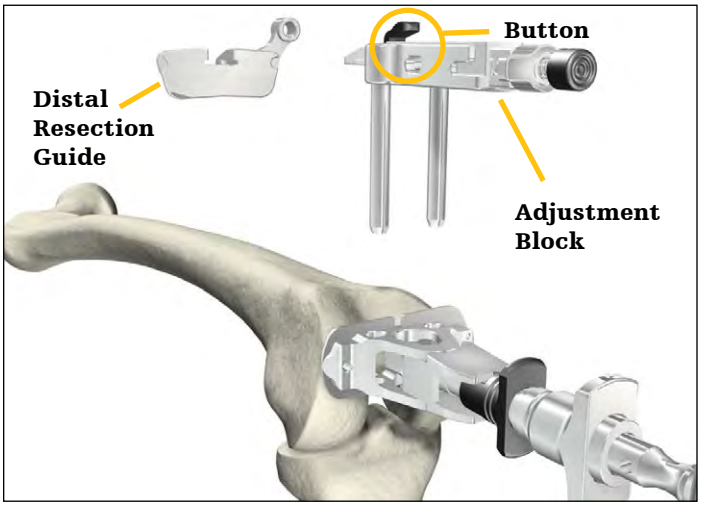

Figure 2a

MIS Distal Resection Guide, MIS Adjustment Block and MIS Femoral Alignment Guide assembly:

Select the appropriate Left or Right Distal Resection Guide and assemble it onto the MIS Adjustment Block.

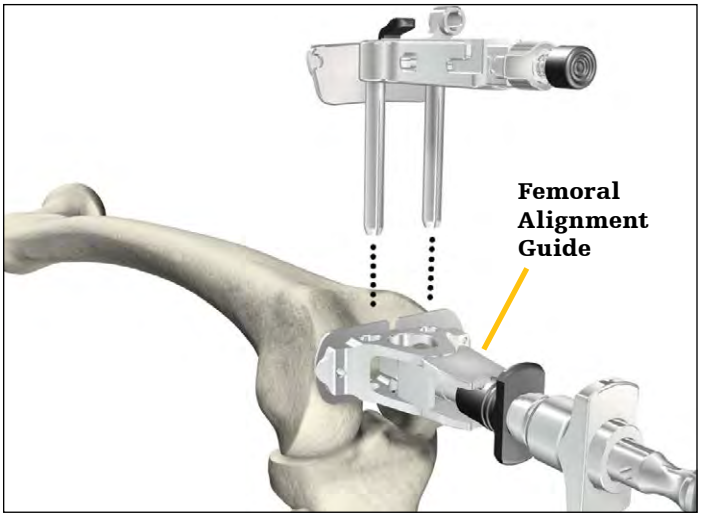

Figure 2b

Insert the two posts of the Adjustment Block into the holes on the Femoral Alignment Guide (for use on the left or right side).

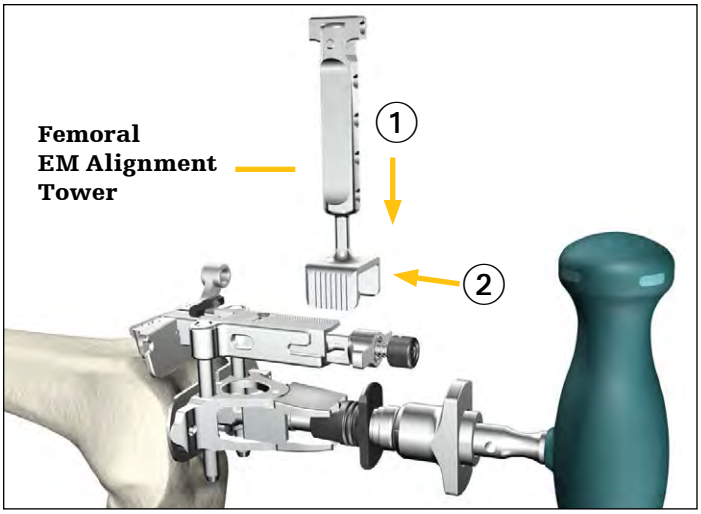

Figure 3a

Femoral EM Alignment Tower, MIS Femoral Adjustment Block and Universal Alignment Rod assembly:

Slide the EM Alignment Tower onto the MIS Femoral Adjustment Block.

First bring the EM Alignment Tower down over the rear of the Femoral Adjustment block (1), then slide it forward to secure it (2).

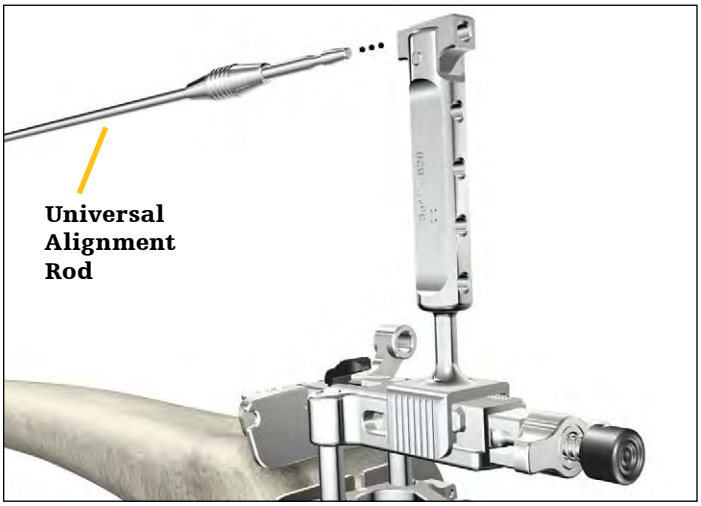

Figure 3b

Insert the Universal Alignment Rod through the hole on the Femoral EM Alignment Tower.

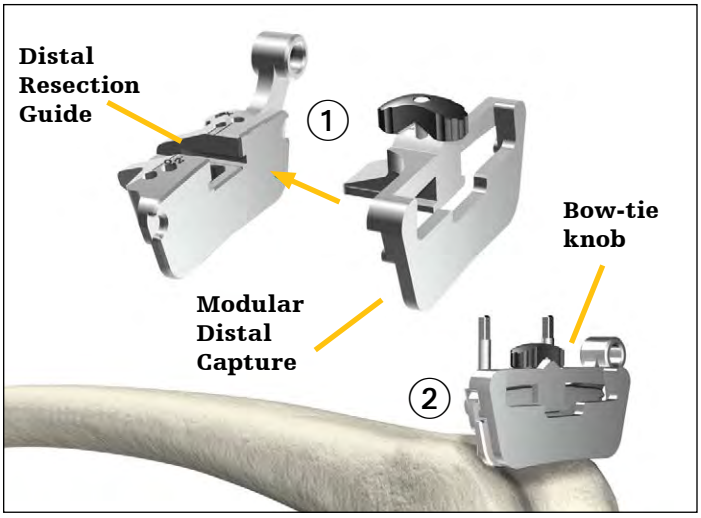

Figure 3c

Assembly of the optional Modular Distal Capture (1).

Once in place, rotate the 'bow-tie" knob to lock the capture into place (2).

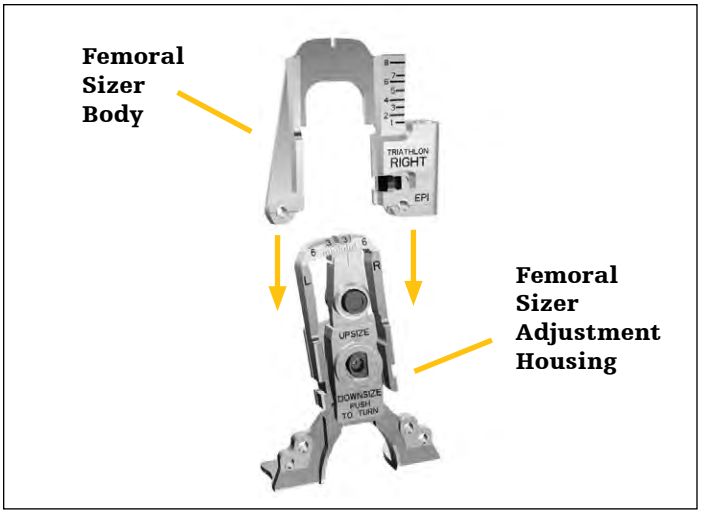

Figure 4a

MIS Femoral A/P Sizer and MIS Femoral Stylus assembly:

Assemble the Left/Right modular body onto the MIS Femoral A/P Sizer Adjustment Housing by first unlocking the assembly latch, sliding the Left or Right body onto the Adjustment Housing, then turning the latch to the lock position

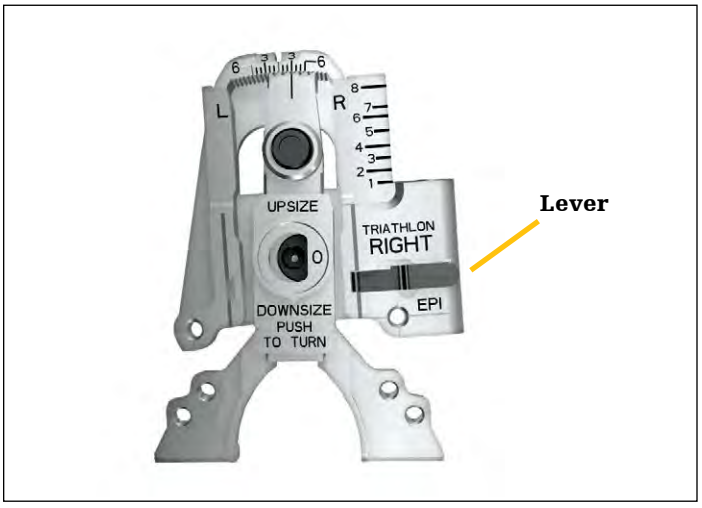

Figure 4b

Final assembly.

Figure 4c

Slide the MIS Femoral Stylus into the medial hole of the MIS Femoral A/P Sizer.

For A/P translation, insert the male hex of the MIS Femoral Flexion Impactor into the black hex interface of the A/P Sizer Adjustment Housing. Press and rotate to adjust A/P translation up or down by up to 1.5mm.

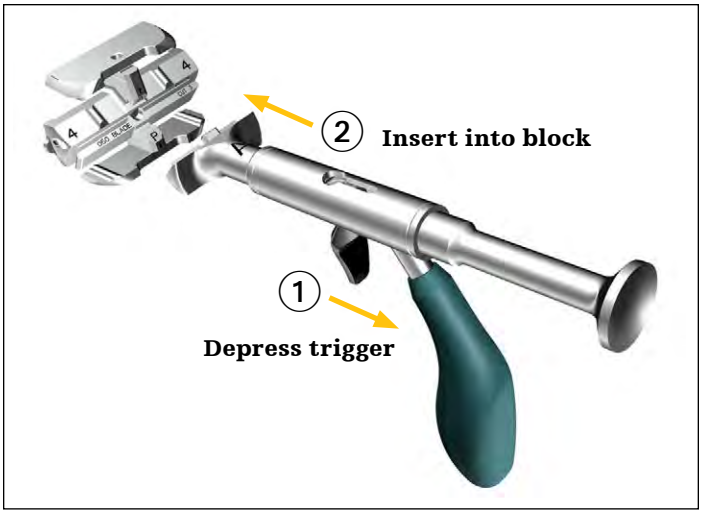

Figure 5a

MIS 4:1 Cutting Block, MIS 4:1 Impactor/Extractor and MIS 4:1 Modular Capture assembly:

Position the 4:1 Impactor/Extractor perpendicular to the flat face of the desired size 4:1 Cutting Block.

While depressing the trigger ① on the MIS 4:1 Impactor/Extractor, position the Impactor/Extractor about 5mm to the left or right of the 4:1 block's central spine.

Insert the upturned tabs of the MIS 4:1 Impactor/Extractor into the anterior chamfer slot of the 4:1 block ②.

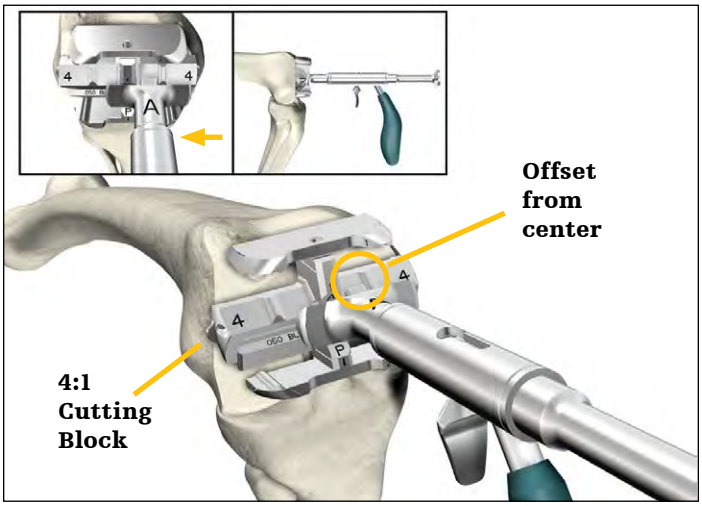

Figure 5b

Release the trigger and slide the MIS 4:1 Impactor/Extractor handle to the center.

An audible click indicates that the Impactor/Extractor has successfully locked to the 4:1 Cutting Block.

To disengage the MIS 4:1 Impactor Extractor from the MIS 4:1 Cutting Block, pull and hold the trigger and slide the handle medially within the anterior chamfer slot and extract the handle from the guide. Release the Impactor/Extractor handle.

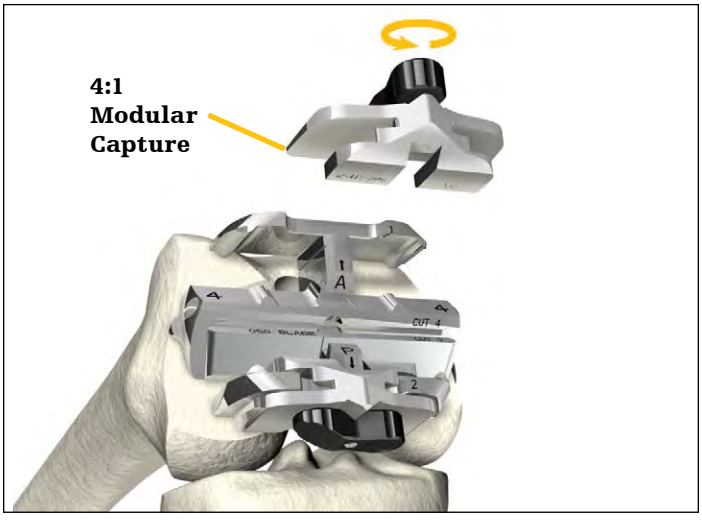

Figure 5c

To attach the MIS 4:1 Modular Capture, rotate the black "bow-tie" knob.

Attach the MIS 4:1 Modular Capture to the anterior or posterior resection surfaces by positioning it over the juncture of the 4:1 block and resection so that the capture surface is parallel to the resection surface.

Once fully seated, rotate the "bow-tie" knob to lock the capture into place.

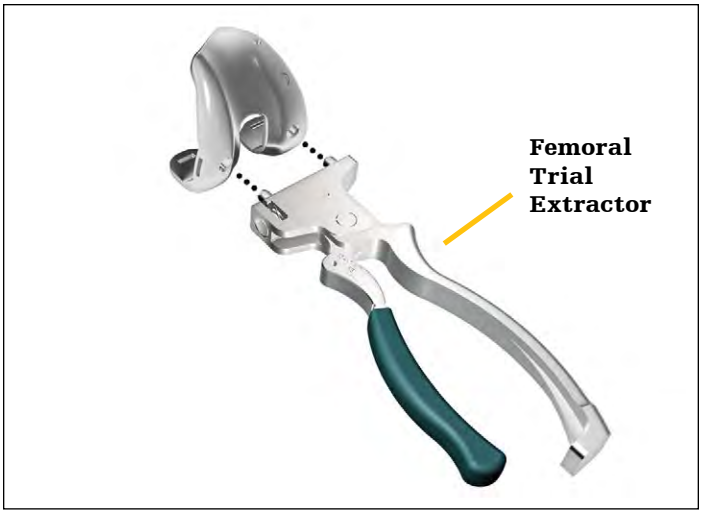

Figure 6a

MIS Femoral Trial Extractor and Femoral Trial or PS Box Guide assembly:

Insert the posts of the MIS Femoral Trial Extractor into the lugholes of the femoral trial and squeeze the handle of the MIS Femoral Trial Extractor to hold the femoral trial. Releasing the handle will release the trial.

The Femoral Trial Extractor can be used to hold, impact and extract the MIS PS Box Cutting Guide.

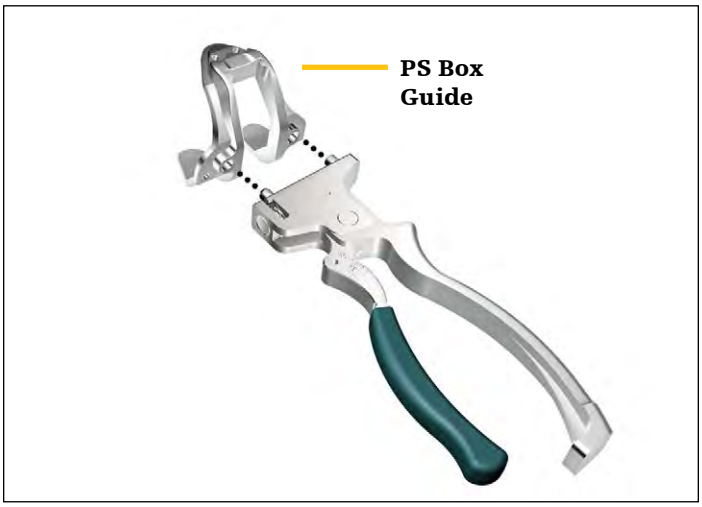

Figure 6b

Assembly with PS Box Guide (same as above).

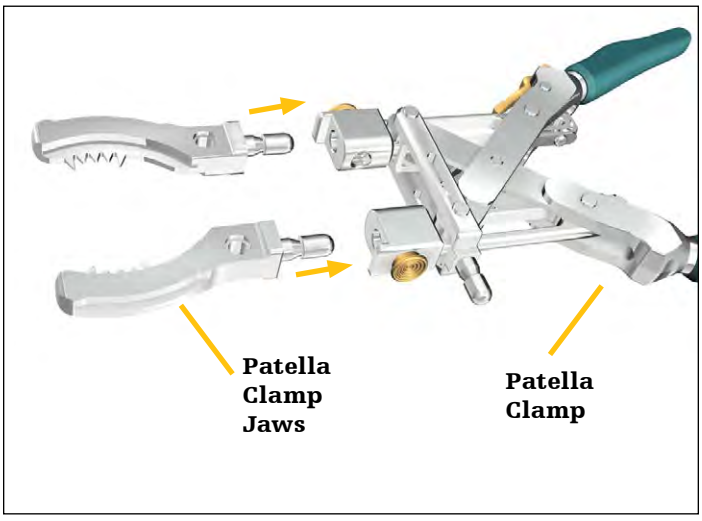

Figure 7a

Patella Clamp, Patella Stylus and Patella Clamp Jaws Assembly (this may also be used to assemble the Patella Clamp Base, Patella Drill Template and Patella Cement Cap to the Patella Clamp):

Snap the Patella Clamp jaws into the holes on the Patella Clamp.

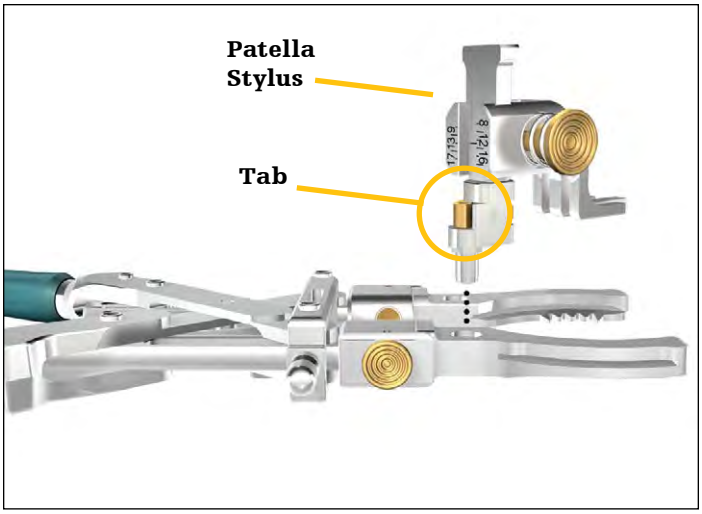

Figure 7b

Squeeze the gold tab on the Patella Stylus and insert the post into the hole on either jaw. Use the holes on the top surface of the jaws if using the bone removing method or on the bottom surface if using the bone remaining method.

The top surface has circular holes, which allow the Stylus to rotate and the bottom surface has hex-shaped holes fixing the Stylus in the center of the patella.

Release the gold tab to lock the Patella Stylus in place.

Figure 8

MIS Femoral Flexion Impactor:

Connect the MIS Femoral Flexion Impactor to the Impaction Handle.

The MIS Femoral Flexion Impactor is placed in the intertrochlear groove of the femoral implant and used to begin impaction of the implant onto the distal femur.

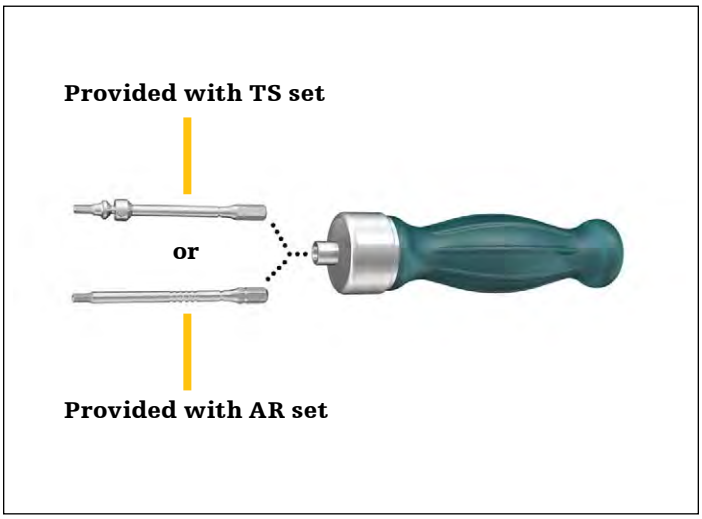

Figure 9a

1/8″ Hex Drive, Slip Torque Handle and Modular Femoral Distal Fixation Pegs assembly:

Snap the 1/8″ Hex Drive into the Slip Torque Handle.

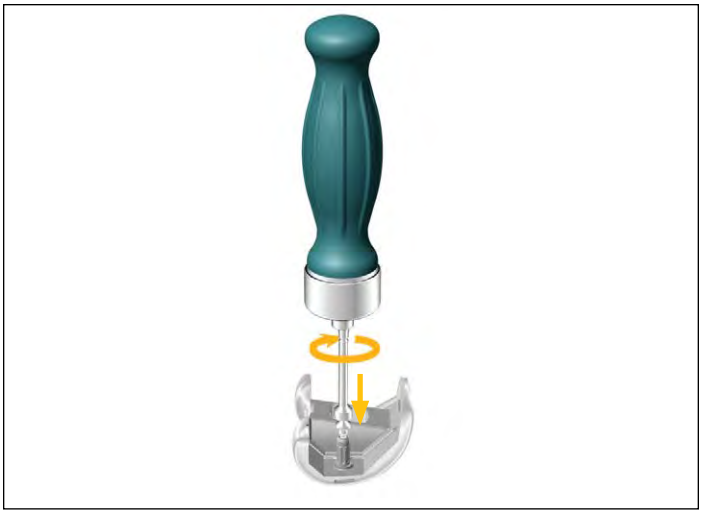

Figure 9b

Insert the tip of the 1/8″ Hex Drive into the Modular Femoral Distal Fixation Peg and turn the Slip Torque Handle to tighten.

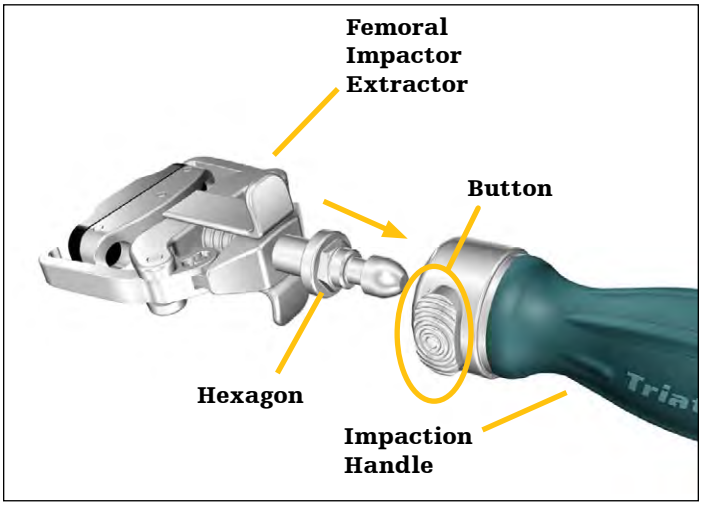

Figure 10a

Femoral Impactor/Extractor, Impaction Handle and Femoral Trial or Femoral Component assembly:

Press the handle button on the Impaction Handle and insert the Femoral Impactor/Extractor into the Impaction Handle.

Ensure the hexagon on the Femoral Impactor/Extractor is fully seated in the Impaction Handle. When fully seated, there will be an audible snap.

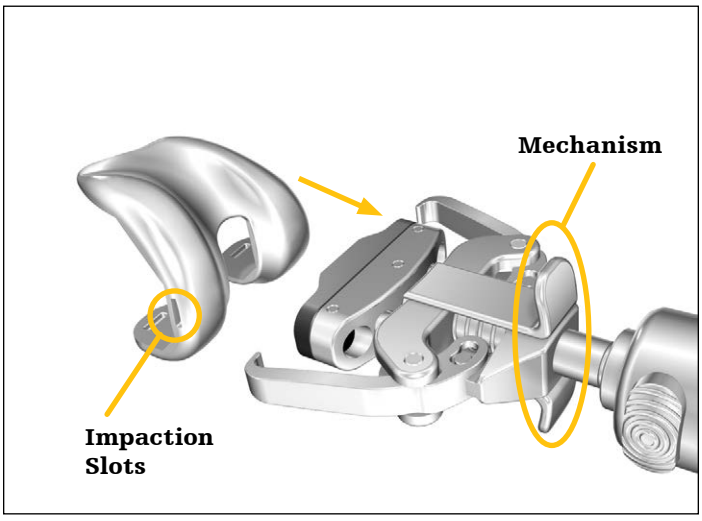

Figure 10b

Turn the Impaction Handle counterclockwise until there is enough space (approximately 10mm) between the black impaction surface and the ends of the jaws to insert the Femoral Trial or Femoral Component.

Pull back on the mechanism to open the jaws. Engage the jaws into the impaction slots on the Femoral Trial or Femoral Component.

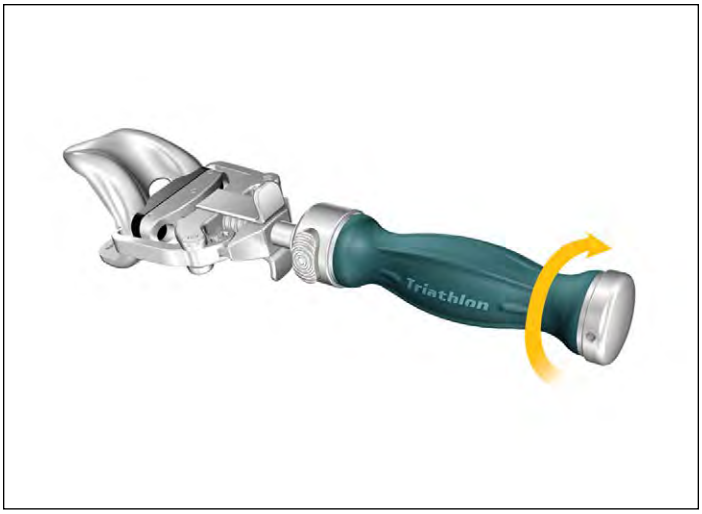

Figure 10c

Turn the Impaction Handle clockwise to tighten, ensuring the impaction surface locks against the distal condyles of the Femoral Trial or Femoral Component.

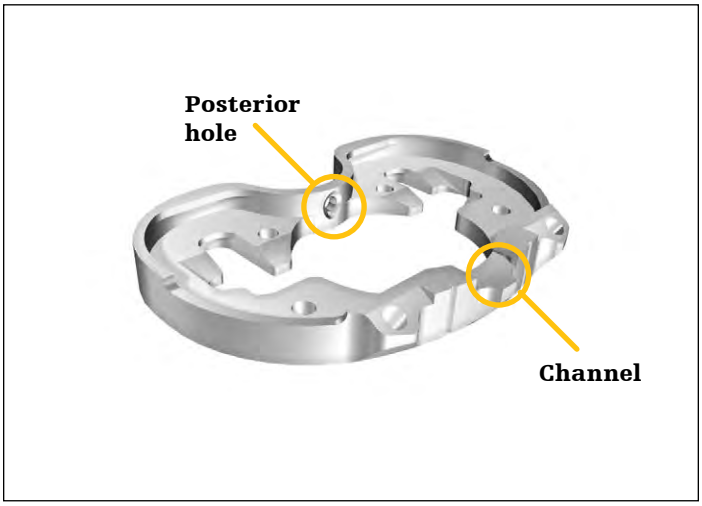

Figure 11a

Tibial Template, Alignment Handle and PS, CS or CR Tibial Insert Trial assembly:

Posterior hole and Channel of Universal Tibial Template.

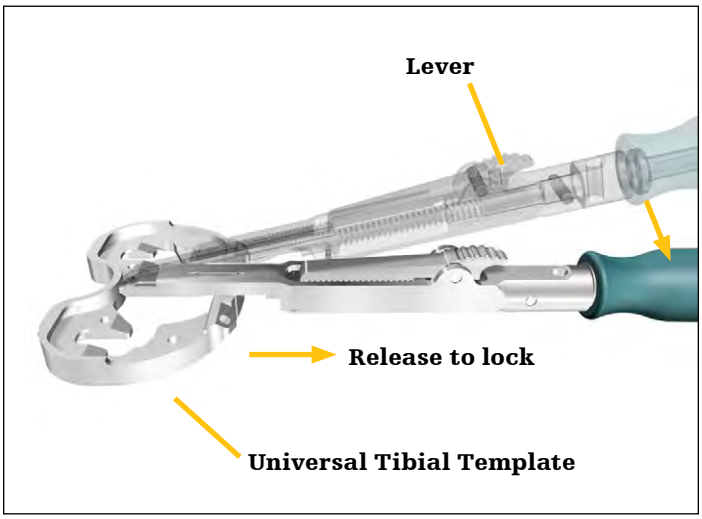

Figure 11b

Press the back of the bronze lever on the Alignment Handle to disengage the pawl. With the handle at a slight angle to the top surface of the template, insert the spring-loaded tip of the Alignment Handle into the central posterior hole of the Universal Tibial Template.

Compress the spring-loaded tip by pushing it forward and lower the Alignment Handle into the channel on the anterior portion of the Universal Tibial Template. Release the spring tension and allow the Alignment Handle to engage the Universal Tibial Template channel tabs.

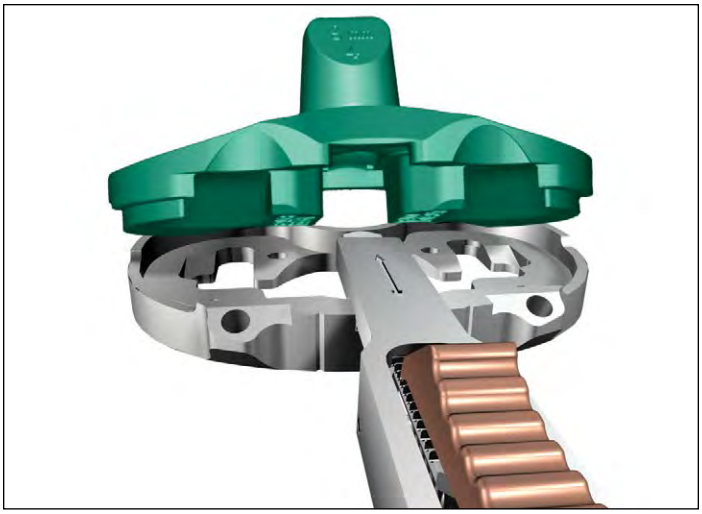

Figure 11c

The Tibial Insert Trial can be assembled with the Tibial Alignment Handle in place. Insert the posterior catches into the tray's posterior undercuts at a slight angle. Lower the trial until it seats firmly.

▸ **Note:** The insert trial does not lock into place.

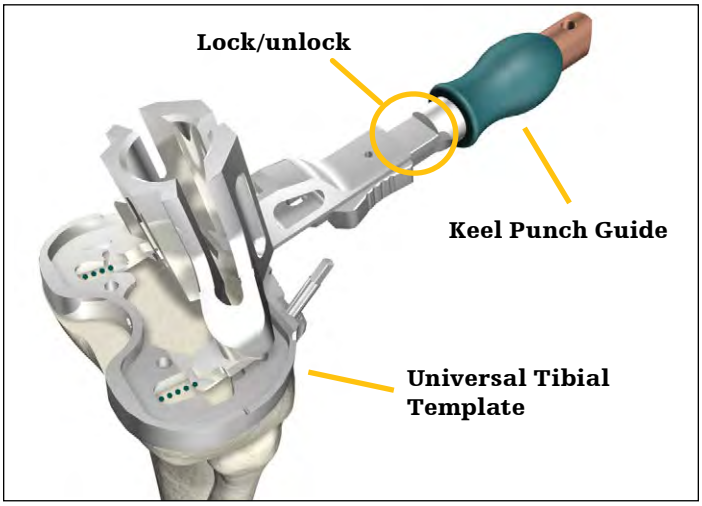

Figure 12a

Universal Tibial Template and Keel Punch Guide assembly:

Ensure that the handle of the Keel Punch Guide is unlocked – pull back on the handle to unlock.

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting the Keel Punch Guide, at a slight angle to the Universal Tibial Template, into the two locating slots towards the posterior portion of the Universal Tibial Template.

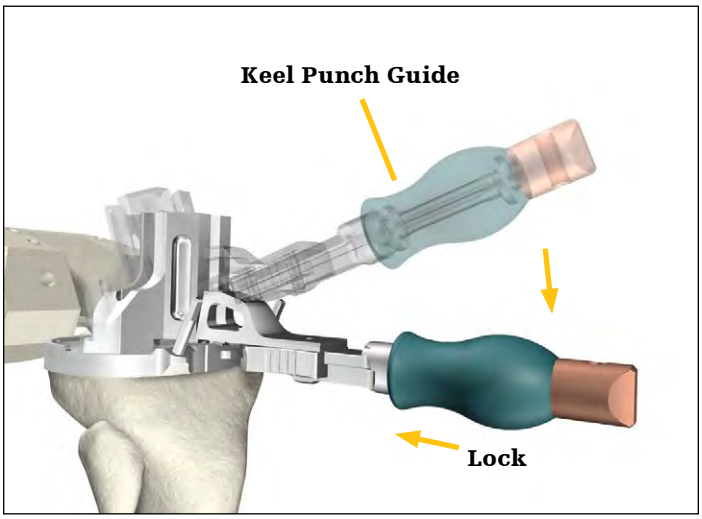

Figure 12b

Rotate the Keel Punch Guide down to sit flat on the Universal Tibial Template and push forward on the handle of the Keel Punch Guide to lock it to the Universal Tibial Template. Ensure that the Keel Punch Guide is seated flat on the Universal Tibial Template prior to locking.

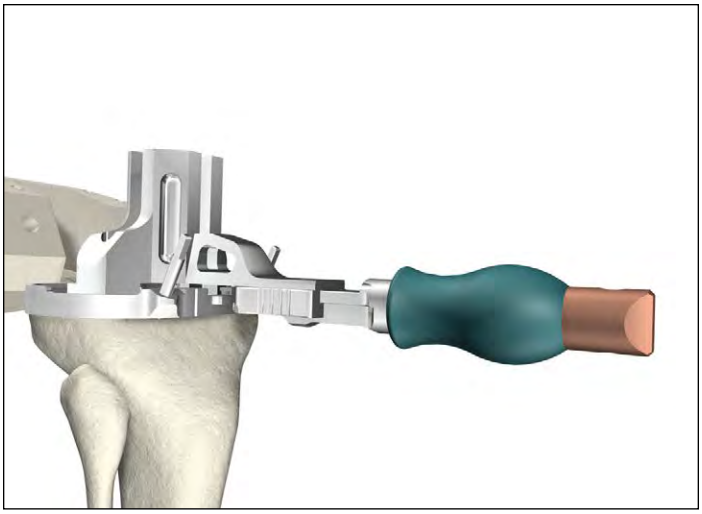

Figure 12c

Final assembly.

Instruments

Ref #	Description	Quantity in kit
MIS miscellaneous instruments kit contents		
3170-0000	1/8″ Drill	1
6541-4-003 or 6541-4-003A	Headless Pin - 3″	1
6541-4-300	Headed Pin Impactor Extractor	1
6541-4-400	Blade Runner	1
6541-4-515	Headed Nails - 1 1/2″	2
6541-4-516	5/16″ IM Rod	1
6541-4-518	1/8″ Peg Drill	1
6541-4-525	1/4″ Peg Drill	1
6541-4-538	3/8″ IM Drill	1
6541-4-575	Headed Nail - 3/4″	2
6541-4-602	Universal Alignment Rod	2
6541-4-610	Adjustable Spacer Block	1
6541-4-700	Bone File	1
6541-4-709	Box Chisel	1
6541-4-710	Posterior Osteophyte Removal Tool	1
6541-4-800	T- Handle Driver	1
6541-4-801	Universal Driver	1
6541-4-802	1/8″ Hex Drive	1
6541-4-803	Slap Hammer	1
6541-4-804	Headless Pin Extractor	1
6541-4-805	Baseplate Impactor Extractor	1
6541-4-806	Universal Alignment Handle	1
6541-4-807	Femoral Impactor Extractor	1
6541-4-809	Headless Pin Driver	1
6541-4-810	Impaction Handle	2
6541-4-811	Femoral Impactor	1
6541-4-812	Tibial Baseplate Impactor	1
6541-4-813	Tibial Insert Impactor	1
6541-4-825	Slip Torque handle	1
6541-8-004	Miscellaneous Instrument Upper Tray	1
6541-8-104	Miscellaneous Instrument Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 36

Instruments

Ref #	Description	Quantity in kit
Patella Preparation and Trialing Kit contents		
5550-T-278	Symmetric Patella Trial 27mm x 8mm	1
5550-T-298	Symmetric Patella Trial 29mm x 8mm	1
5550-T-319	Symmetric Patella Trial 31mm x 9mm	1
5550-T-339	Symmetric Patella Trial 33mm x 9mm	1
5550-T-360	Symmetric Patella Trial 36mm x 10mm	1
5550-T-391	Symmetric Patella Trial 39mm x 11mm	1
5551-T-299	Asymmetric Patella Trial 29mm (S/I) x 33mm (M/L) x 9mm	1
5551-T-320	Asymmetric Patella Trial 32mm (S/I) x 36mm (M/L) x 10mm	1
5551-T-350	Asymmetric Patella Trial 35mm (S/I) x 39mm (M/L) x 10mm	1
5551-T-381	Asymmetric Patella Trial 38mm (S/I) x 42mm (M/L) x 11mm	1
5551-T-401	Asymmetric Patella Trial 40mm (S/I) x 44mm (M/L) x 11mm	1
6541-3-524	All-Poly Patella Drill w/ Stop	1
6541-3-600	Patella Clamp	1
6541-3-601	Patella Stylus	1
6541-3-602	Patella Caliper	1
6541-3-617	Asymmetric Patella Drill Template - 29mm	1
6541-3-618	Asymmetric Patella Drill Template - 32mm	1
6541-3-619	Asymmetric Patella Drill Template - 35mm	1
6541-3-620	Asymmetric Patella Drill Template - 38mm	1
6541-3-621	Asymmetric Patella Drill Template - 40mm	1
6541-3-627	Symmetric Patella Drill Template - 27mm	1
6541-3-629	Symmetric Patella Drill Template - 29mm	1
6541-3-631	Symmetric Patella Drill Template - 31mm	1
6541-3-633	Symmetric Patella Drill Template - 33mm	1
6541-3-636	Symmetric Patella Drill Template - 36mm	1
6541-3-639	Symmetric Patella Drill Template - 39mm	1
6541-3-702	Small Patella Clamp Jaw Right	1
6541-3-703	Small Patella Clamp Jaw Left	1
6541-3-704	Large Patella Clamp Jaw Right	1
6541-3-705	Large Patella Clamp Jaw Left	1
6541-3-800	Patella Cement Cap	1
6541-3-801	Patella Clamp Base	1
6541-8-005	Patella Preparation and Trialing -Upper Tray	1
6541-8-105	Patella Preparation and Trialing -Lower Tray	1
8050-5001L	Left Lateral Tibial Retractor	1
8050-5001R	Right Lateral Tibial Retractor	1
8050-5002	Anterior Femoral Retractor	1
6541-9-000	Triathlon Case	1
		Total quantity 36

Instruments

Ref #	Description	Quantity in kit
MIS Size 3-6 Femoral and Tibial Preparation Kit contents		
6541-2-013	Size 1-3 Keel Punch	1
6541-2-046	Size 4-6 Keel Punch	1
6541-2-429	Tibial Stylus	1
6541-2-603	#3 Universal Tibial Template	1
6541-2-604	#4 Universal Tibial Template	1
6541-2-605	#5 Universal Tibial Template	1
6541-2-606	#6 Universal Tibial Template	1
6541-2-609	Tibial Alignment Ankle Clamp EM	1
6541-2-610	Tibial Alignment Distal Assembly EM	1
6541-2-704	Tibial Adjustment Housing - 0° slope	1
6541-2-705	Tibial Adjustment Housing - 3° slope	1
6541-2-713	Size 1-3 Keel Punch Guide	1
6541-2-748	Size 4-8 Keel Punch Guide	1
6541-2-807	Tibial Alignment Handle	1
6541-5-500	MIS AP Sizer Adjustment Housing	1
6541-5-508	MIS AP Sizer Body - Left	1
6541-5-509	MIS AP Sizer Body - Right	1
6541-5-510	MIS Femoral Stylus	1
6541-5-601	MIS Femoral Adjustment Block	1
6541-5-610	MIS Femoral Navigation Stylus	1
6541-5-629	MIS Femoral Alignment Guide	1
6541-5-703	#3 MIS 4:1 Cutting Block	1
6541-5-704	#4 MIS 4:1 Cutting Block	1
6541-5-705	#5 MIS 4:1 Cutting Block	1
6541-5-706	#6 MIS 4:1 Cutting Block	1
6541-5-721	MIS Distal Resection Guide - Left	1
6541-5-722	MIS Distal Resection Guide - Right	1
6541-5-723	MIS Modular Distal Capture	1
6541-5-806	MIS 4:1 Modular Capture	2
6541-6-611	MIS Proximal Rod EM	1
6541-7-806	MIS 4:1 Impactor / Extractor	1
6541-7-807	MIS Femoral Trial Extractor	1
6541-7-808	MIS Femoral EM Alignment Tower	1
6541-7-811	MIS Femoral Flexion Impactor	1
6541-7-812	Tibial Protector Plate - S	1
6541-7-813	Tibial Protector Plate - M	1
6541-7-814	Tibial Protector Plate - L	1
6541-7-815	Patella Protector Plate - S/M	1
6541-7-816	Patella Protector Plate - M/L	1
6541-8-030	MIS Size 3-6 Femoral and Tibial Preparation - Upper	1
6541-8-130	MIS Size 3-6 Femoral and Tibial Preparation - Lower	1
6541-9-000	Triathlon Case	1
		Total quantity 43

Instruments

Ref #	Description	Quantity in kit
Size 3-6 CR Femoral and Tibial Trialing Kit contents		
5510-T-301	CR Femoral Trial #3 Left	1
5510-T-302	CR Femoral Trial #3 Right	1
5510-T-401	CR Femoral Trial #4 Left	1
5510-T-402	CR Femoral Trial #4 Right	1
5510-T-501	CR Femoral Trial #5 Left	1
5510-T-502	CR Femoral Trial #5 Right	1
5510-T-601	CR Femoral Trial #6 Left	1
5510-T-602	CR Femoral Trial #6 Right	1
5530-T-309A or 5530-T-309B*	CR Tibial Insert Trial # 3 -9mm	1
5530-T-311A or 5530-T-311B*	CR Tibial Insert Trial # 3 -11mm	1
5530-T-313A or 5530-T-313B*	CR Tibial Insert Trial # 3 -13mm	1
5530-T-316A or 5530-T-316B*	CR Tibial Insert Trial # 3 -16mm	1
5530-T-319A or 5530-T-319B*	CR Tibial Insert Trial # 3 -19mm	1
5530-T-409A or 5530-T-409B*	CR Tibial Insert Trial # 4 -9mm	1
5530-T-411A or 5530-T-411B*	CR Tibial Insert Trial #4 -11mm	1
5530-T-413A or 5530-T-413B*	CR Tibial Insert Trial # 4 -13mm	1
5530-T-416A or 5530-T-416B*	CR Tibial Insert Trial # 4 -16mm	1
5530-T-419A or 5530-T-419B*	CR Tibial Insert Trial # 4 -19mm	1
5530-T-509A or 5530-T-509B*	CR Tibial Insert Trial # 5 -9mm	1
5530-T-511A or 5530-T-511B*	CR Tibial Insert Trial # 5 -11mm	1
5530-T-513A or 5530-T-513B*	CR Tibial Insert Trial # 5 -13mm	1
5530-T-516A or 5530-T-516B*	CR Tibial Insert Trial # 5 -16mm	1
5530-T-519A or 5530-T-519B*	CR Tibial Insert Trial # 5 -19mm	1
5530-T-609A or 5530-T-609B*	CR Tibial Insert Trial # 6 -9mm	1
5530-T-611A or 5530-T-611B*	CR Tibial Insert Trial #6 -11mm	1
5530-T-613A or 5530-T-613B*	CR Tibial Insert Trial # 6 -13mm	1
5530-T-616A or 5530-T-616B*	CR Tibial Insert Trial # 6 -16mm	1
5530-T-619A or 5530-T-619B*	CR Tibial Insert Trial # 6 -19mm	1
6541-8-008	Size 3-6 CR Femoral and Tibial Trialing- Upper Tray	1
6541-8-108	Size 3-6 CR Femoral and Tibial Trialing- Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 31

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Instruments

Ref #	Description	Quantity in kit
Size 3-6 PS Femoral and Tibial Trialing Kit contents		
5511-T-301	PS Femoral Trial #3 Left	1
5511-T-302	PS Femoral Trial #3 Right	1
5511-T-401	PS Femoral Trial #4 left	1
5511-T-402	PS Femoral Trial #4 Right	1
5511-T-501	PS Femoral Trial #5 Left	1
5511-T-502	PS Femoral Trial #5 Right	1
5511-T-601	PS Femoral Trial #6 Left	1
5511-T-602	PS Femoral Trial #6 Right	1
5532-T-309A or 5532-T-309B*	PS Tibial Insert Trial #3-9mm	1
5532-T-311A or 5532-T-311B*	PS Tibial Insert Trial #3-11mm	1
5532-T-313A or 5532-T-313B*	PS Tibial Insert Trial #3-13mm	1
5532-T-316A or 5532-T-316B*	PS Tibial Insert Trial #3-16mm	1
5532-T-319A or 5532-T-319B*	PS Tibial Insert Trial #3-19mm	1
5532-T-409A or 5532-T-409B*	PS Tibial Insert Trial #4-9mm	1
5532-T-411A or 5532-T-411B*	PS Tibial Insert Trial #4-11mm	1
5532-T-413A or 5532-T-413B*	PS Tibial Insert Trial #4-13mm	1
5532-T-416A or 5532-T-416B*	PS Tibial Insert Trial #4-16mm	1
5532-T-419A or 5532-T-419B*	PS Tibial Insert Trial #4-19mm	1
5532-T-509A or 5532-T-509B*	PS Tibial Insert Trial #5-9mm	1
5532-T-511A or 5532-T-511B*	PS Tibial Insert Trial #5-11mm	1
5532-T-513A or 5532-T-513B*	PS Tibial Insert Trial #5-13mm	1
5532-T-516A or 5532-T-516B*	PS Tibial Insert Trial #5-16mm	1
5532-T-519A or 5532-T-519B*	PS Tibial Insert Trial #5-19mm	1
5532-T-609A or 5532-T-609B*	PS Tibial Insert Trial #6-9mm	1
5532-T-611A or 5532-T-611B*	PS Tibial Insert Trial #6-11mm	1
5532-T-613A or 5532-T-613B*	PS Tibial Insert Trial #6-13mm	1
5532-T-616A or 5532-T-616B*	PS Tibial Insert Trial #6-16mm	1
5532-T-619A or 5532-T-619B*	PS Tibial Insert Trial #6-19mm	1
6541-5-713	#3 PS Box Cutting Guide	1
6541-5-714	#4 PS Box Cutting Guide	1
6541-5-715	#5 PS Box Cutting Guide	1
6541-5-716	#6 PS Box Cutting Guide	1
6541-8-009	Size 3-6 Femoral and Tibial Trialing- Upper Tray	1
6541-8-109	Size 3-6 PS Femoral and Tibial Trialing-Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 35

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Instruments

Ref #	Description	Quantity in kit
Size 2, 7 CR Preparation and Trialing Kit contents		
5510-T-201	CR Femoral Trial #2 Left	1
5510-T-202	CR Femoral Trial #2 Right	1
5510-T-701	CR Femoral Trial #7 Left	1
5510-T-702	CR Femoral Trial #7 Right	1
5530-T-209A or 5530-T-209B*	CR Tibial Insert Trial # 2 -9mm	1
5530-T-211A or 5530-T-211B*	CR Tibial Insert Trial # 2 -11mm	1
5530-T-213A or 5530-T-213B*	CR Tibial Insert Trial # 2 -13mm	1
5530-T-216A or 5530-T-216B*	CR Tibial Insert Trial # 2 -16mm	1
5530-T-219A or 5530-T-219B*	CR Tibial Insert Trial # 2 -19mm	1
5530-T-709A or 5530-T-709B*	CR Tibial Insert Trial # 7 -9mm	1
5530-T-711A or 5530-T-711B*	CR Tibial Insert Trial # 7 -11mm	1
5530-T-713A or 5530-T-713*	CR Tibial Insert Trial # 7 -13mm	1
5530-T-716A or 5530-T-716B*	CR Tibial Insert Trial # 7 -16mm	1
5530-T-719A or 5530-T-719*	CR Tibial Insert Trial # 7 -19mm	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
6541-8-021	2,7 CR Preparation and Trialing- Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 20
Size 2, 7 PS Preparation and Trialing Kit contents		
5511-T-201	PS Femoral Trial #2 Left	1
5511-T-202	PS Femoral Trial #2 Right	1
5511-T-701	PS Femoral Trial #7 Left	1
5511-T-702	PS Femoral Trial #7 Right	1
5532-T-209A or 5532-T-209B*	PS Tibial Insert Trial # 2- 9mm	1
5532-T-211A or 5532-T-211B*	PS Tibial Insert Trial # 2 -11mm	1
5532-T-213A or 5532-T-213B*	PS Tibial Insert Trial # 2 -13mm	1
5532-T-216A or 5532-T-216B*	PS Tibial Insert Trial # 2 -16mm	1
5532-T-219A or 5532-T-219B*	PS Tibial Insert Trial # 2 -19mm	1
5532-T-709A or 5532-T-709B*	PS Tibial Insert Trial # 7 -9mm	1
5532-T-711A or 5532-T-711B*	PS Tibial Insert Trial # 7 -11mm	1
5532-T-713A or 5532-T-713B*	PS Tibial Insert Trial # 7 -13mm	1
5532-T-716A or 5532-T-716B*	PS Tibial Insert Trial # 7 -16mm	1
5532-T-719A or 5532-T-719B*	PS Tibial Insert Trial # 7 -19mm	1
6541-5-712	#2 MIS PS Box Cutting Guide	1
6541-5-717	#7 MIS PS Box Cutting Guide	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
6541-8-022	2,7 PS Preparation and Trialing- Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 22

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Instruments

Ref #	Description	Quantity in kit
MIS Size 1,8 CR Preparation and Trialing Kit contents		
5510-T-101	CR Femoral Trial # 1 Left	1
5510-T-102	CR Femoral Trial # 1 Right	1
5510-T-801	CR Femoral Trial # 8 Left	1
5510-T-802	CR Femoral Trial # 8 Right	1
5530-T-109A or 5530-T-109B*	CR Tibial Insert Trial #1 - 9mm	1
5530-T-111A or 5530-T-111B*	CR Tibial Insert Trial #1 - 11mm	1
5530-T-113A or 5530-T-113B*	CR Tibial Insert Trial #1 - 13mm	1
5530-T-116A or 5530-T-116B*	CR Tibial Insert Trial #1 - 16mm	1
5530-T-119A or 5530-T-119B*	CR Tibial Insert Trial #1 - 19mm	1
5530-T-809A or 5530-T-809B*	CR Tibial Insert Trial #8 - 9mm	1
5530-T-811A or 5530-T-811B*	CR Tibial Insert Trial #8 - 11mm	1
5530-T-813A or 5530-T-813B*	CR Tibial Insert Trial #8 - 13mm	1
5530-T-816A or 5530-T-816B*	CR Tibial Insert Trial #8 - 16mm	1
5530-T-819A or 5530-T-819B*	CR Tibial Insert Trial #8 - 19mm	1
6541-2-601	#1 - Universal Tibial Template	1
6541-2-608	#8 - Universal Tibial Template	1
6541-8-112	1-8 CR Lower Tray	1
		Total quantity 19
MIS Size 1,8 PS Preparation and Trialing Kit contents		
5511-T-101	PS Femoral Trial # 1 Left	1
5511-T-102	PS Femoral Trial # 1 Right	1
5511-T-801	PS Femoral Trial # 8 Left	1
5511-T-802	PS Femoral Trial # 8 Right	1
5532-T-109A or 5532-T-109B*	PS Tibial Insert Trial # 1 - 9mm	1
5532-T-111A or 5532-T-111B*	PS Tibial Insert Trial # 1 - 11mm	1
5532-T-113A or 5532-T-113B*	PS Tibial Insert Trial # 1 - 13mm	1
5532-T-116A or 5532-T-116B*	PS Tibial Insert Trial # 1 - 16mm	1
5532-T-119A or 5532-T-119B*	PS Tibial Insert Trial # 1 - 19mm	1
5532-T-809A or 5532-T-809B*	PS Tibial Insert Trial # 8 - 9mm	1
5532-T-811A or 5532-T-811B*	PS Tibial Insert Trial # 8 - 11mm	1
5532-T-813A or 5532-T-813B*	PS Tibial Insert Trial # 8 - 13mm	1
5532-T-816A or 5532-T-816B*	PS Tibial Insert Trial # 8 - 16mm	1
5532-T-819A or 5532-T-819B*	PS Tibial Insert Trial # 8 - 19mm	1
6541-2-601	#1 - Universal Tibial Template	1
6541-2-608	#8 - Universal Tibial Template	1
6541-5-701	#1 MIS 4:1 Cutting Block	1
6541-5-708	#8 MIS 4:1 Cutting Block	1
6541-5-711	#1 PS Box Cutting Guide	1
6541-5-718	#8 PS Box Cutting Guide	1
6541-8-113	1-8 PS Lower Tray	1
		Total quantity 21

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Instruments

Ref #	Description	Quantity in kit
Size 1-8 Max PS Tibial Trialing Kit contents		
5532-T-322A or 5532-T-322B*	PS Tibial Insert Trial # 3 - 22mm	1
5532-T-325A or 5532-T-325B*	PS Tibial Insert Trial # 3 - 25mm	1
5532-T-422A or 5532-T-422B*	PS Tibial Insert Trial # 4 - 22mm	1
5532-T-425A or 5532-T-425B*	PS Tibial Insert Trial # 4 - 25mm	1
5532-T-522A or 5532-T-522B*	PS Tibial Insert Trial # 5 - 22mm	1
5532-T-525A or 5532-T-525B*	PS Tibial Insert Trial # 5 - 25mm	1
5532-T-622A or 5532-T-622B*	PS Tibial Insert Trial # 6 - 22mm	1
5532-T-625A or 5532-T-625B*	PS Tibial Insert Trial # 6 - 25mm	1
5532-T-722A or 5532-T-722B*	PS Tibial Insert Trial # 7 - 22mm	1
5532-T-725A or 5532-T-725B*	PS Tibial Insert Trial # 7 - 25mm	1
5532-T-822A or 5532-T-822B*	PS Tibial Insert Trial # 8 - 22mm	1
5532-T-825A or 5532-T-825B*	PS Tibial Insert Trial # 8 - 25mm	1
6541-8-120	Triathlon Max PS Tibial Trialing Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 14
MIS Tibial Resection Guides (either Captured or Uncaptured required)		
6541-6-700	MIS Uncaptured Tibial Resection Guide - Right	1
6541-6-701	MIS Uncaptured Tibial Resection Guide - Left	1
6541-6-702	MIS Captured Tibial Resection Guide - Right	1
6541-6-703	MIS Captured Tibial Resection Guide - Left	1
		Total quantity 4

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Instruments

Ref #	Description	Quantity in kit
CR Solid Insert Trialing Tray		
5530-T-109Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 9mm	1
5530-T-110Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 10mm	1
5530-T-111Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 11mm	1
5530-T-112Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 12mm	1
5530-T-113Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 13mm	1
5530-T-114Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 14mm	1
5530-T-116Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 16mm	1
5530-T-119Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 19mm	1
5530-T-209Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 9mm	1
5530-T-210Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 10mm	1
5530-T-211Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 11mm	1
5530-T-212Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 12mm	1
5530-T-213Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 13mm	1
5530-T-214Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 14mm	1
5530-T-216Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 16mm	1
5530-T-219Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 19mm	1
5530-T-309Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 9mm	1
5530-T-310Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 10mm	1
5530-T-311Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 11mm	1
5530-T-312Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 12mm	1
5530-T-313Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 13mm	1
5530-T-314Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 14mm	1
5530-T-316Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 16mm	1
5530-T-319Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 19mm	1
5530-T-409Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 9mm	1
5530-T-410Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 10mm	1
5530-T-411Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 11mm	1
5530-T-412Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 12mm	1
5530-T-413Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 13mm	1
5530-T-414Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 14mm	1
5530-T-416Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 16mm	1
5530-T-419Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 19mm	1
5530-T-509Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 9mm	1
5530-T-510Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 10mm	1
5530-T-511Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 11mm	1
5530-T-512Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 12mm	1
5530-T-513Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 13mm	1
5530-T-514Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 14mm	1
5530-T-516Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 16mm	1
5530-T-519Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 19mm	1

Instruments

Ref #	Description	Quantity in kit
CR Solid Insert Trialing Tray - continued		
5530-T-609Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 9mm	1
5530-T-610Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 10mm	1
5530-T-611Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 11mm	1
5530-T-612Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 12mm	1
5530-T-613Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 13mm	1
5530-T-614Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 14mm	1
5530-T-616Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 16mm	1
5530-T-619Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 19mm	1
5530-T-709Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 9mm	1
5530-T-710Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 10mm	1
5530-T-711Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 11mm	1
5530-T-712Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 12mm	1
5530-T-713Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 13mm	1
5530-T-714Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 14mm	1
5530-T-716Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 16mm	1
5530-T-719Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 19mm	1
5530-T-809Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 9mm	1
5530-T-810Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 10mm	1
5530-T-811Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 11mm	1
5530-T-812Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 12mm	1
5530-T-813Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 13mm	1
5530-T-814Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 14mm	1
5530-T-816Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 16mm	1
5530-T-819Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 19mm	1
6541-9-100	Triathlon CR Insert Trial Tray (Size 1-8)	1
		Total quantity 65

PS Solid Insert Trialing Tray		
5532-T-109Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 9mm	1
5532-T-110Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 10mm	1
5532-T-111Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 11mm	1
5532-T-112Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 12mm	1
5532-T-113Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 13mm	1
5532-T-114Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 14mm	1
5532-T-116Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 16mm	1
5532-T-119Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 19mm	1
5532-T-122Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 22mm	1
5532-T-209Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 9mm	1

Instruments

Ref #	Description	Quantity in kit
PS Solid Insert Trialing Tray - continued		
5532-T-210Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 10mm	1
5532-T-211Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 11mm	1
5532-T-212Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 12mm	1
5532-T-213Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 13mm	1
5532-T-214Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 14mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-219Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 19mm	1
5532-T-222Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 22mm	1
5532-T-309Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 9mm	1
5532-T-310Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 10mm	1
5532-T-311Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 11mm	1
5532-T-312Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 12mm	1
5532-T-313Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 13mm	1
5532-T-314Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 14mm	1
5532-T-316Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 16mm	1
5532-T-319Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 19mm	1
5532-T-322Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 22mm	1
5532-T-409Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 9mm	1
5532-T-410Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 10mm	1
5532-T-411Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 11mm	1
5532-T-412Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 12mm	1
5532-T-413Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 13mm	1
5532-T-414Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 14mm	1
5532-T-416Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 16mm	1
5532-T-419Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 19mm	1
5532-T-422Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 22mm	1
5532-T-509Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 9mm	1
5532-T-510Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 10mm	1
5532-T-511Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 11mm	1
5532-T-512Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 12mm	1
5532-T-513Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 13mm	1
5532-T-514Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 14mm	1
5532-T-516Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 16mm	1
5532-T-519Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 19mm	1
5532-T-522Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 22mm	1
5532-T-609Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 9mm	1
5532-T-610Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 10mm	1
5532-T-611Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 11mm	1
5532-T-612Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 12mm	1
5532-T-613Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 13mm	1

Instruments

Ref #	Description	Quantity in kit
PS Solid Insert Trialing Tray - continued		
5532-T-614Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 14mm	1
5532-T-616Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 16mm	1
5532-T-619Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 19mm	1
5532-T-622Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 22mm	1
5532-T-709Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 9mm	1
5532-T-710Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 10mm	1
5532-T-711Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 11mm	1
5532-T-712Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 12mm	1
5532-T-713Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 13mm	1
5532-T-714Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 14mm	1
5532-T-716Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 16mm	1
5532-T-719Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 19mm	1
5532-T-722Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 22mm	1
5532-T-809Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 9mm	1
5532-T-810Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 10mm	1
5532-T-811Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 11mm	1
5532-T-812Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 12mm	1
5532-T-813Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 13mm	1
5532-T-814Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 14mm	1
5532-T-816Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 16mm	1
5532-T-819Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 19mm	1
5532-T-822Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 22mm	1
6541-9-102	Triathlon PS Insert Trial Tray (Size 1-8)	1
		Total quantity 73

CS Solid Insert Trialing Tray		
5531-T-109Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 9mm	1
5531-T-110Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 10mm	1
5531-T-111Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 11mm	1
5531-T-112Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 12mm	1
5531-T-113Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 13mm	1
5531-T-114Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 14mm	1
5531-T-116Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 16mm	1
5531-T-119Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 19mm	1
5531-T-122Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 22mm	1
5531-T-209Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 9mm	1
5531-T-210Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 10mm	1
5531-T-211Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 11mm	1

Instruments

Ref #	Description	Quantity in kit
CS Solid Insert Trialing Tray - continued		
5531-T-212Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 12mm	1
5531-T-213Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 13mm	1
5531-T-214Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 14mm	1
5531-T-216Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 16mm	1
5531-T-219Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 19mm	1
5531-T-222Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 22mm	1
5531-T-309Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 9mm	1
5531-T-310Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 10mm	1
5531-T-311Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 11mm	1
5531-T-312Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 12mm	1
5531-T-313Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 13mm	1
5531-T-314Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 14mm	1
5531-T-316Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 16mm	1
5531-T-319Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 19mm	1
5531-T-322Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 22mm	1
5531-T-409Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 9mm	1
5531-T-410Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 10mm	1
5531-T-411Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 11mm	1
5531-T-412Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 12mm	1
5531-T-413Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 13mm	1
5531-T-414Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 14mm	1
5531-T-416Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 16mm	1
5531-T-419Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 19mm	1
5531-T-422Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 22mm	1
5531-T-509Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 9mm	1
5531-T-510Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 10mm	1
5531-T-511Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 11mm	1
5531-T-512Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 12mm	1
5531-T-513Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 13mm	1
5531-T-514Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 14mm	1
5531-T-516Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 16mm	1
5531-T-519Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 19mm	1
5531-T-522Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 22mm	1
5531-T-609Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 9mm	1
5531-T-610Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 10mm	1
5531-T-611Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 11mm	1
5531-T-612Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 12mm	1
5531-T-613Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 13mm	1

Instruments

Ref #	Description	Quantity in kit
CS Solid Insert Trialing Tray - continued		
5531-T-614Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 14mm	1
5531-T-616Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 16mm	1
5531-T-619Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 19mm	1
5531-T-622Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 22mm	1
5531-T-709Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 9mm	1
5531-T-710Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 10mm	1
5531-T-711Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 11mm	1
5531-T-712Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 12mm	1
5531-T-713Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 13mm	1
5531-T-714Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 14mm	1
5531-T-716Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 16mm	1
5531-T-719Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 19mm	1
5531-T-722Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 22mm	1
5531-T-809Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 9mm	1
5531-T-810Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 10mm	1
5531-T-811Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 11mm	1
5531-T-812Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 12mm	1
5531-T-813Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 13mm	1
5531-T-814Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 14mm	1
5531-T-816Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 16mm	1
5531-T-819Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 19mm	1
5531-T-822Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 22mm	1
6541-9-101	Triathlon CS Insert Trial Tray (Size 1-8)	1
		Total quantity 73
Optional Navigation Instruments		
6541-2-808	Navigated Tibial Alignment Handle	1
6541-4-401	Navigated Tracker Adapter	1
6541-5-610	MIS Femoral Navigated Stylus	1
6541-1-688	Navigated Drill Template - Triathlon	1
Templates		
LTEMK46	Triathlon CR and Primary Baseplate Acetate Templates	1
LTEMK47	Triathlon PS and Primary Baseplate Acetate Templates	1

Instruments

Ref #	Description	Quantity
Triathlon Cementless Baseplate preparation		
6541-6-013	Sizes 1-3 Cementless Keel Punch	1
6541-6-046	Sizes 4-6 Cementless Keel Punch	1
6541-6-078	Sizes 7-8 Cementless Keel Punch	1
6541-8-003	Triathlon Cementless Case	1
Triathlon PS box preparation (optional) part numbers		
6541-5-212	Sizes 1-2 Triathlon PS Femoral Finishing Punch	1
6541-5-234	Sizes 3-4 Triathlon PS Femoral Finishing Punch	1
6541-5-256	Sizes 5-6 Triathlon PS Femoral Finishing Punch	1
6541-5-278	Sizes 7-8 Triathlon PS Femoral Finishing Punch	1
6541-5-814	Sizes 1-4 Triathlon PS Femoral Box Trial/Protector	1
6541-5-858	Sizes 5-8 Triathlon PS Femoral Box Trial/Protector	1
6541-8-122	Triathlon PS Box Preparation Sizes 1-8 Tray	1
Sterile Pins (optional) part numbers		
7650-2038A	Fluted Headless 1/8″ Pin (3.5″)	4
6541-4-004	Headed Threaded Pin Short (3.2″)	4
6541-4-006	Headless Threaded Pin Short (3.2″)	4

Implants

Ref #	Description	Sizes	Quantity
Triathlon CR Femoral Component - Cemented part numbers			
5510-F-X01	Triathlon CR Femoral Component -Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5510-F-X02	Triathlon CR Femoral Component -Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon CR Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5517-F-X01	Triathlon CR Femoral Component -Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5517-F-X02	Triathlon CR Femoral Component -Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Component - Cemented part numbers			
5515-F-X01	Triathlon PS Femoral Component -Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5515-F-X02	Triathlon PS Femoral Component -Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5516-F-X01	Triathlon PS Femoral Component -Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5516-F-X02	Triathlon PS Femoral Component -Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Cemented			
5520-B-X00	Triathlon Primary Tibial Baseplate-Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite			
5526-B-X00	Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite	X= 1,2,3,4,5,6,7,8	1 each size
Modular Femoral Distal Fixation Peg part number			
5575-X-000	Modular Femoral Distal Fixation Peg (2 per pack)		

Ref #	Description	Sizes	Quantity
Triathlon CR Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5530-P-X09	Triathlon CR Tibial Insert - Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X10	Triathlon CR Tibial Insert - Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X11	Triathlon CR Tibial Insert - Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X12	Triathlon CR Tibial Insert - Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X13	Triathlon CR Tibial Insert - Conventional Polyethylene 13mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X14	Triathlon CR Tibial Insert - Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X16	Triathlon CR Tibial Insert - Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5530-P-X19	Triathlon CR Tibial Insert - Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5530-G-X09 or 5530-G-X09-E	Triathlon CR Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X10-E	Triathlon CR Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X11 or 5530-G-X11-E	Triathlon CR Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X12-E	Triathlon CR Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X13 or 5530-G-X13-E	Triathlon CR Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X14-E	Triathlon CR Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X16 or 5530-G-X16-E	Triathlon CR Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5530-G-X19 or 5530-G-X19-E	Triathlon CR Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size

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Implants

Ref #	Description	Sizes	Quantity
Triathlon CS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5531-P-X09	Triathlon CS Tibial Insert - Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X10	Triathlon CS Tibial Insert - Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X11	Triathlon CS Tibial Insert - Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X12	Triathlon CS Tibial Insert - Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X13	Triathlon CS Tibial Insert - Conventional Polyethylene 13mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X14	Triathlon CS Tibial Insert - Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X16	Triathlon CS Tibial Insert - Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X19	Triathlon CS Tibial Insert - Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5531-P-X22	Triathlon CS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5531-G-X09 or 5531-G-X09-E	Triathlon CS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X10-E	Triathlon CS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X11 or 5531-G-X11-E	Triathlon CS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X12-E	Triathlon CS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X13 or 5531-G-X13-E	Triathlon CS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X14-E	Triathlon CS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X16 or 5531-G-X16-E	Triathlon CS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X19 or 5531-G-X19-E	Triathlon CS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5531-G-X22 or 5531-G-X22-E	Triathlon CS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5532-P-X09	Triathlon PS Tibial Insert - Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X10	Triathlon PS Tibial Insert - Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X11	Triathlon PS Tibial Insert - Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X12	Triathlon PS Tibial Insert - Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X13	Triathlon PS Tibial Insert - Conventional Polyethylene 13mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X14	Triathlon PS Tibial Insert - Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X16	Triathlon PS Tibial Insert - Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X19	Triathlon PS Tibial Insert - Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7,8	1 each size
5532-P-X22	Triathlon PS Tibial Insert - Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7,8	1 each size

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Implants

Ref #	Description	Sizes	Quantity
Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers (continued)			
X3 Inserts			
5532-G-X09 or 5532-G-X09-E	Triathlon PS Tibial Insert - X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X10-E	Triathlon PS Tibial Insert - X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X11 or 5532-G-X11-E	Triathlon PS Tibial Insert - X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X12-E	Triathlon PS Tibial Insert - X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X13 or 5532-G-X13-E	Triathlon PS Tibial Insert - X3 13mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X14-E	Triathlon PS Tibial Insert - X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X16 or 5532-G-X16-E	Triathlon PS Tibial Insert - X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X19 or 5532-G-X19-E	Triathlon PS Tibial Insert - X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
5532-G-X22 or 5532-G-X22-E	Triathlon PS Tibial Insert - X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size
Triathlon PSR Tibial Inserts – X3 part numbers			
8532-G-X09-E	Triathlon PSR Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X10-E	Triathlon PSR Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X11-E	Triathlon PSR Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X12-E	Triathlon PSR Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X14-E	Triathlon PSR Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X16-E	Triathlon PSR Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X19-E	Triathlon PSR Tibial Insert – X3 19mm	X = 0,1,2,3,4,5,6,7,8	1 each size
8532-G-X22-E	Triathlon PSR Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7,8	1 each size

Note: PS tibia insert trial can be used for both PS and PSR inserts

Symmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5550-L-278	Symmetric Patella - Conventional Polyethylene	S27mm x 8mm	1 each size
5550-L-298	Symmetric Patella - Conventional Polyethylene	S29mm x 8mm	1 each size
5550-L-319	Symmetric Patella - Conventional Polyethylene	S31mm x 9mm	1 each size
5550-L-339	Symmetric Patella - Conventional Polyethylene	S33mm x 9mm	1 each size
5550-L-360	Symmetric Patella - Conventional Polyethylene	S36mm x 10mm	1 each size
5550-L-391	Symmetric Patella - Conventional Polyethylene	S39mm x 11mm	1 each size
X3 Patellas			
5550-G-278 or 5550-G-278-E	Symmetric Patella - X3	S27mm x 8mm	1 each size
5550-G-298 or 5550-G-298-E	Symmetric Patella - X3	S29mm x 8mm	1 each size
5550-G-319 or 5550-G-319-E	Symmetric Patella - X3	S31mm x 9mm	1 each size
5550-G-339 or 5550-G-339-E	Symmetric Patella - X3	S33mm x 9mm	1 each size
5550-G-360 or 5550-G-360-E	Symmetric Patella - X3	S36mm x 10mm	1 each size
5550-G-391 or 5550-G-391-E	Symmetric Patella - X3	S39mm x 11mm	1 each size

Implants

Ref #	Description	Sizes	Quantity
Asymmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5551-L-299	Asymmetric Patella - Conventional Polyethylene	A29mm (S/I*) x 9mm	1 each size
5551-L-320	Asymmetric Patella - Conventional Polyethylene	A32mm (S/I*) x 10mm	1 each size
5551-L-350	Asymmetric Patella - Conventional Polyethylene	A35mm (S/I*) x 10mm	1 each size
5551-L-381	Asymmetric Patella - Conventional Polyethylene	A38mm (S/I*) x 11mm	1 each size
5551-L-401	Asymmetric Patella - Conventional Polyethylene	A40mm (S/I*) x 11mm	1 each size
X3 Patellas			
5551-G-299 or 5551-G-299-E	Asymmetric Patella - X3	A29mm (S/I*) x 9mm	1 each size
5551-G-320 or 5551-G-320-E	Asymmetric Patella - X3	A32mm (S/I*) x 10mm	1 each size
5551-G-350 or 5551-G-350-E	Asymmetric Patella - X3	A35mm (S/I*) x 10mm	1 each size
5551-G-381 or 5551-G-381-E	Asymmetric Patella - X3	A38mm (S/I*) x 11mm	1 each size
5551-G-401 or 5551-G-401-E	Asymmetric Patella - X3	A40mm (S/I*) x 11mm	1 each size

*S/I - Superior/Inferior

Asymmetric Patella – Metal-Backed Beaded w/ Peri-Apatite**			
Conventional Polyethylene Patellas			
5554-L-320+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A32mm (S/I*) x 10mm	1
5554-L-350+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A35mm (S/I*) x 10mm	1
5554-L-381+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A38mm (S/I*) x 11mm	1
5554-L-401+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A40mm (S/I*) x 11mm	1

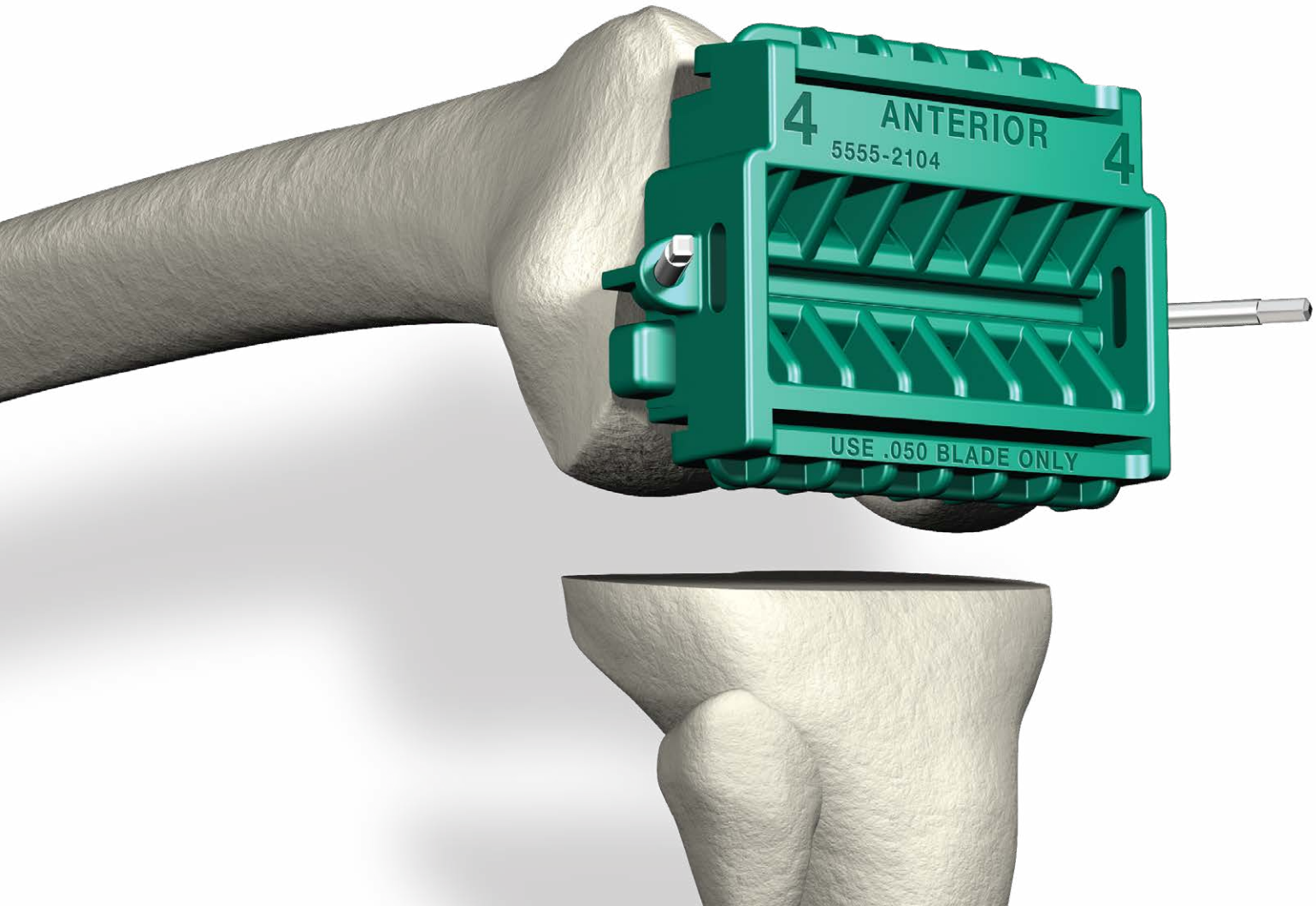
*S/I – Superior/Inferior

+This product is not CE marked in accordance with applicable EU regulations and directives. Stryker is not marketing or distributing this product in the EU. Any reference to this product is for presentation purposes only.

Triathlon® Knee System

Single-use instruments

Surgical protocol pg 168
Instruments pg 189
Implants pg 196



Contents

Exposure

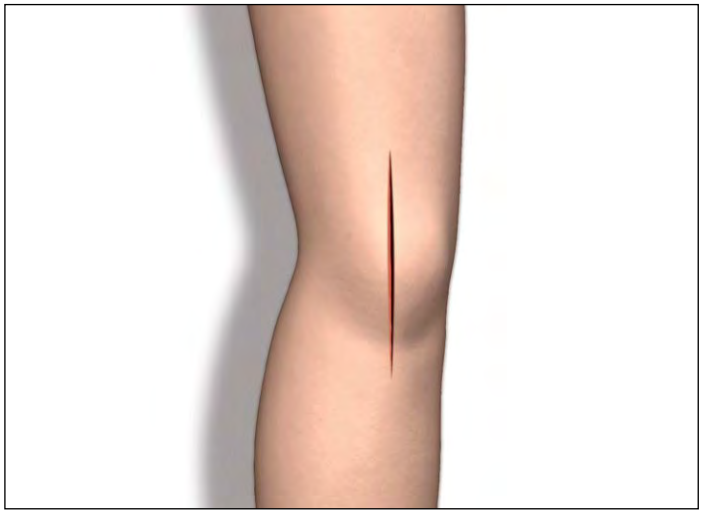


Figure 1

Tibial preparation

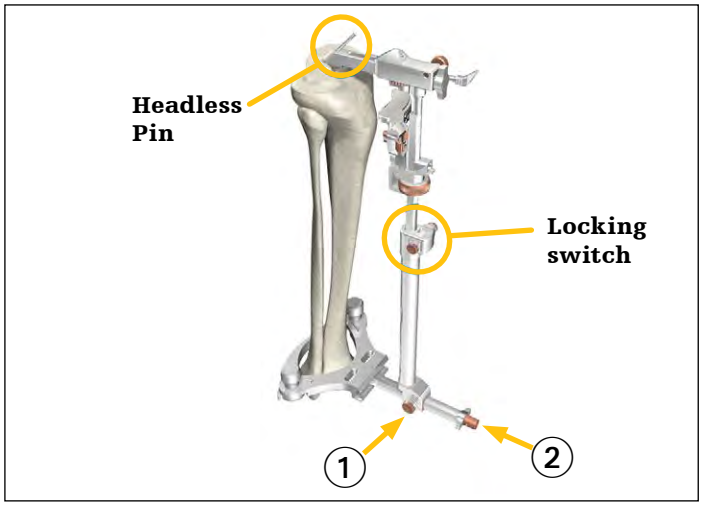


Figure 2

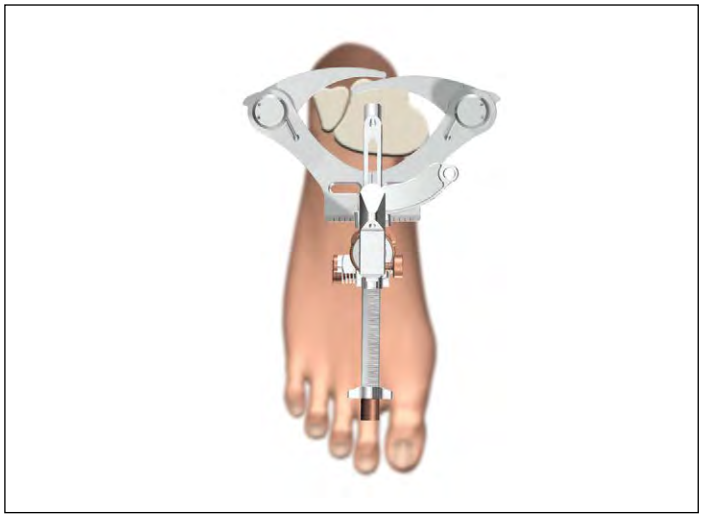


Figure 3

Single-use instruments

The Triathlon Single-use instruments are intended to be used only once. They cannot be re-sterilized or reused.

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing

Exposure

A standard anterior midline incision is utilized. Any previous incision can be used or incorporated to decrease risk of skin slough.

The capsule is entered through a modified mid-vastus approach, which makes a 6-12cm skin incision medial to the patella from just above the tibial tubercle to just above the patella.

Use a soft tissue approach that allows adequate patella visualization and sufficient.

This surgical technique describes cutting the tibia first, followed by the femur and then patella. The sequence may be varied based upon surgeon preference.

If the patella or tibia is resected early in the procedure, then an appropriate sized Tibial Protector Plate or Patella Protector Plate may be applied to prevent damage from retractors or sawblades.

In some patients it may be difficult to cut the femur first and get proper rotation due to the tibia being in the way of the placement of the Femoral Sizer. In these cases it may be beneficial to cut the distal femur, then tibia and then go back to size and finish the femoral cuts.

The tibia is prepared using the Triathlon extramedullary alignment system. Retractors may be placed medially, laterally and posteriorly to expose the tibial plateau for preparation. It is important to remove all osteophytes, menisci and remaining soft tissues. Menisci can be removed before or after the bone cut. If the PCL has been retained, an optional retractor is available to cradle the PCL for increased exposure. The knee is flexed anywhere from 45° to more than 90° of flexion depending on surgeon preference. The tibia may be subluxed or dislocated as required.

The tibial plateau referencing arm of the proximal rod is placed on the proximal tibia just anterior to the ACL insertion. A rongeur may remove any osteophytes that prevent satisfactory positioning.

Rotational alignment

The assembly must be in the proper rotational alignment. The most common landmark referenced is the tibial tubercle. The assembly should be aligned with the medial third of the tibial tubercle.

Once the rotational alignment is determined, a Headless Pin is placed through the posterior fixation hole in the proximal assembly to lock it in place. Either the anterior or posterior fixation holes may be used to set the flexion.

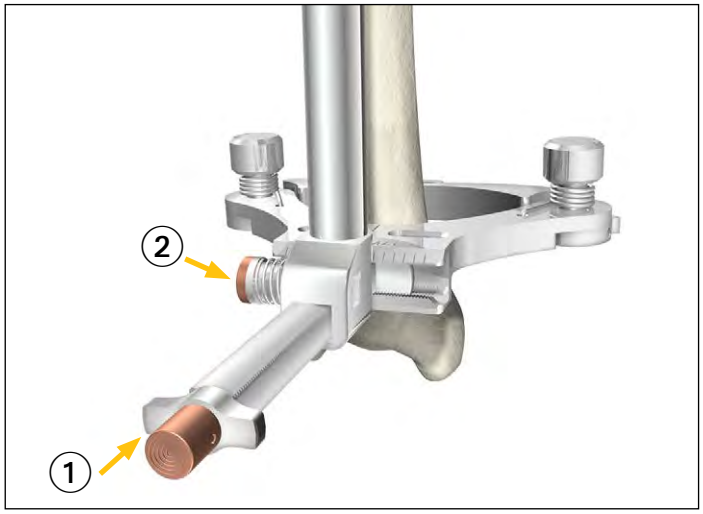


Figure 4

Varus/valgus alignment

Once the proximal portion of the assembly is fixed, varus-valgus alignment can be attained by adjusting the Distal Assembly to the proper medial/lateral position. The position should be in the center of the talus, not the center of the ankle. The center of the talus usually resides 5 to 10mm medial to the mid-point between the medial and lateral malleoli.

Medial/lateral offset can be adjusted by pushing the bronze button on the anterior portion of the Distal Assembly ①. Once alignment is achieved, the bronze button is released and the assembly is fixed in place.

Attach the Universal Alignment Handle to the Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment.

When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.

The proper tibial resection should be 0° in the coronal plane of the tibia.

Flexion/extension alignment

Once rotational alignment is determined, the ankle clamp is placed proximal to the ankle. The Distal Assembly locking switch, located approximately halfway up the rod, is then locked. Adjustments to the flexion extension alignment can be made by depressing the button located on the inferior left hand side of the Distal Assembly ②.

Flexion and extension alignment is proper when the long axis of the assembly parallels the weight-bearing axis of the tibia in both the coronal and sagittal planes. Usually, there is less space between the assembly and the tibia proximally than there is distally. Alignment can be verified using the Universal Alignment Handle and Universal Alignment Rod, which can be assembled to the anterior inferior hole on the Tibial Adjustment Housing.

The proper tibial resection should be 0° to 3° in the sagittal plane, depending on surgeon preference and the type of implant used.

- **Note:** It is important that there is no anterior slope in the tibial resection.

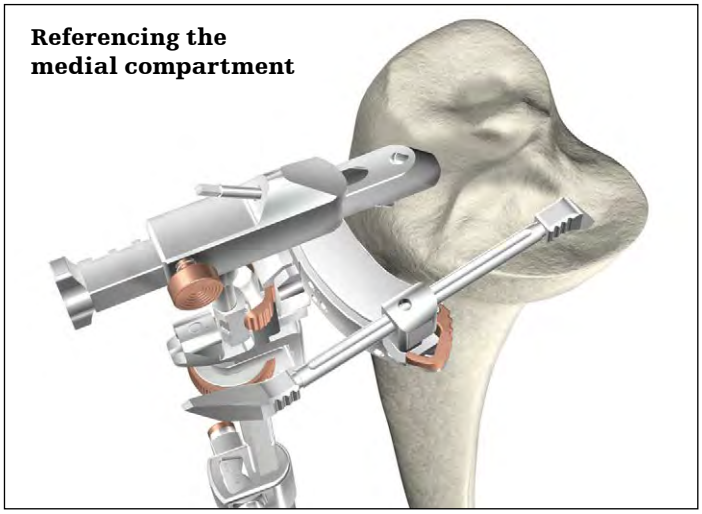


Figure 5

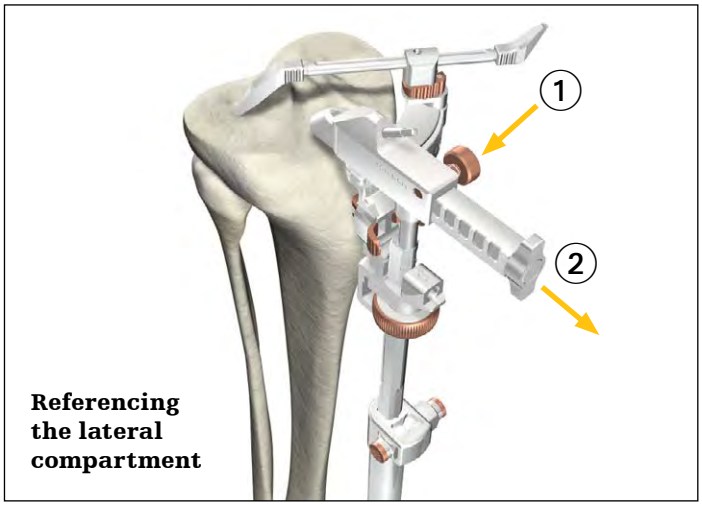


Figure 6

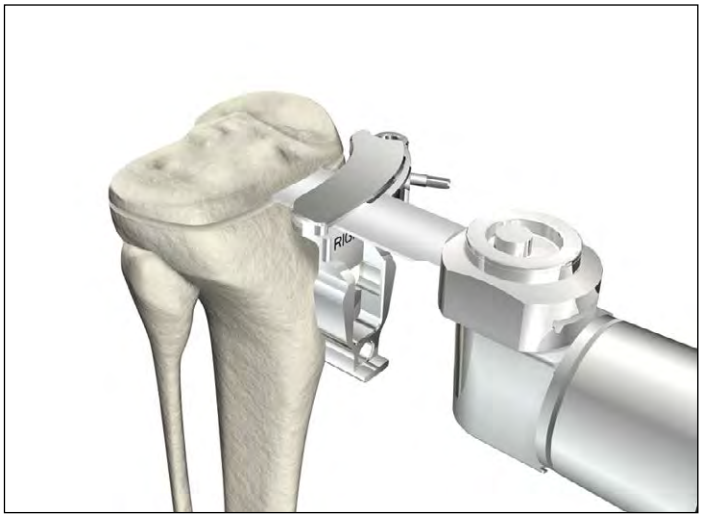


Figure 7

Establishing the tibial resection level

Once the tibial assembly is fixed in place, the tibial resection level must be established using the Tibial Stylus. This attaches to the Tibial Resection Guide referencing either the lowest level of the affected compartment or the highest level of the unaffected compartment. Typically, in a varus knee, the lateral compartment is relatively unaffected so placing the "9" referencing end on the unaffected lateral side will insure at least a 9mm thickness for the tibial component. If the surgeon desires a thicker tibial component or if there is a defect on the medial side of the tibia necessitating resection, further resection can be made.

To reference the lateral compartment, retraction of the proximal rod arm is performed by pressing the bronze button ① and sliding the arm away from the knee ②.

Alternatively, by placing the Tibial Resection Guide with the "2" referencing end, the resection carried out would be 2mm lower then the point chosen. For a coarse gross adjustment, the bronze wheel can be pressed and the assembly slid up or down. For the final fine adjustment, the bronze wheel is turned to the right to move the assembly up the proximal rod or turned left to move the assembly down the proximal rod.

- **Tip:** When using the Stylus, it is important to make sure the construct is under tension. This will help ensure adequate resection levels.

Once the final position is chosen, two Headless Pins are drilled into the "0" neutral holes securing the level of the Tibial Resection Guide for additional stability, the oblique "X" pinhole can be utilized. Once the Tibial Resection Guide is secured, all alignment instruments are removed.

Alternatively, one can reference a 14mm resection off of the ACL footprint. This correlates with a 10mm resection level off of the lateral tibial plateau and an 8mm resection off of the medial tibial plateau.

Final tibial resection

Once all alignment instruments are removed leaving the Tibial Resection Guide in place, the proximal tibia is osteotomized using either the right or left captured or uncaptured Tibial Resection Guide. If the entire resection cannot be completed, the guide is removed and the resection completed freehand. Care must always be taken not to injure the patella tendon or collateral ligaments. Often some bone is left unresected near the posterior aspect of the lateral tibial plateau and the anterior aspect of the lateral tibial plateau near Gerdy's tubercle. Once the resection guide is removed, final resection can be completed either with an oscillating saw or a rongeur.

- **Note:** Leaving the pins in place will allow for an additional 2mm or 4mm of tibial resection. The pins must be removed prior to cutting the tibial keel.

Femoral preparation

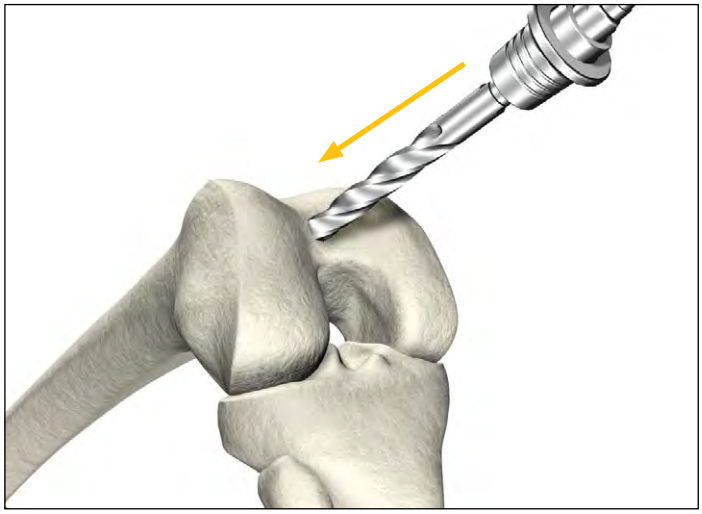


Figure 8

Femoral intramedullary alignment

The Universal Driver allows for attachment of all drills and pins. The Universal Driver may be attached directly to a reamer, drill or a Jacobs Chuck.

There are two options available for Femoral intramedullary alignment: the FLEX IM Rod or the 5/16" IM Rod

Option A: Flex IM Rod

Locate the IM drill hole; it is as close to the PCL insertion as possible and slightly medial to the midline of the distal femur.

Attach the 3/8" IM Drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur.

The hole should not be enlarged and the drill should not be "toggled." The FLEX IM Rod that references this hole will be easier to insert as it conforms to the anterior bow of the femur without the resistance felt with rigid IM Rods.

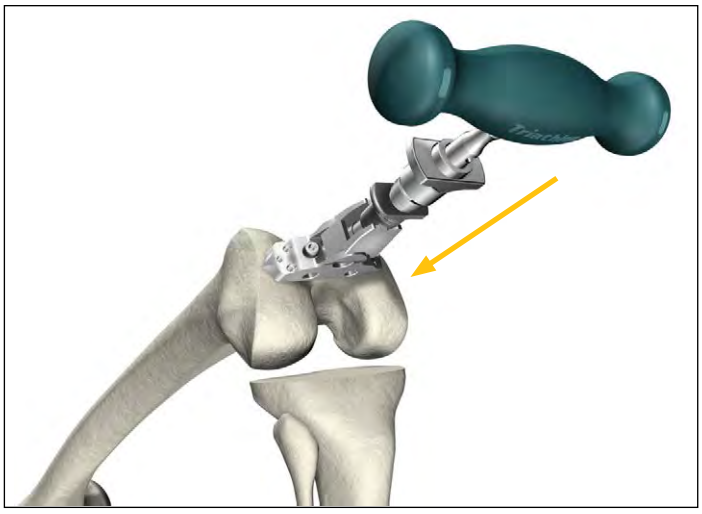


Figure 9

Attach the T-Handle driver to the FLEX IM Rod. The "ANTERIOR" engraving on the FLEX IM Rod should be aligned to the Triathlon logo of the T-Handle.

Insert the IM Rod into the MIS Femoral Alignment Guide. The MIS Femoral Alignment Guide is designed for use on either the left or right knee and may be set between 2° and 9° of valgus

▸ **Note:** this is typically set between 5° and 7°.

Set the instrument to the desired angle by pulling back on the black knob of the MIS Femoral Alignment Guide and placing it in the appropriate notch.

Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be parallel to the transepicondylar axis.

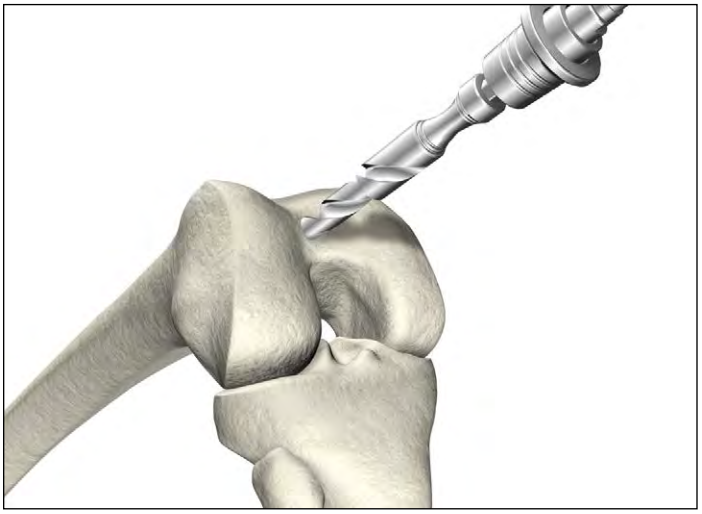


Figure 10

Option 2: 5/16″ IM Rod

Locate the IM drill hole; it is approximately 1 cm anterior to the femoral attachment of the posterior cruciate ligament and slightly medial to the midline of the distal femur.

Identification of landmarks may be aided by removal of osteophytes from the margins of the intercondylar notch.

Attach the 3/8″ IM Drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur. The first diameter will create a tight fit around the IM Rod. If further clearance is desired, continue to drill until the larger step diameter opens the hole. This will allow the IM canal to dictate the position of the rod avoiding the need to "toggle" the drill to create clearance.

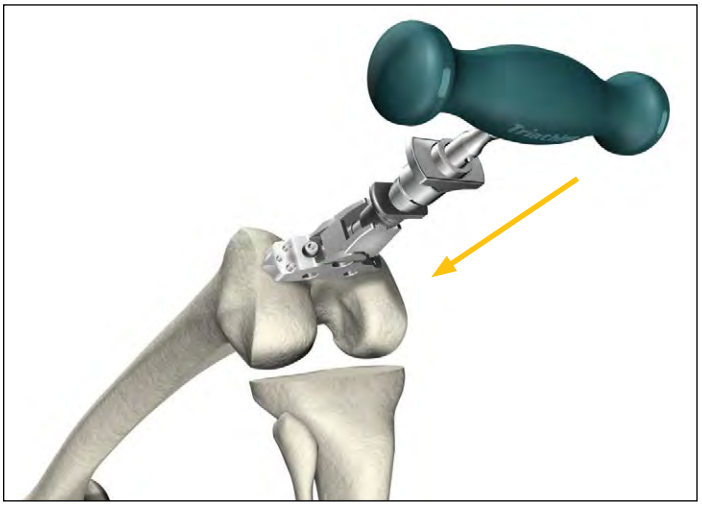


Figure 11

Attach the T-Handle Driver to the 5/16″ IM Rod. Insert the IM Rod into the MIS Femoral Alignment Guide. The MIS Femoral Alignment Guide is designed for use on either the left or right knee and may be set between 2° and 9° of valgus (Note: this is typically set between 5° and 7°).

Set the instrument to the desired angle by pulling back on the black knob of the MIS Femoral Alignment Guide and placing it in the appropriate notch.

Advance the rod, with attached guide, slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle.

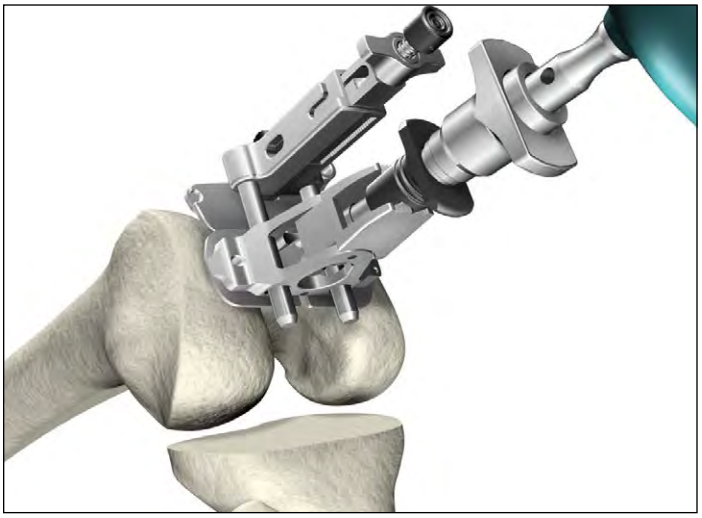


Figure 12

Snap the MIS Distal Resection Guide onto the MIS Adjustment Block and insert the posts of the MIS Adjustment Block into the two holes in the MIS Femoral Alignment Guide.

Place the MIS Femoral Alignment Guide in contact with the more prominent distal femoral condyle and align the guide in neutral I/E rotation. The guide face is angled at 3° and has a tick mark to reference Whiteside's Line to set I/E rotation, if desired.

Insert 1/8″ Headless Pins into the converging pinholes on the MIS Femoral Alignment Guide to aid in stabilization.

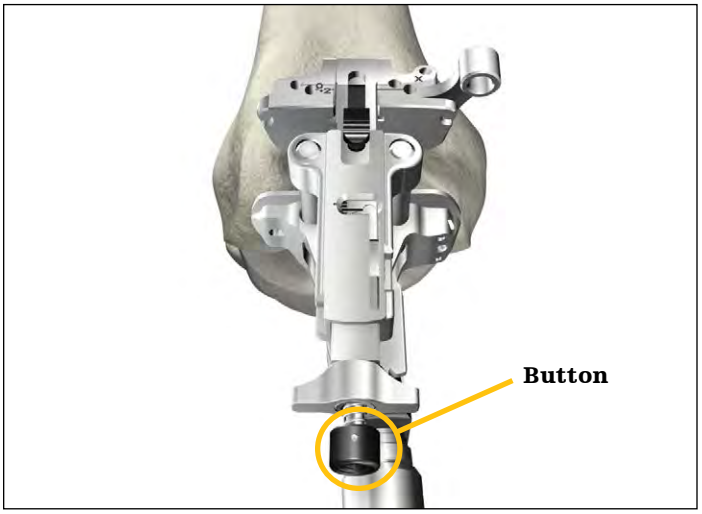


Figure 13

Position the leg in 45°-60° of flexion.

The MIS Adjustment Block allows for a 2mm through 12mm resection level.

Press the black button on the end of the MIS Adjustment Block and push/pull the carrier to set the resection to the desired level.

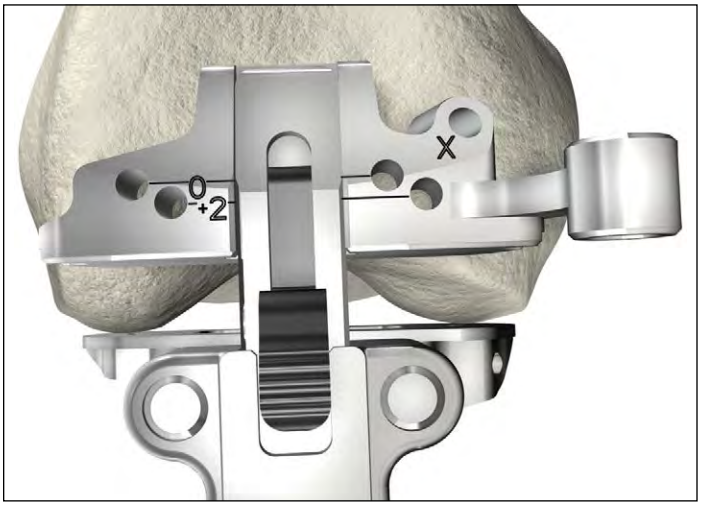


Figure 14

The Triathlon MIS Knee System Instruments allow for a clear view of the bone that is being resected to ensure the appropriate level is set.

Slide the MIS Adjustment Block Assembly posteriorly within the MIS Femoral Alignment Guide until the MIS Distal Resection Guide contacts the anterior surface of the femur.

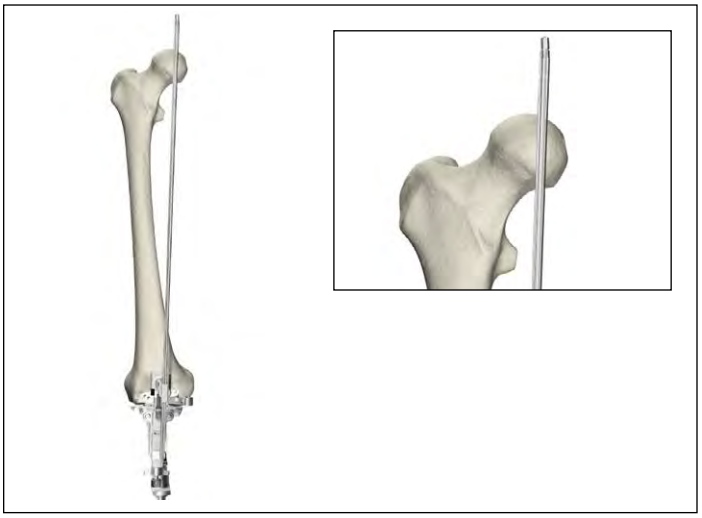


Figure 15

Optional check

Prior to pinning the MIS Distal Resection Guide to the femur, an optional external alignment check may be performed. Attach the Femoral EM Alignment Tower to the MIS Femoral Adjustment Block and insert a Universal Alignment Rod into the handle.

Alignment is correct when the rod intersects the center of the femoral head and parallels the axis of the femur in the lateral view.

Once satisfactory alignment is achieved, remove the Femoral EM Alignment Tower and the Universal Alignment Rod.

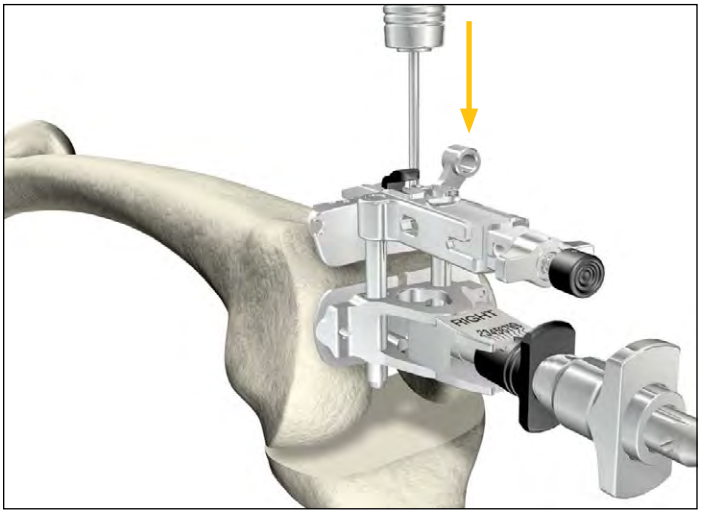


Figure 16

Pin the MIS Distal Resection Guide to the anterior femur using Headless Pins, Headless Threaded Pins or Fluted Headless 1/8″ Pins. Insert the pins into the Headless Pin Driver (which is inserted into the Universal Driver) and drill through the set of holes marked “0” on the MIS Distal Resection Guide. The pins are automatically released from the driver as it is pulled back.

- **Note:** Ensure that 1/2″ of the pin is protruding from all guides after insertion. This will aid in pin removal.

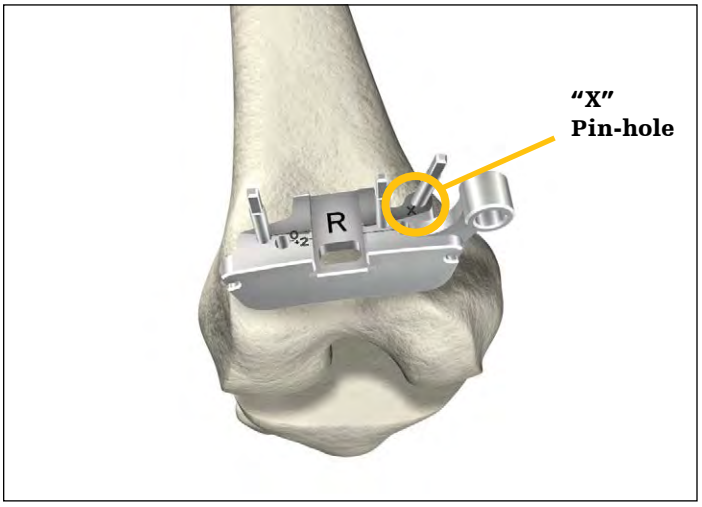


Figure 17

Pinning through the “X” pin-hole will aid in further securing the guide.

After the MIS Distal Resection Guide is pinned in place, remove Headless Pins from the MIS Femoral Alignment Guide and remove the IM Rod. Press the black button on the top of the Adjustment Block to remove the Femoral Alignment Guide and the Adjustment Block.

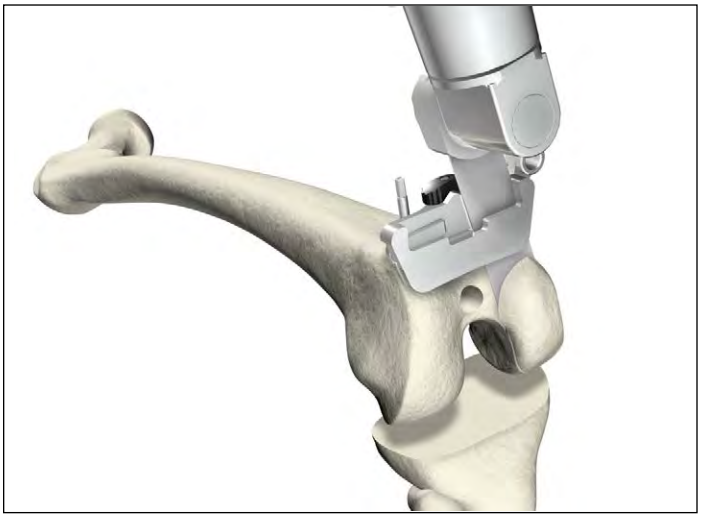


Figure 18

Distal femoral resection

The distal resection level may be altered by repositioning the MIS Distal Resection Guide in the two holes. This will remove an additional 2mm of bone.

Once the final resection level is determined, the distal femoral resection is made. An optional Modular Capture can be attached to the MIS Distal Resection Guide.

The Triathlon MIS Knee System Instruments are designed to provide control of the sawblade during bone resections. When using captures or cutting through slots, a .050″ (1.25mm) thick blade is used.

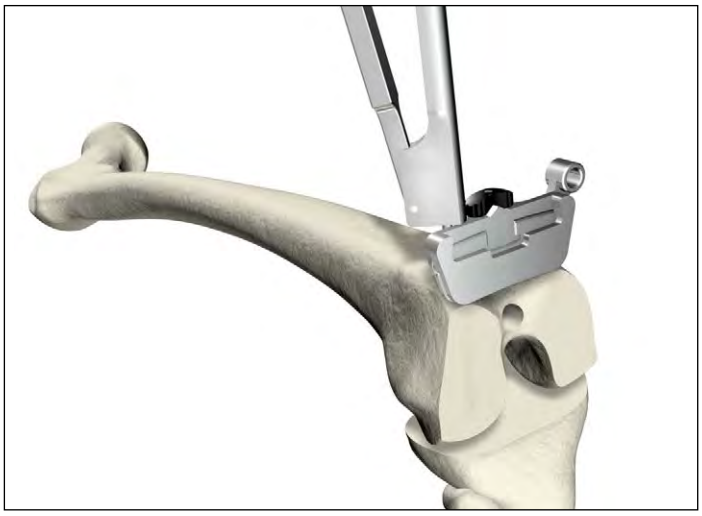


Figure 19

Remove the modular capture and check the resection for flatness.

Remove the Headless Pins or Fluted Headless 1/8" Pins from the MIS Distal Resection Guide by placing the Headless Pin Extractor over the pin and place it flush on the Guide. Squeeze the handle approximately three times, ensuring that after each squeeze, the Headless Pin Extractor is placed flushed with the MIS Distal Resection Guide. This will allow the tongue on the Headless Pin Extractor to back out the pin. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

Remove the Distal Resection Guide and check the resection for flatness.

▸ **Note:** If the "X" pin-hole is used, the pin must be removed prior to repositioning or removing the Distal Resection Guide.

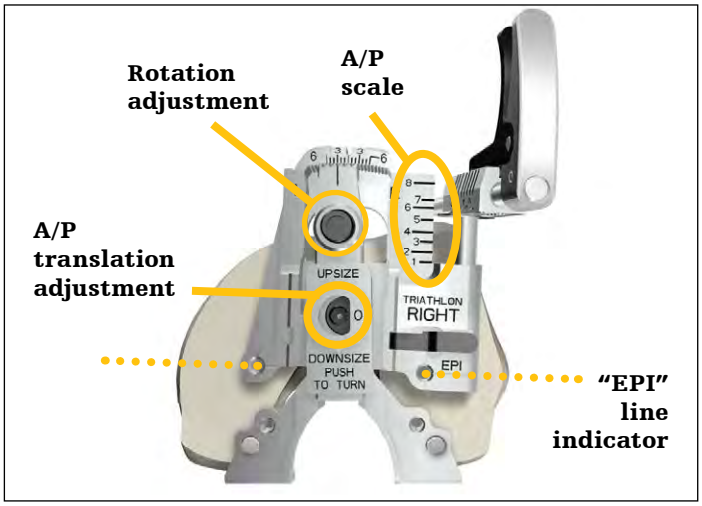


Figure 20

Femoral A/P sizing

Preassemble the MIS Femoral Sizer Body (Left or Right) onto the MIS Femoral Sizer Adjustment Housing

Place the MIS Femoral Sizer Assembly onto the resected distal femur, sliding the feet of the Sizer under the posterior condyles.

External rotation (0-6° Left or Right) is set by depressing the black button on the top of the Femoral Sizer and rotating mediolateral. For mechanical alignment set rotation in order to cut parallel to the epicondylar axis.

Assemble the MIS Femoral Stylus to the MIS Femoral Sizer and extend the Stylus over the lateral flange to rest on the anterior cortex of the femur at the desired run-out point of the anterior resection.

▸ **Note:** The MIS Femoral Stylus uses two sizing references. First, read the A/P scale by viewing the position of the indicator lip of the Femoral Stylus against the A/P scale on the medial side of the A/P sizer. Second, adjust the superior/inferior position of the Stylus to match the first A/P scale reading. Check to verify the two sizing references match. If the A/P scale reading then changes, reset the S/I Stylus position to the newly indicated reading. Repeat steps until the two readings converge.

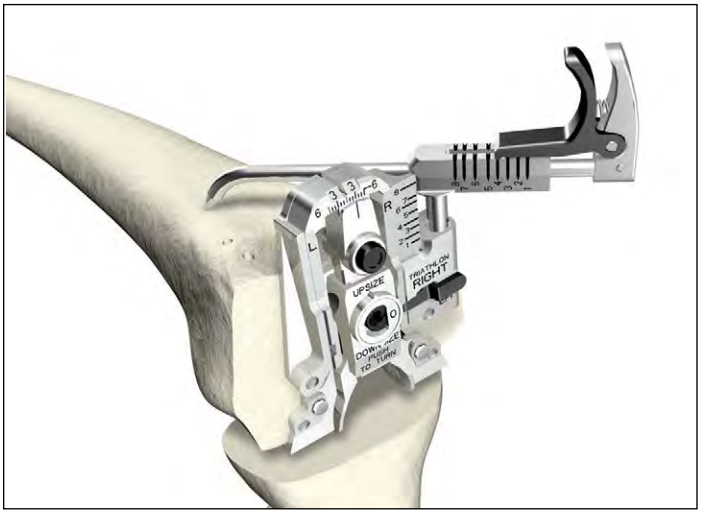


Figure 21

It is important that the Femoral Stylus point rests on bone and not soft tissue or an osteophyte. In an MIS procedure this may be hard to see.

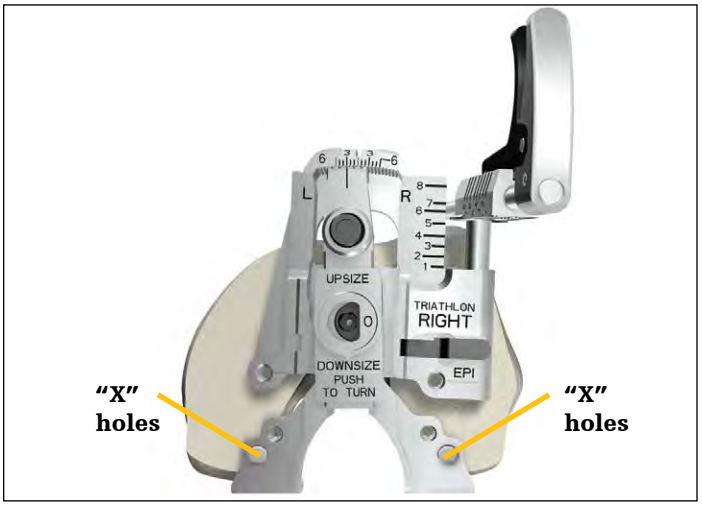


Figure 22

The Femoral Sizer may be pinned in place through the holes marked "X" with Headless Pins, Headless Threaded Pins or Fluted Headless 1/8" Pins.

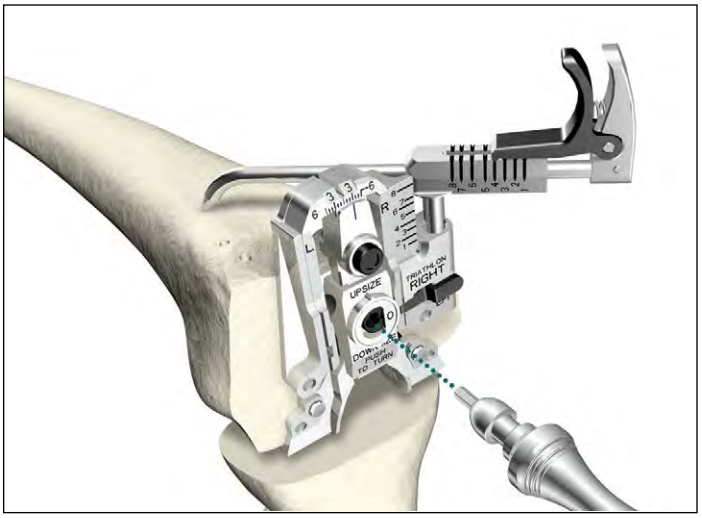


Figure 23

- **Note:** If the Femoral Stylus reads in-between sizes, an optional A/P translation feature may be used. Simply use the Hex Driver found on the reverse side of the Femoral Flexion Impactor to translate the A/P Femoral Sizer up or down 1.5mm. (Triathlon Primary prosthesis grows in the anterior direction approximately 3mm between sizes.)

A tertiary check to verify external rotation is to assess A/P axis with the Blade Runner through the slot in the top of the guide.

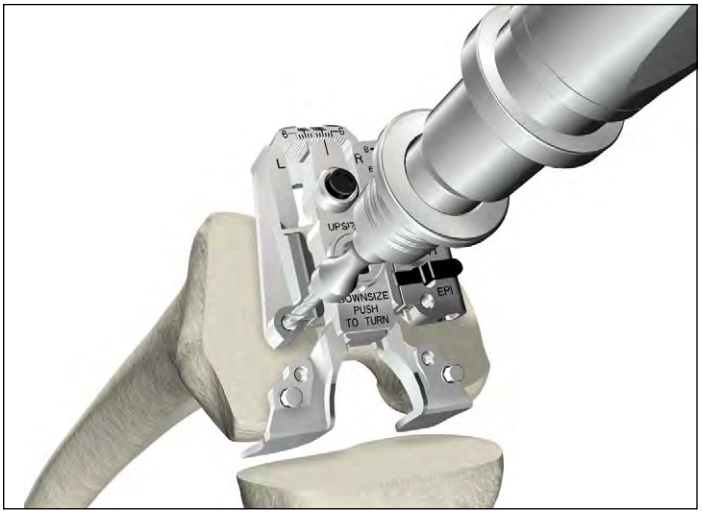


Figure 24

Once size confirmation is complete, attach the 1/8" Peg Drill to the Universal Driver and create fixation pin-holes (for the 4:1 Cutting Block) through the holes on the face of the Femoral Sizer marked "EPI".

Remove the Headless Pins or Fluted Headless 1/8" Pins using the Headless Pin Extractor. If Headless Threaded Pins were used, the Headless Pin Driver must be used for extraction. Place the Headless Pin Driver over the pin, ensuring the drill is set to reverse and back out the pin.

- **Note:** With the use of the Single-use 4:1 Cutting Block there is the potential for debris generation. It is recommended that the sawblade be fully inserted into the slot prior to initiating oscillation. Additionally, it is recommended that an irrigation system be available and that the joint be thoroughly irrigated after use of the block.

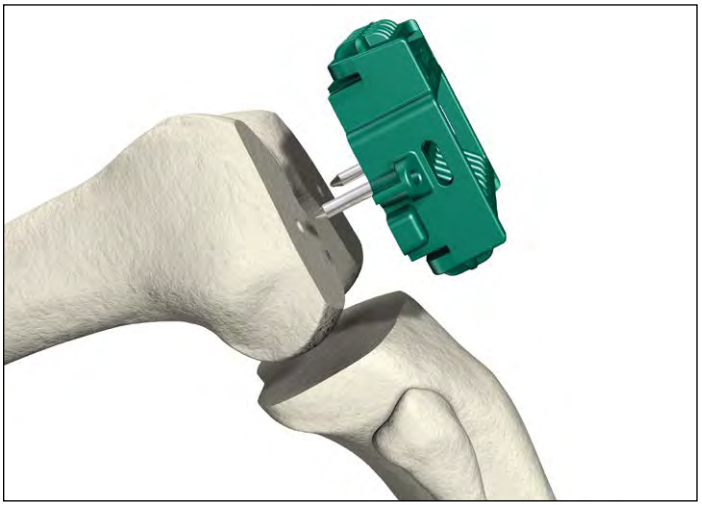


Figure 25

Locate the fixation pegs of the appropriate size Single-use 4:1 Cutting Block into the pin-holes created on the distal femur.

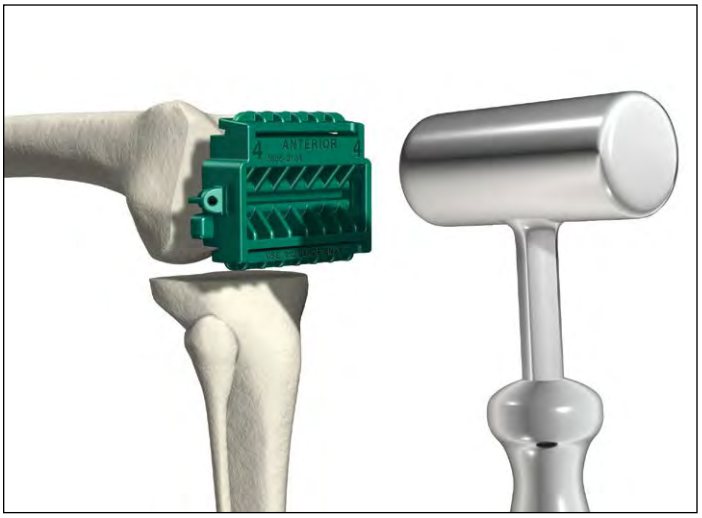


Figure 26

Impact the Single-use 4:1 Cutting Block flush against the distal bone using a Femoral Impactor or by directly impacting on to the surface of the cutting block.

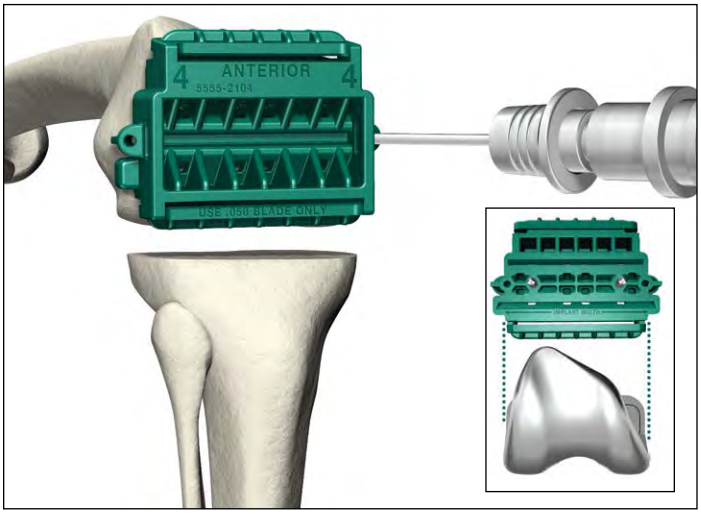


Figure 27

Stabilize the 4:1 Cutting Block by placing Headless Pins in the medial and lateral angled pin-holes. Verify stability.

- **Note:** To confirm appropriate femoral size, check run-out of the anterior cut. If not flush with anterior cortex, consider selecting the next smaller size Single-use 4:1 Cutting Block. As a secondary check, femoral M/L width sizing can be verified by utilizing the width of the Single-use 4:1 Cutting Block as marked on the backside of the block.

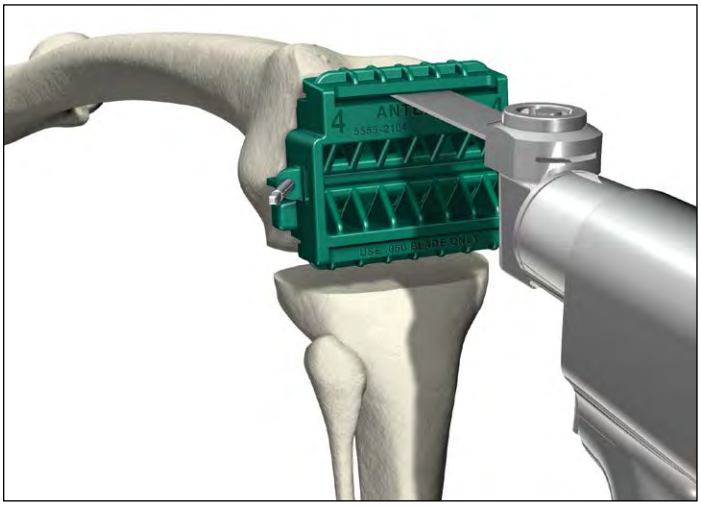


Figure 28

Femoral anterior, posterior and chamfer resections

Complete the remaining four femoral bone resections. The use of a .050″ (1.25mm) thick sawblade is recommended.

The order of bone resections is not critical; however, a recommended sequence for improved stability of the 4:1 Cutting Block is:
1. Anterior cortex. **2.** Posterior condyles.
3. Posterior chamfer. **4.** Anterior chamfer.

- **Note:** Fully insert blade into the cutting slot of the Single-use 4:1 Cutting Block before initiating oscillation of sawblade. Cutting the anterior chamfer last helps to stabilize the Single-use 4:1 Cutting Block.

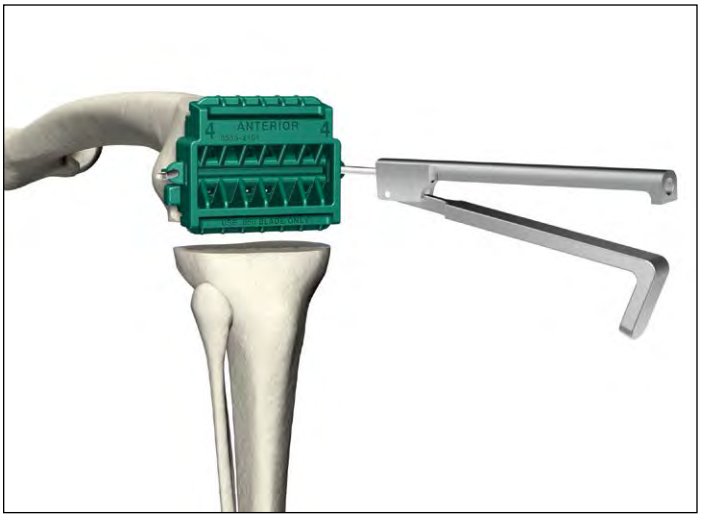


Figure 29

Remove the Headless Pins from the Single-use 4:1 Cutting Block using the Pin Puller.

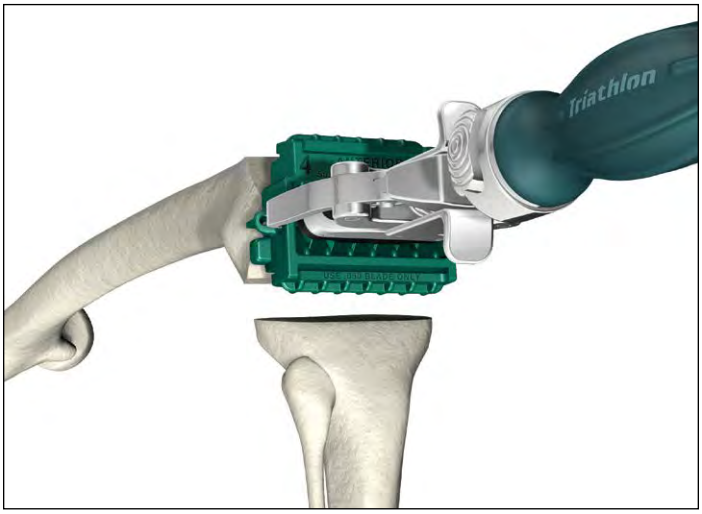


Figure 30

Extraction of the Single-use 4:1 Cutting Block can be achieved by using the Femoral Impactor Extractor with the provided tab slots on the block.

Ensure bone resections are complete.

- **Note:** Do not over torque the Femoral Impactor/ Extractor during engagement with the Single-use 4:1 Cutting Block. Upon removal of the Single-use 4:1 Cutting Block, irrigate thoroughly.

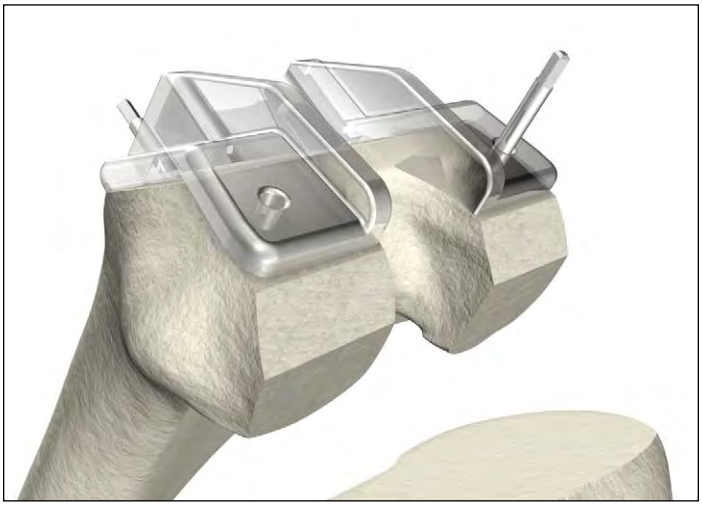


Figure 31

PS box preparation

If the surgeon has chosen a PS knee, then the intercondylar notch must be resected. In order to accomplish this, the Single-use PS Box Cutting Guide is placed onto the distal femur. Since the width of the distal portion of the guide represents the exact width of the implant, it should be centered and placed in the desired position flush with the distal resection. The box guide is then pinned to the femur using the Headless Pins through the holes on the anterior surface, as well as the distal surface of the cutting guide.

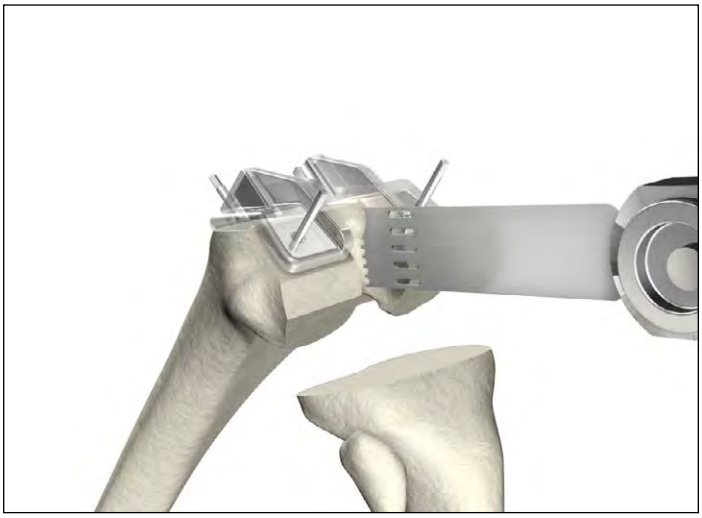


Figure 32

First, using the inside surfaces of the box opening as guides, score the posterior cortex on both sides of the posterior portion of the intercondylar notch as well as the anterior using the sawblade.

- **Note:** Care must be taken not to saw beyond the depth of the Single-use PS Box Cutting Guide.

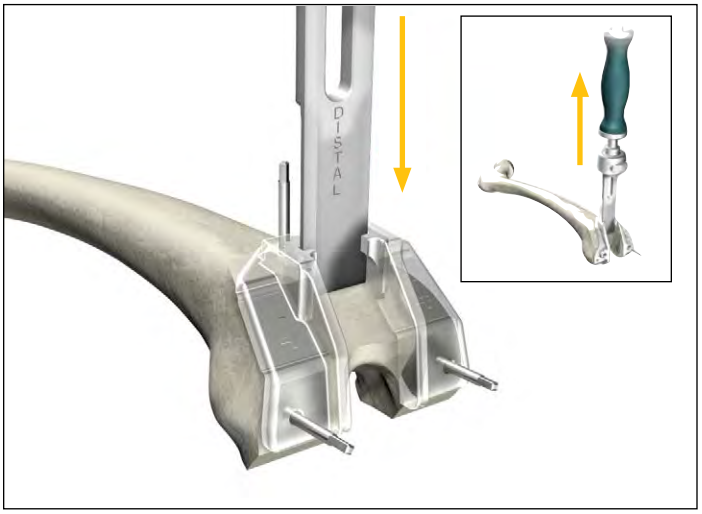


Figure 33

Figure 34

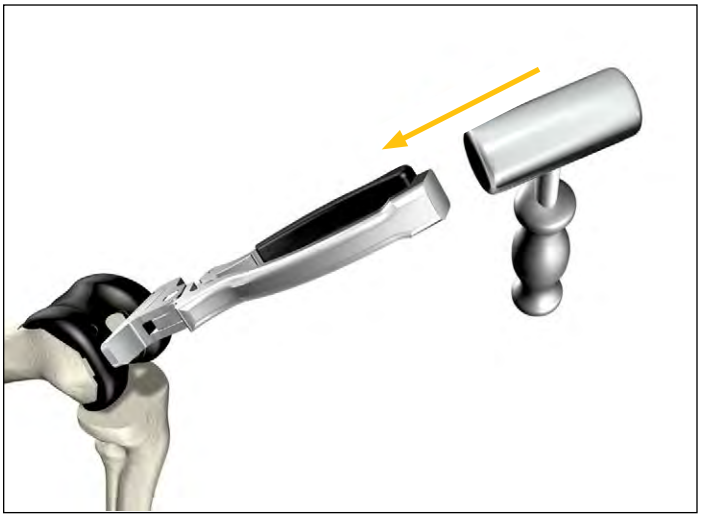


Figure 35

The Box Chisel is assembled to the Impaction Handle and then is placed within the slot of the Single-use PS Box Cutting Guide with the surface marked "distal" towards the distal portion of the femur. The chisel is then fully engaged with a mallet and left in place. The rest of the box is then resected using either a sawblade taking care to make a flush resection. (The Box Chisel is then removed).

▸ **Note:** In order to prepare a proper rectangular box, care should be taken not to bias the sawblade. Preparation of a proper rectangular shape will facilitate an accurate implantation of the PS component with minimal bone resection.

Femoral Trial assessment

(The remaining portion of the technique should be used for a Posterior Stabilized or Cruciate Retaining Knee.)

Assemble the appropriate size symmetrical Single-use PS or CR Femoral Trial to the Femoral Impactor Extractor with the Impaction Handle or use the MIS Femoral Trial Extractor.

Impact the Single-use PS or CR Femoral Trial onto the prepared distal femur. Use the Impaction Handle to ensure the Femoral Trial is aligned with the distal plane.

Remove the Femoral Impactor/Extractor and Impaction Handle and assess the fit of the Single-use PS or CR Femoral Trial. Care must be taken to ensure that all of the osteophytes beyond the end of the posterior femoral condyles are removed.

- Cruciate Retaining Knee: Attach the 1/4" Peg Drill to the Universal Driver and create the Modular Femoral Distal Fixation Peg holes.
  The Posterior Osteophyte Removal Tool or any curved osteotome may be used to remove posterior osteophytes.
- Posterior Stabilized Knee: If the Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), use the 1/4" Peg Drill, attached to the Universal Driver to prepare the distal femoral peg holes.

The assessment of the fit of the Single-use Femoral Trial is similar for both the CR and PS implants. The appropriate size femoral implant trial is applied to the Femoral Trial Impactor/Extractor. The Femoral Trial is then impacted onto the prepared distal femur and the Impactor/ Extractor is removed. The fit of the Femoral Trial is checked to ensure that there is a flush fit.

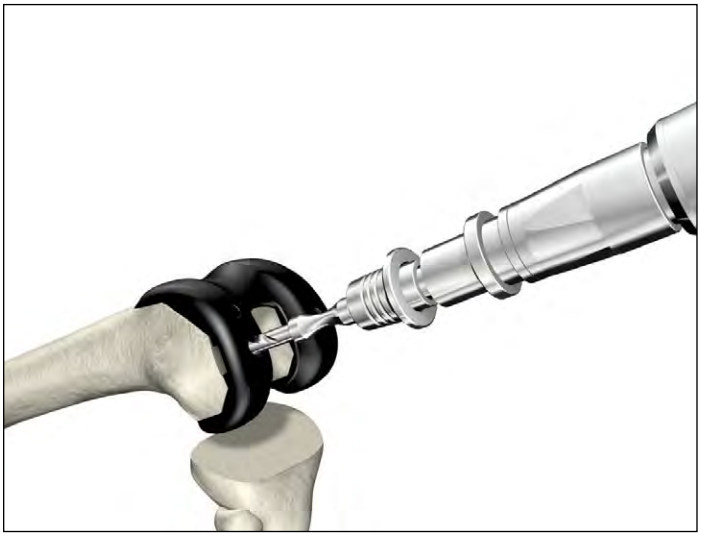


Figure 36

The Triathlon CR knee has integral medial and lateral femoral pegs. Therefore, if a CR implant is chosen, the 1/4" Peg Drill is assembled to the Universal Driver and Distal Fixation Peg holes are drilled through the holes in condyles of the Femoral Trial.

The cemented posteriorly stabilized Femoral Component does not come with integral pegs but rather modular capability. Should the surgeon choose to use distal fixation pegs (for PS Cemented only), the holes are drilled in a similar fashion. Once this has been accomplished, the trial may be removed. At this point, the tibia, if not already prepared, must be prepared for the tibial implant. Keeping the Femoral Trial in place helps assure adequate exposure, but it may be removed for tibial preparation if desired.

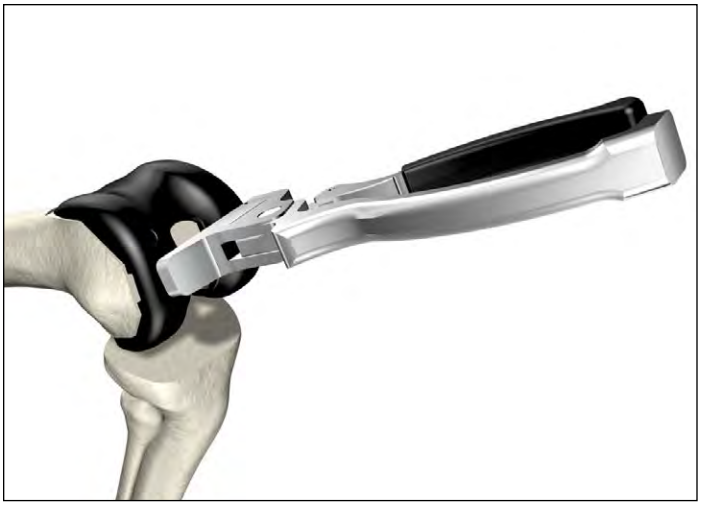


Figure 37

Attach the Femoral Impactor/Extractor or the Femoral Trial Impactor to the Single-use PS or CR Femoral Trial and remove from the femur.

Tibial preparation

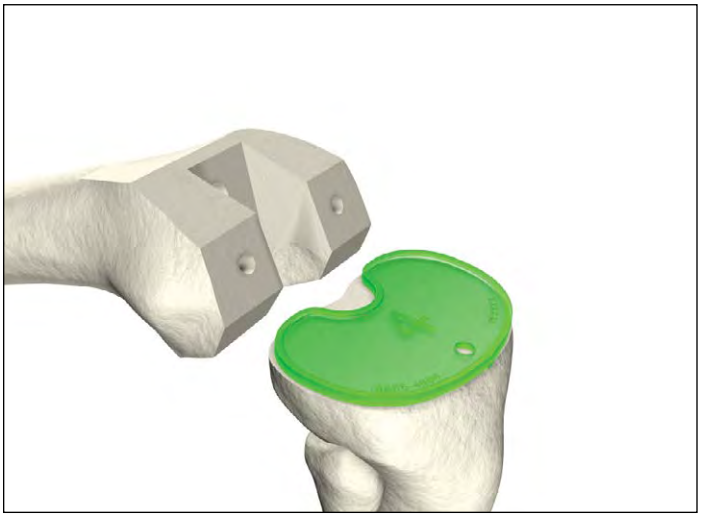


Figure 38

Tibial component sizing

Retractors are placed to expose the tibial plateau. The Single-use Femoral Trial may be left in place.

Triathlon Single-use Instruments include color-coded Tibial Sizers for proper sizing of the tibial resection.

Choose the appropriate Single-use Tibial Sizer to measure the resected tibia and note the size. The size that is chosen will determine the size of your Tibial Preparation Kit.

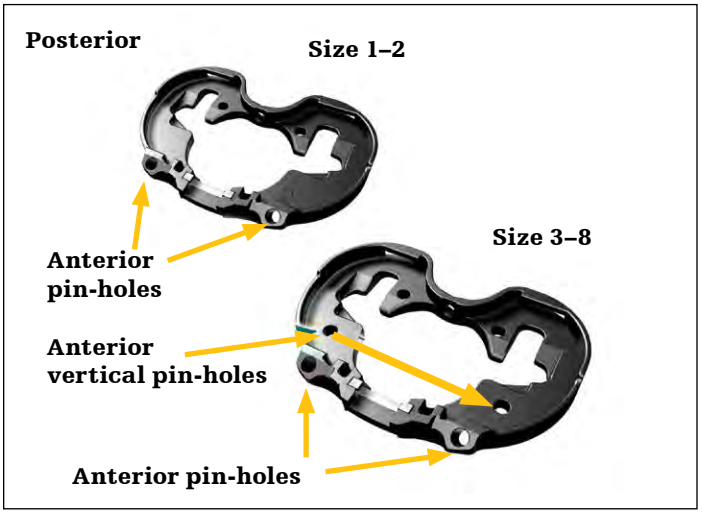


Figure 39

The Tibial Alignment Handle, Single-use Universal Tibial Template and Single-use Tibial Insert Trial are used to size the tibia, perform a trial reduction and assess overall component fit, ligament stability and joint range of motion.

Once the surgeon has determined alignment, the Single-use Universal Tibial Template has multiple Pin-holes that can be used to secure the template in the desired position.

Figure 40

If Headed Nails are placed in the anterior-vertical Pin-holes (applicable only to sizes 3, 4, 5, 6, 7 and 8) of the Single-use Universal Tibial Template, ensure that the Single-use Tibial Insert Trial is inserted posterior to the Headed Nails.

- **Note:** Do not impact the Single-use Tibial Insert Trial. In the event that excessive resistance or misalignment is encountered during insertion of the Single-use Tibial Insert Trial, remove, reposition and reinsert the Single-use Tibial Insert Trial. Ensure all excess debris (bone and soft tissue) is cleared from the Single-use Universal Tibial Template.

Figure 41

After trial reduction, the Single-use Tibial Insert Trial can be removed by hand or with the aid of a blunt instrument.

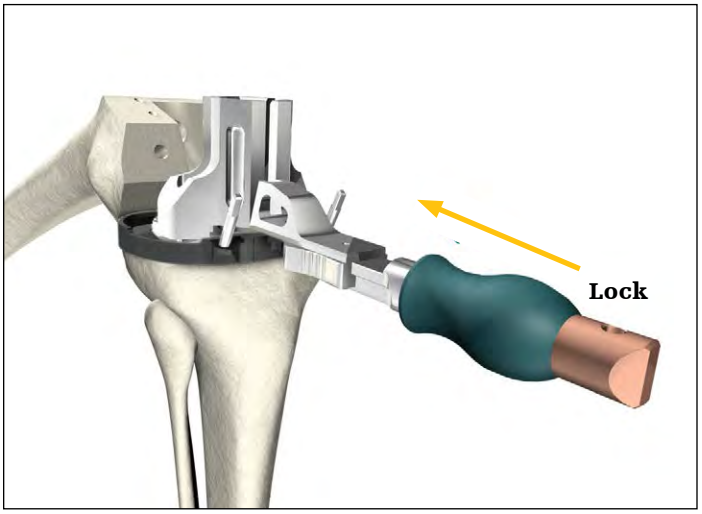


Figure 42

Tibial keel punching

Making sure the punch guide is in the unlocked position, assemble the appropriate size Keel Punch Guide to the Single-use Universal Tibial Template. Place the posterior tabs at a slight angle into the two locating slots toward the posterior portion of the Single-use Universal Tibial Template. Allow the Keel Punch Guide to sit flat on the Single-use Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Single-use Universal Tibial Template.

Component implantation

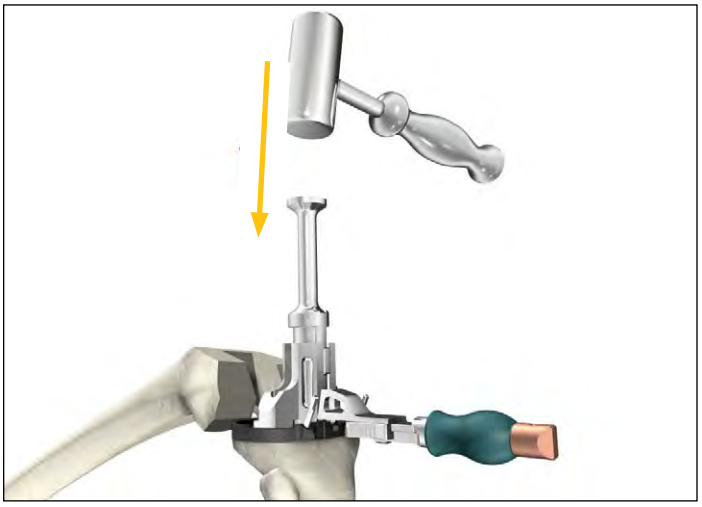


Figure 43

Place the appropriate Keel Punch (cemented or cementless) into the Keel Punch Guide. Use a mallet to impact the punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide.

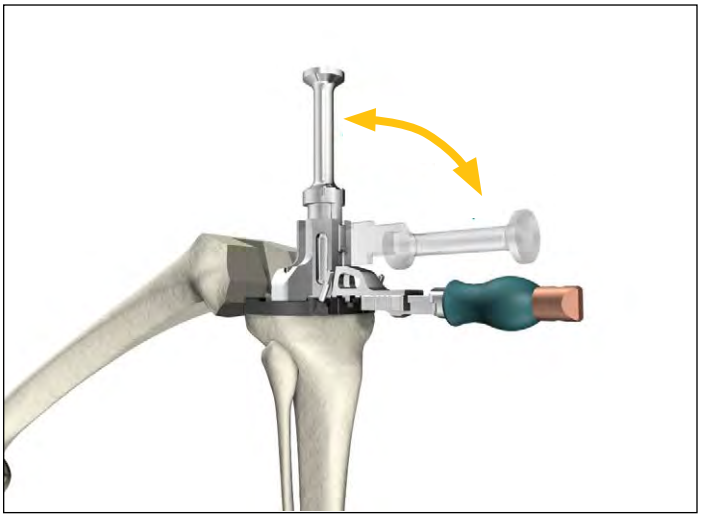


Figure 44

To extract the Keel Punch, lift up on the Keel Punch handle and pull the handle down to cantilever the Keel Punch out of the tibia.

Unlock and remove the Keel Punch Guide.

Remove all pins and remove the Single-use Universal Tibial Template (unless using again for patella trial assessment).

Component implantation

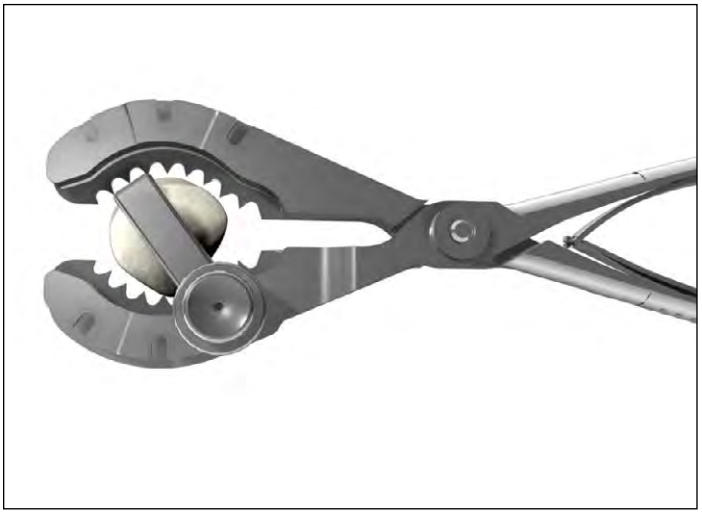


Figure 45

Patellar preparation

Remove all osteophytes and synovial insertions around the patella and measure thickness using a caliper. After determining the depth of the cut with a caliper, affix the Stylus in the appropriate slot to the Patella Resection Guide and capture the patella between the jaws of the Patella Resection Guide using .050" non-offset sawblade, resect the patella.

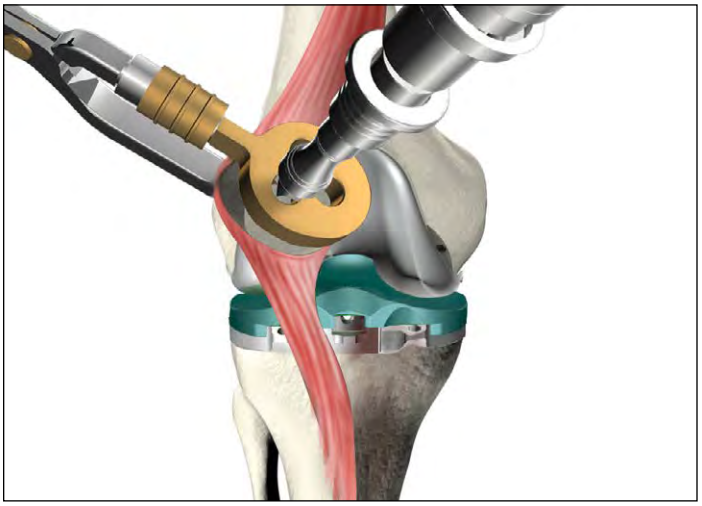


Figure 46

Choose the appropriate size Patella Drill Template and insert into the Patella Clamp.

Center the chosen Patella Drill Template over the patella with the Patella Clamp perpendicular to the trochlear groove. Drill three fixation holes with the appropriate drill (Metal-Backed Patella or All Poly).

If a cemented component is to be used, prepare the resected bone surfaces for bone cement application.

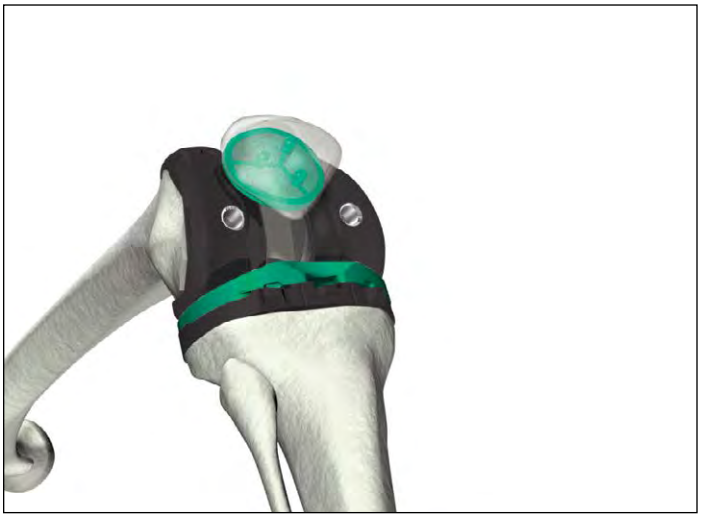


Figure 47

Patella Trial assessment

Remove any residual cartilage and wash away all debris. Place correct size Patella Trial (Symmetric or Asymmetric) onto the prepared patella.

Replace all Trials and assess patellar tracking by taking the knee through a ROM.

The patella should track normally throughout the ROM without tendency for tilting or lateral subluxation.

Figure 48

Component implantation

If modular Femoral Distal Fixation Pegs are desired in a PS cemented knee, they are added at this point.

Insert the tip of the 1/8'' Hex Drive into the Modular Femoral Distal Fixation Peg and turn the Slip Torque Handle to tighten.

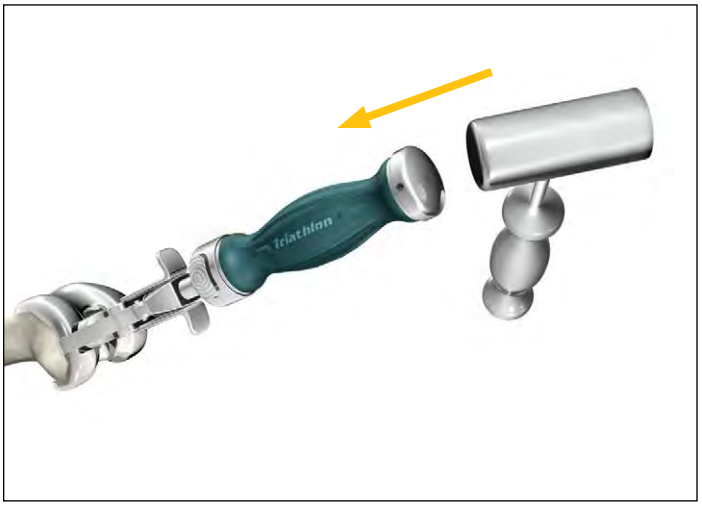


Figure 49

PS or CR Femoral Component – Cemented /Cementless

Attach the Femoral Impactor Extractor to the Impaction Handle and attach to the appropriate size and side Femoral Component. Place the Femoral Component on the femur and impact it until fully seated.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

- **Posterior Stabilized Knee:** If Modular Femoral Distal Fixation Pegs are to be used (for PS Cemented only), assemble the pegs to the Femoral Component using the 1/8" Hex Drive and the Slip Torque Handle prior to implantation.

Figure 50

The Femoral Flexion Impactor or the Femoral Impactor can be attached to the Impaction Handle to further seat the Femoral Component onto the prepared femur.

▸ **Note:** Clear all excess bone cement (does not apply to cementless component).

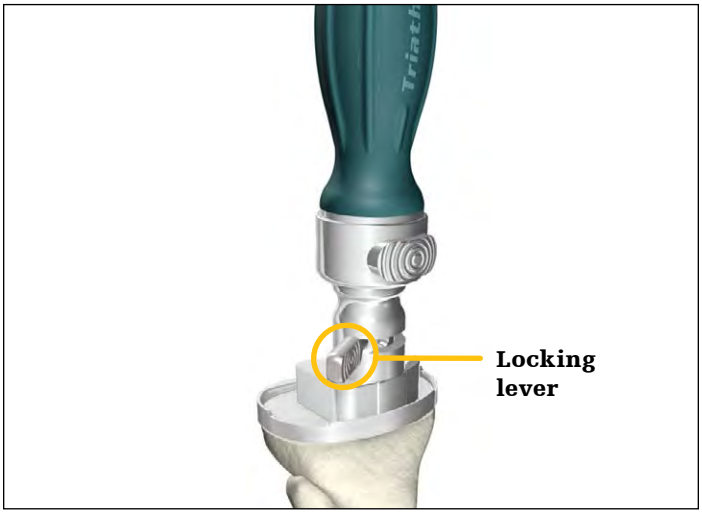


Figure 51

Tibial Component implantation - Cemented/Cementless

Connect the Tibial Baseplate Impactor Extractor to the Impaction Handle.

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Introduce the Primary Tibial Baseplate onto the prepared tibia and impact until the baseplate is seated.

Unlock the locking lever and remove the assembly from the Primary Tibial Baseplate.

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle. Impact until Baseplate is fully seated. If using bone cement, clear excess bone cement while maintaining baseplate position.

Figure 52

Tibial Insert implantation

Assemble the Tibial Insert to the Primary Tibial Baseplate.

You may use a Insert trials for a final assessment of joint stability and range of motion if required. Assemble the Tibial Insert by distracting the joint and angling the insert posteriorly into Tibial Baseplate

- **Tip:** The posterior lip of the Tibial Insert must fit beneath the posterior Primary Tibial Baseplate wall lip. Ensure there is no soft tissue or debris remaining on the baseplate. Insert is fully seated once the locking wire locks under barbs on anterior/interior surface of baseplate.
- **Note:** The Tibial Insert Impactor 6541-4-813, which is available in the standard Triathlon Primary Instrument set, may be used for the final seating of the Tibial Insert.

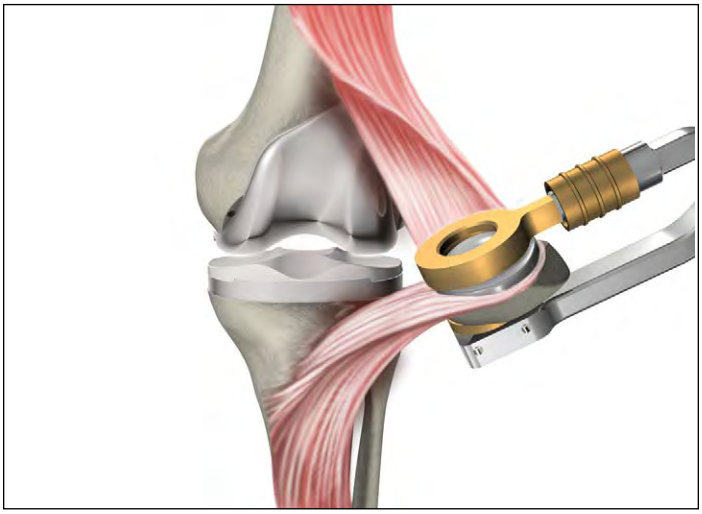


Figure 53

Closure

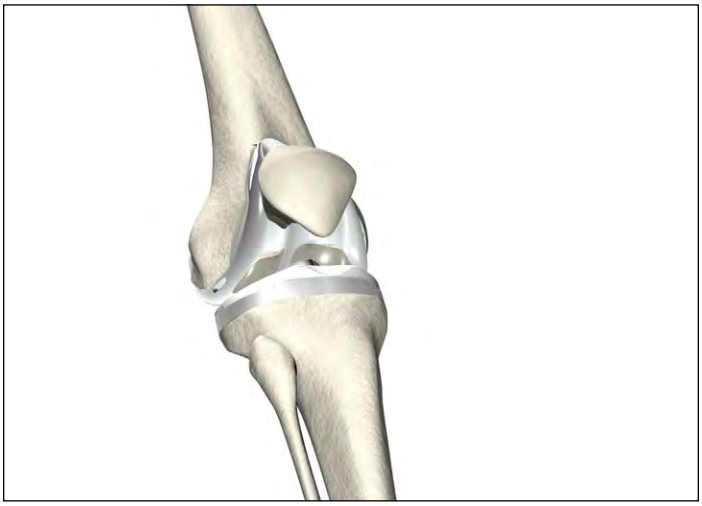


Figure 54

Patellar Component -Cemented/Cementless

If using a cemented implant, the surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

Place the Patella Component onto the prepared patella, making certain the fixation peg holes are aligned to the corresponding holes.

Seat the Patellar Component onto the prepared patella by clamping the Patella Clamp.

Leave the assembly clamped to the patella while excess cement is cleared and polymerization is completed (cemented only).

Remove the Patella Clamp.

Assess the joint in flexion and extension.

For Cemented Components

After cement polymerization and removal of all residual cement, thoroughly irrigate the joint. Close soft tissues in the normal layered fashion.

Instruments

Ref #	Description	Quantity in kit
Stryker Precision General Instruments Kit contents		
6541-2-013	Size 1-3 Keel Punch	1
6541-2-046	Size 4-6 Keel Punch	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-713	Size 1-3 Keel Punch Guide	1
6541-2-748	Size 4-8 Keel Punch Guide	1
6541-2-807	Tibial Alignment Handle	1
6541-4-300	Headed Nail Impactor/Extractor	1
6541-4-515	Headed Nails – 1 1/2″	2
6541-4-525	1/4 ″ Peg Drill	1
6541-4-575	Headed Nails – 3/4″	2
6541-4-709	Box Chisel	1
6541-4-801	Universal Driver	1
6541-4-003 or 6541-4-003A	Headless Pins – 3″ †	4
6541-4-805	Baseplate Impactor/Extractor	1
	OR	
6541-4-812	Tibial Baseplate Impactor	1
6541-4-807	Femoral Impactor/Extractor	1
	OR	
6541-7-807	MIS Femoral Trial Extractor	1
6541-4-809	Headless Pin Driver	1
6541-4-810	Impaction Handle	1
6541-5-500	MIS AP Sizer Adjustment Housing	1
6541-5-508	MIS AP Sizer Body – Left	1
6541-5-509	MIS AP Sizer Body – Right	1
6541-5-510	MIS Femoral Stylus	1
6541-7-811	MIS Femoral Flexion Impactor	1
6633-7-605	Pin Puller	1
7551-0000	Blade Runner	1
5555-5102	General – Triathlon Stryker Precision Upper Tray	1
5555-5202	Removable Lid Case	1
		Total quantity 31

† Not included in standard configuration, but MUST be ordered separately.
Note: Set List provided for Reference only. Not to be used for building kits.

Templates		
LTEMK46	Triathlon CR and Primary Baseplate Acetate Templates	1
LTEMK47	Triathlon PS and Primary Baseplate Acetate Templates	1

Instruments

Ref #	Description	Quantity in kit
Patella preparation and trialing kit contents		
6633-7-736	Slotted Patella Resection Guide	1
6633-7-738	Patella Stylus	1
7650-1454	Patella Caliper	1
6541-3-524	All-Poly Patella Drill w/Stop	1
6541-3-617E	Express Asymmetric Patella Drill Template - 29mm	1
6541-3-618E	Express Asymmetric Patella Drill Template - 33mm	1
6541-3-619E	Express Asymmetric Patella Drill Template - 35mm	1
6541-3-620E	Express Asymmetric Patella Drill Template - 38mm	1
6541-3-621E	Express Asymmetric Patella Drill Template - 40mm	1
6541-3-627E	Express Symmetric Patella Drill Template - 27mm	1
6541-3-629E	Express Symmetric Patella Drill Template - 29mm	1
6541-3-631E	Express Symmetric Patella Drill Template - 31mm	1
6541-3-633E	Express Symmetric Patella Drill Template - 33mm	1
6541-3-636E	Express Symmetric Patella Drill Template - 36mm	1
6541-3-639E	Express Symmetric Patella Drill Template - 39mm	1
6541-3-800E	Express Cement Cap	1
6633-7-744	Patella Clamp	1
5550-T-278	Symmetric Patella Trial 27mm x 8mm	1
5550-T-298	Symmetric Patella Trial 29mm x 8mm	1
5550-T-319	Symmetric Patella Trial 31mm x 9mm	1
5550-T-339	Symmetric Patella Trial 33mm x 9mm	1
5550-T-360	Symmetric Patella Trial 36mm x 10mm	1
5550-T-391	Symmetric Patella Trial 39mm x 11mm	1
5551-T-299	Asymmetric Patella Trial 29mm (S/I) x 33mm (M/L) x 9mm	1
5551-T-320	Asymmetric Patella Trial 32mm (S/I) x 36mm (M/L) x 10mm	1
5551-T-350	Asymmetric Patella Trial 35mm (S/I) x 39mm (M/L) x 10mm	1
5551-T-381	Asymmetric Patella Trial 38mm (S/I) x 42mm (M/L) x 11mm	1
5551-T-401	Asymmetric Patella Trial 40mm (S/I) x 44mm (M/L) x 11mm	1
6541-3-522	Metal-Backed Patella Drill w/Stop	1
6541-8-005E	Patellar Preparation - Upper Tray	1
6541-8-105E	Patellar Preparation - Lower Tray	1
6541-7-806	MIS 4:1 Impactor/Extractor	1
6541-1-701E	#1 Express 4:1 Cutting Block (Optional)	1
6541-1-708E	#8 Express 4:1 Cutting Block (Optional)	1
6541-9-000	Triathlon Case	1
		Total quantity 35

Instruments

Ref #	Description	Quantity in kit
Stryker Precision non-navigation specific instruments kit contents		
6541-2-429	Tibial Stylus	1
6541-2-609	Tibial Alignment Ankle Clamp EM	1
6541-2-610	Tibial Alignment Distal Assembly EM	1
6541-2-704	Tibial Adjustment Housing – 0° Slope	1
6541-2-705	Tibial Adjustment Housing – 3° Slope	1
6541-4-516	5/16″ IM Rod	1
6541-4-538	3/8″ IM Drill	1
6541-4-800	T-Handle Driver	1
6541-5-601	MIS Femoral Adjustment Block	1
6541-5-629	MIS Femoral Alignment Guide	1
6541-5-721	MIS Distal Resection Guide – Left	1
6541-5-722	MIS Distal Resection Guide – Right	1
6541-5-723	MIS Modular Distal Capture	1
6541-6-611	MIS Proximal Rod EM	1
6541-6-700	MIS Uncaptured Tibial Resection Guide – Right	1
6541-6-701	MIS Uncaptured Tibial Resection Guide – Left	1
	OR	
6541-6-702	MIS Captured Tibial Resection Guide – Right	1
6541-6-703	MIS Captured Tibial Resection Guide – Left	1
5555-5151	Non-Nav – Triathlon Stryker Precision Upper Tray	1
5555-5152	Non-Nav – Triathlon Stryker Precision Lower Tray	1
5555-5202	Removable Lid Case	1
		Total quantity 19
Stryker Precision optional instruments*		
6541-4-518	1/8″ Peg Drill	1
6541-4-602	Universal Alignment Rod	1
6541-4-802	1/8″ Hex Drive	1
6541-4-803	Slap Hammer	1
6541-4-806	Universal Alignment Handle	1
6541-4-825	Slip Torque Handle	1
6541-7-808	MIS Femoral EM Alignment Tower	1
		Total quantity 7

*Not included in standard configuration, but may be ordered separately.

Instruments

Ref #	Description	Quantity in kit
Triathlon Tibial Sizer Kit part numbers (sterile, single-use)		
5555-4600	**Triathlon Stryker Precision Tibial Sizer Kit**	**1 kit**
5555-4601	Tibial Sizer – # 1	1 per kit
5555-4602	Tibial Sizer – # 2	1 per kit
5555-4603	Tibial Sizer – # 3	1 per kit
5555-4604	Tibial Sizer – # 4	1 per kit
5555-4605	Tibial Sizer – # 5	1 per kit
5555-4606	Tibial Sizer – # 6	1 per kit
5555-4607	Tibial Sizer – # 7	1 per kit
5555-4608	Tibial Sizer – # 8	1 per kit

Note: Set List provided for Reference only. Not to be used for building kits.

Triathlon CR Single-use Femoral Prep Kit part numbers (sterile, single-use)		
5555-2201	**Triathlon CR Single-use Femoral Prep Kit Size 1**	**1 kit**
5555-2101	4:1 Cutting Block Size 1	1 per kit
5555-0601	Universal Femoral Trial Size 1	1 per kit
5555-2202	**Triathlon CR Single-use Femoral Prep Kit Size 2**	**1 kit**
5555-2102	4:1 Cutting Block Size 2	1 per kit
5555-0602	Universal Femoral Trial Size 2	1 per kit
5555-2203	**Triathlon CR Single-use Femoral Prep Kit Size 3**	**1 kit**
5555-2103	4:1 Cutting Block Size 3	1 per kit
5555-0603	Universal Femoral Trial Size 3	1 per kit
5555-2204	**Triathlon CR Single-use Femoral Prep Kit Size 4**	**1 kit**
5555-2104	4:1 Cutting Block Size 4	1 per kit
5555-0604	Universal Femoral Trial Size 4	1 per kit
5555-2205	**Triathlon CR Single-use Femoral Prep Kit Size 5**	**1 kit**
5555-2105	4:1 Cutting Block Size 5	1 per kit
5555-0605	Universal Femoral Trial Size 5	1 per kit
5555-2206	**Triathlon CR Single-use Femoral Prep Kit Size 6**	**1 kit**
5555-2106	4:1 Cutting Block Size 6	1 per kit
5555-0606	Universal Femoral Trial Size 6	1 per kit
5555-2207	**Triathlon CR Single-use Femoral Prep Kit Size 7**	**1 kit**
5555-2107	4:1 Cutting Block Size 7	1 per kit
5555-0607	Universal Femoral Trial Size 7	1 per kit
5555-2208	**Triathlon CR Single-use Femoral Prep Kit Size 8**	**1 kit**
5555-2108	4:1 Cutting Block Size 8	1 per kit
5555-0608	Universal Femoral Trial Size 8	1 per kit

Instruments

Ref #	Description	Quantity in kit
Triathlon PS Single-use Femoral Prep Kit part numbers (sterile, single-use)		
5555-2251	**Triathlon PS Single-use Femoral Prep Kit Size 1**	**1 kit**
5555-2101	4:1 Cutting Block Size 1	1 per kit
5555-0801	Universal Femoral Trial Size 1	1 per kit
5555-1801	PS Box Cutting Guide Size 1	1 per kit
5555-2252	**Triathlon PS Single-use Femoral Prep Kit Size 2**	**1 kit**
5555-2102	4:1 Cutting Block Size 2	1 per kit
5555-0802	Universal Femoral Trial Size 2	1 per kit
5555-1802	PS Box Cutting Guide Size 2	1 per kit
5555-2253	**Triathlon PS Single-use Femoral Prep Kit Size 3**	**1 kit**
5555-2103	4:1 Cutting Block Size 3	1 per kit
5555-0803	Universal Femoral Trial Size 3	1 per kit
5555-1803	PS Box Cutting Guide Size 3	1 per kit
5555-2254	**Triathlon PS Single-use Femoral Prep Kit Size 4**	**1 kit**
5555-2104	4:1 Cutting Block Size 4	1 per kit
5555-0804	Universal Femoral Trial Size 4	1 per kit
5555-1804	PS Box Cutting Guide Size 4	1 per kit
5555-2255	**Triathlon PS Single-use Femoral Prep Kit Size 5**	**1 kit**
5555-2105	4:1 Cutting Block Size 5	1 per kit
5555-0805	Universal Femoral Trial Size 5	1 per kit
5555-1805	PS Box Cutting Guide Size 5	1 per kit
5555-2256	**Triathlon PS Single-use Femoral Prep Kit Size 6**	**1 kit**
5555-2106	4:1 Cutting Block Size 6	1 per kit
5555-0806	Universal Femoral Trial Size 6	1 per kit
5555-1806	PS Box Cutting Guide Size 6	1 per kit
5555-2257	**Triathlon PS Single-use Femoral Prep Kit Size 7**	**1 kit**
5555-2107	4:1 Cutting Block Size 7	1 per kit
5555-0807	Universal Femoral Trial Size 7	1 per kit
5555-1807	PS Box Cutting Guide Size 7	1 per kit
5555-2258	**Triathlon PS Single-use Femoral Prep Kit Size 8**	**1 kit**
5555-2108	4:1 Cutting Block Size 8	1 per kit
5555-0808	Universal Femoral Trial Size 8	1 per kit
5555-1808	PS Box Cutting Guide Size 8	1 per kit

Note: Set List provided for Reference only. Not to be used for building kits.

Instruments

Ref #	Description	Quantity in kit
Triathlon CR Single-use Tibial Prep Kit part numbers (sterile, single-use)		
5555-2321	**Triathlon CR Single-use Tibial Prep Kit Size 1**	**1 kit**
5555-2301	Tibial Template Size 1	1 per kit
5555-2401	CR Tibial Insert Trial Size 1 – 9mm	1 per kit
5555-2402	CR Tibial Insert Trial Size 1 – 11mm	1 per kit
5555-2403	CR Tibial Insert Trial Size 1 – 13mm	1 per kit
5555-2404	CR Tibial Insert Trial Size 1 – 16mm	1 per kit
5555-2322	**Triathlon CR Single-use Tibial Prep Kit Size 2**	**1 kit**
5555-2302	Tibial Template Size 2	1 per kit
5555-2408	CR Tibial Insert Trial Size 2 – 9mm	1 per kit
5555-2409	CR Tibial Insert Trial Size 2 – 11mm	1 per kit
5555-2410	CR Tibial Insert Trial Size 2 – 13mm	1 per kit
5555-2411	CR Tibial Insert Trial Size 2 – 16mm	1 per kit
5555-2323	**Triathlon CR Single-use Tibial Prep Kit Size 3**	**1 kit**
5555-2303	Tibial Template Size 3	1 per kit
5555-2415	CR Tibial Insert Trial Size 3 – 9mm	1 per kit
5555-2416	CR Tibial Insert Trial Size 3 – 11mm	1 per kit
5555-2417	CR Tibial Insert Trial Size 3 – 13mm	1 per kit
5555-2418	CR Tibial Insert Trial Size 3 – 16mm	1 per kit
5555-2324	**Triathlon CR Single-use Tibial Prep Kit Size 4**	**1 kit**
5555-2304	Tibial Template Size 4	1 per kit
5555-2422	CR Tibial Insert Trial Size 4 – 9mm	1 per kit
5555-2423	CR Tibial Insert Trial Size 4 – 11mm	1 per kit
5555-2424	CR Tibial Insert Trial Size 4 – 13mm	1 per kit
5555-2425	CR Tibial Insert Trial Size 4 – 16mm	1 per kit
5555-2325	**Triathlon CR Single-use Tibial Prep Kit Size 5**	**1 kit**
5555-2305	Tibial Template Size 5	1 per kit
5555-2429	CR Tibial Insert Trial Size 5 – 9mm	1 per kit
5555-2430	CR Tibial Insert Trial Size 5 – 11mm	1 per kit
5555-2431	CR Tibial Insert Trial Size 5 – 13mm	1 per kit
5555-2432	CR Tibial Insert Trial Size 5 – 16mm	1 per kit
5555-2326	**Triathlon CR Single-use Tibial Prep Kit Size 6**	**1 kit**
5555-2306	Tibial Template Size 6	1 per kit
5555-2436	CR Tibial Insert Trial Size 6 – 9mm	1 per kit
5555-2437	CR Tibial Insert Trial Size 6 – 11mm	1 per kit
5555-2438	CR Tibial Insert Trial Size 6 – 13mm	1 per kit
5555-2439	CR Tibial Insert Trial Size 6 – 16mm	1 per kit
5555-2327	**Triathlon CR Single-use Tibial Prep Kit Size 7**	**1 kit**
5555-2307	Tibial Template Size 7	1 per kit
5555-2443	CR Tibial Insert Trial Size 7 – 9mm	1 per kit
5555-2444	CR Tibial Insert Trial Size 7 – 11mm	1 per kit
5555-2445	CR Tibial Insert Trial Size 7 – 13mm	1 per kit
5555-2446	CR Tibial Insert Trial Size 7 – 16mm	1 per kit
5555-2328	**Triathlon CR Single-use Tibial Prep Kit Size 8**	**1 kit**
5555-2308	Tibial Template Size 8	1 per kit
5555-2450	CR Tibial Insert Trial Size 8 – 9mm	1 per kit
5555-2451	CR Tibial Insert Trial Size 8 – 11mm	1 per kit
5555-2452	CR Tibial Insert Trial Size 8 – 13mm	1 per kit
5555-2453	CR Tibial Insert Trial Size 8 – 16mm	1 per kit

Instruments

Ref #	Description	Quantity in kit
Triathlon PS Single-use Tibial Prep Kit part numbers		
5555-2361	**Triathlon PS Single-use Tibial Prep Kit Size 1**	**1 kit**
5555-2301	Tibial Template Size 1	1 per kit
5555-2601	PS Tibial Insert Trial Size 1 – 9mm	1 per kit
5555-2602	PS Tibial Insert Trial Size 1 – 11mm	1 per kit
5555-2603	PS Tibial Insert Trial Size 1 – 13mm	1 per kit
5555-2604	PS Tibial Insert Trial Size 1 – 16mm	1 per kit
5555-2362	**Triathlon PS Single-use Tibial Prep Kit Size 2**	**1 kit**
5555-2302	Tibial Template Size 2	1 per kit
5555-2608	PS Tibial Insert Trial Size 2 – 9mm	1 per kit
5555-2609	PS Tibial Insert Trial Size 2 – 11mm	1 per kit
5555-2610	PS Tibial Insert Trial Size 2 – 13mm	1 per kit
5555-2611	PS Tibial Insert Trial Size 2 – 16mm	1 per kit
5555-2363	**Triathlon PS Single-use Tibial Prep Kit Size 3**	**1 kit**
5555-2303	Tibial Template Size 3	1 per kit
5555-2615	PS Tibial Insert Trial Size 3 – 9mm	1 per kit
5555-2616	PS Tibial Insert Trial Size 3 – 11mm	1 per kit
5555-2617	PS Tibial Insert Trial Size 3 – 13mm	1 per kit
5555-2618	PS Tibial Insert Trial Size 3 – 16mm	1 per kit
5555-2364	**Triathlon PS Single-use Tibial Prep Kit Size 4**	**1 kit**
5555-2304	Tibial Template Size 4	1 per kit
5555-2622	PS Tibial Insert Trial Size 4 – 9mm	1 per kit
5555-2623	PS Tibial Insert Trial Size 4 – 11mm	1 per kit
5555-2624	PS Tibial Insert Trial Size 4 – 13mm	1 per kit
5555-2625	PS Tibial Insert Trial Size 4 – 16mm	1 per kit
5555-2365	**Triathlon PS Single-use Tibial Prep Kit Size 5**	**1 kit**
5555-2305	Tibial Template Size 5	1 per kit
5555-2629	PS Tibial Insert Trial Size 5 – 9mm	1 per kit
5555-2630	PS Tibial Insert Trial Size 5 – 11mm	1 per kit
5555-2631	PS Tibial Insert Trial Size 5 – 13mm	1 per kit
5555-2632	PS Tibial Insert Trial Size 5 – 16mm	1 per kit
5555-2366	**Triathlon PS Single-use Tibial Prep Kit Size**	**1 kit**
5555-2306	Tibial Template Size 6	1 per kit
5555-2636	PS Tibial Insert Trial Size 6 – 9mm	1 per kit
5555-2637	PS Tibial Insert Trial Size 6 – 11mm	1 per kit
5555-2638	PS Tibial Insert Trial Size 6 – 13mm	1 per kit
5555-2639	PS Tibial Insert Trial Size 6 – 16mm	1 per kit
5555-2367	**Triathlon PS Single-use Tibial Prep Kit Size 7**	**1 kit**
5555-2307	Tibial Template Size 7	1 per kit
5555-2643	PS Tibial Insert Trial Size 7 – 9mm	1 per kit
5555-2644	PS Tibial Insert Trial Size 7 – 11mm	1 per kit
5555-2645	PS Tibial Insert Trial Size 7 – 13mm	1 per kit
5555-2646	PS Tibial Insert Trial Size 7 – 16mm	1 per kit
5555-2368	**Triathlon PS Single-use Tibial Prep Kit Size 8**	**1 kit**
5555-2308	Tibial Template Size 8	1 per kit
5555-2650	PS Tibial Insert Trial Size 8 – 9mm	1 per kit
5555-2651	PS Tibial Insert Trial Size 8 – 11mm	1 per kit
5555-2652	PS Tibial Insert Trial Size 8 – 13mm	1 per kit
5555-2653	PS Tibial Insert Trial Size 8 – 16mm	1 per kit

Implants

Ref #	Description	Sizes	Quantity
Triathlon CR Femoral Component - Cemented part numbers			
5510-F-X01	Triathlon CR Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5510-F-X02	Triathlon CR Femoral Component - Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon CR Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5517-F-X01	Triathlon CR Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5517-F-X02	Triathlon CR Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Component - Cemented part numbers			
5515-F-X01	Triathlon PS Femoral Component - Left Cemented	X= 1,2,3,4,5,6,7,8	1 each size
5515-F-X02	Triathlon PS Femoral Component - Right Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon PS Femoral Cementless Component - Beaded w/ Peri-Apatite part numbers			
5516-F-X01	Triathlon PS Femoral Component - Left Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
5516-F-X02	Triathlon PS Femoral Component - Right Cementless Beaded w/ PA	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Cemented			
5520-B-X00	Triathlon Primary Tibial Baseplate-Cemented	X= 1,2,3,4,5,6,7,8	1 each size
Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite			
5526-B-X00	Triathlon Primary Tibial Baseplate-Beaded with Peri-Apatite	X= 1,2,3,4,5,6,7,8	1 each size
Modular Femoral Distal Fixation Peg part number			
5575-X-000	Modular Femoral Distal Fixation Peg (2 per pack)		

Ref #	Description	Sizes	Quantity
Triathlon CR Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5530-P-X09	Triathlon CR Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X11	Triathlon CR Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X13	Triathlon CR Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-P-X16	Triathlon CR Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5530-G-X09 or 5530-G-X09-E	Triathlon CR Tibial Insert - X3 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-G-X11 or 5530-G-X11-E	Triathlon CR Tibial Insert - X3 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-G-X13 or 5530-G-X13-E	Triathlon CR Tibial Insert - X3 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5530-G-X16 or 5530-G-X16-E	Triathlon CR Tibial Insert - X3 16mm	X = 1,2,3,4,5,6,7,8	1 each size

Implants

Ref #	Description	Sizes	Quantity
Triathlon CS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5531-P-X09	Triathlon CS Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X11	Triathlon CS Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X13	Triathlon CS Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-P-X16	Triathlon CS Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5531-G-X09 or 5531-G-X09-E	Triathlon CS Tibial Insert - X3 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-G-X11 or 5531-G-X11-E	Triathlon CS Tibial Insert - X3 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-G-X13 or 5531-G-X13-E	Triathlon CS Tibial Insert - X3 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5531-G-X16 or 5531-G-X16-E	Triathlon CS Tibial Insert - X3 16mm	X = 1,2,3,4,5,6,7,8	1 each size

Note: The above tray is optional to accommodate 10mm, 12mm and 14mm trials. All trials of other thickness listed in this protocol are interchangeable in all existing trays.

Triathlon PS Tibial Inserts - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5532-P-X09	Triathlon PS Tibial Insert - Conventional Polyethylene 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X11	Triathlon PS Tibial Insert - Conventional Polyethylene 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X13	Triathlon PS Tibial Insert - Conventional Polyethylene 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-P-X16	Triathlon PS Tibial Insert - Conventional Polyethylene 16mm	X = 1,2,3,4,5,6,7,8	1 each size
X3 Inserts			
5532-G-X09 or 5532-G-X09-E	Triathlon PS Tibial Insert - X3 9mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-G-X11 or 5532-G-X11-E	Triathlon PS Tibial Insert - X3 11mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-G-X13 or 5532-G-X13-E	Triathlon PS Tibial Insert - X3 13mm	X = 1,2,3,4,5,6,7,8	1 each size
5532-G-X16 or 5532-G-X16-E	Triathlon PS Tibial Insert - X3 16mm	X = 1,2,3,4,5,6,7,8	1 each size

Triathlon PSR Tibial Inserts – X3 part numbers			
8532-G-X09-E	Triathlon PSR Tibial Insert – X3 9mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X11-E	Triathlon PSR Tibial Insert – X3 11mm	X = 1,2,3,4,5,6,7,8	1 each size
8532-G-X16-E	Triathlon PSR Tibial Insert – X3 16mm	X = 1,2,3,4,5,6,7,8	1 each size

Note: PS tibia insert trial can be used for both PS and PSR inserts

Note: Other Tibial Insert thicknesses are available with use of reusable Insert Trials (not contained in the Single-Use Instrument Sets)

Implants

Ref #	Description	Sizes	Quantity
Symmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5550-L-278	Symmetric Patella - Conventional Polyethylene	S27mm x 8mm	1 each size
5550-L-298	Symmetric Patella - Conventional Polyethylene	S29mm x 8mm	1 each size
5550-L-319	Symmetric Patella - Conventional Polyethylene	S31mm x 9mm	1 each size
5550-L-339	Symmetric Patella - Conventional Polyethylene	S33mm x 9mm	1 each size
5550-L-360	Symmetric Patella - Conventional Polyethylene	S36mm x 10mm	1 each size
5550-L-391	Symmetric Patella - Conventional Polyethylene	S39mm x 11mm	1 each size
X3 Patellas			
5550-G-278 or 5550-G-278-E	Symmetric Patella - X3	S27mm x 8mm	1 each size
5550-G-298 or 5550-G-298-E	Symmetric Patella - X3	S29mm x 8mm	1 each size
5550-G-319 or 5550-G-319-E	Symmetric Patella - X3	S31mm x 9mm	1 each size
5550-G-339 or 5550-G-339-E	Symmetric Patella - X3	S33mm x 9mm	1 each size
5550-G-360 or 5550-G-360-E	Symmetric Patella - X3	S36mm x 10mm	1 each size
5550-G-391 or 5550-G-391-E	Symmetric Patella - X3	S39mm x 11mm	1 each size
Asymmetric Patella - Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Patellas			
5551-L-299	Asymmetric Patella - Conventional Polyethylene	A29mm (S/I*) x 9mm	1 each size
5551-L-320	Asymmetric Patella - Conventional Polyethylene	A32mm (S/I*) x 10mm	1 each size
5551-L-350	Asymmetric Patella - Conventional Polyethylene	A35mm (S/I*) x 10mm	1 each size
5551-L-381	Asymmetric Patella - Conventional Polyethylene	A38mm (S/I*) x 11mm	1 each size
5551-L-401	Asymmetric Patella - Conventional Polyethylene	A40mm (S/I*) x 11mm	1 each size
X3 Patellas			
5551-G-299 or 5551-G-299-E	Asymmetric Patella - X3	A29mm (S/I*) x 9mm	1 each size
5551-G-320 or 5551-G-320-E	Asymmetric Patella - X3	A32mm (S/I*) x 10mm	1 each size
5551-G-350 or 5551-G-350-E	Asymmetric Patella - X3	A35mm (S/I*) x 10mm	1 each size
5551-G-381 or 5551-G-381-E	Asymmetric Patella - X3	A38mm (S/I*) x 11mm	1 each size
5551-G-401 or 5551-G-401-E	Asymmetric Patella - X3	A40mm (S/I*) x 11mm	1 each size
Asymmetric Patella – Metal-Backed Beaded w/ Peri-Apatite**			
Conventional Polyethylene Patellas			
5554-L-320+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A32mm (S/I*) x 10mm	1
5554-L-350+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A35mm (S/I*) x 10mm	1
5554-L-381+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A38mm (S/I*) x 11mm	1
5554-L-401+	Asymmetric Patella – Metal-Backed Beaded With Peri-Apatite	A40mm (S/I*) x 11mm	1

*S/I – Superior/Inferior

+This product is not CE marked in accordance with applicable EU regulations and directives. Stryker is not marketing or distributing this product in the EU. Any reference to this product is for presentation purposes only.

Triathlon® Knee System

Tritanium® Cementless Tibial Baseplate and Metal-Backed Patella addendum

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Contents

Description

Stryker's total knee systems include the Triathlon Tritanium Baseplate and Metal-Backed Patella which are designed for use with the Triathlon Primary Knee System Femoral Components and Tibial Inserts, for total knee arthroplasty. The characteristics specific to each device are detailed on the product label. The Triathlon Tritanium Baseplate and Metal-Backed Patella are indicated for both cementless and cemented applications.

Femoral Components: The Triathlon Tritanium Baseplate and Metal-Backed Patella are compatible with the Triathlon cruciate retaining (CR) and cruciate sacrificing (posteriorly stabilized – PS) designs.

Tibial Components: The Triathlon Tritanium Baseplate is compatible with Triathlon tibial inserts in a cruciate retaining (CR), posterior stabilized (PS), posterior stabilizing rotation (PSR) and condylar stabilizing (CS) designs. Tibial inserts are available in a range of thicknesses and in various degrees of constraint.

- **Note:** The Triathlon Tritanium Baseplate is packaged together with an Impactor Pad. The Impactor Pad is to be used during the tibial baseplate impaction step only and is to be discarded once impaction has completed. The Impactor Pad is not for implantation.

Patellar components: Triathlon Tritanium Metal-Backed Patellae are available in symmetric and asymmetric options. Use of a patellar component is optional. The Triathlon Tritanium Metal-Backed Patella are compatible with all Triathlon Femoral Components.

*Additional revision-only compatibility note for Triathlon Tritanium Metal-Backed Patella:
The Triathlon Tritanium Metal-Backed Patella is indicated for use with the Total Stabilizer (TS) components including the metal bone augmentation components, the modular stem extensions and offsets. **Only the Triathlon Tritanium Metal-Backed Patella is compatible with the revision components. The Triathlon Tritanium Baseplate is not compatible with the revision components. For full indications, please reference pages 3 and 4 of this protocol.**

Triathlon Tritanium knee construct

Figure 1

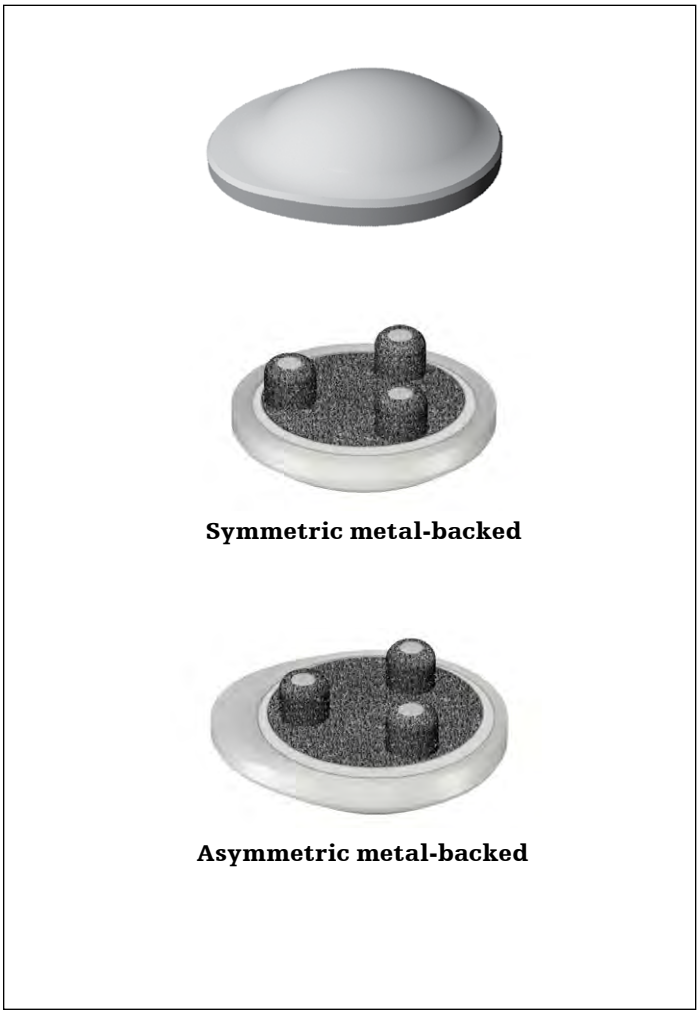


Figure 2

This addendum demonstrates the technique for implanting a Triathlon cementless beaded femoral Component with the Triathlon Tritanium Baseplate and compatible Triathlon Tritanium Metal-Backed Patella component.

Triathlon Tritanium Baseplate

The Triathlon Tritanium Baseplate is designed to be similar to the Triathlon Primary baseplate. It offers the same profile and insert locking mechanism.

The Triathlon Tritanium Baseplate features four cruciform pegs.

The Triathlon Tritanium Baseplate features Stryker's Tritanium 3D porous metal technology on the underside of the baseplate, the proximal end of the keel and the proximal end of each of the four cruciform pegs.

It is available in eight sizes and is indicated for both cementless and cemented applications. Surgeons may select an option based on preference and local bone conditions.

The Triathlon Tritanium Baseplate is compatible with all available posterior stabilizing (PS) and cruciate retaining (CR) Triathlon Femoral Components for both cemented and cementless applications and accepts available Triathlon cruciate retaining (CR), condylar stabilizing (CS) and posterior stabilizing (PS and PSR) inserts.

Triathlon Tritanium Metal-Backed Patella

The Triathlon Tritanium Metal-Backed Patella is indicated for both cemented and cementless applications.

The Triathlon Tritanium Metal-Backed Patella components are available in symmetric and asymmetric configurations. There are a total of nine sizes which are compatible with all Triathlon femoral and tibial components.

The Triathlon Tritanium Metal-Backed Patella features Stryker's Tritanium 3D porous metal technology, made from commercially pure titanium, on the metal underside of the patella.

The Triathlon Tritanium Metal-Backed Patella components are available with conventional polyethylene.

For complete information on surgical procedure and implant listings, please refer within this document to one of the following: The Triathlon Knee System Express Surgical Protocol, the Triathlon Knee System Standard Surgical Protocol or the Triathlon Knee System MIS Surgical Protocol.

The Triathlon Knee System Legacy Surgical Protocol (TRIATH-SP-22) may also be referenced.

Note: The only tibial baseplate compatible with this addendum is 5536-B-XXX. The only patellae compatible with this addendum are 5552-L-XXX and 5556-L-XXX.

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in Preoperative sizing

Tibial preparation

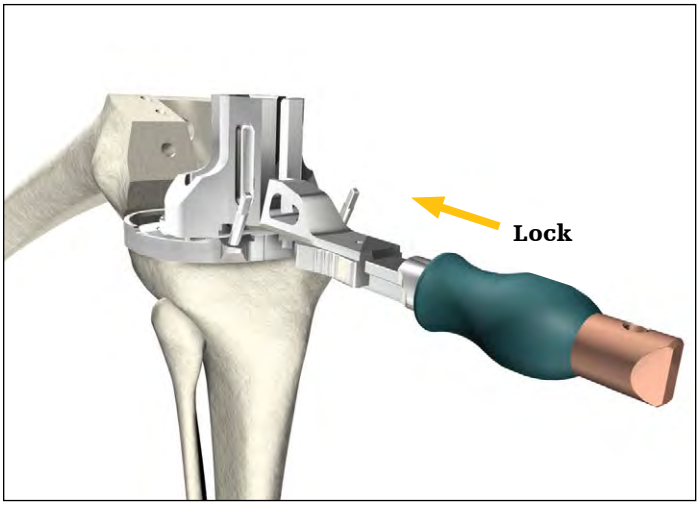


Figure 3

Securing Tibial Keel Punch Guide

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting at a slight angle to the top of the Universal Tibial Template (into the two locating slots toward the posterior portion of the Universal Tibial Template).

Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

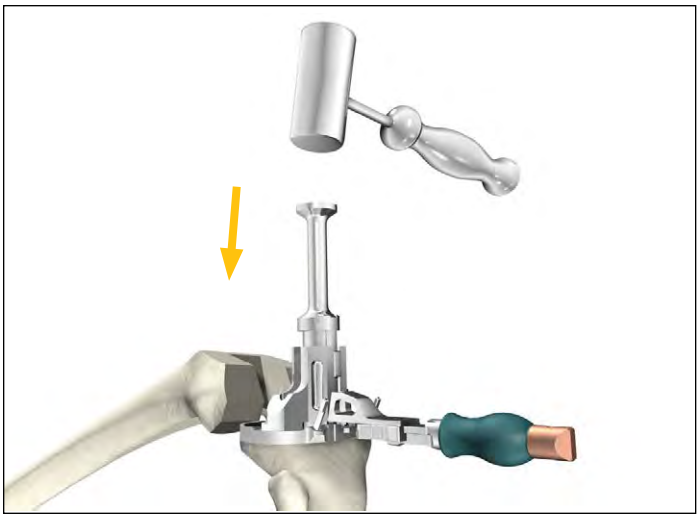


Figure 4

Tibial keel punching

Place the appropriate Cementless Keel Punch into the Keel Punch Guide.

Use a mallet to impact the Keel Punch.

- **Tip:** The presence of variably dense bone in the proximal tibia can influence the advancement of the Keel Punch. Take care to ascertain that the pinned Universal Tibial Template maintains its position during Keel Punch impaction. It may be advisable to remove sclerotic bone in the path of the Keel Punch prior to impaction.

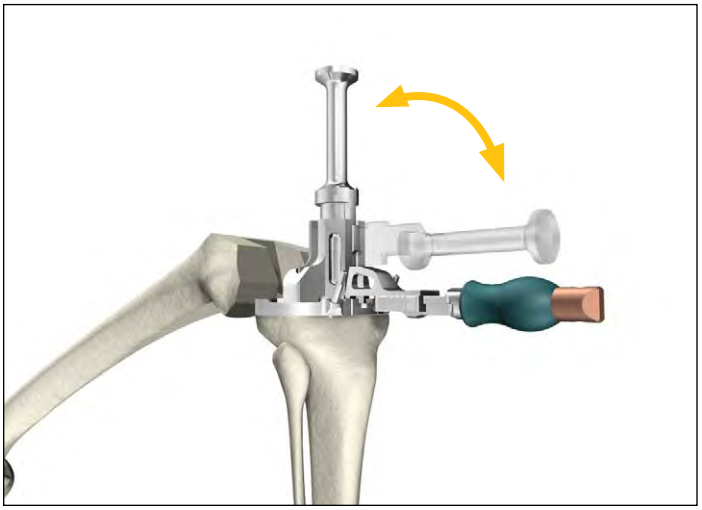


Figure 5

Extracting Keel Punch

To extract the Keel Punch, lift up on the Keel Punch Guide handle and pull the handle to cantilever the Keel Punch out of the tibia.

Patella preparation

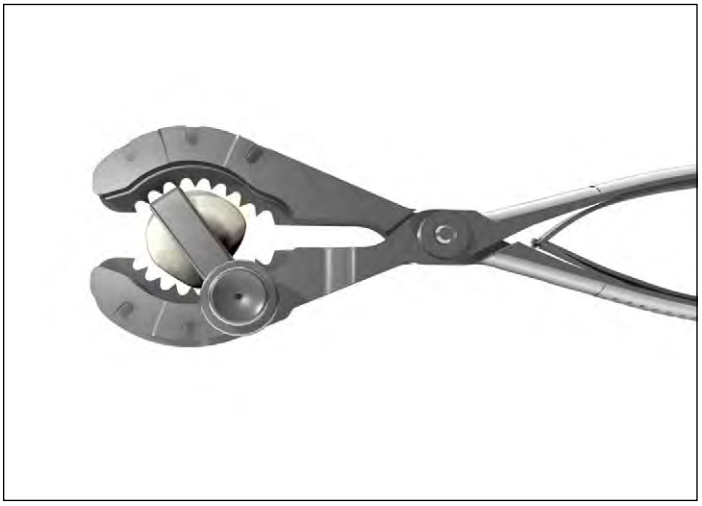


Figure 6

Patella resection

Patella preparation is optional and is based on surgeon preference and surgeon evaluation of the articulating surface.

Remove all osteophytes and synovial insertions around the patella and measure thickness using the Patella Caliper.

After determining the depth of the cut, affix the Patella Stylus in the appropriate slot of the Slotted Patella Resection Guide and capture the patella between the jaws of the guide.

- **Note:** Care should be taken when determining the depth of the cut in an effort to minimize the risk of fracture. The amount of bone to be left after resecting the patella is a clinical decision and is based on surgeon judgment and evaluation of patient characteristics.

Using a .050" (1.25mm) non-offset sawblade, resect the patella.

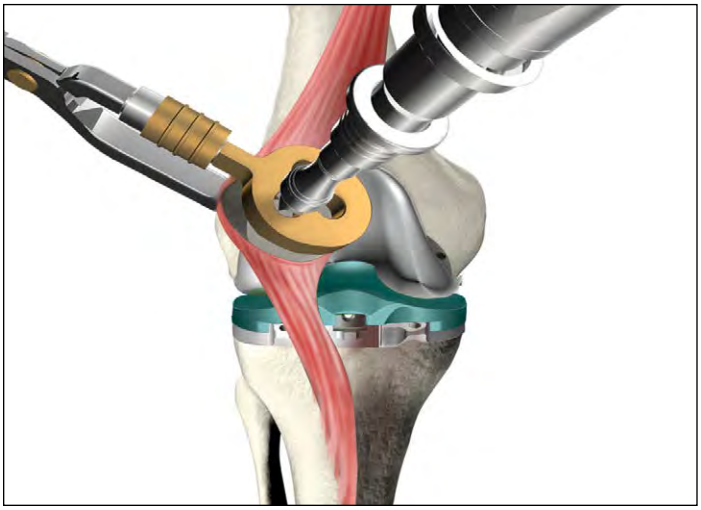


Figure 7

Patella peg preparation

Choose the appropriate size Express Symmetric Patella Drill Template or Express Asymmetric Patella Drill Template and insert into the Patella Clamp.

Position the chosen patellar drill guide over the patella and secure it to the bone by deploying the clamp mechanism.

Drill selection guide

For Triathlon Tritanium Metal-Backed Patella: Use the standard metal-back patella drill (6541-3-522); 5.7mm (0.225″) drill diameter = 0.4mm (0.016″) press-fit.

If the bone is sclerotic in any of the peg locations, the surgeon may elect to use the Tritanium Dense Bone Patella Drill (6541-3-526), which will create slightly less press-fit; 6.0mm (0.235″) drill diameter = 0.15mm (0.006″) press-fit.

If the surgeon chooses to cement the Triathlon Tritanium Metal-Backed Patella or prefers to use a cemented All Poly-Patella, then the All-Poly Patella Drill (6541-3-524) must be used.

Drill three fixation holes with the appropriate drill.

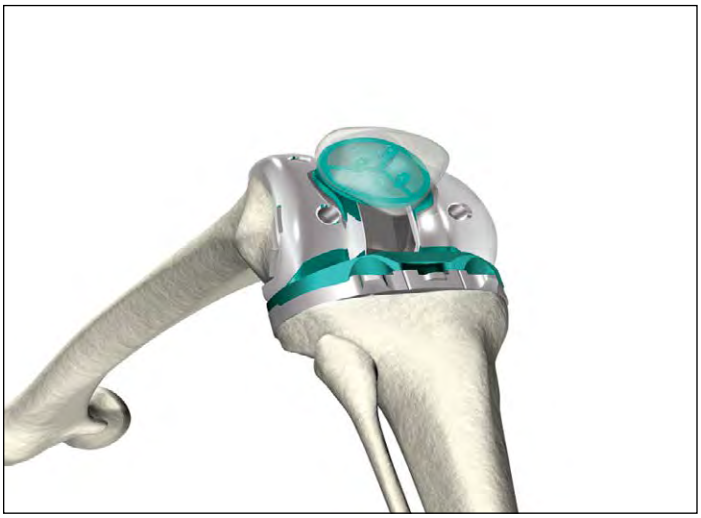


Figure 8

Trial assessment

Remove any residual cartilage and wash away all debris.

Place correct size Patella Trial (Symmetric or Asymmetric) onto the prepared patella.

Replace all Trials and assess patellar tracking by taking the knee through a ROM. The patella should track normally throughout the ROM without tendency for tilting or lateral subluxation.

Tibial preparation

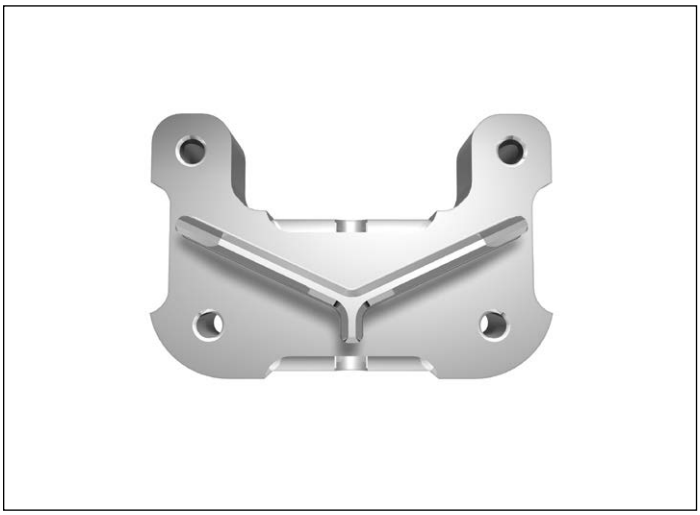


Figure 9

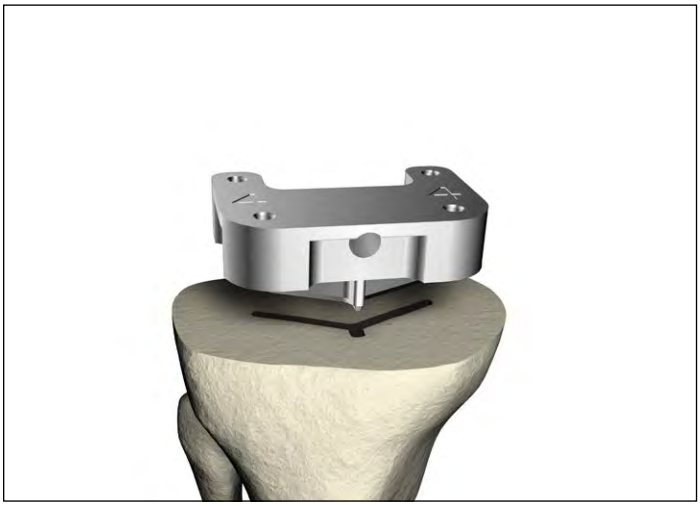


Figure 10

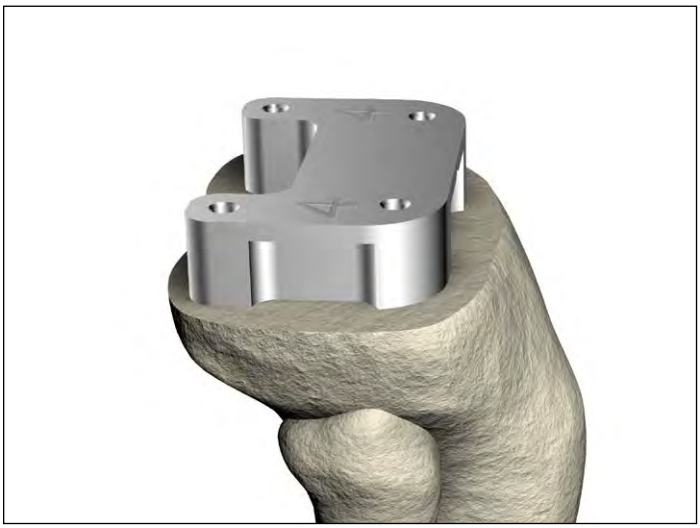


Figure 11

Tibial Peg Drill Template

- **Note:** Universal Tibial Template, Keel Punch Tower, Keel Punch and all pins need to be removed from tibia before tibial peg preparation.

Select the Tibial Peg Drill Template that corresponds to the predetermined tibial baseplate size.

The position of the four holes and the keel on the underside of the Tibial Peg Drill Template correspond to the relative location of the keel and four pegs on the implant.

Insert the keel on the Tibial Peg Drill Template into the prepared keel slot as shown.

Ensure that the Tibial Peg Drill Template sits flush against the resected tibia to ensure accurate peg preparation.

1/8″ Tibial Peg Drill (6541-2-625)

Figure 12

Figure 13

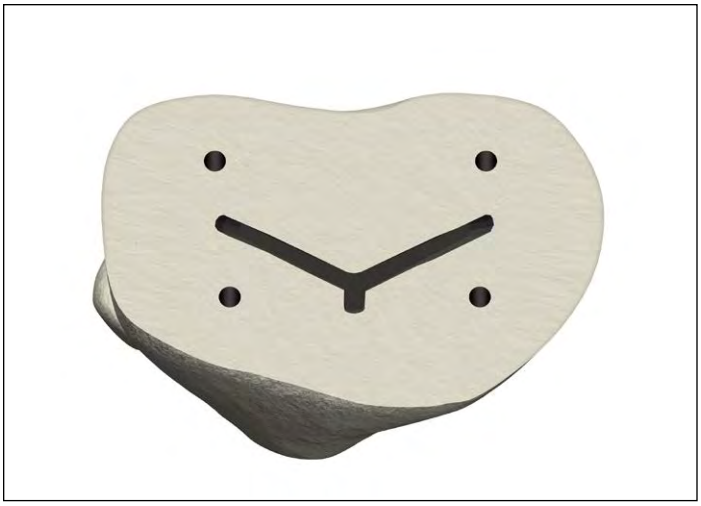


Figure 14

7/32″ Tibial Peg Drill (6541-2-626)

Figure 15

Drilling for pegs

Drilling the tibial peg holes will facilitate seating the implant.

Select the 1/8″ Tibial Peg Drill (6541-2-625).

Hold Tibial Peg Drill Template in position by applying finger pressure to the template. Position 1/8″ Tibial Peg Drill through a peg hole perpendicular to the resected tibia.

Drill through all four template holes using the 1/8″ Tibial Peg Drill taking care to ensure surgical glove and fingers are not in contact with drill prior to drilling.

Drilling is complete when the drill stop has contacted the template surface.

Carefully remove the Tibial Peg Drill Template from the bone by lifting straight up and out of keel slot.

- **Tip**: The central hole of the Tibial Drill Guide can be used to facilitate removal of the guide straight up and out of the keel slot.

Image of the tibia after tibial preparation.

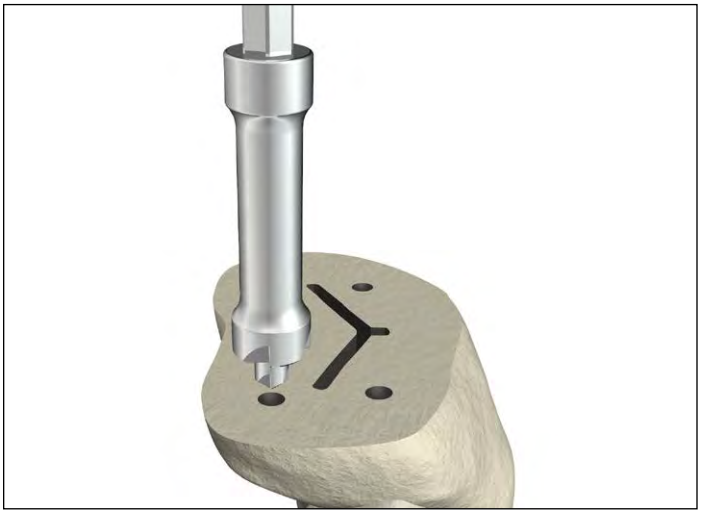


Figure 16

Optional: Drilling with the 7/32″ Peg Drill

If the surgeon feels the bone is too dense at any of the peg locations after preparing with the 1/8″ Drill and template, the optional 7/32″ Peg Drill (6541-2-626) may be used to increase the size of the peg holes.

Drill taking care to ensure surgical glove and fingers are not in contact with drill prior to drilling. Ensure axial alignment before drilling. Drilling is complete after the drill stop has contacted bone. Do not continue to drive the drill after the stop has been reached.

- **Note:** Ensure Tibial Peg Drill template is removed prior to drilling with the 7/32″ Tibial Peg Drill.

Tibial implantation

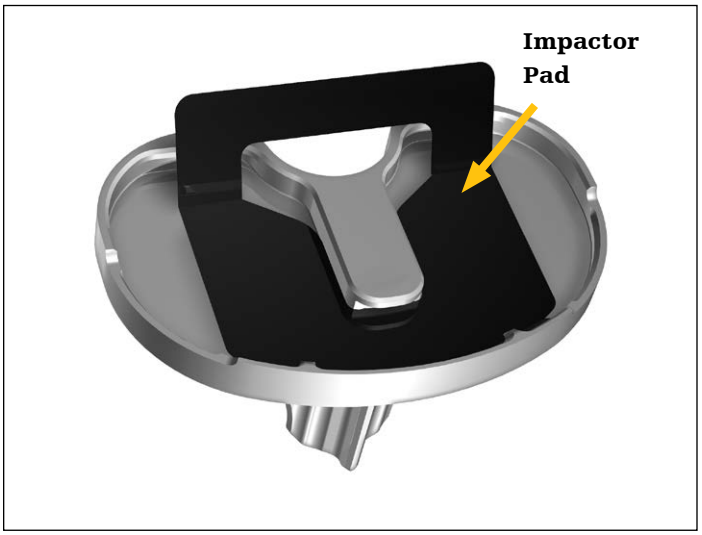


Figure 17

The Triathlon Tritanium Baseplate is packaged together with an Impactor Pad as shown.

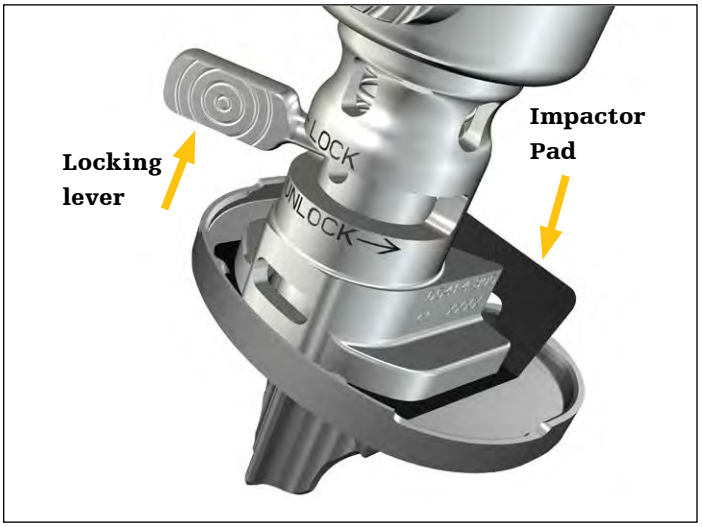


Figure 18

Locking onto the Impactor Pad

- **Note:** It is advisable to confirm at this stage if the surgeon plans to implant the baseplate with or without cement.

If cementless:

Connect the Tibial Baseplate Impactor/Extractor to the Impaction Handle

Connect the Tibial Baseplate Impactor/Extractor to the Triathlon Tritanium Baseplate over the Impactor Pad and lock the lever.

Tibial implantation

Figure 19

Baseplate impaction

- **Caution:** Pegs on the Triathlon Tritanium Baseplate are sharp. Take care when handling the baseplate.
- **Tip:** At this stage, cysts or voids on the surface of the tibia may be bone grafted with local resected cancellous bone.

Introduce the Triathlon Tritanium Baseplate onto the prepared tibia taking care to align keel slot and peg holes with the keel and pegs of the baseplate.

Impact until fully seated. Ensure baseplate is fully seated prior to proceeding.

Unlock the locking lever on the Baseplate Impactor Extractor and remove the assembly from the baseplate. **Discard the Impactor Pad.**

- **Caution:** It is recommended that the Impactor Pad be left on during impaction. Discard the Impactor Pad following impaction of the baseplate and prior to the Tibial Insert Implantation step. **Do not implant the Impactor Pad.**
- **Note:** Do not rock the baseplate in the bone because it could affect the press-fit.

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle. Place the Tibial Baseplate Impactor on to the Triathlon Tritanium Baseplate straddling the central island. Ensure the Tibial Baseplate Impactor sits flat on the top surface of the Triathlon Tritanium Baseplate. Impact until the Triathlon Tritanium Baseplate is fully seated.

If cementing:

If a decision is made to cement the Triathlon Tritanium Baseplate, the keel must be re-prepared with the Cemented Keel Punch.

The appropriate Tibial Template and Keel Punch Tower must be pinned back into place. The Cemented Keel Punch is then impacted into place to open up the keel slot to allow for a cement mantle.

If necessary, before applying the bone cement, remove bone debris and tissue from the Triathlon Tritanium Baseplate.

Tibial insert implantation

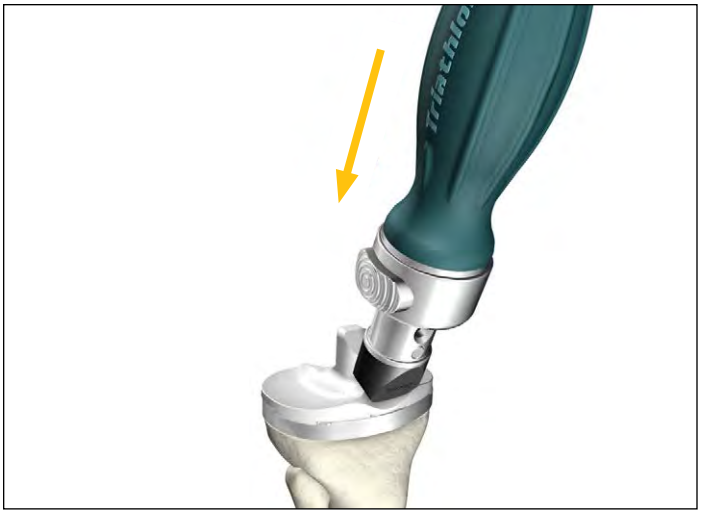


Figure 20

Prior to assembly of the tibial Insert, the Tibial Insert Trial may be placed on the Triathlon Tritanium Baseplate, to once more assess joint stability and range of motion.

To assemble the Tibial Insert, distract the joint and angle the insert posteriorly into the Triathlon Tritanium Baseplate. The posterior lip of the Tibial Insert must fit beneath the lip on the posterior Triathlon Tritanium Baseplate wall.

Attach the Tibial Insert Impactor to the Impaction Handle and impact to snap the Insert in place anteriorly.

The Tibial Insert is fully seated once the locking wire locks under the barbs on the anterior/ interior surface of the Triathlon Tritanium Baseplate wall.

Patella implantation

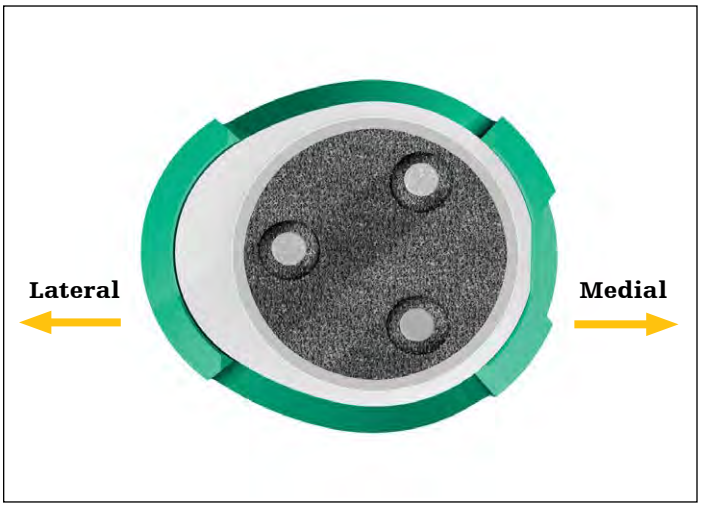


Figure 21

Assembling the patella implant to the Patella Capture

Select the Patella Capture that corresponds to the size of the patella to be implanted and snap the polyethylene side of the patella implant to the capture.

- **Note:** If an asymmetric patella and Capture are selected, place the medial side of the patella in first and then snap in the lateral side.

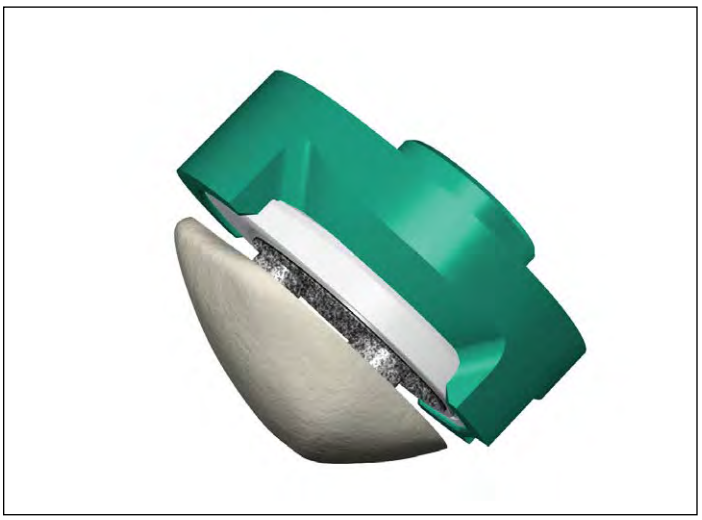


Figure 22

Orienting the patella implant to the native patella

Ensure all bone debris from patella preparation has been removed so the implant can seat properly.

Align the pegs of the Patellar Component to the fixation peg holes previously prepared.

- **Caution:** When using an asymmetric patellar component, ensure that the lateral extension of the asymmetric patella implant is over the lateral facet of the native patella.

Lightly press the patellar pegs into the native patella.

Figure 23

Figure 24

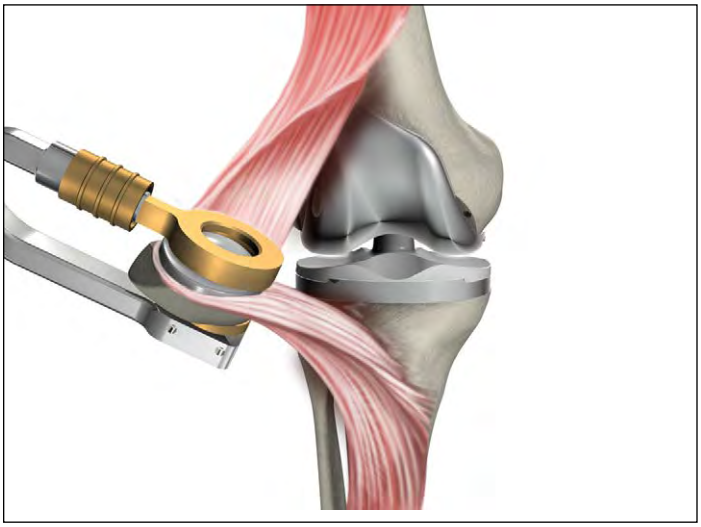


Figure 25

Implanting the patellar component using the Tritanium Patella Inserter

Hold the native patella, patella implant and Patella Capture in one hand and position the Patella Inserter over the Patella Capture as shown.

Bring the two arms of the Patella Inserter together until the native patella rests against the lower patella plate and the top of the capture fits flush against the upper plate of the Tritanium Patella Inserter.

- **Note:** The Impaction Handle may be attached to the Patella Inserter as an option.

Turn the T-handle of the Patella Inserter until the metal backing portion of the patella implant is fully seated onto the resected surface of the native patella.

- **Note:** The metal backing portion of the patella implant protrudes slightly from the peripheral polyethylene surface. There may be a slight gap between the peripheral polyethylene and the bone surface when the central metal backing portion is fully seated.
- **Caution:** While carefully turning the T-handle, observe through the windows on the Patella Capture that the patella implant is properly seating onto the native patella. Stop once the metal backing portion of the implant is fully seated. Care should be taken to avoid over-compressing the implant and native patella.

Unscrew the T-handle and remove the Patella Inserter and Capture.

Reexamine to ensure the implant is properly seated on the native patella.

If cementing the patella component:

If a decision is made to cement the Triathlon Tritanium Metal-Backed Patella or to use an all-poly patella, the peg holes must be prepared with the All-Poly Patella Drill (6541-3-524).

If necessary, remove bone and tissue debris from the Triathlon Tritanium Metal-Backed Patella.

Prepare the bone surface for cementing and apply the cement.

To facilitate removal of excess bone cement, do not use the Patella Capture with the Patella Inserter.

Alternatively, the Triathlon Patella Clamp and Express Cement Cap can be used for cement application insertion.

Maintain clamping pressure while excess cement is cleared and polymerization is complete.

Instruments

Ref #	Description		Quantity in kit
Triathlon Cementless case			
6541-6-013Y	Triathlon Cementless Keel Punch 0-3		1
6541-6-013	Triathlon Cementless Keel Punch 1-3		Option in place of 6541-6-013Y
6541-6-046	Triathlon Cementless Keel Punch 4-6		1
6541-6-078	Triathlon Cementless Keel Punch 7-8		1
6541-8-003	Triathlon Cementless Case		1
Triathlon Tritanium prep tray			
6541-2-64X	Tritanium Tibial Peg Drill Template	X= 0Y,1,2,3,4,5,6,7,8	1 each size
6541-2-625	Tritanium Tibial Peg Drill – 1/8"		1
6541-2-626	Tritanium Tibial Peg Drill – 7/32"		1
6541-3-530	Tritanium patella inserter		1
6541-3-319	Symmetric patella capture S31		1
6541-3-339	Symmetric patella capture S33		1
6541-3-360	Symmetric patella capture S36		1
6541-3-391	Symmetric patella capture S39		1
6541-3-299	Asymmetric patella capture A29		1
6541-3-320	Asymmetric patella capture A32		1
6541-3-350	Asymmetric patella capture A35		1
6541-3-381	Asymmetric patella capture A38		1
6541-3-401	Asymmetric patella capture A40		1
6541-3-526	Tritanium dense bone patella drill		1
6541-8-100	Triathlon Tritanium Prep Tray		1
1020-9000	Case		1
Patellar preparation – lower tray			
6541-3-522	Metal-backed patella drill w/stop*		1

*6541-3-522 Metal-backed patella drill is used to prepared for both the Triathlon metal-backed patella beaded w/ peri-apatite and the Tritanium metal-backed patella.

Other instruments required			
6541-2-60X	Universal Tibial Template	X= 1,2,3,4,5,6,7,8	1 each size
6541-2-713	Size 1-3 Keel Punch Guide		1
6541-2-748	Size 4-8 Keel Punch Guide		1
6541-4-805	Tibial Baseplate Impactor Extractor		1
6541-4-810	Impaction Handle		2
6541-4-812	Tibial Baseplate Impactor		1
6541-4-813	Tibial Insert Impactor		1
6633-7-736	Slotted Patella Resection Guide		1
6633-7-738	Patella Stylus		1
6633-7-744	Patella Clamp		1
7650-1454	Patella Caliper		1
LTEMK48	Triathlon Tritanium Cementless Baseplate Acetate Template		1

Implants

Ref #	Description	Quantity in kit
Triathlon Tritanium Baseplate		
5536-B-000	Triathlon Tritanium Baseplate Size 0	1
5536-B-100	Triathlon Tritanium Baseplate Size 1	1
5536-B-200	Triathlon Tritanium Baseplate Size 2	1
5536-B-300	Triathlon Tritanium Baseplate Size 3	1
5536-B-400	Triathlon Tritanium Baseplate Size 4	1
5536-B-500	Triathlon Tritanium Baseplate Size 5	1
5536-B-600	Triathlon Tritanium Baseplate Size 6	1
5536-B-700	Triathlon Tritanium Baseplate Size 7	1
5536-B-800	Triathlon Tritanium Baseplate Size 8	1
Triathlon Tritanium Metal-Backed Patella		
5556-L-319	Symmetric Patella with Tritanium S31mm x 9mm	1
5556-L-339	Symmetric Patella with Tritanium S33mm x 9mm	1
5556-L-360	Symmetric Patella with Tritanium S36mm x 10mm	1
5556-L-391	Symmetric Patella with Tritanium S39mm x 11mm	1
5552-L-299	Asymmetric Patella with Tritanium A29mm (S/I*) x 9mm	1
5552-L-320	Asymmetric Patella with Tritanium A32mm (S/I*) x 10mm	1
5552-L-350	Asymmetric Patella with Tritanium A35mm (S/I*) x 10mm	1
5552-L-381	Asymmetric Patella with Tritanium A38mm (S/I*) x 11mm	1
5552-L-401	Asymmetric Patella with Tritanium A40mm (S/I*) x 11mm	1

* S/I - Superior/Inferior

Triathlon® Knee System

Anterior referencing instruments addendum

Contents

For complete information on surgical procedure and implant listings, please refer within this document to one of the following: The Triathlon Knee System Express Surgical Protocol, the Triathlon Knee System Standard Surgical Protocol or the Triathlon Knee System MIS Surgical Protocol.

The Triathlon Knee System Legacy Surgical Protocol (TRIATH-SP-22) may also be referenced.

Exposure

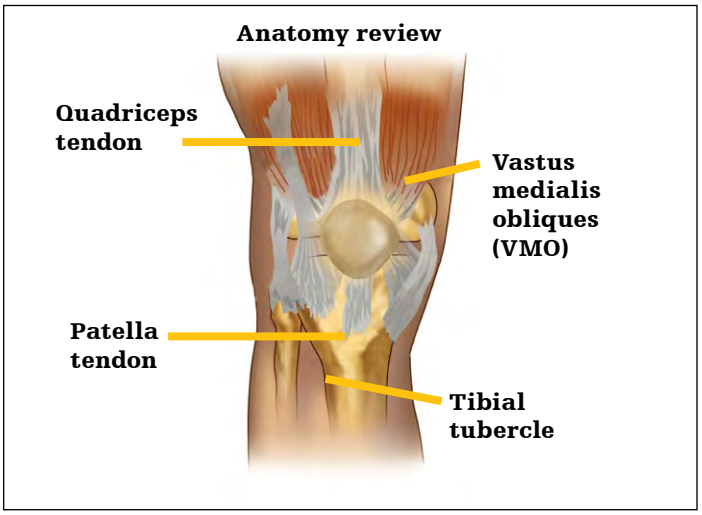


Figure 1

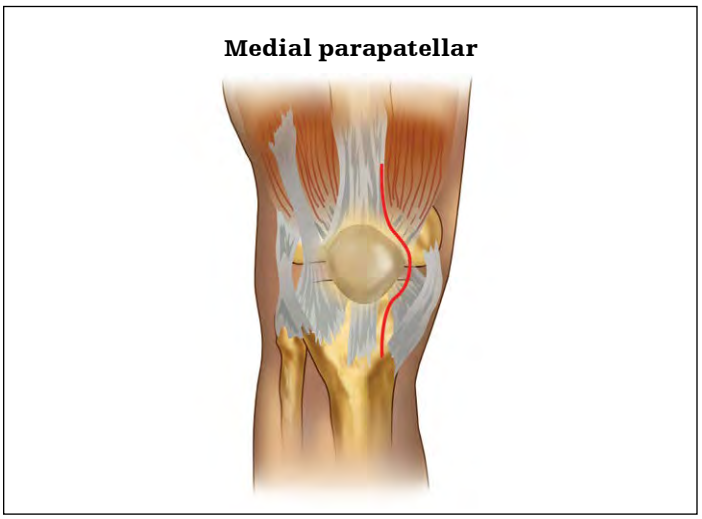


Figure 2

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image.

Exposure

Total knee arthroplasty should be performed using the least invasive approach with which the surgeon is comfortable. The Triathlon Knee System instrumentation is suitable for use with any minimally or less invasive approach such as the midvastus, subvastus or quadriceps-sparing approach and of course, a standard medial parapatellar approach.

The skin incision, unless prior incisions are present, is in the midline slightly medial to the tibial tubercle to avoid the bony prominence. The incision is straight although could be curved into varus or valgus if a severe deformity is present. Modifying the straight incision will allow the incision to appear straight once the correction is made. Most arthroplasties can be done with an incision 6 inches (15cm) or less. This usually corresponds to approximately one fingerbreadth above the superior pole of the patella ending at or just below the tibial tubercle. Larger patients will need larger incisions and the surgeon should lengthen the incision so as not to sacrifice orientation and adequate exposure

With a standard tendon splitting medial parapatellar approach, the quadriceps tendon is incised in its medial third from its superior portion, skirting the medial aspect of the patella leaving a small cuff of tissue for subsequent reattachment. The incision is carried distally approximately 1cm medial to the patella tendon and carried down at least to the tibial tubercle and further if necessary. An alternative approach would be to bring the incision straight over the medial quarter of the patella and then reflecting the quadriceps tendon from the patella sharply. The distal portion of the incision is the same.

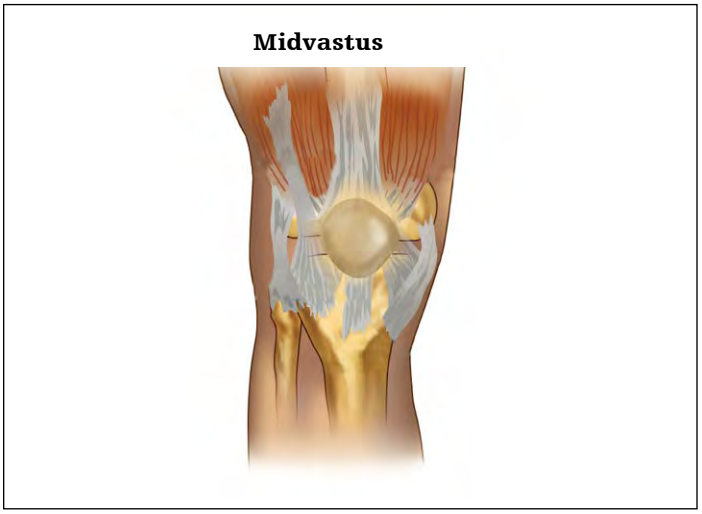


Figure 3

If the midvastus approach is chosen, the deep incision in the quadriceps expansion begins approximately 2 to 3 cm above the patella. The distal portion is the same as in the above approach, but proximally the vastus medialis is then split in the line of its fibers for approximately 2 to 3 cm. In either the medial parapatellar or midvastus approach, the patella is either slid laterally or everted. In patients with severe deformity and in the obese patient, the midvastus approach may not provide adequate exposure.

If the subvastus approach is chosen, the inferior border of the vastus medialis is identified and split away from its distal and posterior attachments and the muscle belly is mobilized proximally and laterally. The medial retinaculum is incised at the medial border of the patella. The distal portion of the incision is the same as above. Once mobilization is adequate, the patella and entire extensor mechanism can be slid laterally for exposure. With significant deformity and obesity, this approach may not offer adequate exposure.

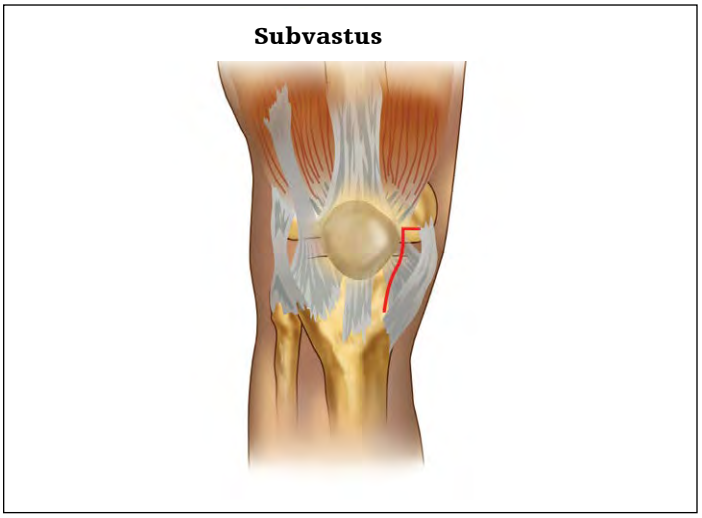


Figure 4

If the surgeon elects to use a minimally invasive approach, the quadriceps-sparing approach can be utilized. In this approach, the quadriceps tendon is not detached at all but rather the medial retinaculum is opened from the proximal patella down to the tibial tubercle. The procedure is done using “moving windows” and MIS instrumentation. Triathlon instrumentation is suitable for all of the above approaches.

For a knee which has a varus deformity, the next step would be to release the medial collateral ligament back to the posterior-medial corner of the tibia. Depending on the extent of deformity, the deep and superficial medial collateral ligament can be released, as well as the pes anserinus, semimembranosus and posterior capsule, to the midline if needed. The release of the medial collateral ligament is performed subperiosteally. The release is performed in a step-wise fashion releasing only enough to correct the deformity. The lateral flap including the tissue just medial to the patella tendon is then released up to the patella tendon and the fat pad is incised across to the lateral tibial plateau allowing full mobilization of the extensor mechanism. The fat pad is trimmed as needed for exposure. The ACL is excised and the PCL as well (if a PS knee is used). This will allow for external rotation of the tibia and anterior translation and/or dislocation forward when needed. If a cruciate-retaining procedure is being performed (CR), then the PCL is not excised. Recession of the PCL is carried out later on if tightness is demonstrated.

If the knee has a valgus deformity, a limited 'release' of the MCL is carried out. This usually includes the deep fibers, as well as a small portion of the superficial fibers just enough to get back to the posteromedial corner for exposure only. After adequate mobilization of the extensor mechanism, the knee is flexed 90° or more and the patella is everted or slid laterally. Appropriate retractors are placed and the tibia may be subluxed or dislocated anteriorly or left in situ, depending on surgeon choice and technique. Both menisci are excised, as well as all debris from the posterior recesses as well as the intracondylar notch. For the valgus knee, the lateral capsule including the lateral collateral ligament is released back to the posterolateral corner. Further release of the iliotibial band and/or the popliteus tendon can be performed later if necessary.

At this point, the knee may well be balanced in extension. If the knee cannot be brought back to neutral alignment, then further medial or lateral release may be necessary. The final completed release may be performed after the bone cuts are made.

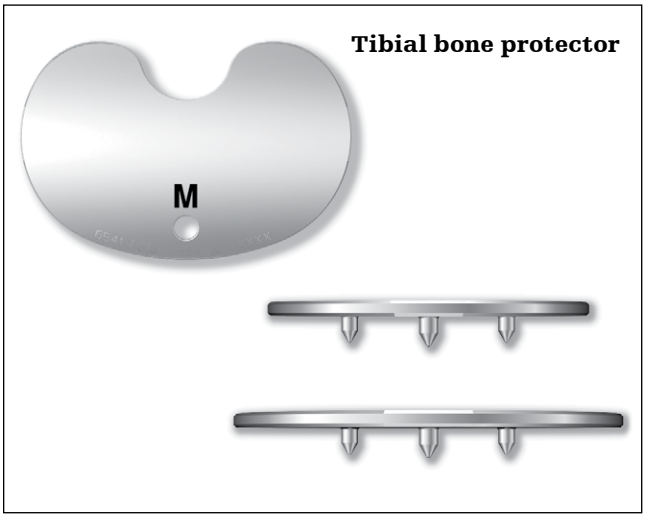


Figure 5

At this point, the surgeon has the choice to cut the femur, tibia or patella first.

Cutting the femur first provides excellent exposure to the entire plateau and makes proximal resection easier. Cutting the tibia first provides more exposure of the posterior femoral condyles.

If the patella or tibia is resected early in the procedure, then an appropriate sized Tibial Protector Plate or Patella Protector Plate may be applied to prevent damage from retractors or sawblades.

This surgical technique describes cutting the femur first, followed by the tibia and then patella.

Preparation of the femur is usually carried out using femoral intramedullary alignment. An extramedullary alignment rod is also provided as a secondary alignment check, as well as for use when extra-articular deformity is present or the femoral canal is blocked.

Femoral preparation

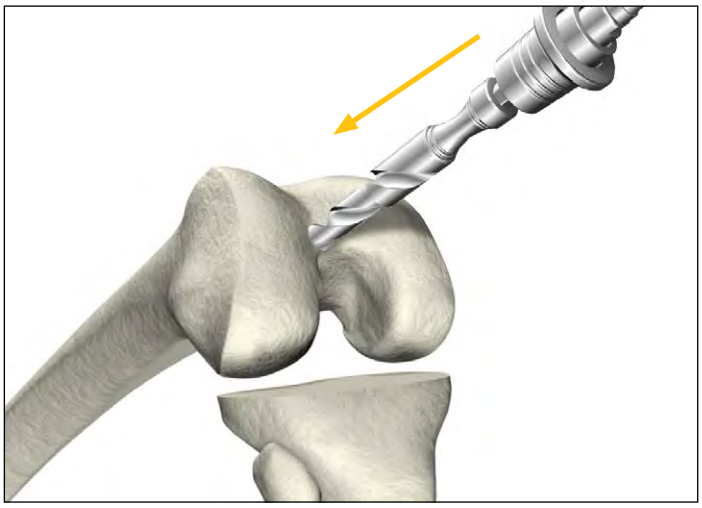


Figure 6

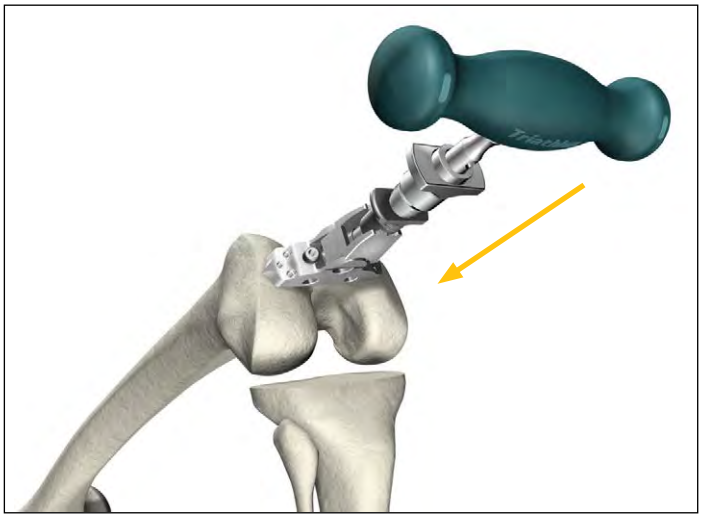


Figure 7

Femoral intramedullary alignment

The Universal Driver allows for attachment of all drills and pins. The Universal Driver may be attached directly to a reamer, drill or a Jacobs Chuck.

There are two options available for femoral intramedullary alignment: the FLEX IM Rod or the 5/16" IM Rod.

Option 1: Flex IM Rod

Locate the IM drill hole; it is as close to the PCL insertion as possible and slightly medial to the midline of the distal femur.

Attach the 3/8" IM drill to the Universal Driver and drill into the IM canal ensuring that the drill is parallel to the shaft of the femur.

The hole should not be enlarged and the drill should not be "toggled." The FLEX IM Rod that references this hole will be easier to insert as it conforms to the anterior bow of the femur without the resistance felt with rigid IM Rods.

Attach the T-Handle driver to the FLEX IM Rod. The "ANTERIOR" engraving on the FLEX IM Rod should be aligned to the Triathlon logo of the T-Handle.

Insert the IM Rod into the Femoral Alignment Guide. These guides are designed for use on either the left or right knee and can be set between 2° and 9° of the valgus. The desired angle is set by pulling back on the black knob of the AR Femoral Alignment Guide and placing it in the desired notch.

Advance the rod in exactly the same manner as a conventional rod (with attached guide), slowly up the IM canal until the desired depth is reached ensuring that the alignment guide is flush against the most prominent condyle. The T-Handle should be parallel to the transepicondylar axis.

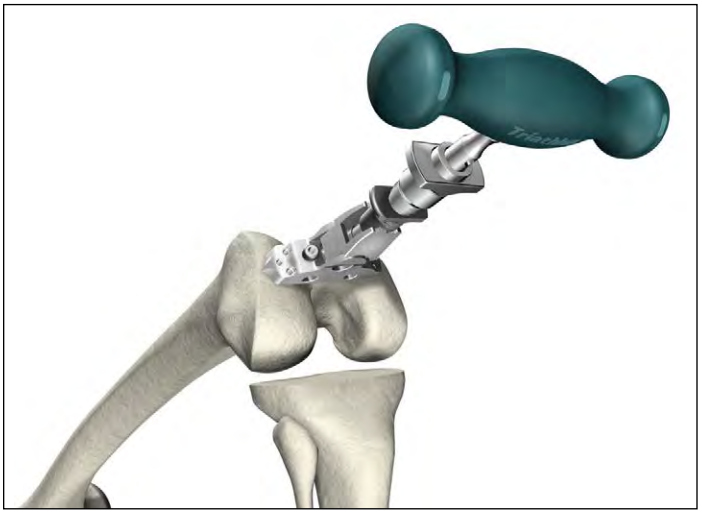


Figure 8

Option 2: Flex 5/16" IM Rod

Attach the T-Handle Driver to the 5/16" IM Rod. Insert the IM Rod into the Anterior Referencing Femoral Alignment Assembly.

This assembly will facilitate the skim cut of the femur and then the distal femoral cut. The AR Femoral Alignment Guide is designed for use on either the left or right knee and can be set between 2° and 9° of valgus.

Once the angle is set, the rod assembly is slowly advanced into the intramedullary canal until it engages the isthmus. The alignment guide is then placed flush up against the most prominent distal femoral condyle.

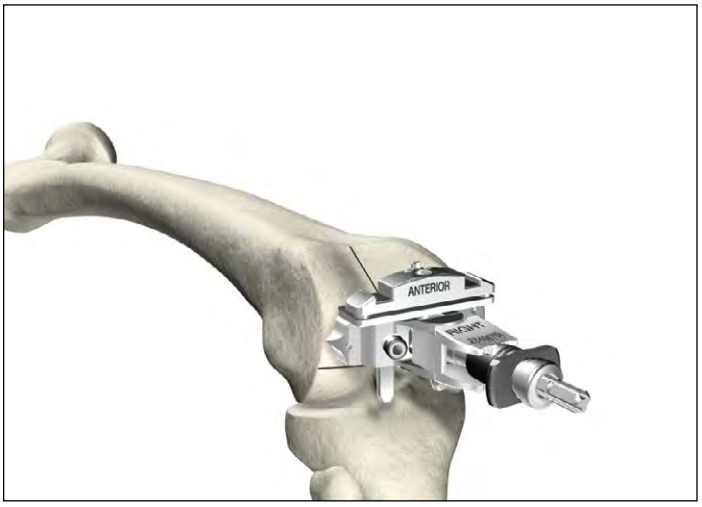


Figure 9

Before permanently fixing the AR Femoral Alignment Guide, the rotational position must be confirmed. This position can be referenced in any one of four ways: Whiteside's line, epicondylar axis, cut surface of the tibia or 3° of external rotation. Using more than one of these four methods is recommended.

Rotational alignment

Option 1

Whiteside's line defines the anterior/posterior axis of the femur and corresponds to the central sulcus of the trochlea. This may be drawn on the femur using a marker and the jig aligned with it by using 2 1/8" pins in the holes provided. Whiteside's line should be parallel to the pins.

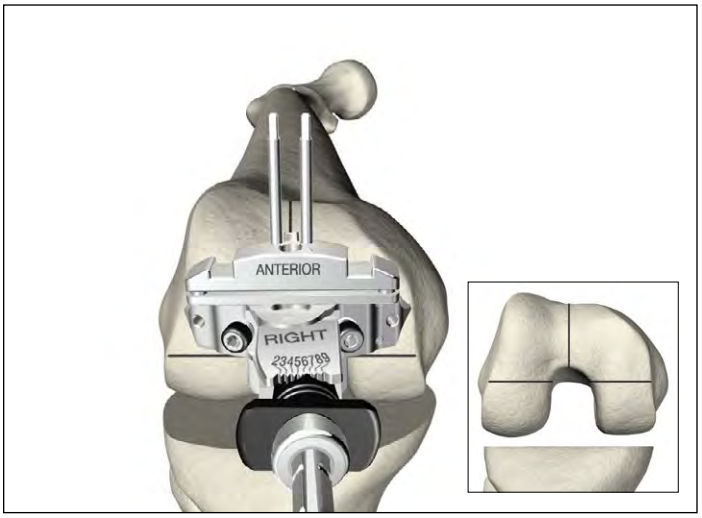


Figure 10

Option 2

The epicondylar axis is referenced by finding the most prominent portion of the lateral epicondyle and marking it with a marker. The medial epicondyle is less defined. Therefore the synovium and soft tissue overlying the epicondyle should be removed so the epicondyle can be identified. The epicondyle should be outlined with a marker and the central point located. The medial and lateral reference points are marked and a line is drawn on the distal femur joining the two.

Figure 11

Option 3

Proper femoral rotation can also be referenced by orienting the guide parallel to the cut surface of the tibia (this requires that the tibia be cut first or the line of resection marked). Using this method assures the surgeon of a rectangular flexion space.

Figure 12

Option 4

Once proper rotation has been set, the Headless Pins are driven through the medial and lateral side of the AR Femoral Alignment Guide. Rotation can also be set empirically, placing the guide in 3º of external rotation in reference to the posterior femoral condylar line. This can be easily accomplished using the hanging external rotation guide from the Femoral Alignment Guide and aligning the guide parallel to the posterior aspect of both condyles.

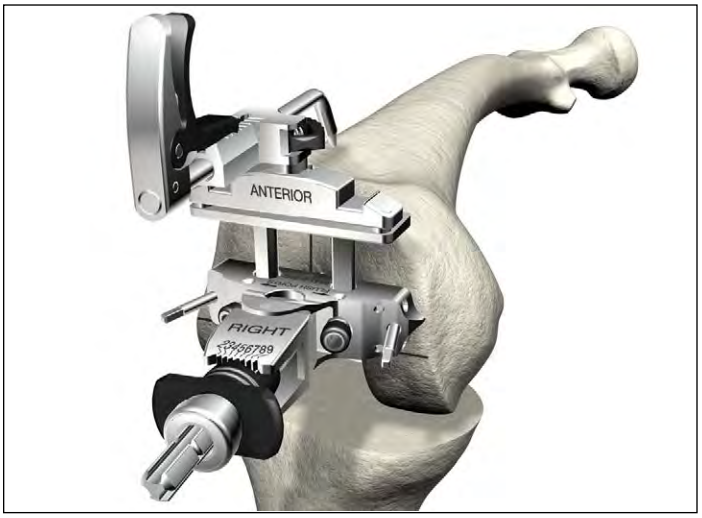


Figure 13

Anterior skim cut resection

AR Skim Cut Guide can be applied to the AR Femoral Alignment Guide at this point. It is now necessary to determine the level of resection. This is accomplished by assembling the AR Skim Cut Stylus to the AR Skim Cut Guide by depressing the smaller black swing trigger on the AR Skim Cut Stylus and placing it into the hole on the top surface of the AR Skim Cut Stylus. The AR Skim Cut Guide is then lifted anteriorly and the AR Skim Cut Stylus is rotated first laterally, then down to the anterior aspect of the femur.

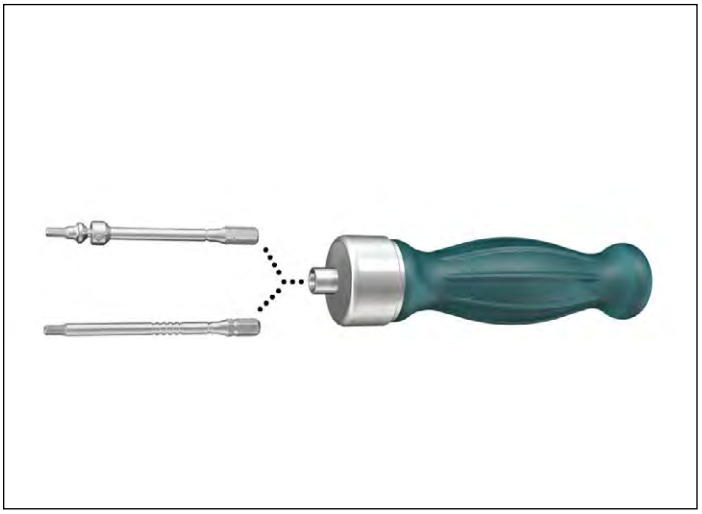


Figure 14

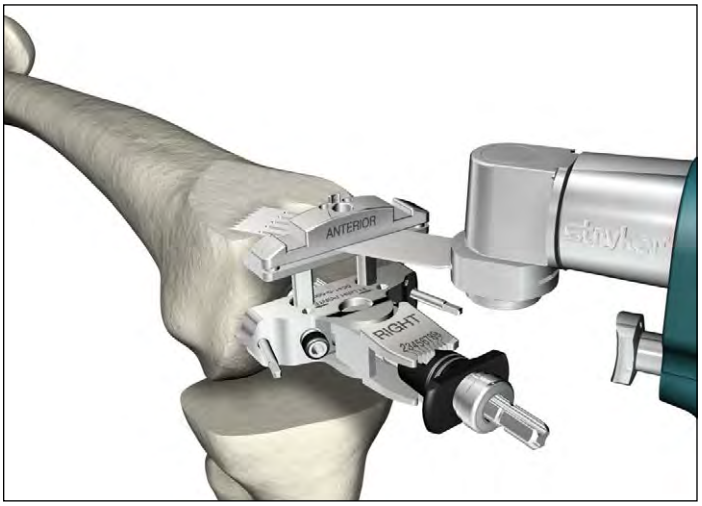


Figure 15

Figure 16

Once the satisfactory point is located, the AR Skim Cut Stylus point is held firmly against the femur and the AR Skim Cut Guide is secured in that position by tightening both black locking screws using the 1/8″ Hex Drive assembly.

If the surgeon is using an MIS approach and full visualization of the anterior femur is not possible, then the tip of the AR Skim Cut Stylus is slid distally to its full distal position. It can then be advanced under the skin to its proper position and secured. The length of the AR Skim Cut Stylus may be easily adjusted by sliding it to the appropriate position on the anterior cortex both proximally and distally, as well as medially and laterally.

The tip of the AR Skim Cut Stylus will indicate the exit point of the sawblade for the provisional skim cut and will also indicate the point of exit of the final femoral anterior resection when it is made with the femoral resection guide. The exit point can be further checked using a Blade Runner.

The anterior skim cut is then made using .050 inch (1.27mm) blade. The width of the blade is determined by surgeon choice. Commonly an 18mm blade is suitable.

Since rounded posts are built into the medial and lateral walls of the AR Skim Cut Guide to improve medial and lateral excursion, usually the cut can be made completely. If it cannot, the Triathlon AR Skim Cut Guide is removed and the cut is completed freehand. After the anterior skim cut resection is complete, the AR Skim Cut Guide and the AR Femoral Alignment Guide is left in place. Now that the anterior skim cut has been made, the rotational alignment of the Femoral Component has been finalized.

Resected bone from the anterior cortex (baby-grand piano shape).

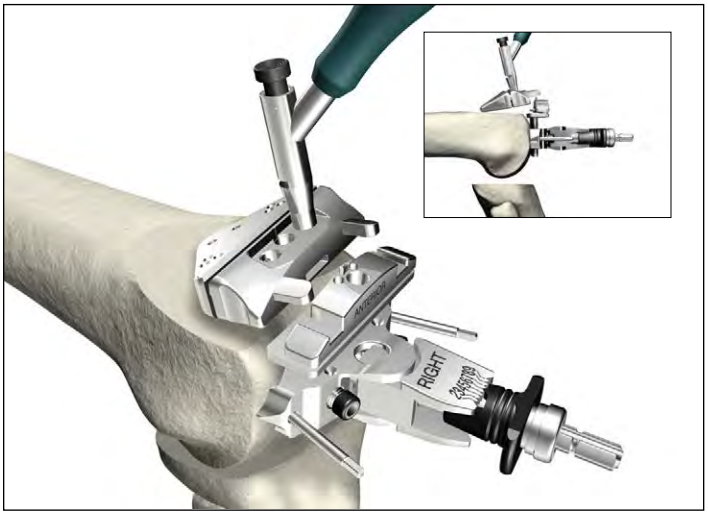


Figure 17

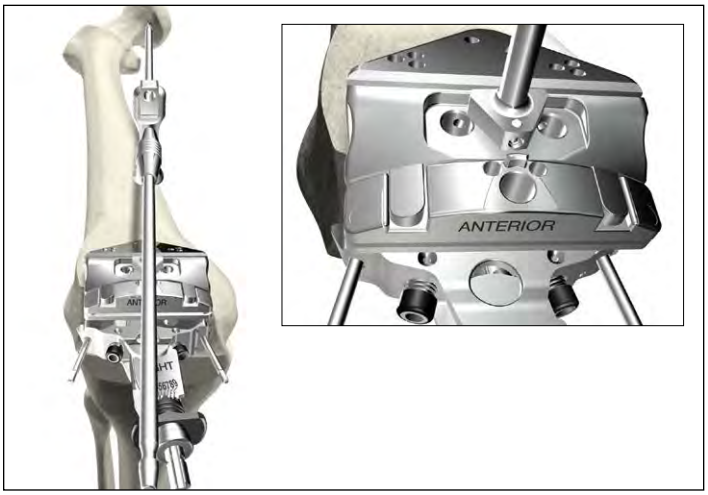


Figure 18

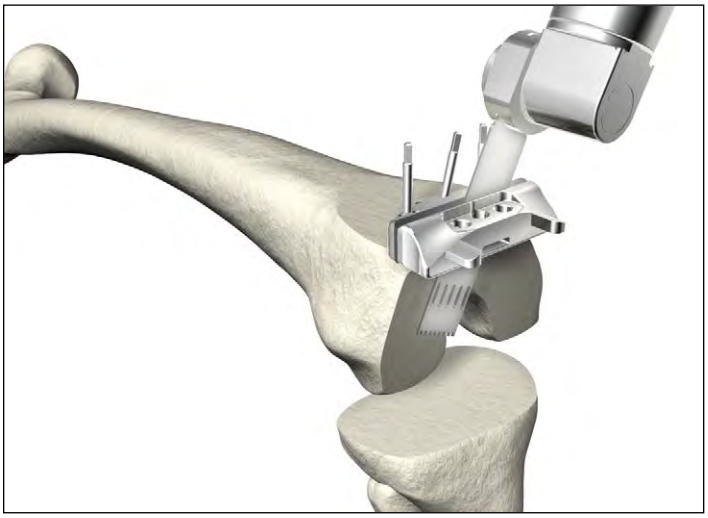


Figure 19

Distal femoral resection

Depending on surgeon's preference, either an 8mm or 10mm AR Distal Resection Guide is applied to the AR Skim Cut Guide by aligning the slot on the AR Distal Resection Guide with the tab on the AR Skim Cut Guide. These guides are magnetized to facilitate assembly.

Once the anterior bone is removed, assembling the AR Distal Resection Guide is facilitated by resting it on the cut surface of the anterior femur and then sliding it into place, connecting it into the AR Skim Cut Guide. Assembly is also facilitated by retracting the proximal soft tissues more proximally. Extension of the knee will also aid in this maneuver.

The surgeon may also elect to use the Triathlon modular handle which connects to the medial hole of the Distal Resection Guide to aid in assembly. In order to assure proper assembly, all bone fragments from the anterior femoral resection must be removed.

Final position is accomplished by pinning the AR Distal Resection Guide to the femur using two 1/8" x 2.5" Headless Pins. Placing the pins in the holes marked "0" will allow the surgeon to take 2 or 4mm off the distal femur later on if necessary.

Prior to final fixation, an optional external alignment rod may be applied in order to further check the alignment, especially in the face of an extra-articular deformity or a blocked femoral canal. The Universal Alignment Handle may be attached to the Triathlon AR Distal Resection Guide and an external alignment rod is inserted.

Correct alignment is achieved when the rod intersects the center of the femoral head and is parallel to the axis of the femur in both the coronal and sagittal planes. The distal portion of the rod should exit in the center of the knee.

Once the AR Distal Resection Guide is pinned in place, the 1/8 inch pins securing the AR Femoral Alignment Guide and the Triathlon AR Skim Cut Guide are removed. The IM Rod, AR Femoral Alignment Guide and AR Skim Cut Guide are removed from the femur leaving only the AR Distal Resection Guide in place. If desired, an 1/8 inch "X" cross pin can be used to prevent the AR Distal Cutting Guide from backing off the bone. The distal femur is then resected using the same blade as for the anterior skim cut.

(continued)

Similar to the AR Skim Cut Guide, the AR Distal Resection Guide also has rounded posts to increase the excursion of the blade. If the full distal resection cannot be accomplished, the guide is removed and the rest of the resection is carried out in a freehand manner. Should an additional 2 or 4 mm of distal femur need to be resected, then the resection guide is replaced over the pins through either the +2 or +4 holes.

Following resection of the distal femur, all medial and lateral osteophytes are removed to prevent impingement and tenting of the medial or lateral ligament complexes.

Figure 20

Figure 21

The proper size for the femoral implant is determined by using the AR Femoral Sizer. The wide anterior flange of the AR Femoral Sizer is placed on the resected anterior femur and the feet are placed under the femoral condyles so that one of the feet rests on the most prominent posterior condyle. The sizer is then placed flat against the distal femur. The central post of the sizer will indicate the proper size.

Since this is an anterior referencing system, the anterior point is fixed and if the size is in between two sizes, the smaller Femoral Component may be selected. This assures the proper anterior femoral size and avoids overstuffing the patellofemoral joint. The medial-lateral width of the femur is also sized using the sizing guide on the Blade Runner. Based upon the combination of results, the proper size is chosen.

Figure 22

The proper size AR 4:1 Cutting Block is chosen and the impactor/extractor is assembled. The cutting block is seated flush on to the anterior and distal femur. Alternatively, the cutting block can be placed against the femur by hand. At this point, the size of the cutting block is compared to the distal femur. The true medial/lateral size of the implant for the standard style AR 4:1 Cutting Block is represented by the outside edges of the engraved numeral indicating size of the cutting block 1, 2 etc.

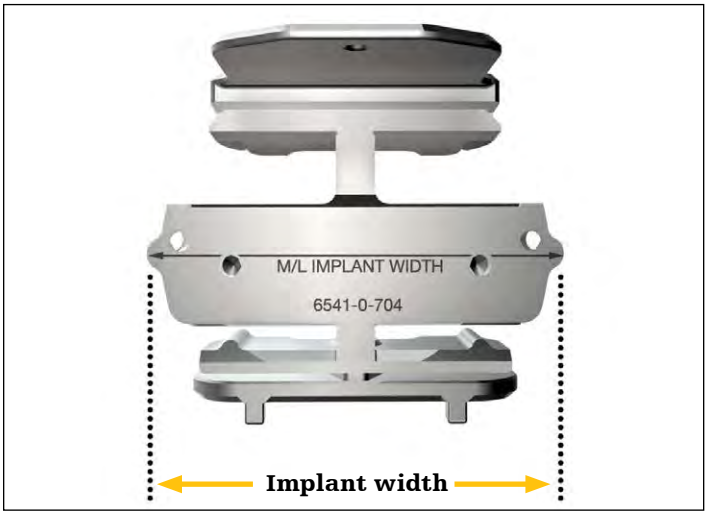


Figure 23

For the MIS AR 4:1 Cutting Blocks, medial/lateral implant width is represented by the most medial and lateral extents (nubs) of the cutting block.

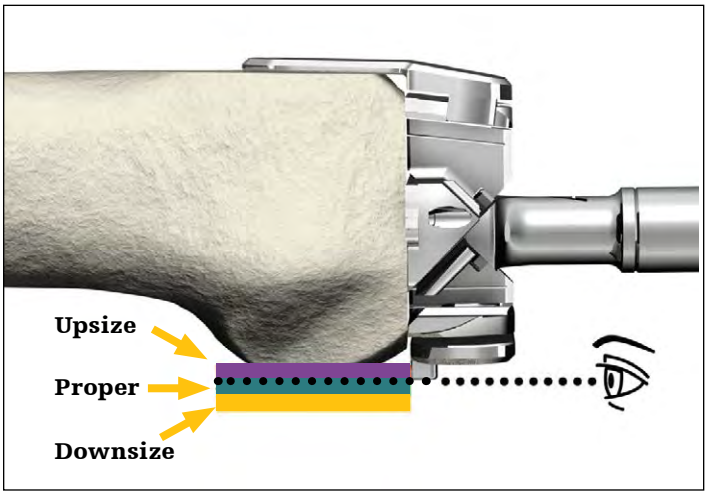


Figure 24

Alternative A/P sizing reference

From the posterior resection plane, the bottoms of the tabs on the posterior capture represent the posterior implant thickness and the amount of bone the Triathlon implant will replace. Sizing is done by sighting across the bottom surface of the tabs and comparing that plane with the most posterior aspect of the femur (typically, on the medial condyle). The color coded bands in **Figure 24** each represent 3mm of height and provide sizing information as follows:

- Indicates potential laxity of the flexion space. Upsizing may be appropriate.
- Indicates that an appropriate size has probably been selected.
- Indicates potential stuffing of the flexion space. Downsizing may be appropriate.

The cutting block should be placed centrally on the femur or laterally if some exposed bone is remaining. Care must be taken to avoid any significant implant overhang which can cause impingement and pain. The Blade Runner is used to confirm satisfactory position of the anterior cut to prevent notching. The 7° anterior slope of the anterior flange of the Triathlon Femoral Component reduces the risks of notching, even when in between sizes.

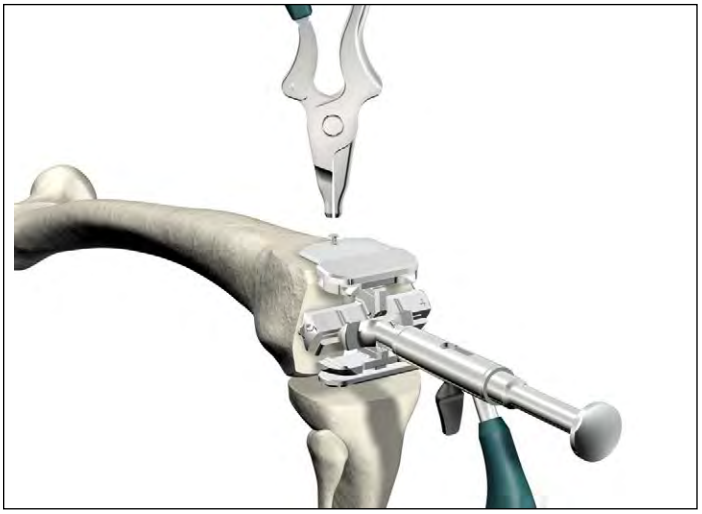


Figure 25

Once the size is confirmed, the block should be stabilized with pins medially and laterally, as well as anteriorly if necessary. Once the block is stabilized, the anterior posterior and chamfer cuts are made.

Femoral preparation

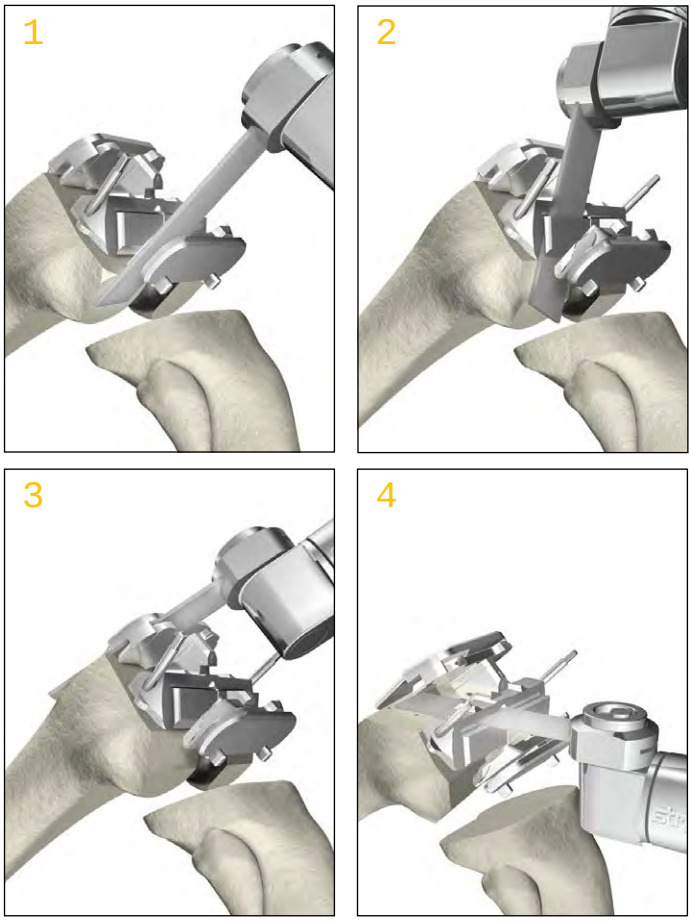


Figure 26

Posterior and chamfer cuts

The following order of cuts provides the most continuing stability for the blocks: The posterior condyles are resected first followed by the posterior chamfer, the anterior cortex and then the anterior chamfer.

Prior to any cuts, the Blade Runner is placed in the anterior cutting slot and the anterior femur is referenced to assure that the cut will not notch the femur. If it appears that a notch will occur, then a larger cutting block will be necessary. In the rare event that not enough femur will be resected, a smaller size will be chosen. A .050" sawblade is recommended.

The width of the blade will be dictated by the size of the patient's bone. Several passes of the blade should be made in order to assure satisfactory flat resection. The block should be checked for movement during and after each cut.

- **Note:** It is imperative that the sawblade be controlled so as not to skive or injure the medial or lateral collateral ligaments or the patella tendon. With small incisions, blade excursion must be anticipated.

Following posterior condyle and tibial resection, flexion and extension gaps may be assessed and adjustments made, if needed. Please refer to the Gap and Ligament Balancing section in the Standard, Express or MIS.

Assembly Instructions

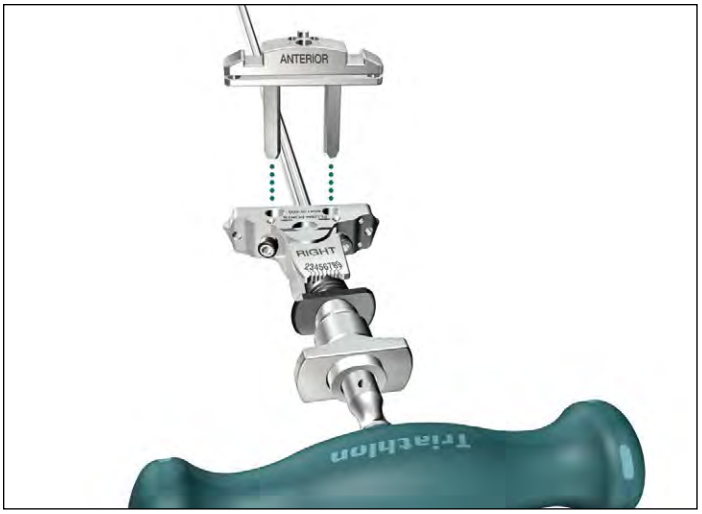


Figure 1

AR Femoral Alignment Guide and MIS AR Skim Cut Guide assembly:

Orient the Femoral Alignment Guide such that the TKR being performed "Right" or "Left" faces anteriorly.

Insert the AR Skim Cut Guide into the two anterior holes on the AR or MIS AR Femoral Alignment Guide with the label "THIS SIDE TOWARDS BONE" appropriately positioned.

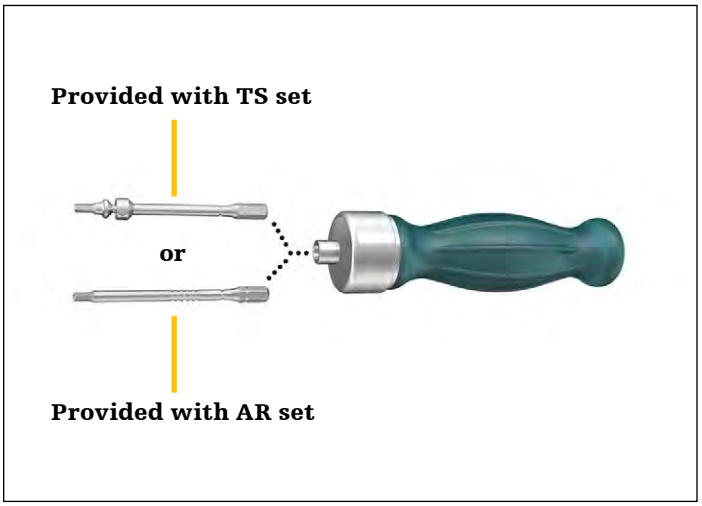


Figure 2

1/8" Hex Drive assembly:

Snap the 1/8" Hex Drive into the Slip Torque Handle.

Figure 3

3° Posterior Condylar Reference Guide assembly:

Slide the 3° Posterior Condylar Reference Guide hooks over the set screws.

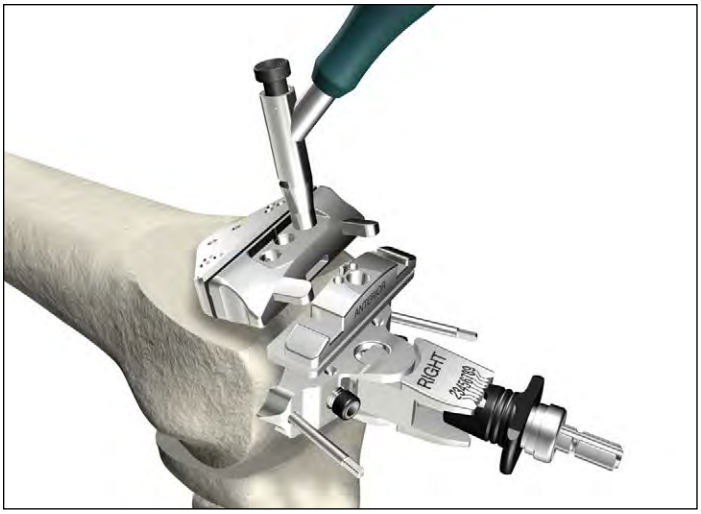


Figure 4a

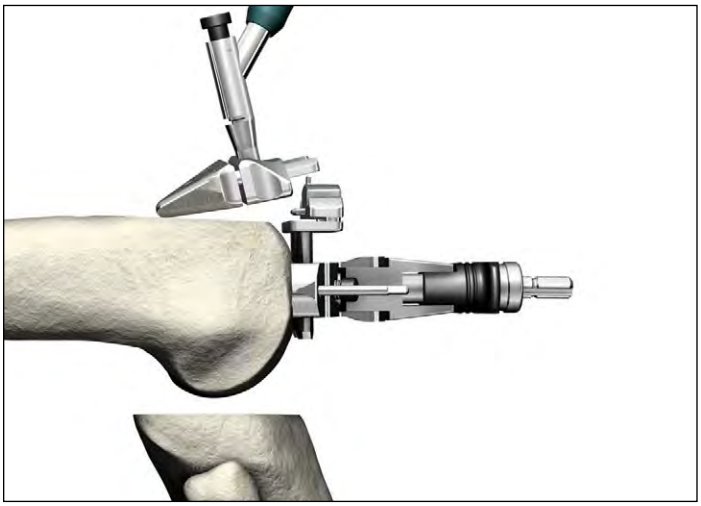


Figure 4b

MIS AR Distal Resection Guide assembly:

Select the 8mm or 10mm MIS AR Distal Resection Guide

Assemble the Triathlon Modular Handle to the selected Distal Resection Guide by depressing the black button on the modular handle and inserting the tip into the medial or lateral hole on the top of the Distal Resection Guide.

Release the black button and rotate the handle 20° away from center to lock.

Align the oval hole on the Distal Resection Guide with the tab on the superior face of the AR Skim Cut Guide.

Slide the Distal Resection Guide towards the Skim Cut Guide to insert the tab into the oval hole.

These guides are magnetized to facilitate correct assembly. This will be done intraoperatively by resting the Distal Resection Guide on the cut surface of the anterior femur and then sliding it into place, connecting it to the AR Skim Cut Guide.

4:1 Block assembly:

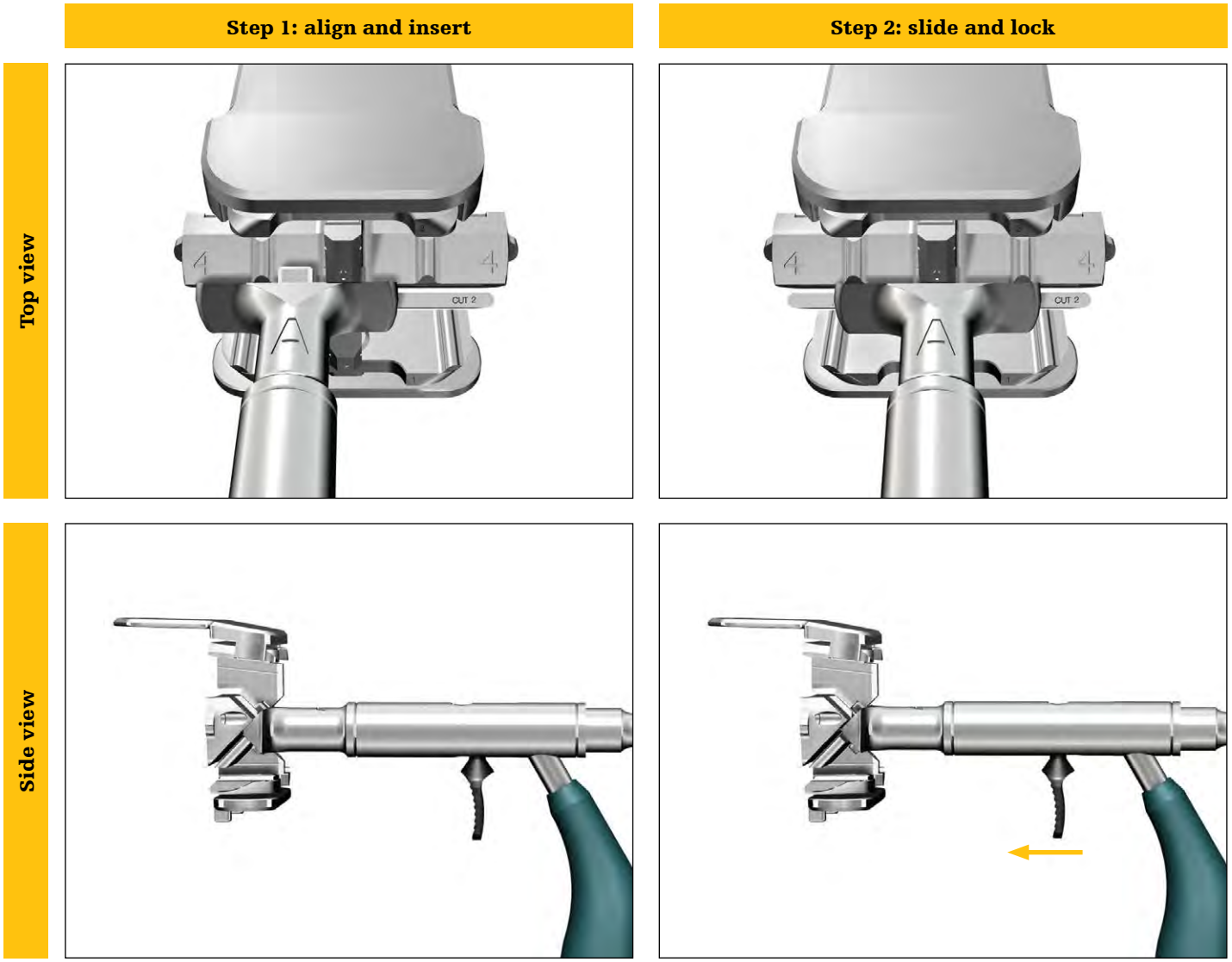
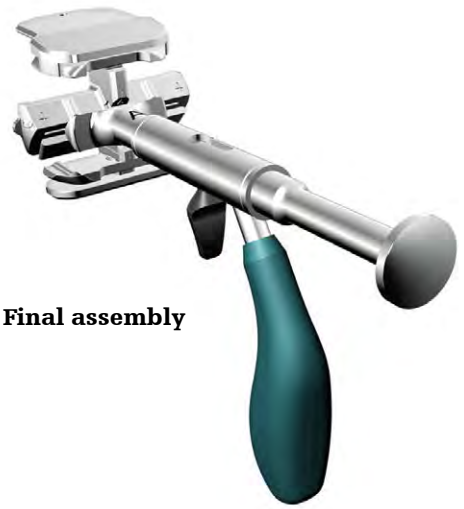


Figure 5

Step 1: Align the Impactor / Extractor about 5mm to the left or right of the AR 4:1 Block central spine.



Final assembly

Step 2: Maintaining forward pressure, release the trigger and slide the 4:1 Impactor/Extractor handle to the center. A click indicates a successful lock.

To disengage the 4:1 Impactor/ Extractor from the Cutting Block, reverse the above steps.

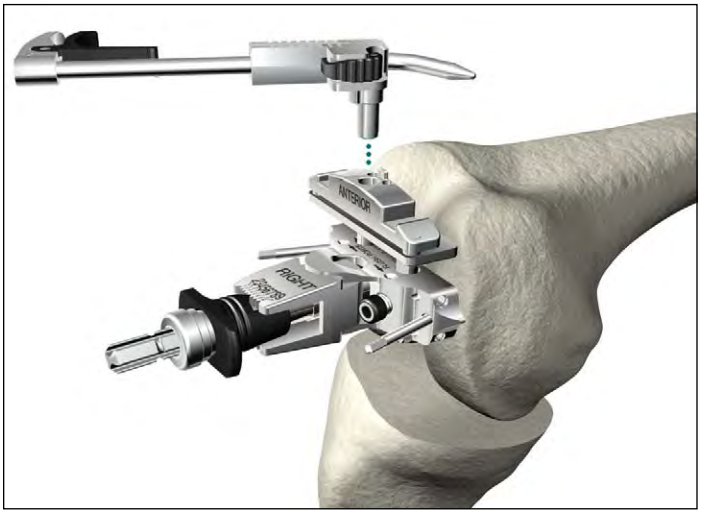


Figure 6

AR Skim Cut Stylus assembly:

Squeeze the smaller black swing trigger on the body of the AR Skim Cut Stylus.

Insert the AR Skim Cut Stylus into the hole on the top surface of the Anterior Skim Cut Guide.

- **Note:** As a safety measure, the Stylus will fully engage only when the Skim Cut Guide is properly oriented and the tip of the Stylus is facing towards bone.

Instruments

Ref #	Description	Quantity in kit
AR MIS Miscellaneous Instruments		
3170-0000	1/8″ Drill	1
6541-4-300	Headed Pin Impactor Extractor	1
6541-4-400	Blade Runner	1
6541-4-515	Headed Nails- 1 1/2″	2
6541-4-516	5/16″ IM Rod	1
6541-4-538	3/8″ IM Drill	1
6541-4-575	Headed Nail- 3/4″	2
6541-4-800	T-Handle Driver	1
6541-4-801	Universal Driver	1
6541-4-802	1/8″ Hex Drive	1
6541-4-804	Headless Pin Extractor	1
6541-4-808	Modular Handle	1
6541-4-809	Headless Pin Driver	1
6541-4-810	Impaction Handle	1
AR MIS Size 1, 2, 7, 8 4:1 Cutting Block Mini Case		
6541-0-701	Triathlon AR 4:1 Cutting Block - Size 1	1
6541-0-702	Triathlon AR 4:1 Cutting Block - Size 2	1
6541-0-707	Triathlon AR 4:1 Cutting Block - Size 7	1
6541-0-708	Triathlon AR 4:1 Cutting Block - Size 8	1
6541-9-410	Triathlon AR 4:1 Mini Case	1
AR MIS Size 3-6 Femoral Preparation		
7650-1038	Headless 1/8″ Pin – 3.5″	4
7650-1039A	Headless 1/8″ Pin – 2.5″	1
6541-0-600	Triathlon AR Femoral Alignment Guide	1
6541-0-601	Triathlon AR Skim Cut Guide	1
6541-0-602	Triathlon AR Skim Cut Stylus	1
6541-0-603	Triathlon AR 3° Posterior Condylar Reference Guide	1
6541-0-608	Triathlon AR Distal Resection Guide - 8mm	1
6541-0-610	Triathlon AR Distal Resection Guide - 10mm	1
6541-0-620	Triathlon AR Femoral Sizer	1
6541-0-703	Triathlon AR 4:1 Cutting Block - Size 3	1
6541-0-704	Triathlon AR 4:1 Cutting Block - Size 4	1
6541-0-705	Triathlon AR 4:1 Cutting Block - Size 5	1
6541-0-706	Triathlon AR 4:1 Cutting Block - Size 6	1
6541-0-936	Triathlon AR 3-6 Femoral Tibial Prep Lower Tray	1
6541-7-806	MIS 4:1 Impactor / Extractor	1
6541-7-807	MIS Femoral Trial Extractor	1
6541-7-811	MIS Femoral Flexion Impactor	1
6541-8-030	MIS Size 3-6 Femoral and Tibial Preparation - Upper	1

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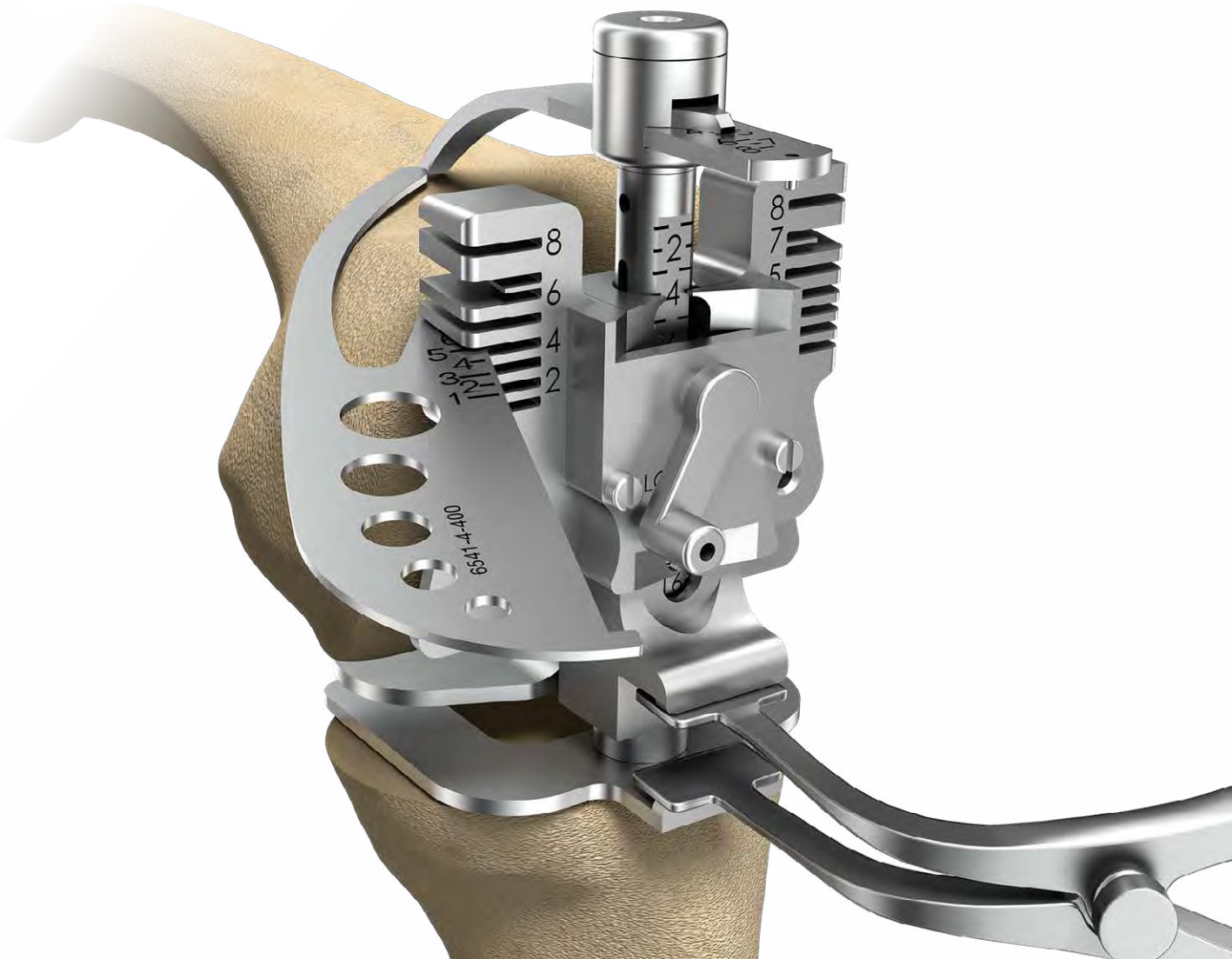
Triathlon® Knee System

Gap balancing technique addendum

Surgical addendum pg 233
Instruments pg 237



Contents

For complete information on surgical procedure and implant listings, please refer within this document to one of the following: The Triathlon Knee System Express Surgical Protocol, the Triathlon Knee System Standard Surgical Protocol or the Triathlon Knee System MIS Surgical Protocol.

The Triathlon Knee System Legacy Surgical Protocol (TRIATH-SP-22) may also be referenced.

Gap balancing using a Sizer-Balancer

Figure 1

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Perform distal femoral and proximal tibial resections

Following exposure, perform proximal tibial and distal femoral resections using standard instrumentation and approaches (cf. LSPK42, LSPK45, LSPK47, LSPK49, LTMIS-ST) **(Figure 1)**. If desired, verify that the cut surface of the tibia is perpendicular to the long axis of the tibia.

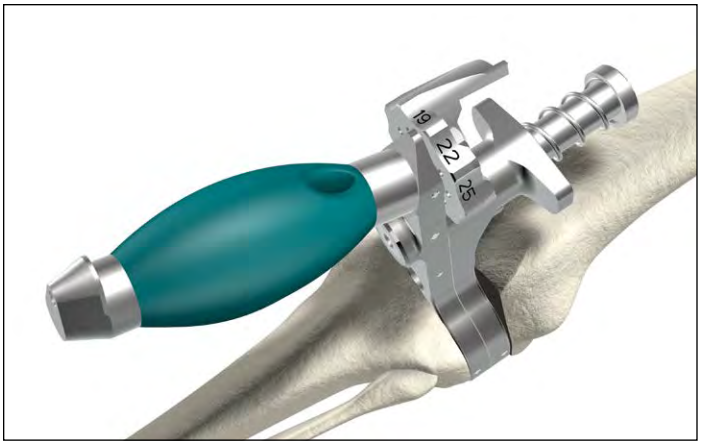


Figure 2

Extension gap assessment and initial ligament balancing

Once the Distal Femoral and Proximal Tibial Cuts are completed, trim osteophytes and complete initial ligament balancing. Placing leg in extension, insert spacer block into extension gap.

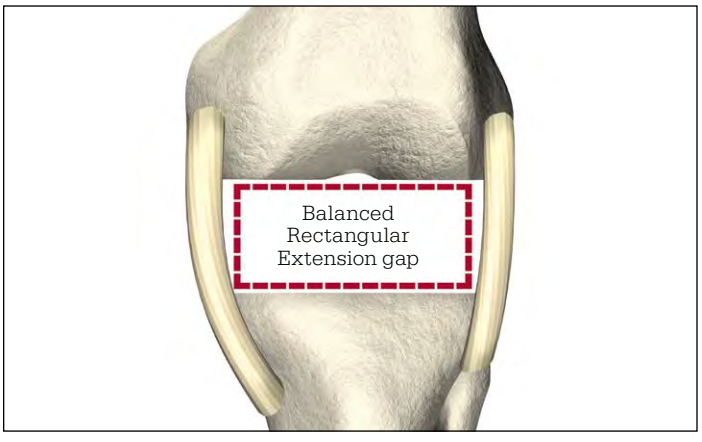


Figure 3

If needed, balance extension gap using release of ligaments until extension gap is rectangular. After extension gap is balanced and rectangular, measure the gap in millimeters that equates to a Triathlon insert **(see chart on page 235)**.

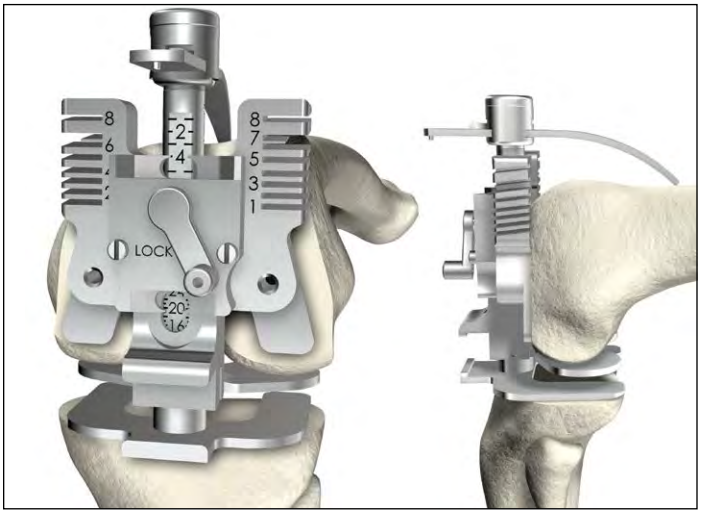


Figure 4

Setting femoral rotation

Remove the spacer block and bring leg into 90° of flexion.

Be sure that the Sizer-Balancer's lock lever is set to the unlocked position (to the right). Insert the Sizer-Balancer, placing the feet between the cut tibial surface and the uncut posterior condyles, as shown.

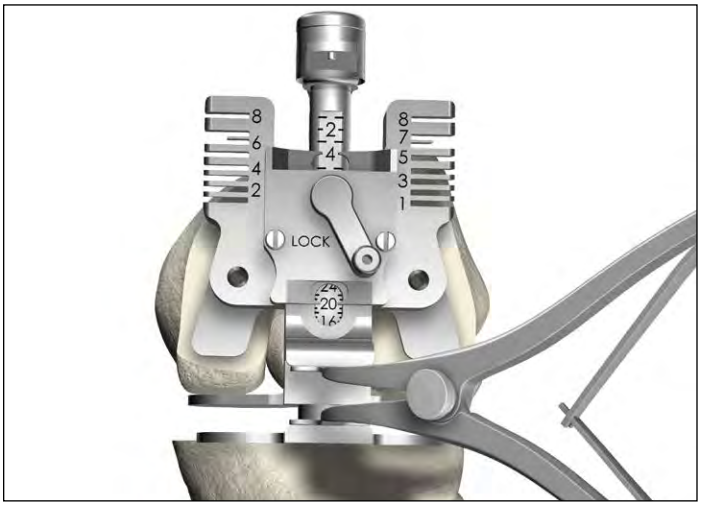


Figure 5

Inserting a lamina spreader into the notch on the front of the Sizer-Balancer, apply sufficient force to tension both medial and lateral collateral ligaments equally.

- **Note:** The medial collateral ligament will engage first; the femur will then internally rotate, tightening the lateral collateral ligament until equal tensioning of both collaterals is achieved.

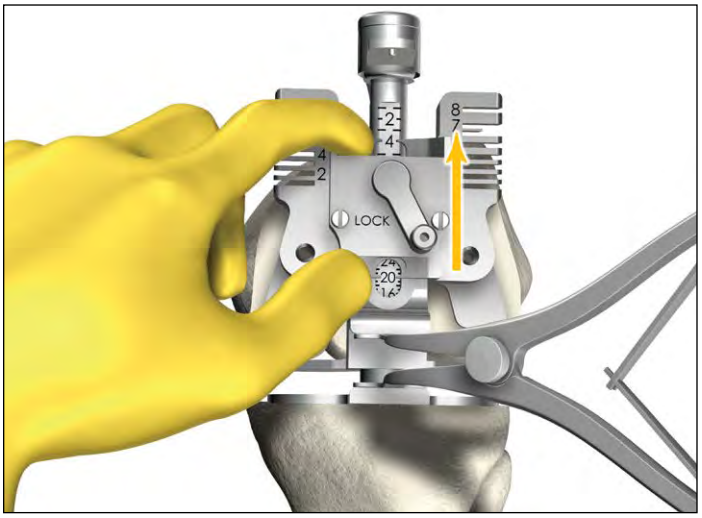


Figure 6

Set Flexion Gap to equal extension gap

Once equally tensioned, set and lock the gauge to equal the previously noted extension gap **(Figures 6 and 7)**.

If flexion gap cannot be set equal to the noted extension gap and the flexion gap is greater than the extension gap, remove the Sizer-Balancer and increase distal femoral resection level using standard instrumentation.

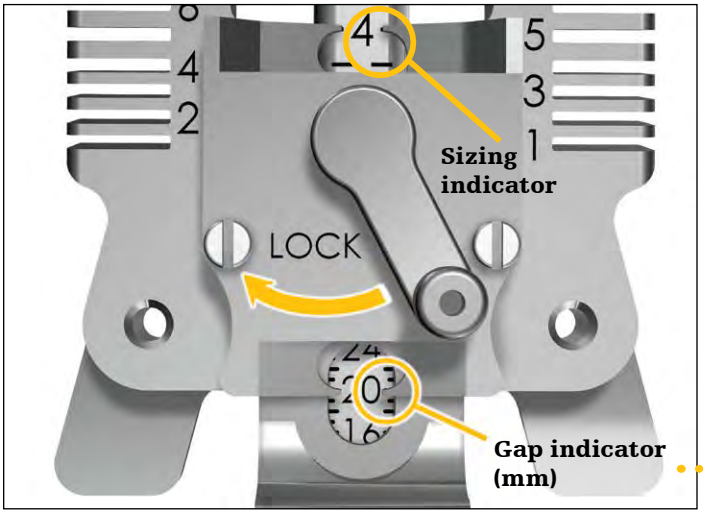


Figure 7

Gap and insert thickness correspondence

Gap	Insert thickness
17mm	9mm
19mm	11mm
21mm	13mm
24mm	16mm

Gap thicknesses are approximate; for simplicity, femoral implant thickness of 8.5mm is rounded to 8mm.

Insert thickness includes the insert and baseplate.

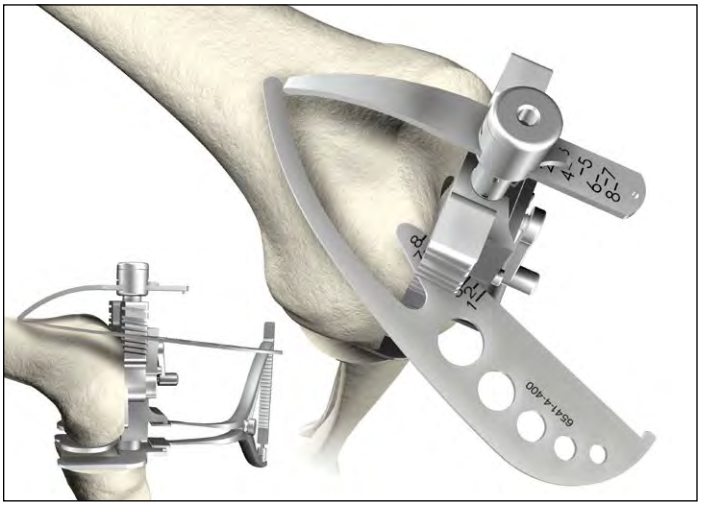


Figure 8

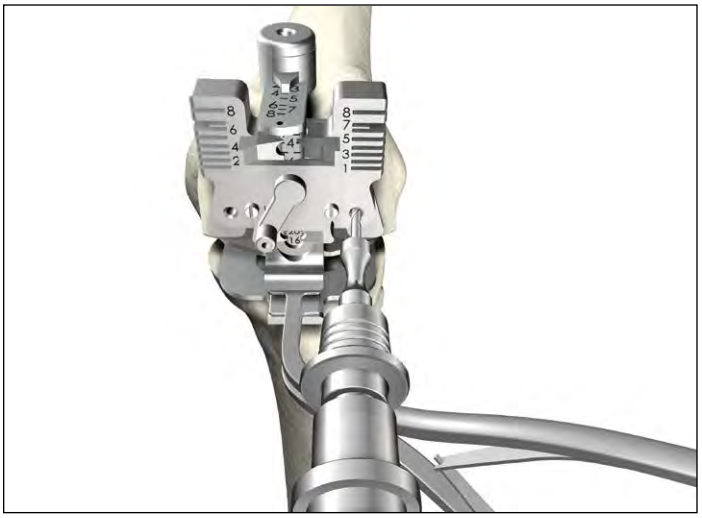


Figure 9

Confirm rotation and size femur

Confirm rotation using the transepidcondylar axis or Whiteside's line.

Using either the Stylus or Blade Runner and lateral slots on the Sizer-Balancer, size femur appropriately with tip of Stylus or Blade Runner touching the inflection point of the anterior femur on the lateral side **(Figure 8)**. If using the sizing window, reference the indicator on the right **(Figure 7)**.

Size to ensure no anterior notch; if between sizes, the surgeon may use the Medial/Lateral width reference as a check. If the runout indicates a notch cut, the situation may be addressed as follows:

1. Upsize the Femoral Component (flexion gap will not be affected by this change as the Femoral Component grows anteriorly in size.)

– or –

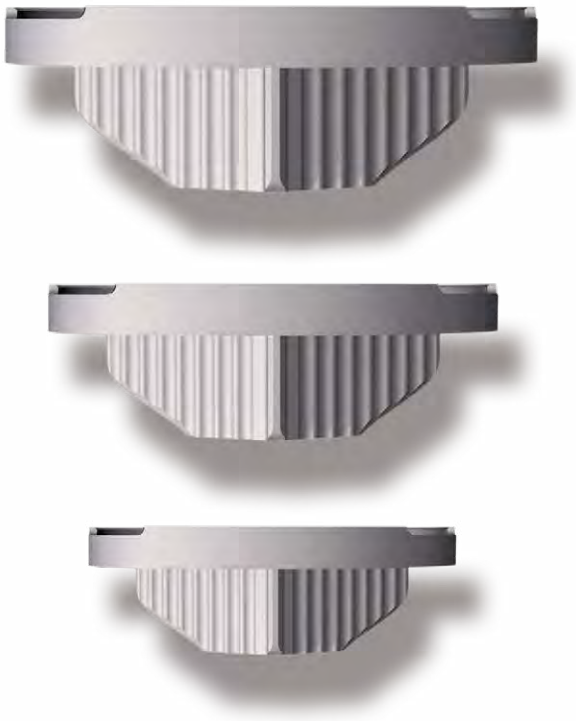
2. Unlock the lock and shift the central sizer body a maximum of 1.5mm anteriorly to eliminate the notch, then relock. This will anteriorize the pin-holes and increase the flexion gap and may or may not require a recut of the distal femur.

Once size has been established, use the 1/8" Peg Drill to create fixation pin-holes (for the 4:1 Cutting Block) through the holes on the face of Sizer-Balancer **(Figure 9)**.

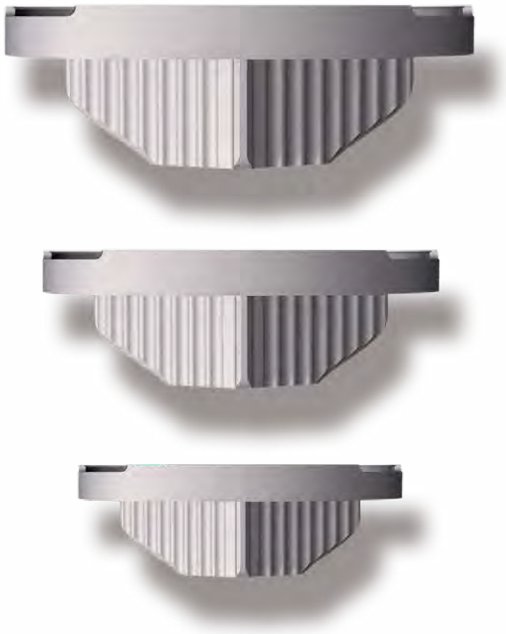
Instruments

Ref #	Description	Quantity
I-K2710KB00	Triathlon Gap Sizer-Balancer	1
NOT INCLUDED	Generic Lamina Spreader	0
6541-4-400	Blade Runner	1
6541-4-518	1/8″ Peg Drill	1
6541-4-801	Universal Driver	1
6541-4-610	Adjustable Spacer Block	1

Triathlon® Knee System
Low Profile Tibial Baseplate addendum



Contents



For complete information on surgical procedure and implant listings, please refer within this document to the Triathlon Knee System MIS Surgical Protocol.

Note: The only tibial baseplate compatible with this addendum is 5520-M-XXX

Tibial keel punching

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image.

Position the Universal Tibial Template with appropriate rotation and pin in position. Ensure that the Tibial Template lays flat on the tibial surface and has appropriate coverage, avoiding overhang.

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting at a slight angle to the top of the Universal Tibial Template (into the two locating slots toward the posterior portion of the Universal Tibial Template). Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

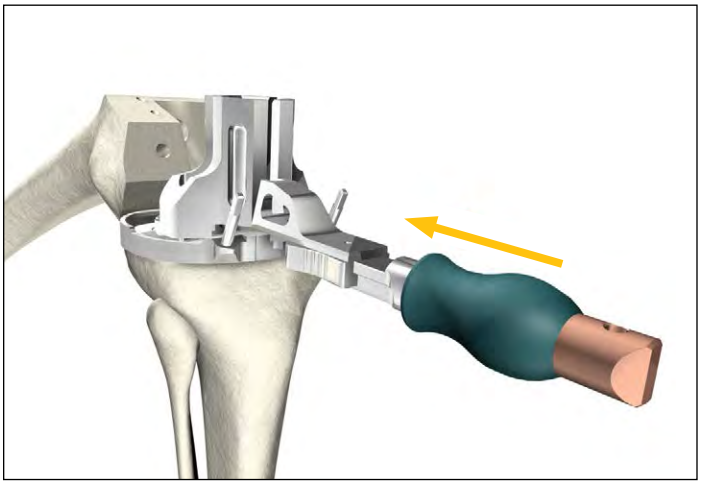


Figure 1

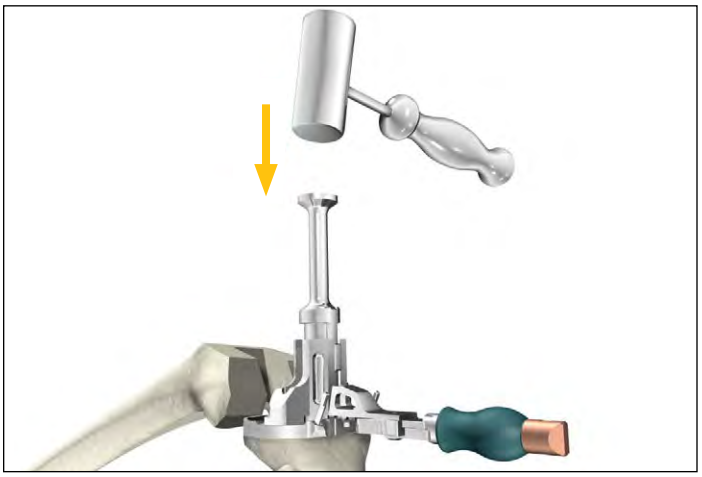


Figure 2

Place the appropriate size Low Profile Keel Punch into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide ensuring that it is flat against the bone.

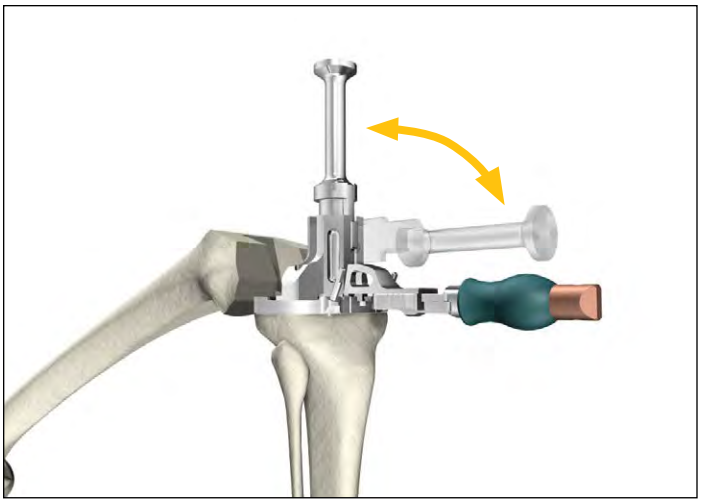


Figure 3

To extract the Keel Punch, lift up on the Keel Punch handle and pull the handle down to cantilever the Keel Punch out of the tibia.

Remove the Headless Pins with the Headless Pin Extractor and remove the Universal Tibial Template.

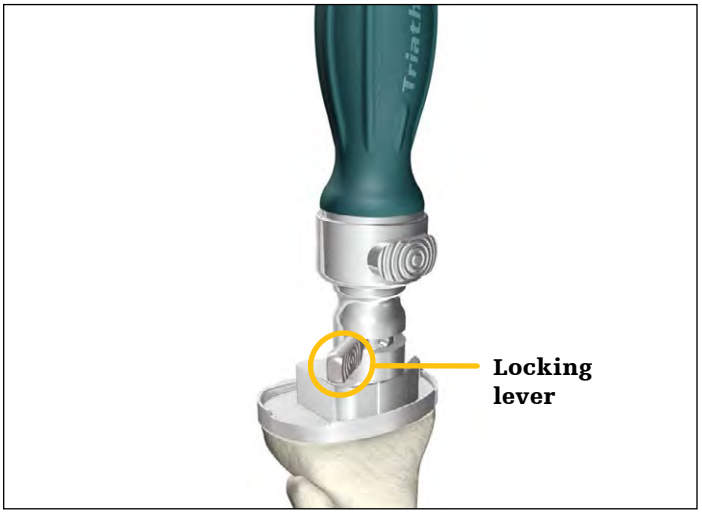


Figure 4

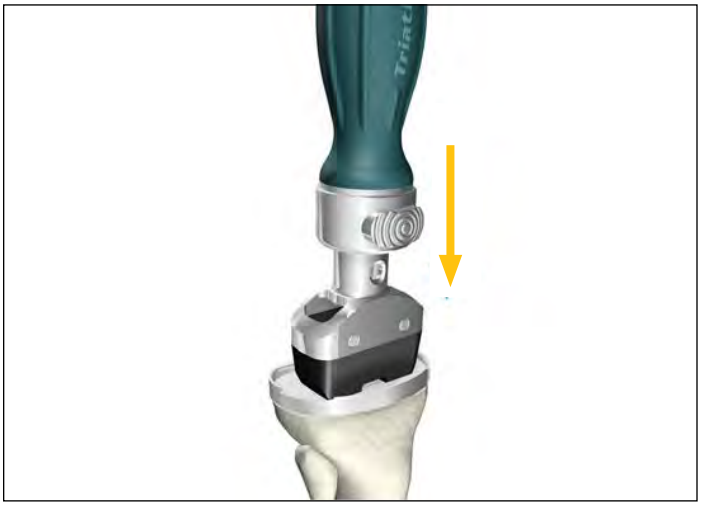


Figure 5

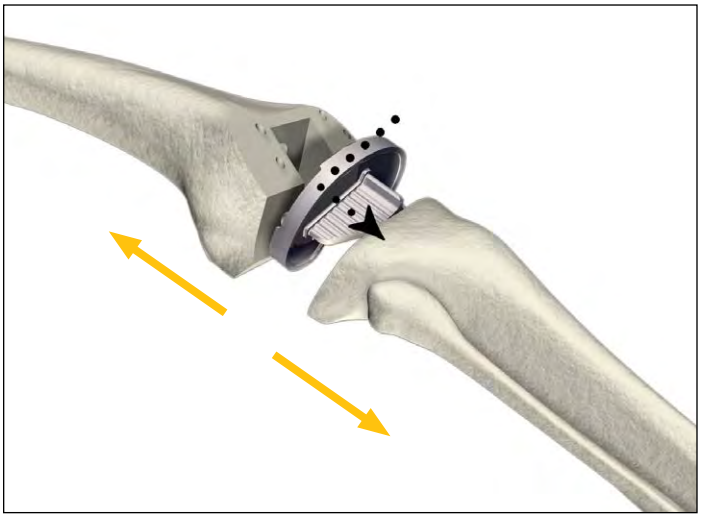


Figure 6

Component implantation

Standard: flexion technique, cemented only

In many cases, insertion may be performed with minimal or no subluxation of the tibia.

Connect the Tibial Baseplate Impactor / Extractor to the Impaction Handle. To connect this assembly to the Low Profile Tibial Baseplate, ensure the locking lever is in the unlocked position and place the head onto the Low Profile Tibial Baseplate straddling the central island. Ensure the Tibial Baseplate Impactor / Extractor sits flat on the top surface of the Low Profile Tibial Baseplate and move the locking lever to the locked position.

The surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

With the leg in full flexion, introduce the Low Profile Tibial Baseplate onto the prepared tibia and impact until the baseplate is seated. Unlock the locking lever and remove the assembly from the Low Profile Tibial Baseplate.

To further seat the baseplate, attach the Tibial Baseplate Impactor to the Impaction Handle.

Place the Tibial Baseplate Impactor on to the Low Profile Tibial Baseplate straddling the central island.

Ensure the Tibial Baseplate Impactor sits flat on the top surface of the Low Profile Tibial Baseplate. Impact until the Low Profile Tibial Baseplate is fully seated.

Clear all excess bone cement around the periphery, especially laterally and posteriorly, while maintaining position of the Low Profile Tibial Baseplate.

- **Note:** Adequate pressurization of the entire tibial component and optimal cement pressurization are essential. Avoid moving the tibial component while the cement hardens.

Alternative: extension technique, cemented Only

In most cases, insertion may be performed with minimal or no subluxation of the tibia, with leg between 20° and 40° of flexion.

The surgeon should apply bone cement to the implant and/or bone surface in accordance with the standard of care for bone cement application.

With knee in slight flexion, distract the knee joint with the help of an assistant, stabilizing with the hand behind back of knee.

Insert keel by hand, then move leg into full extension to engage the implant fully.

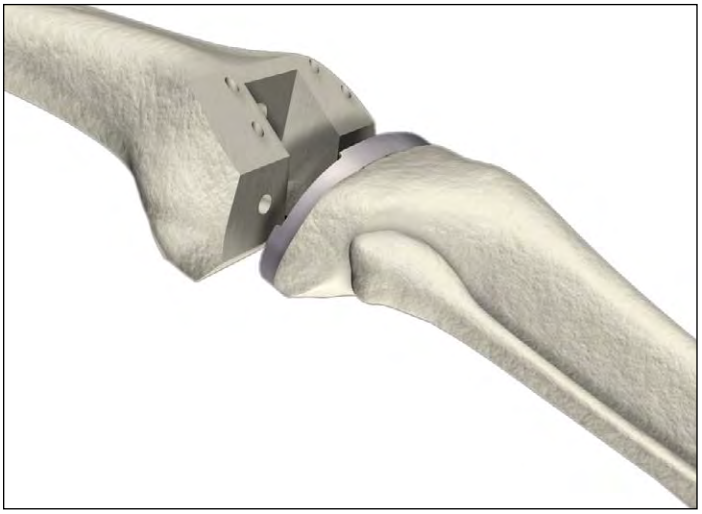


Figure 7

Figure 8

Finally, bring the leg into full flexion and use the Tibial Baseplate Impactor to complete seating the keel.

Ensure the Tibial Baseplate Impactor sits flat on the top surface of the Low Profile Tibial Baseplate. Impact until the Low Profile Tibial Baseplate is fully seated.

Clear all excess bone cement around the periphery, especially laterally and posteriorly, while maintaining position of the Low Profile Tibial Baseplate.

- **Note:** Adequate pressurization of the entire tibial component and optimal cement pressurization are essential. Avoid moving the tibial component while the cement hardens.

Instruments

Ref #	Description	Quantity
6541-2-113	Low Profile Keel Punch Size 1-3	1
6541-2-146	Low Profile Keel Punch Size 4-6	1
6541-2-601	Universal Tibial Template Size 1	1
6541-2-602	Universal Tibial Template Size 2	1
6541-2-603	Universal Tibial Template Size 3	1
6541-2-604	Universal Tibial Template Size 4	1
6541-2-605	Universal Tibial Template Size 5	1
6541-2-606	Universal Tibial Template Size 6	1
6541-2-607	Universal Tibial Template Size 7	1
6541-2-608	Universal Tibial Template Size 8	1
6541-2-713	Keel Punch Guide Sizes 1-3	1
6541-2-178	Low Profile Keel Punch Size 7-8	1
6541-2-748	Keel Punch Guide Sizes 4-8	1
6541-4-003	Headless pins	4
6541-4-804	Headless Pin Extractor	1
6541-4-805	Tibial Baseplate Impactor/Extractor	1
6541-4-810	Impaction Handle	2
6541-4-812	Tibial Baseplate Impactor	1

Implants

Ref #	Description	Quantity
5520-M-100*	Low Profile Baseplate Size 1	1
5520-M-200*	Low Profile Baseplate Size 2	1
5520-M-300*	Low Profile Baseplate Size 3	1
5520-M-400*	Low Profile Baseplate Size 4	1
5520-M-500*	Low Profile Baseplate Size 5	1
5520-M-600*	Low Profile Baseplate Size 6	1
5520-M-700*	Low Profile Baseplate Size 7	1
5520-M-800*	Low Profile Baseplate Size 8	1

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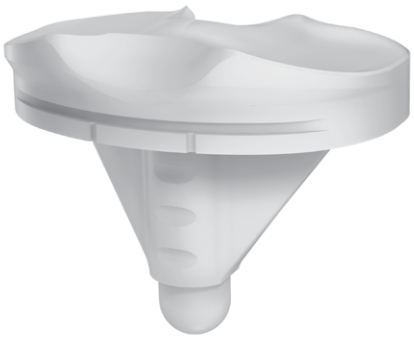
Triathlon® Knee System

All-Polyethylene Tibial Baseplate addendum

Contents



Implant offering and dimensions

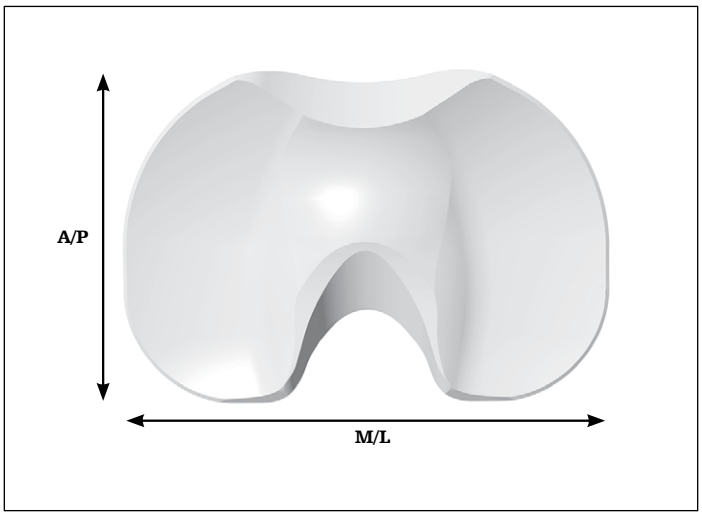


Figure 1

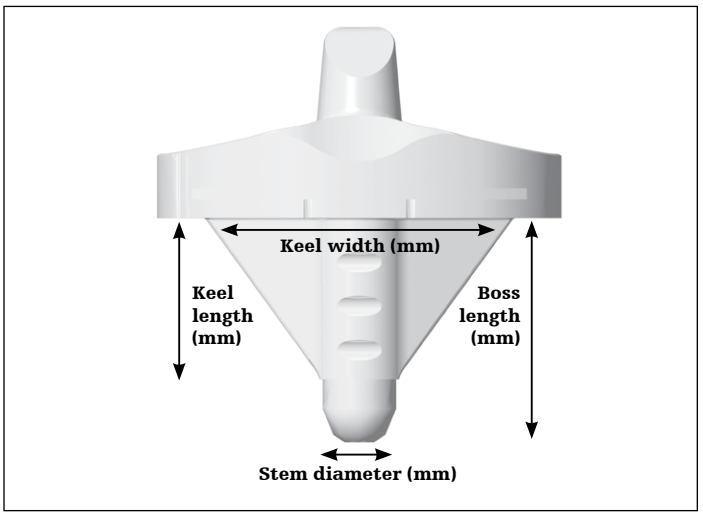


Figure 2

The Triathlon All-Poly Tibia is available in the following sizes:

Size	Thickness (mm)	M/L (mm)	A/PL (mm)	Boss length (mm)	Keel length (mm)	Keel width (mm)	Stem diameter (mm)
1	9,11,13,16	61	40	40	20	42	16
2	9,11,13,16	64	42	40	20	42	16
3	9,11,13,16	67	44	40	20	42	16
4	9,11,13,16	70	46	40	28	53	16
5	9,11,13,16	74	49	40	28	53	16
6	9,11,13,16	77	52	40	28	53	16
7	9,11,13,16	80	56	40	28	53	16
8	9,11,13,16	85	60	40	28	53	16

Tibiofemoral compatibility: The Triathlon All-Poly Tibia is designed to articulate with Triathlon femurs of the same size as well as one size lower and one size higher (1-up, 1-down compatibility).

All-Poly Tibia specific instrumentation

There is one finishing Keel Punch and one Impactor available for all tibial sizes 1-8.

All-Poly Tibia Keel Punch

- For sizes 1-3: punch up to the indicated depth as shown in the image to the right.
- For sizes 4-8: punch all the way to the top of the Keel Punch fin. Please see section on keel preparation for procedure.

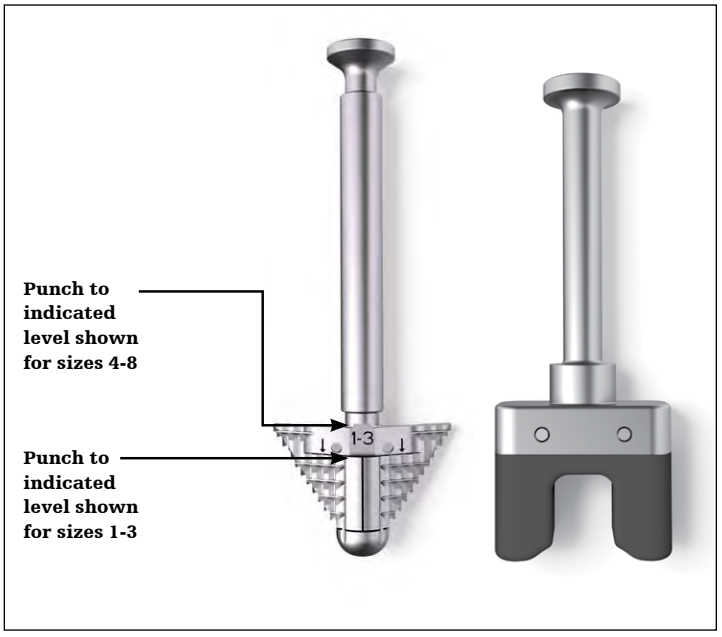


Figure 3

For complete information on surgical procedure and implant listings, please refer within this document to one of the following: The Triathlon Knee System Express Surgical Protocol, the Triathlon Knee System Standard Surgical Protocol or the Triathlon Knee System MIS Surgical Protocol. The Triathlon Knee System Legacy Surgical Protocol (TRIATH-SP-22) may also be referenced.

Note: The only tibial baseplates compatible with this addendum are 5534-A-XXX and 5535-A-XXX.

Triathlon All-Polyethylene | Tibia surgical procedure

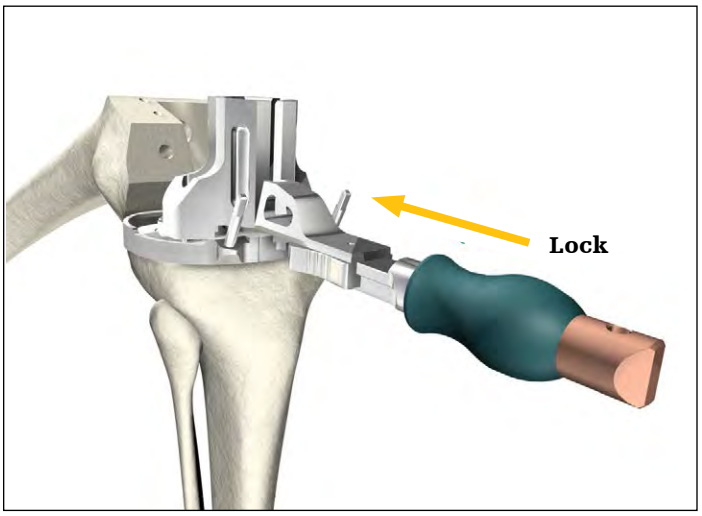


Figure 4

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Tibial keel punching

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting at a slight angle to the top of the Universal Tibial Template (into the two locating slots toward the posterior portion of the Universal Tibial Template). Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

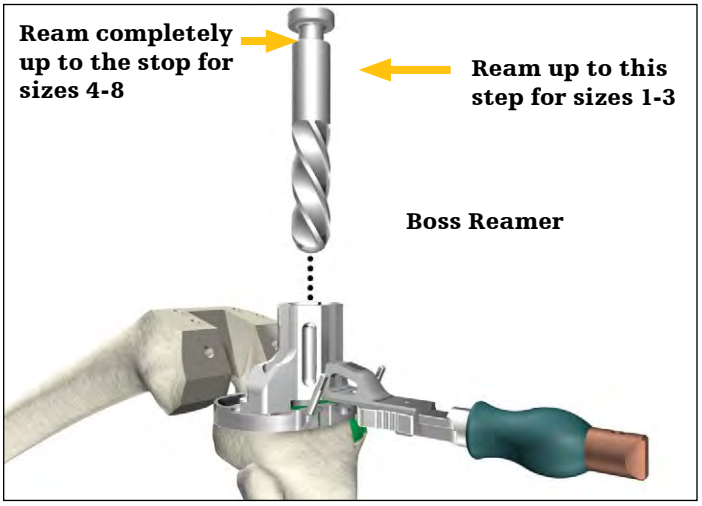


Figure 5

Attach the Boss Reamer to the Universal Driver. Place the Boss Reamer into the Keel Punch Guide. Ream to the appropriate depth marker indicated by the step on the Reamer shank (up to the step for Size 1-3 Keel Punch Guide and all the way to the stop for Size 4-8 Keel Punch Guide).

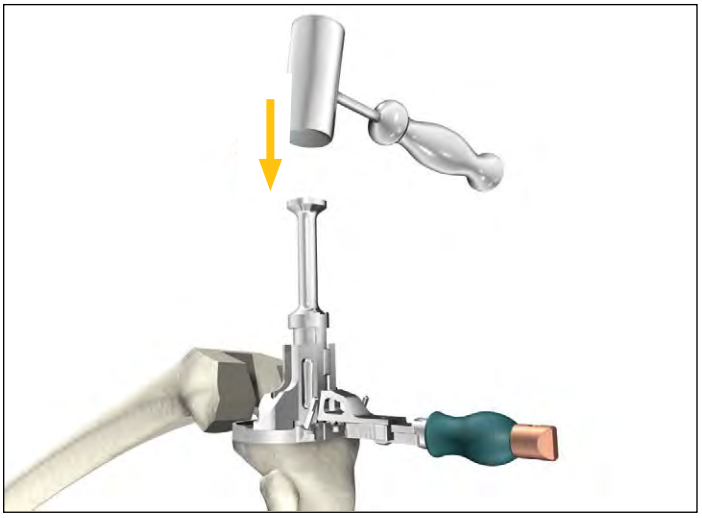


Figure 6

Place the appropriate Keel Punch into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide. In sclerotic bone, the use of a saw prior to the Keel Punch may be advisable.

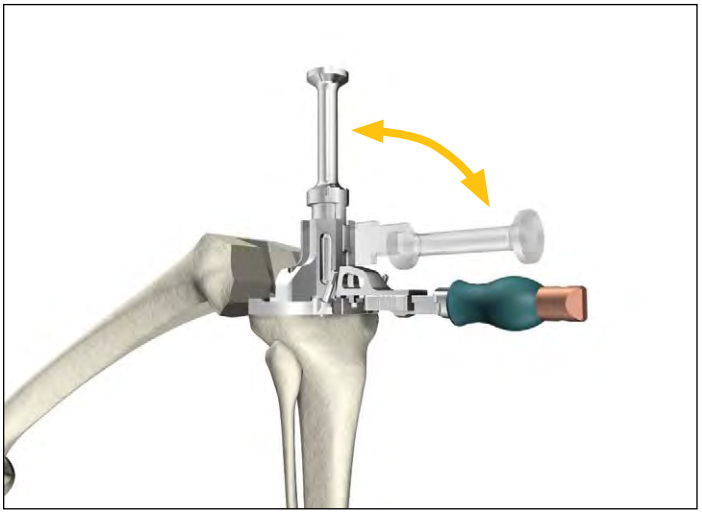


Figure 7

To extract the Keel Punch, lift up on the Keel Punch Guide handle and pull the handle to cantilever the Keel Punch out of the tibia.

Remove the Headless Pins with the Headless Pin Extractor and remove the Universal Tibial Template.

- **Note:** All above instruments must be removed prior to proceeding.

Figure 8

Keel preparation for Triathlon All-Poly Tibia

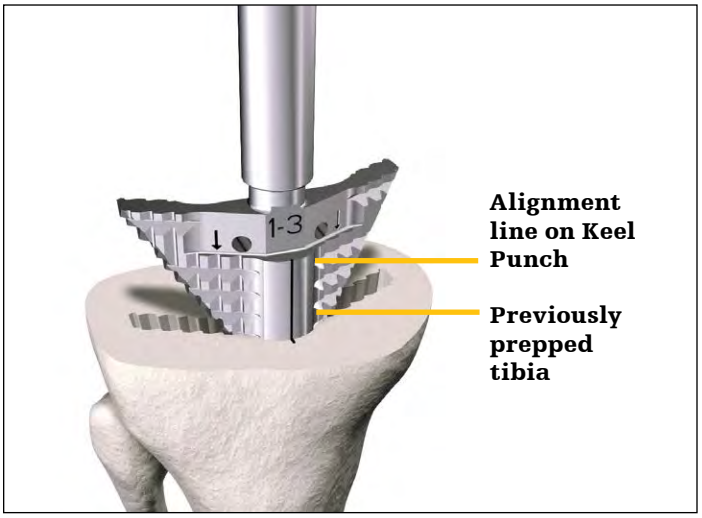


Figure 9

Align the Triathlon All-Poly Tibia Keel Punch to the prepared tibia as shown. Use the alignment line provided on the keel punch to ensure rotation is accurate.

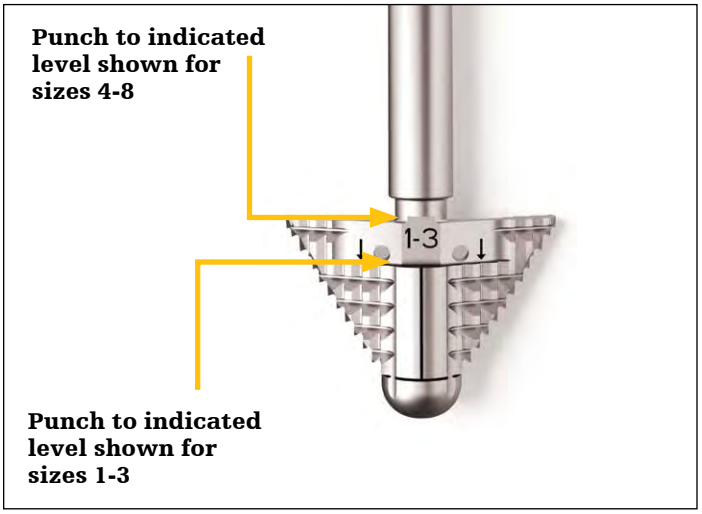


Figure 10

There is one All-Poly Tibia Keel Punch for all 8 sizes. It is important that the All-Poly Tibia Keel Punch is aligned perpendicular to the tibial resection throughout the punching process.

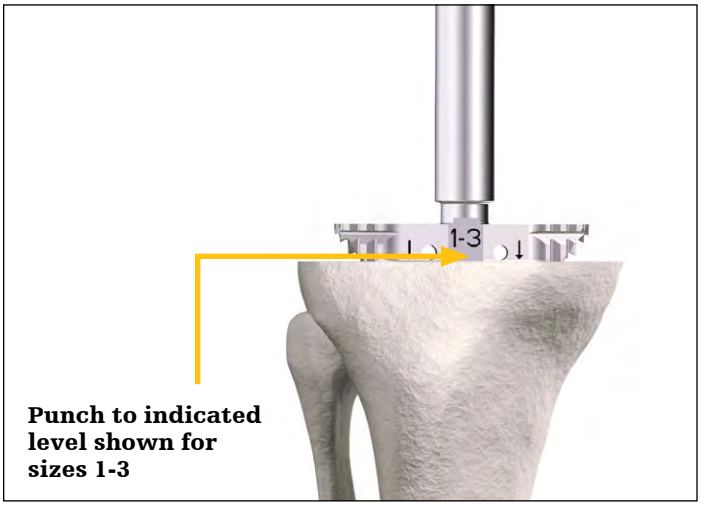


Figure 11

Sizes 1-3

Punch up to the line marked 1-3 as shown.

- **Caution:** Ensure slow incremental punching with the mallet to ensure preparation to the appropriate depth during impaction. Ensure impaction is up to indicated depth on the Keel Punch for the specific size range. Do not over impact.

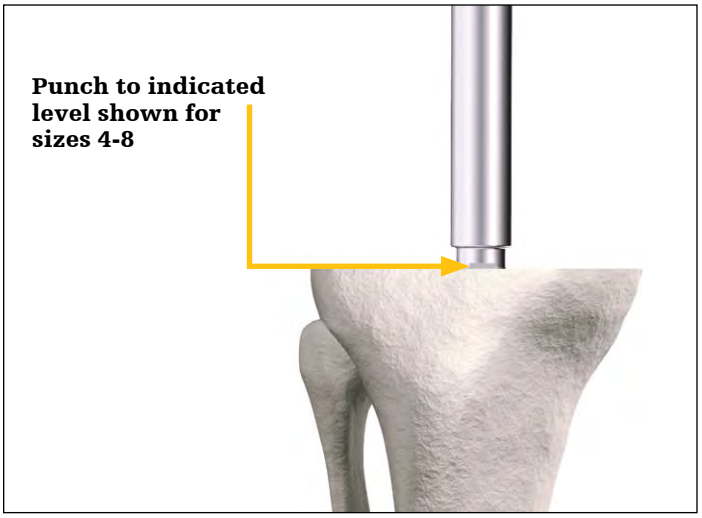


Figure 12

Sizes 4-8

For sizes 4-8, punch all the way to the top of the Keel Punch fin as shown in the image.

Component implantation

Figure 13

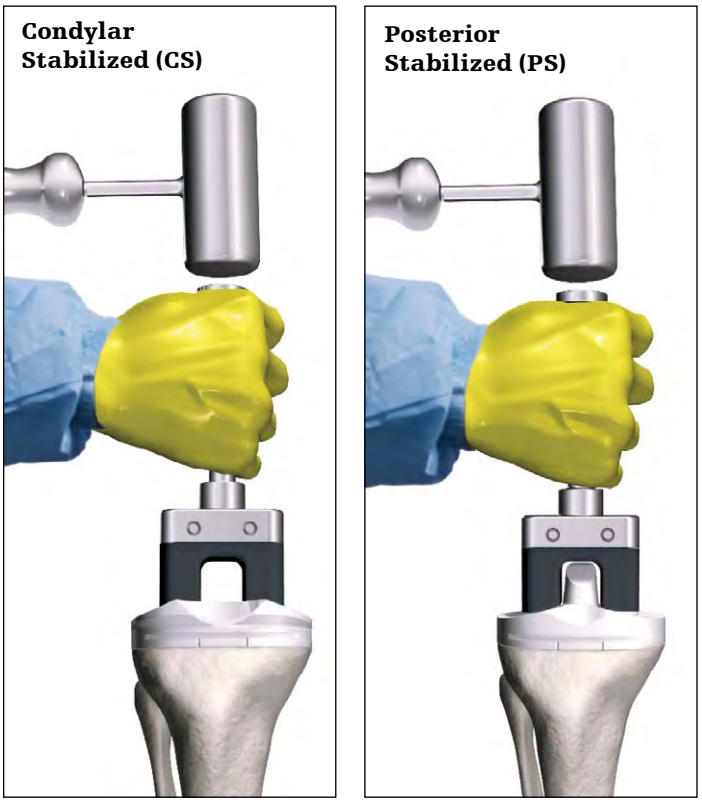


Figure 14

Remove the Triathlon All-Poly Keel Punch using the Quick Release Slap Hammer (as shown) or a mallet.

Take care to keep the handle perpendicular to the tibial resection throughout the extraction process.

Tibial component impaction

Lavage prior to implantation.

The resected and punched surfaces are prepared for bone cement using standard cementing techniques.

The cement groove on the underside of the Triathlon All-Poly Tibia needs to be completely filled with cement. This can be done by pre-coating the underside of the implant prior to implantation or coating the proximal tibia with enough cement to fill the cement groove. Surgeons can use both methods to ensure filling of the cement groove if preferred.

After the preferred cementing technique has been performed, place the All-Poly Tibial Components into the prepared tibia.

Position and align the implant over the prepared keel. Partially seat the implant by hand followed by final seating with the All-Poly Tibia Impactor. Ensure impaction is perpendicular (axial) to the tibial resection throughout the impaction process. After the cement is cured, the knee is thoroughly cleaned and lavaged.

Ensure implant is fully seated on the tibia.

- **Caution:** Do not use excessive force during impaction.

  Ensure overhanging cement is completely removed from around the entire periphery of the implant.

- **Tip:** If intramedullary referencing was used for tibial resection, surgeons may plug the hole in the IM canal with bone prior to cementing to prevent cement from extravasating into the prepared hole.

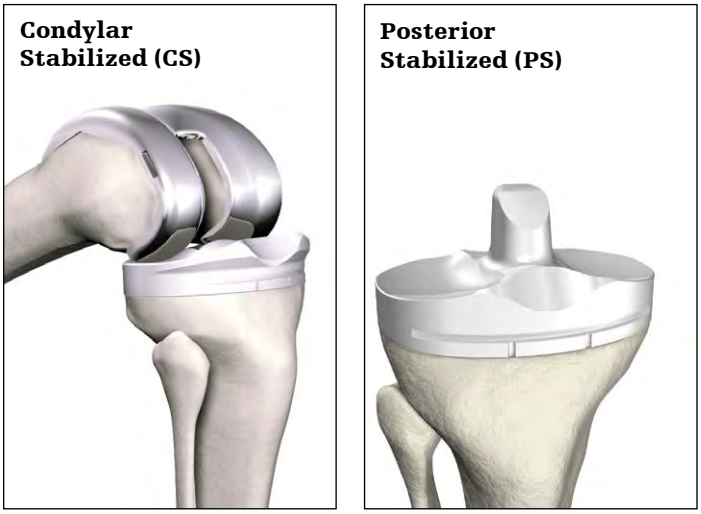


Figure 15

Impacted All-Poly Tibial components CS and PS

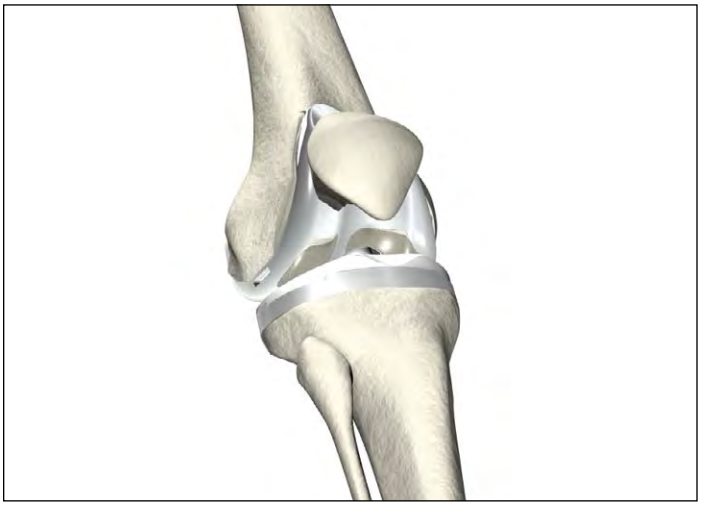


Figure 16

Assess the joint in flexion and extension.

Instruments

Ref #	Description	Sizes	Quantity in kit
Triathlon All-Poly Tibia Preparation Instruments			
6541-2-018	Triathlon All-Poly Tibia Keel Punch		1
6541-2-013	Size 1-3 Tibia Keel Punch		1
6541-2-046	Size 4-6 Tibia Keel Punch		1
6541-2-078	Size 7-8 Tibia Keel Punch		1
6541-2-60X	Universal Tibial Template	X=1,2,3,4,5,6,7,8	1
6541-2-713	Size 1-3 Keel Punch Guide		1
6541-2-748	Size 4-8 Keel Punch Guide		1
6541-4-003	Headless Pins – 3"		4
6543-4-517	Triathlon Universal Baseplate Tibial Boss Reamer		1
6541-4-801	Universal Driver		1
6541-4-803	Slap Hammer		1
6541-4-804	Headless Pin Extractor		1
6541-4-809	Headless Pin Driver		1
6541-4-810	Impaction Handle		1
6541-4-817	Triathlon All-Poly Tibia Impactor		1
LTEMK43	Triathlon All-Poly Acetate Template		1

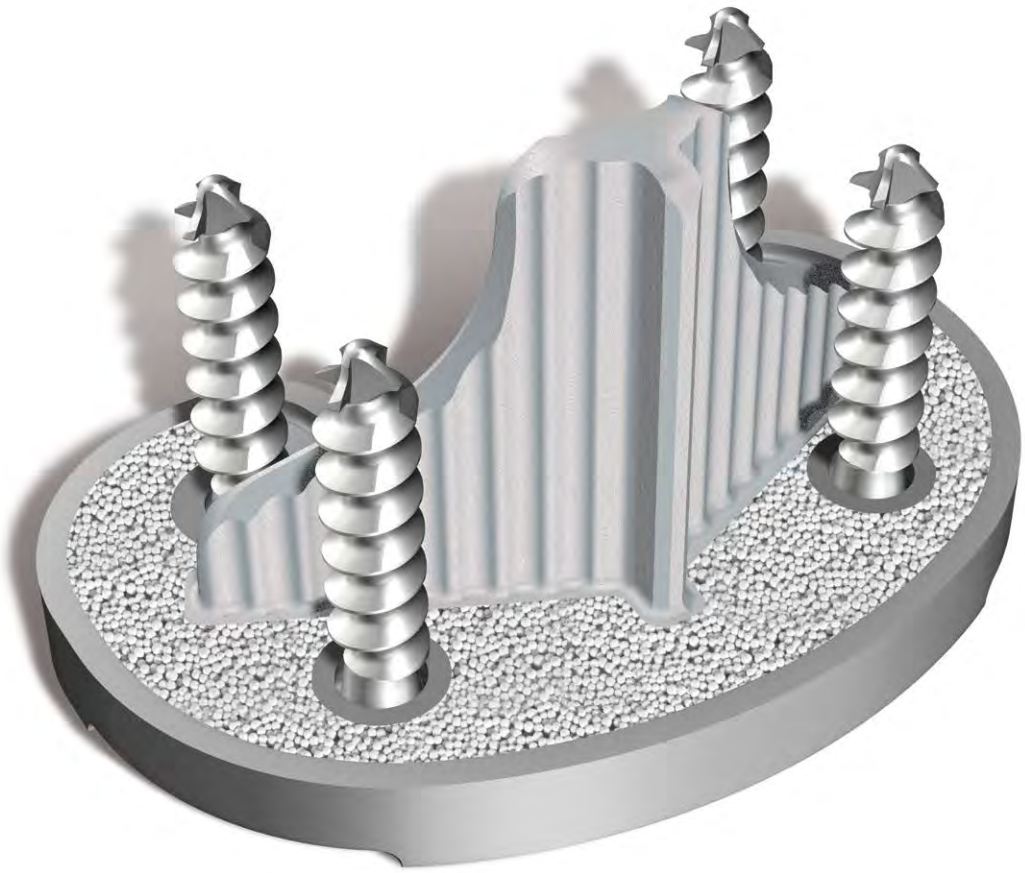
Implants

Ref #	Description	Sizes	Quantity
Triathlon All-Polyethylene Tibial Component			
5535-A-X09	PS All-Polyethylene Tibial Component 9mm	X=1,2,3,4,5,6,7,8	1
5535-A-X11	PS All-Polyethylene Tibial Component 11mm	X=1,2,3,4,5,6,7,8	1
5535-A-X13	PS All-Polyethylene Tibial Component 13mm	X=1,2,3,4,5,6,7,8	1
5535-A-X16	PS All-Polyethylene Tibial Component 16mm	X=1,2,3,4,5,6,7,8	1
5534-A-X09	CS All-Polyethylene Tibial Component 9mm	X=1,2,3,4,5,6,7,8	1
5534-A-X11	CS All-Polyethylene Tibial Component 11mm	X=1,2,3,4,5,6,7,8	1
5534-A-X13	CS All-Polyethylene Tibial Component 13mm	X=1,2,3,4,5,6,7,8	1
5534-A-X16	CS All-Polyethylene Tibial Component 16mm	X=1,2,3,4,5,6,7,8	1

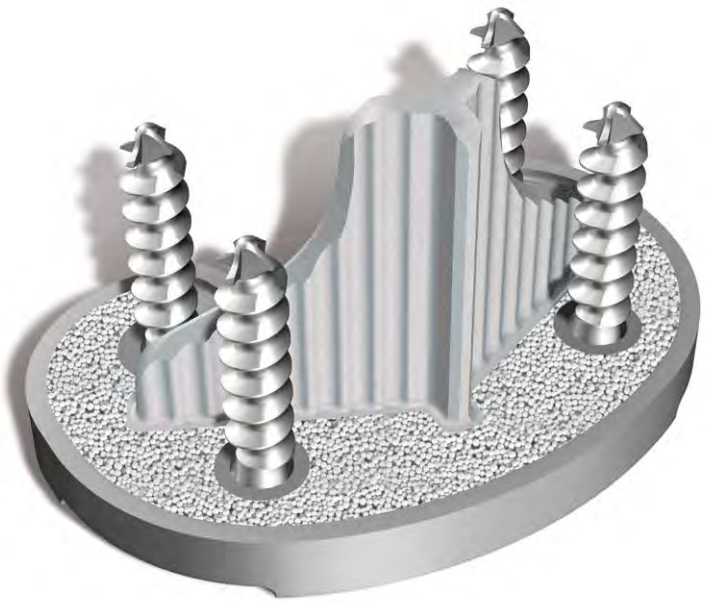
Triathlon® Knee System

Cementless Screw-Fix Tibial Baseplate addendum

Surgical addendum pg 256
Instruments pg 260
Implants pg 261



Contents



For complete information on surgical procedure and implant listings, please refer within this document to one of the following: The Triathlon Knee System Express Surgical Protocol, the Triathlon Knee System Standard Surgical Protocol or the Triathlon Knee System MIS Surgical Protocol.
The Triathlon Knee System Legacy Surgical Protocol (TRIATH-SP-22) may also be referenced.
Note: The only tibial baseplate compatible with this addendum is 5527-B-XXX.

Tibial keel punching

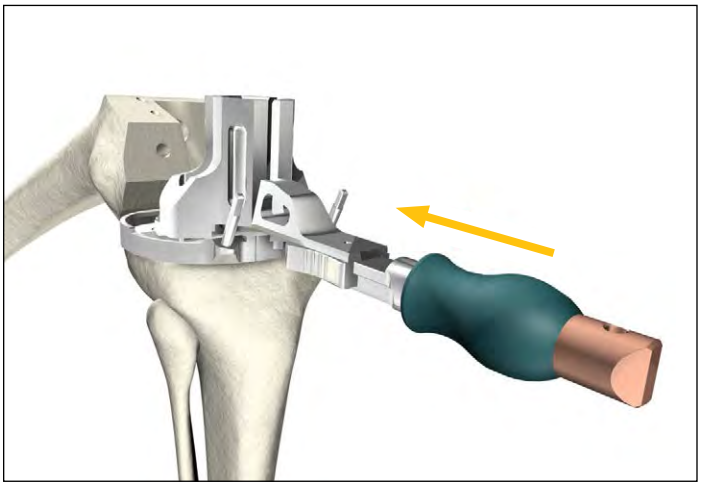


Figure 1

Assemble the Keel Punch Guide to the Universal Tibial Template by inserting at a slight angle to the top of the Universal Tibial Template (into the two locating slots toward the posterior portion of the Universal Tibial Template). Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template.

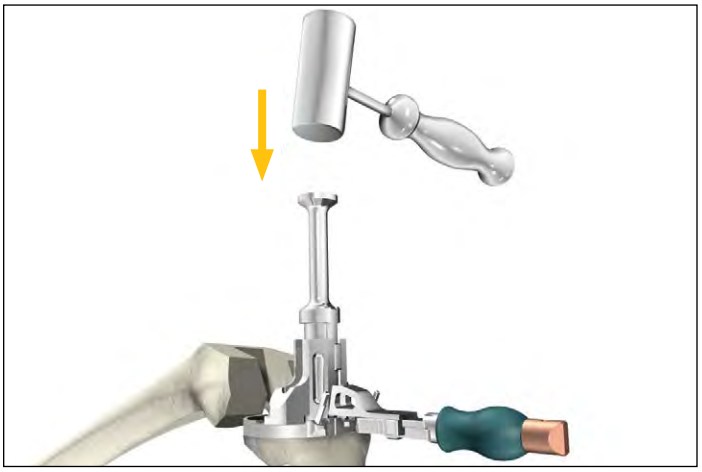


Figure 2

Place the appropriate Cementless Keel Punch into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide. In sclerotic bone, the use of a saw prior to the Cementless Keel Punch may be advisable.

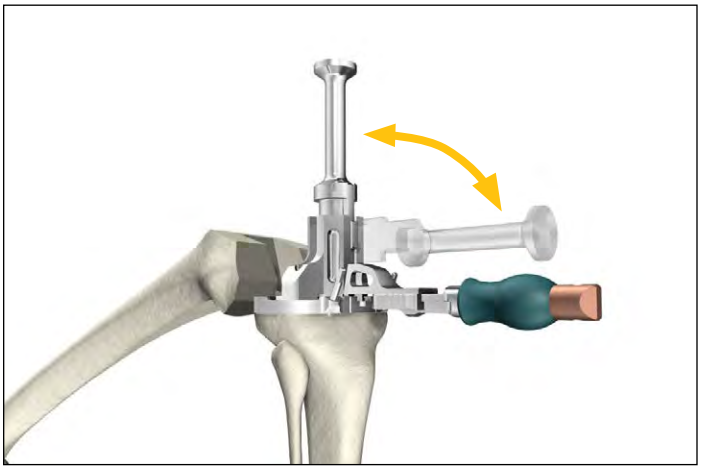


Figure 3

To extract the Keel Punch, lift up on the Keel Punch handle and pull the handle down to cantilever the Keel Punch out of the tibia.

Remove the Headless Pins with the Headless Pin Extractor and remove the Universal Tibial Template.

Tibial Baseplate implantation

Figure 4a

Using the 1/8" Drill Guide and the 1/8" Drill, drill four pilot holes through the tibial baseplate screw holes. Pilot holes can be angulated up to 10° if the surgeon desires cortical fixation of the screws. Care should be taken in attempting to obtain cortical fixation as neurovascular obstructions are in close proximity to the proximal tibia. If the surgeon prefers and good cancellous bone is present, cancellous fixation is an alternative.

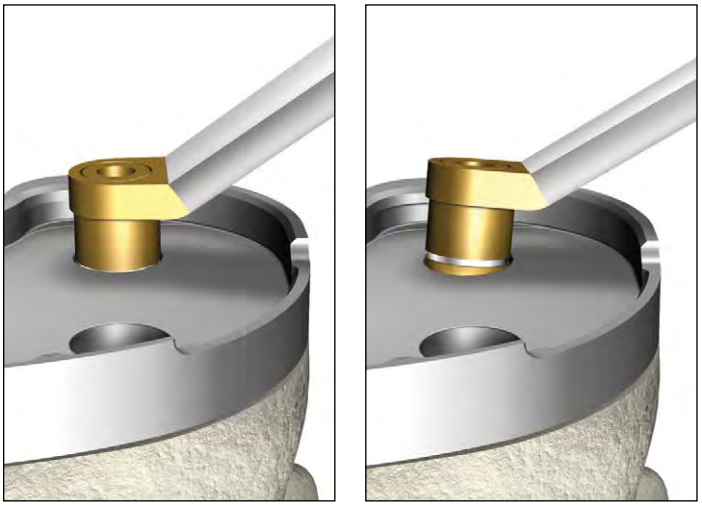


Figure 4b

The maximum angulation of the screw is determined by the drill guide. The bottom lip of the drill guide bushing **(see Figure 4b)** should not be visible when drilling the pilot hole. This ensures that angulation of more than 10° has not occurred. If the lip is visible while drilling the pilot hole **(see Figure 4a)** the screw may sit proud in the baseplate.

Figure 5

Screw length is determined either by using a depth gauge or by the marks on the 1/8" Drill which are at 5mm increments. Once screw length is determined, insert a 6.5mm cancellous bone screw using the 3.5mm Hex Driver connected to the Slip Torque Handle.

Figure 6

Ensure that the screw heads are fully seated in the baseplate holes.

Tibial Insert

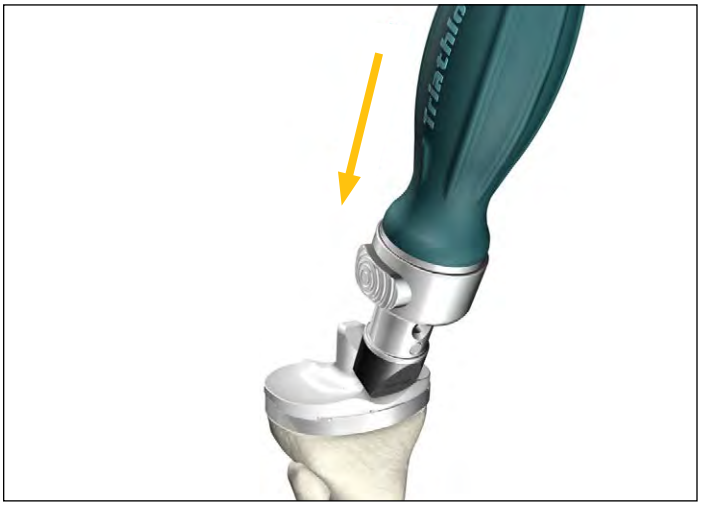


Figure 7

Prior to assembly of the Tibial Insert, the Tibial Trial Insert may be placed on the Primary Tibial Baseplate to once more assess joint stability and range of motion.

To assemble the Tibial Insert, distract the joint and angle the insert posteriorly into the Primary Tibial Baseplate. The posterior lip of the Tibial Insert must fit beneath the lip on the posterior Primary Tibial Baseplate wall.

Attach the Tibial Insert Impactor to the Impaction Handle and impact to snap the Insert in place anteriorly. The Tibial Insert is fully seated once the locking wire locks under the barbs on the anterior/interior surface of the Primary Tibial Baseplate wall.

Instruments

Ref #	Description	Quantity in kit
6541-2-60X	Universal Tibial Template X=1,2,3,4,5,6,7,8	1
6541-4-003	Headless Pins - 3″	4
6541-4-809	Headless Pin Driver	1
6541-4-801	Universal Driver	1
6541-2-713	Keel Punch Guide Size 1-3	1
6541-2-748	Keel Punch Guide Size 4-8	1
6541-6-013	Cementless Keel Punch Size 1-3	1
6541-6-046	Cementless Keel Punch Size 4-6	1
6541-6-078	Cementless Keel Punch Size 7-8	1
6541-4-804	Headless Pin Extractor	1
6541-7-518*	1/8'' Baseplate Drill	1
6541-6-518	1/8'' Drill Guide	1
6541-4-820	3.5mm Hex Driver	1
6541-4-810	Impaction Handle	1
6541-4-813	Tibial Insert Impactor	1
6541-4-825	Slip Torque Handle	1
6541-9-000	Triathlon Case	1

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Implants

Ref #	Description	Quantity in kit
Screw-Fix Tibial Baseplate with PA		
5527-B-100*	Screw-Fix Tibial Baseplate with PA Size 1	1
5527-B-200*	Screw-Fix Tibial Baseplate with PA Size 2	1
5527-B-300*	Screw-Fix Tibial Baseplate with PA Size 3	1
5527-B-400*	Screw-Fix Tibial Baseplate with PA Size 4	1
5527-B-500*	Screw-Fix Tibial Baseplate with PA Size 5	1
5527-B-600*	Screw-Fix Tibial Baseplate with PA Size 6	1
5527-B-700*	Screw-Fix Tibial Baseplate with PA Size 7	1
5527-B-800*	Screw-Fix Tibial Baseplate with PA Size 8	1
6.5mm Cancellous Bone Screw		
5585-C-020*	6.5mm Cancellous Bone Screw Size 1	1
5585-C-025*	6.5mm Cancellous Bone Screw Size 2	1
5585-C-030*	6.5mm Cancellous Bone Screw Size 3	1
5585-C-035*	6.5mm Cancellous Bone Screw Size 4	1
5585-C-040*	6.5mm Cancellous Bone Screw Size 5	1
5585-C-045*	6.5mm Cancellous Bone Screw Size 6	1
5585-C-050*	6.5mm Cancellous Bone Screw Size 7	1

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Triathlon® Revision Knee System

Distal and Posterior Femoral Augments addendum

Contents

Figure 34

Femoral trial assembly

- Assemble all Posterior and Distal Femoral Augment Trials prepared for onto the appropriate size PS or TS Femoral Trial. Ensure that both Distal Femoral Augment Trial tabs have engaged the undercuts of the Femoral Trial. **(Figure 34)**
- **Note:** Femoral Distal Augment Trials are size specific and are offered in 5mm, 10mm and 15mm thicknesses. See catalog.

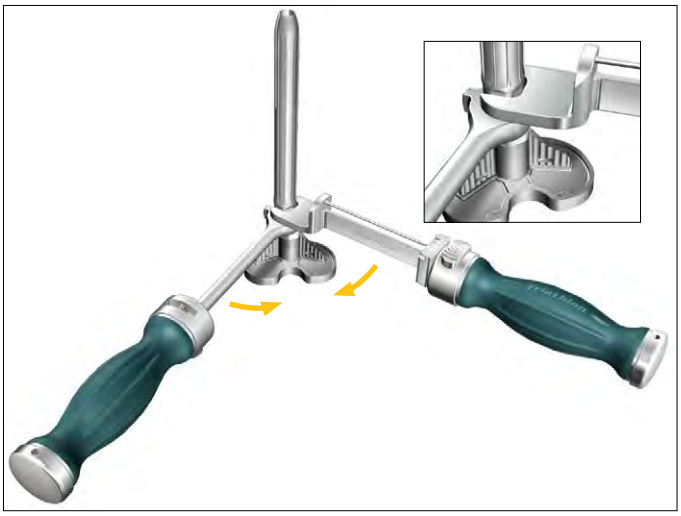

Figure 41

Figure 42

Figure 43

Femoral implant assembly

Femoral Augments

Assemble the 1/8" Universal Hex Driver into the Slip Torque Handle.

Place the Femoral Augment on the appropriate (distal or posterior) surface of the Femoral Component.

Assemble the Augment Screw through the Femoral Augment into the threaded hole in the Femoral Component.

Torque the Augment Screw until the torque driver slips at which time you will hear an audible click. **(Figure 43)** Repeat this sequence on all required femoral augments.

Instruments

Catalog number	Description	Quantity in kit
1, 2, 7, 8 Upper Tray Kit contents		
5540-T-200A	Triathlon Femoral Distal Augment Trial, 5mm - #2	2
5540-T-700A	Triathlon Femoral Distal Augment Trial, 5mm - #7	2
5541-T-200A	Triathlon Femoral Distal Augment Trial, 10mm - #2	2
5541-T-700A	Triathlon Femoral Distal Augment Trial, 10mm - #7	2
5542-T-200A	Triathlon Femoral Distal Augment Trial, 15mm - #2	2
5542-T-700A	Triathlon Femoral Distal Augment Trial, 15mm - #7	2
5543-T-200	Triathlon Femoral Posterior Augment Trial, 5mm - #2	2
5543-T-700	Triathlon Femoral Posterior Augment Trial, 5mm - #7	2
5544-T-200	Triathlon Femoral Posterior Augment Trial, 10mm - #2	2
5544-T-700	Triathlon Femoral Posterior Augment Trial, 10mm - #7	2
5545-T-701	Tibial Augment Trial #7 LM/RL - 5mm	1
		Total quantity 21

Catalog number	Description	Quantity in kit
1, 2, 7, 8 Lower Tray Kit contents		
5540-T-100A	Triathlon Femoral Distal Augment Trial, 5mm - #1	2
5540-T-800A	Triathlon Femoral Distal Augment Trial, 5mm - #8	2
5541-T-100A	Triathlon Femoral Distal Augment Trial, 10mm - #1	2
5541-T-800A	Triathlon Femoral Distal Augment Trial, 10mm - #8	2
5542-T-100A	Triathlon Femoral Distal Augment Trial, 15mm - #1	2
5542-T-800A	Triathlon Femoral Distal Augment Trial, 15mm - #8	2
5543-T-100	Triathlon Femoral Posterior Augment Trial, 5mm - #1	2
5543-T-800	Triathlon Femoral Posterior Augment Trial, 5mm - #8	2
5544-T-100	Triathlon Femoral Posterior Augment Trial, 10mm - #1	2
5544-T-800	Triathlon Femoral Posterior Augment Trial, 10mm - #8	2
		Total quantity 20

Catalog number	Description	Quantity in kit
3 - 6 Femoral Prep Lower Tray Kit contents		
5540-T-300A	Triathlon Femoral Distal Augment Trial, 5mm - #3	2
5540-T-400A	Triathlon Femoral Distal Augment Trial, 5mm - #4	2
5540-T-500A	Triathlon Femoral Distal Augment Trial, 5mm - #5	2
5540-T-600A	Triathlon Femoral Distal Augment Trial, 5mm - #6	2
5541-T-300A	Triathlon Femoral Distal Augment Trial, 10mm - #3	2
5541-T-400A	Triathlon Femoral Distal Augment Trial, 10mm - #4	2
5541-T-500A	Triathlon Femoral Distal Augment Trial, 10mm - #5	2
5541-T-600A	Triathlon Femoral Distal Augment Trial, 10mm - #6	2
5542-T-300A	Triathlon Femoral Distal Augment Trial, 15mm - #3	2
5542-T-400A	Triathlon Femoral Distal Augment Trial, 15mm - #4	2
5542-T-500A	Triathlon Femoral Distal Augment Trial, 15mm - #5	2
5542-T-600A	Triathlon Femoral Distal Augment Trial, 15mm - #6	2
5543-T-300	Triathlon Femoral Posterior Augment Trial, 5mm - #3	2
5543-T-400	Triathlon Femoral Posterior Augment Trial, 5mm - #4	2
5543-T-500	Triathlon Femoral Posterior Augment Trial, 5mm - #5	2
5543-T-600	Triathlon Femoral Posterior Augment Trial, 5mm - #6	2
5544-T-300	Triathlon Femoral Posterior Augment Trial, 10mm - #3	2
5544-T-400	Triathlon Femoral Posterior Augment Trial, 10mm - #4	2
5544-T-500	Triathlon Femoral Posterior Augment Trial, 10mm - #5	2
5544-T-600	Triathlon Femoral Posterior Augment Trial, 10mm - #6	2
		Total quantity 40

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Implants

Catalog number	Description	
Triathlon PS or TS Femoral Augment part numbers		
5540-A-101	Triathlon Femoral Distal Augment - 5mm	#1 Left
5540-A-201	Triathlon Femoral Distal Augment - 5mm	#2 Left
5540-A-301	Triathlon Femoral Distal Augment - 5mm	#3 Left
5540-A-401	Triathlon Femoral Distal Augment - 5mm	#4 Left
5540-A-501	Triathlon Femoral Distal Augment - 5mm	#5 Left
5540-A-601	Triathlon Femoral Distal Augment - 5mm	#6 Left
5540-A-701	Triathlon Femoral Distal Augment - 5mm	#7 Left
5540-A-801	Triathlon Femoral Distal Augment - 5mm	#8 Left
5540-A-102	Triathlon Femoral Distal Augment - 5mm	#1 Right
5540-A-202	Triathlon Femoral Distal Augment - 5mm	#2 Right
5540-A-302	Triathlon Femoral Distal Augment - 5mm	#3 Right
5540-A-402	Triathlon Femoral Distal Augment - 5mm	#4 Right
5540-A-502	Triathlon Femoral Distal Augment - 5mm	#5 Right
5540-A-602	Triathlon Femoral Distal Augment - 5mm	#6 Right
5540-A-702	Triathlon Femoral Distal Augment - 5mm	#7 Right
5540-A-802	Triathlon Femoral Distal Augment - 5mm	#8 Right
5541-A-101	Triathlon Femoral Distal Augment - 10mm	#1 Left
5541-A-201	Triathlon Femoral Distal Augment - 10mm	#2 Left
5541-A-301	Triathlon Femoral Distal Augment - 10mm	#3 Left
5541-A-401	Triathlon Femoral Distal Augment - 10mm	#4 Left
5541-A-501	Triathlon Femoral Distal Augment - 10mm	#5 Left
5541-A-601	Triathlon Femoral Distal Augment - 10mm	#6 Left
5541-A-701	Triathlon Femoral Distal Augment - 10mm	#7 Left
5541-A-801	Triathlon Femoral Distal Augment - 10mm	#8 Left
5541-A-102	Triathlon Femoral Distal Augment - 10mm	#1 Right
5541-A-202	Triathlon Femoral Distal Augment - 10mm	#2 Right
5541-A-302	Triathlon Femoral Distal Augment - 10mm	#3 Right
5541-A-402	Triathlon Femoral Distal Augment - 10mm	#4 Right
5541-A-502	Triathlon Femoral Distal Augment - 10mm	#5 Right
5541-A-602	Triathlon Femoral Distal Augment - 10mm	#6 Right
5541-A-702	Triathlon Femoral Distal Augment - 10mm	#7 Right
5541-A-802	Triathlon Femoral Distal Augment - 10mm	#8 Right

(Continued)

Catalog number	Description	
Triathlon TS Femoral Augment part numbers - continued		
5542-A-101	Triathlon Femoral Distal Augment - 15mm	#1 Left
5542-A-201	Triathlon Femoral Distal Augment - 15mm	#2 Left
5542-A-301	Triathlon Femoral Distal Augment - 15mm	#3 Left
5542-A-401	Triathlon Femoral Distal Augment - 15mm	#4 Left
5542-A-501	Triathlon Femoral Distal Augment - 15mm	#5 Left
5542-A-601	Triathlon Femoral Distal Augment - 15mm	#6 Left
5542-A-701	Triathlon Femoral Distal Augment - 15mm	#7 Left
5542-A-801	Triathlon Femoral Distal Augment - 15mm	#8 Left
5542-A-102	Triathlon Femoral Distal Augment - 15mm	#1 Right
5542-A-202	Triathlon Femoral Distal Augment - 15mm	#2 Right
5542-A-302	Triathlon Femoral Distal Augment - 15mm	#3 Right
5542-A-402	Triathlon Femoral Distal Augment - 15mm	#4 Right
5542-A-502	Triathlon Femoral Distal Augment - 15mm	#5 Right
5542-A-602	Triathlon Femoral Distal Augment - 15mm	#6 Right
5542-A-702	Triathlon Femoral Distal Augment - 15mm	#7 Right
5542-A-802	Triathlon Femoral Distal Augment - 15mm	#8 Right
5543-A-100	Triathlon Femoral Posterior Augment, 5mm - Size 1	
5543-A-200	Triathlon Femoral Posterior Augment, 5mm - Size 2	
5543-A-300	Triathlon Femoral Posterior Augment, 5mm - Size 3	
5543-A-400	Triathlon Femoral Posterior Augment, 5mm - Size 4	
5543-A-500	Triathlon Femoral Posterior Augment, 5mm - Size 5	
5543-A-600	Triathlon Femoral Posterior Augment, 5mm - Size 6	
5543-A-700	Triathlon Femoral Posterior Augment, 5mm - Size 7	
5543-A-800	Triathlon Femoral Posterior Augment, 5mm - Size 8	
5544-A-100	Triathlon Femoral Posterior Augment, 10mm - Size 1	
5544-A-200	Triathlon Femoral Posterior Augment, 10mm - Size 2	
5544-A-300	Triathlon Femoral Posterior Augment, 10mm - Size 3	
5544-A-400	Triathlon Femoral Posterior Augment, 10mm - Size 4	
5544-A-500	Triathlon Femoral Posterior Augment, 10mm - Size 5	
5544-A-600	Triathlon Femoral Posterior Augment, 10mm - Size 6	
5544-A-700	Triathlon Femoral Posterior Augment, 10mm - Size 7	
5544-A-800	Triathlon Femoral Posterior Augment, 10mm - Size 8	

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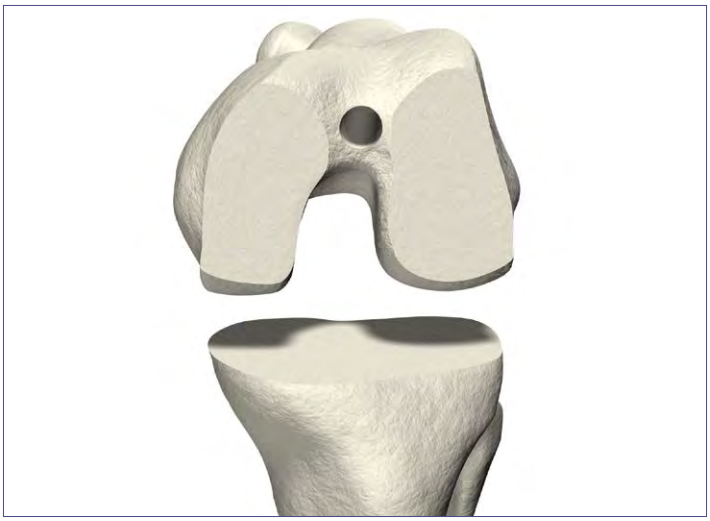

Figure 1

Figure 2

Figure 3

1. Perform distal femoral and proximal tibial resections

- Following exposure, perform proximal tibial and distal femoral resections using standard instrumentation and approaches (LSPK42, TRIATH-SP-23, TRIATH-SP-25, TRIATH-SP-24, TRIATH-SP-22) (**Figure 1**). If desired, verify that the cut surface of the tibia is perpendicular to the long axis of the tibia.

2. Extension gap assessment and initial ligament balancing

- Once the distal femoral and proximal tibial cuts are completed, trim osteophytes and complete initial ligament balancing. Placing leg in extension, insert Spacer Block into extension gap (**Figure 2**).
- The labeled thicknesses of the Spacer Block Handles and Shims equate to the Triathlon Tibial Insert.
- The Spacer Block Handles can be used for gaps corresponding to tibial inserts up to 12mm. If joint space may require a tibial insert greater than 12mm, assemble Spacer Block Shims to the matching-colored handle, gradually increasing the construct thickness as necessary. See Table 1 for Spacer Block Handle and Shim compatibility and tibial insert correspondence.

- **Note: If needed, balance the extension gap using the release of ligaments until extension gap is rectangular.**

- **Table 1:** Spacer Block Handle-Shim compatibility and insert correspondence (**Figure 3**)

Handle	Shim	Color	Insert thickness*
9mm-10mm	14mm	White	14mm
11mm-12mm	16mm	Black	16mm
9mm-10mm	19mm	White	19mm
11mm-12mm	22mm	Black	22mm

*Insert thickness includes the insert and baseplate

- **Tip: To remove the shim, place thumb in indentation on underside of handle and push out the shim post.**

3. Set femoral rotation and flexion gap

- Use standard instrumentation to complete remaining femoral resections (LSPK42, TRIATH-SP-23, TRIATH-SP-25, TRIATH-SP-24, TRIATH-SP-22).
- Placing the leg in flexion, insert Spacer Block into flexion gap. If flexion gap cannot be set equal to the noted extension gap and the flexion gap is greater than the extension gap, remove the Spacer Blocks and increase distal femoral resection level using standard instrumentation.
- Finally, use standard instrumentation to complete preparation of femur, tibia and patella, as well as trialing and final implantation (LSPK42, TRIATH-SP-23, TRIATH-SP-25, TRIATH-SP-24, TRIATH-SP-22).

Instruments

Ref #	Description
6541-1-609Y	Triathlon Spacer Block Handle (9mm +10mm)
6541-1-611Y	Triathlon Spacer Block Handle (11mm+12mm)
6541-1-614Y	Triathlon Spacer Block Shim (14mm)
6541-1-616Y	Triathlon Spacer Block Shim (16mm)
6541-1-619Y	Triathlon Spacer Block Shim (19mm)
6541-1-622Y	Triathlon Spacer Block Shim (22mm)

Triathlon® Pro

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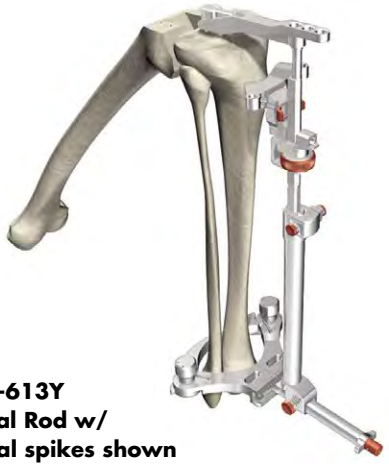

6541-2-613Y
Proximal Rod w/ proximal spikes shown

Figure 1

6541-2-614Y
Proximal Rod shown

Figure 2

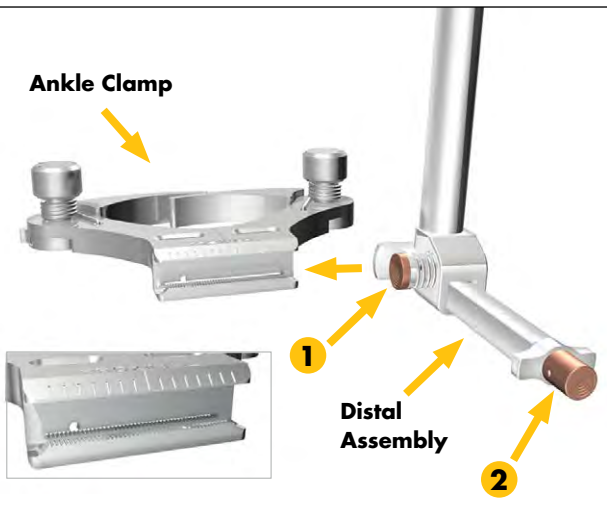

Figure 3

This publication sets forth detailed recommended procedures for using the Triathlon® Pro tibial preparation and tray. It offers guidance that you should heed, but, as with any such technical guide, each surgeon must consider the particular needs of each patient and make appropriate adjustments when and as required. This protocol addendum contains instructions for Triathlon Pro tibial preparation and tray only. Please refer to the Triathlon Knee System surgical protocol (TRIATH-SP-30) for the rest of the surgical steps and the Cleaning, Sterilization, Inspection and Maintenance of Reusable Medical Devices (LSTPI-B) for instruction for processing reusable surgical instruments manufactured by Stryker.

Tibial preparation

There are two options for tibial preparation: extramedullary (EM) referencing alignment and intramedullary (IM) referencing alignment.

The Tibial Resection Guide is available in captured and uncaptured, left and right configurations.

Option 1 – Extramedullary referencing

The Tibial Resection assembly has six parts: Tibial Alignment Ankle Clamp, Tibial Alignment Distal Assembly EM, Proximal Rod, Tibial Adjustment Housing, Tibial Stylus and Tibial Resection Guide. These are assembled as shown in **Figures 1-5**.

Note: Proximal Rod has two configurations, with proximal spikes **(Figure 1)** and without spikes **(Figure 2)**. If using the Proximal Rod with Proximal Spikes, ensure the Proximal Rod arm extends over the proximal tibia.

Press the bronze button (1) shown in **Figure 3** and advance the Distal Assembly forward approximately halfway.

Press the bronze button (2) shown in **Figure 3** of the Distal Assembly; slide the arm through the Ankle Clamp. Ensure that the side of the Ankle Clamp marked "PROXIMAL" is visible from above.

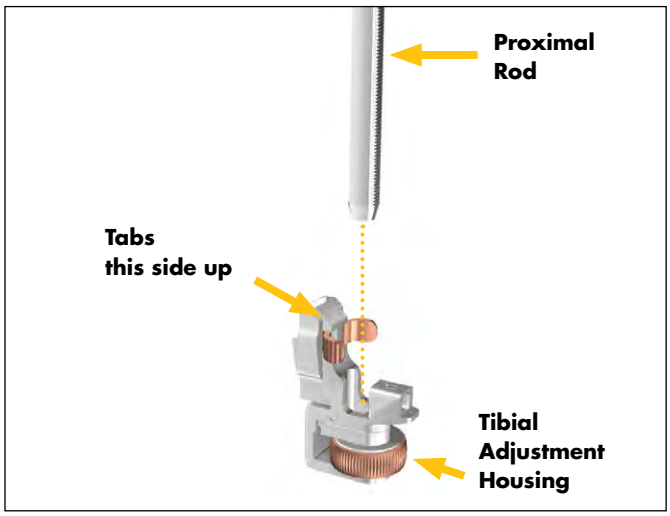

Figure 4

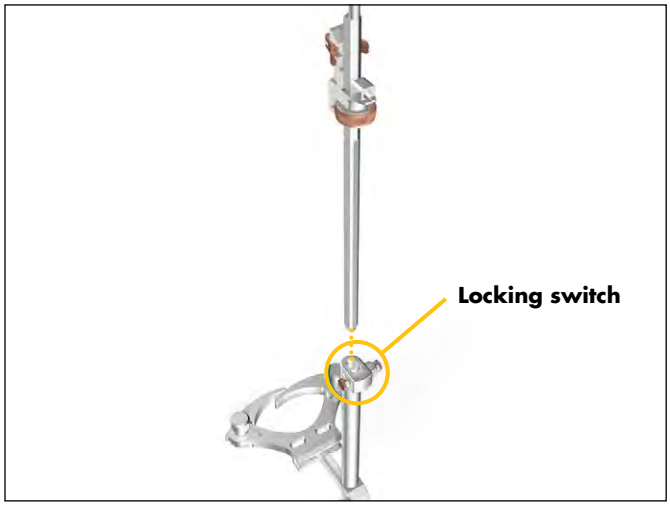

Figure 5

Press and hold the bronze wheel of the Tibial Adjustment Housing and insert the Proximal Rod from superior side. **(Figure 4)**

With the bronze wheel depressed, slide the Tibial Adjustment Housing towards the top of the Proximal Rod.

Release the bronze wheel to engage the teeth of the Proximal Rod and lock the Adjustment Housing in place.

Note: The Tibial Adjustment Housing is available in 0° slope and 3° slope. 0° slope is recommended for PS and 3° slope is recommended for CR/CS.

Ensure that the locking switch **(Figure 5)** of the Distal Assembly is in the unlocked position prior to insertion of the Proximal Rod and Tibial Adjustment Housing assembly.

Insert the Proximal Rod and Tibial Adjustment Housing assembly into the Distal Assembly as shown in **Figure 5**.

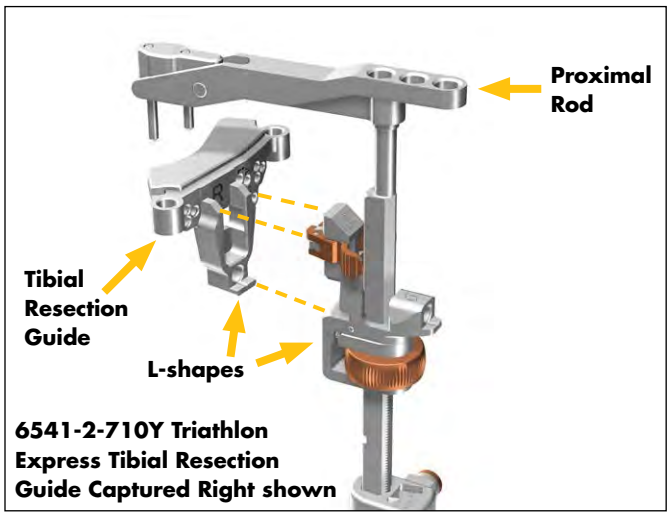

Figure 6

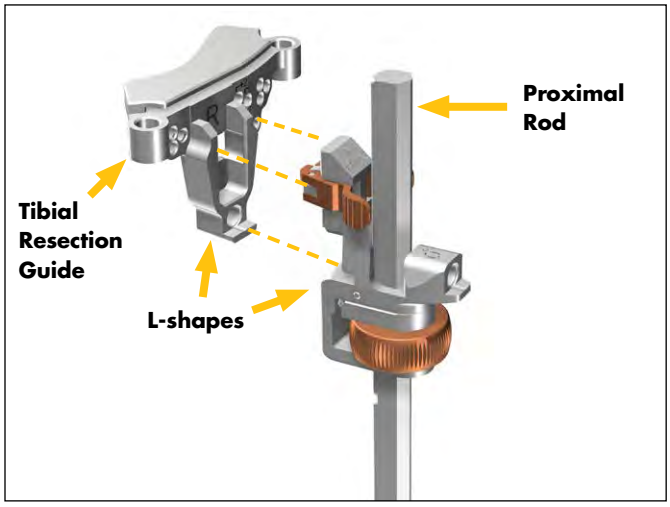

Figure 7

Squeeze the bronze tabs on the Tibial Adjustment Housing and assemble the captured or uncaptured Tibial Resection Guide as shown in **Figures 6-7**.

Release the bronze tabs on the Tibial Adjustment Housing and ensure that the Tibial Resection Guide is locked in place.

Note: Proximal Rod has two configurations, with proximal spikes **(Figure 6)** and without spikes **(Figure 7)**.

Tibial Resection Guides	Tibia Proximal Rods	
	Proximal Rod w/Spikes 6541-2-613Y	Proximal Rod w/o Spikes 6541-2-614Y
Triathlon Pro Tibial Resection Guide Uncaptured: 6541-2-700Y, 6541-2-701Y Captured: 6541-2-702Y, 6541-2-703Y	No	✓
Triathlon Express Tibial Resection Guide Uncaptured: 6541-2-700, 6541-2-701 Captured: 6541-2-710Y, 6541-2-710Y	✓	✓
MIS Tibial Cutting Guides Uncaptured: 6541-6-700, 6541-6-701	No	✓

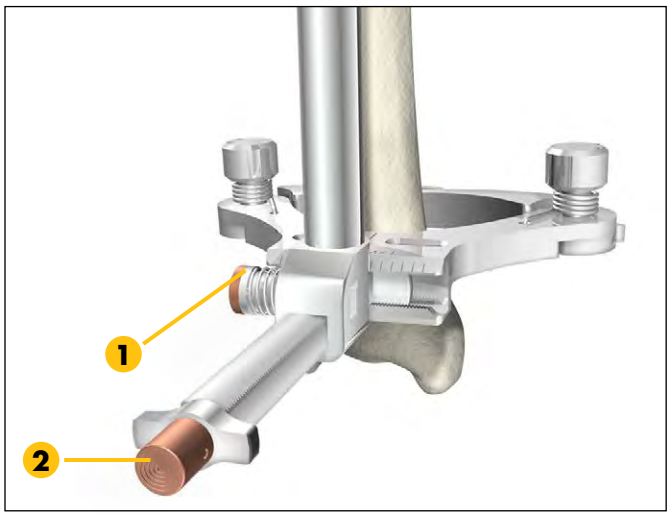

Figure 8

Flexion/extension alignment

Place the Ankle Clamp around the ankle.

Flexion/extension alignment is correct when the long axis of the assembly parallels the mid-coronal plane of the tibia. Flexion/extension alignment can be checked by verifying that the long axis of the assembly is parallel to the tibia.

Varus/valgus alignment

Medial/lateral offset can be adjusted by pushing the bronze button (2) and sliding the assembly medially until the shaft intersects the center of the tibia. **(Figure 8)**

Once triaxial alignment is achieved, release the bronze button.

Tibial slope adjustment

Note: If the Proximal Rod is parallel to the tibia, the slope is 0° or 3° depending on which Tibial Adjustment Housing is used.

Tibial slope can be adjusted by pressing the bronze button (1) and moving the Alignment Assembly anteriorly or posteriorly. **(Figure 8)**

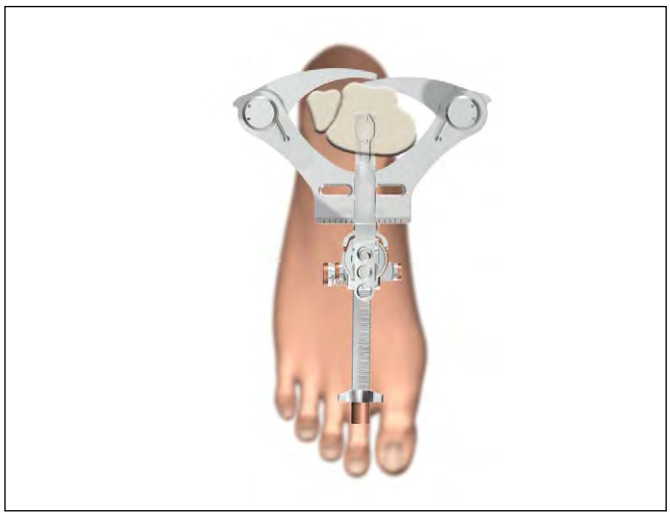

Figure 9

Rotational alignment

Rotate the entire assembly to ensure that the base of the assembly is aligned with the center of the ankle. The center of the ankle is generally in line with the second metatarsal **(Figure 9)**. Once alignment is confirmed, set the bronze locking switch on the Distal Assembly to the locked position.

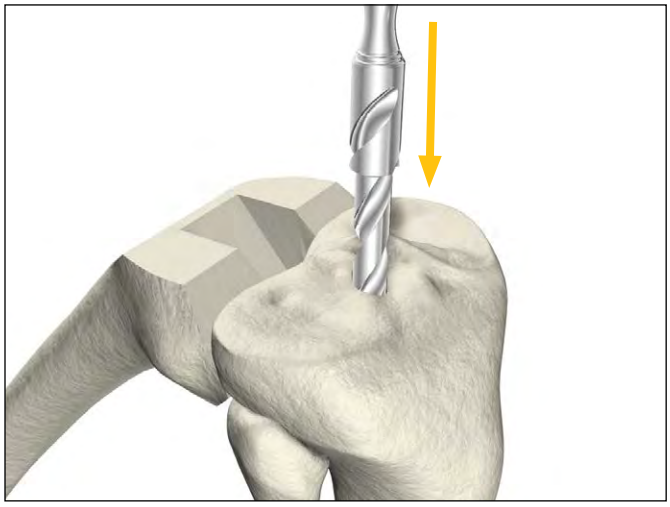

Figure 10

Option 2 – Intramedullary referencing

Attach the 3/8″ IM Drill to the Universal Driver and create a hole in the location determined by the preoperative X-rays. **(Figure 10)**

Figure 11

Attach the Rigid IM Rod to the T-Handle. Insert the Rigid IM Rod into the body of the Tibial Alignment Jig IM and slowly pass into the canal, ensuring clearance.

Remove the Rigid IM Rod and insert it into the body of the Tibial Alignment Jig IM. The assembly is then inserted into the canal beyond the isthmus. **(Figure 11)**

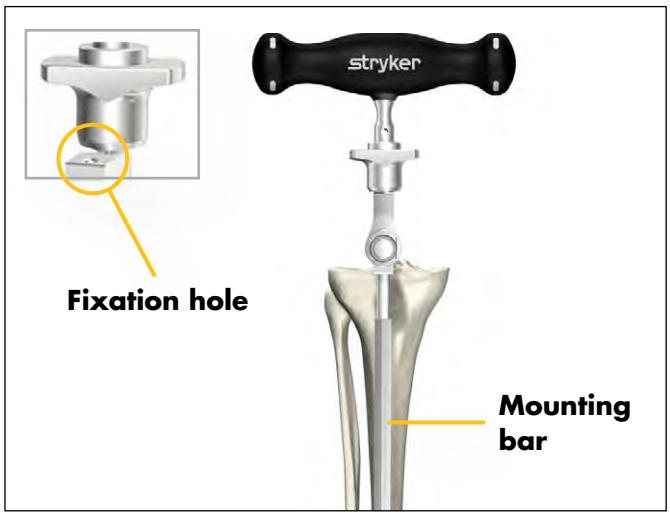

Figure 12

Rotational alignment

With the body of the Tibial Alignment Jig IM resting on the proximal tibia, proper rotational alignment is achieved by rotating the instrument about the Rigid IM Rod so that the vertical mounting bar is over the medial 1/3 of the tibial tubercle. A Headless Pin or the 1/8″ Drill is then inserted into the fixation hole to fix rotation. **(Figure 12)**

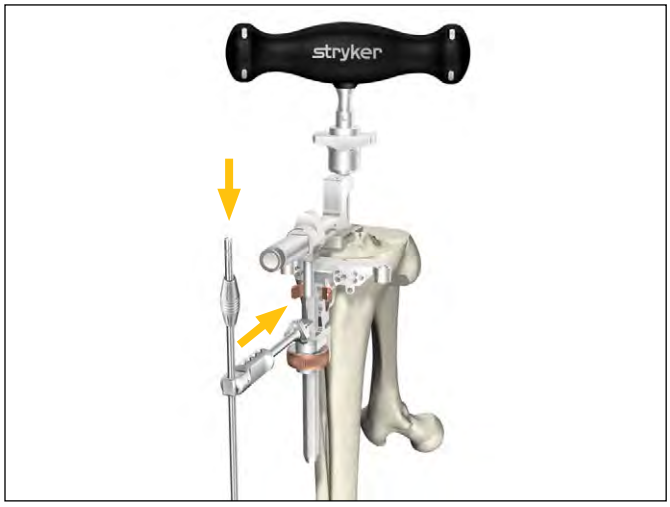

Figure 13

Varus/valgus alignment

Assemble the appropriate tibial resection guide (left, right) on the Tibial Adjustment Housing.

Note: The Tibial Adjustment Housing is available in 0° slope and 3° slope. 0° slope is recommended for PS, and 3° slope is recommended for CR/CS.

Attach the assembly onto the mounting bar by pressing the bronze wheel on the Tibial Adjustment Housing. Attach the Universal Alignment Handle to the Tibial Resection Guide and slide a Universal Alignment Rod through the handle for sagittal assessment. **(Figure 13)**

When alignment is confirmed, the Universal Alignment Handle should be centered over the ankle.

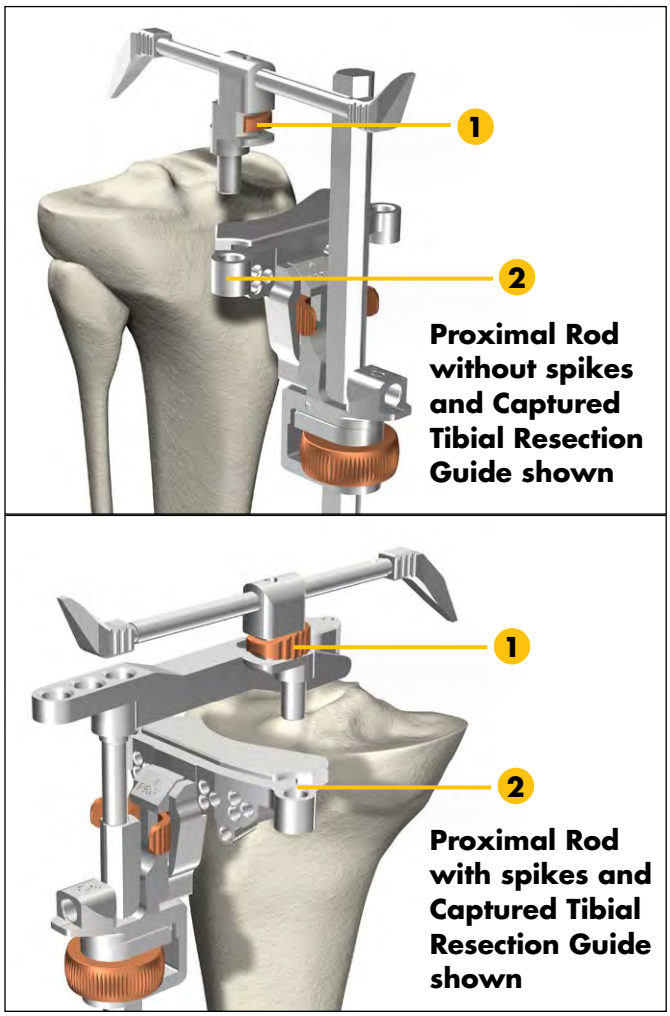

Figure 14

Establish tibial resection level (IM and EM)

Squeeze the bronze lever (1) of the Tibial Stylus and fully insert the post into either the medial or lateral hole (2) of the Tibial Resection Guide as shown in **Figure 14**.

Release the bronze lever to lock the Tibial Stylus in place.

Note: The low or dwell point of the tibial insert is approximately 2/3 posterior relative to the tibial plateau. Referencing 2/3 posterior can help determine a resection level closest to the implant thickness at that location. The less affected anatomy may be a more reliable location from which to determine the tibial resection. This location is generally 2/3 posterior in the lateral tibial compartment for varus knees. The space between the stylus hole and the stylus is limited laterally. Placing the stylus in the cutting guide laterally before attaching the cutting guide to the Tibial Adjustment Housing may make assembly easier for the lateral referencing method.

Attach the Tibial Stylus to the Tibial Resection Guide with the "9" end referencing the lowest level of the unaffected compartment.

9mm of bone will be resected. Alternatively, if the "2" end of the Tibial Stylus is used on the affected compartment, the amount of bone resected will be 2mm.

The height of the Tibial Resection Guide, Tibial Stylus and Tibial Adjustment Housing can be adjusted using the bronze wheel on the Tibial Adjustment Housing. For coarse adjustment, press the bronze wheel and slide the assembly up or down. For fine adjustment, turn the bronze wheel to the right to move the assembly up the Proximal Rod or turn left to move the assembly down the Proximal Rod. The height adjustment with each full turn of adjustment housing is approximately 1mm.

Note: Rotate bronze wheel one extra turn, as stylus should be under tension to ensure the minimum amount of bone necessary is resected.

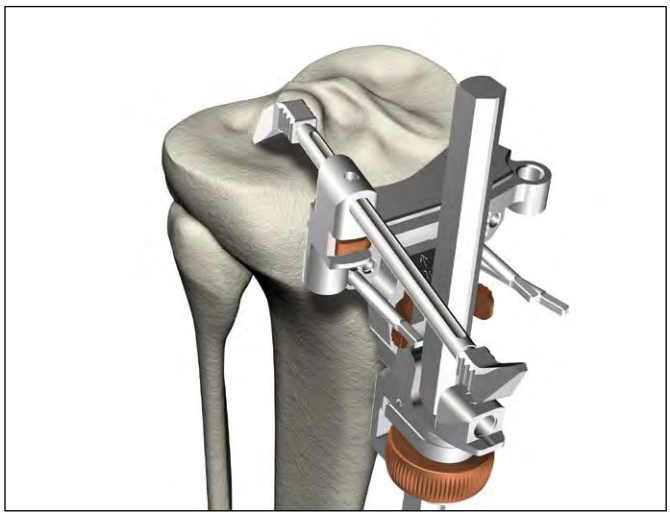

Figure 15

Once the resection level is established, secure the Tibial Resection Guide to the anterior tibia using the Headless Pins, drilling through the "0" holes. Pinning through the "X" pin-hole will further secure the Tibial Resection Guide to the tibia. **(Figure 15)**

Note: Tibia can be resected without removing assembly when Tibial Alignment Proximal Rod w/out Proximal Spikes is used.

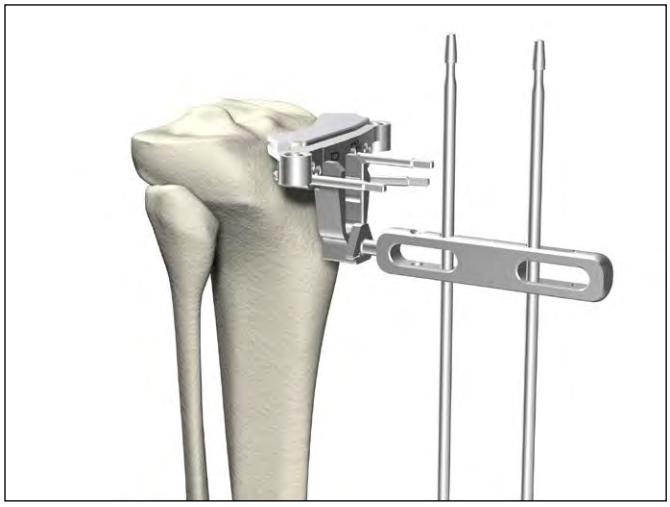

Figure 16

A secondary alignment check can be made by using Universal Alignment Handle and Universal Alignment Rod as shown in **Figure 16**. Universal Alignment Handle 0° and 3° holes are consistent with 0° or 3° Adjustment Housing to allow alignment check using Alignment Rods. Alignment Rods must be parallel to the sagittal axis of the tibia when the guide is set up at 0° and 3° posterior slope.

Remove all alignment instruments leaving only the Tibial Resection Guide in place.

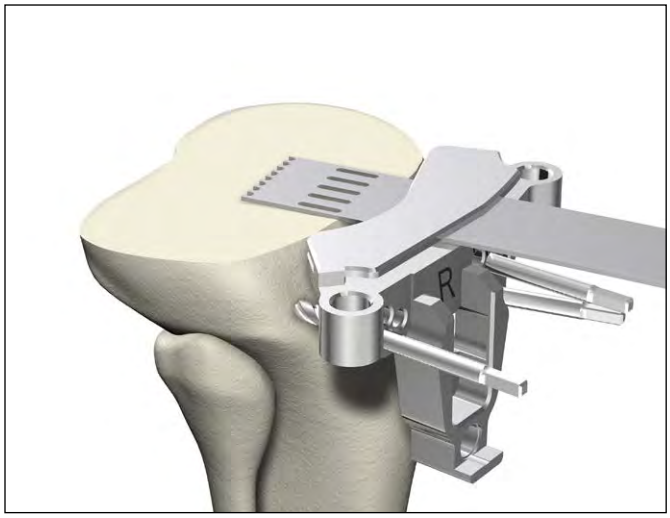

Figure 17

Tibial resection

Resect the proximal tibia. **(Figure 17)**

Note: If using a captured resection guide, a .050" thick blade must be used by inserting the blade into the slot on the Resection Guide.

Additional bone may be resected by repositioning the Tibial Resection Guide over the pins in the +2 or -2 holes to resect an additional 2mm or 4mm of bone, respectively.

Remove Tibial Resection Guide by removing pins using Headless Pin Extractor or Pin Puller.

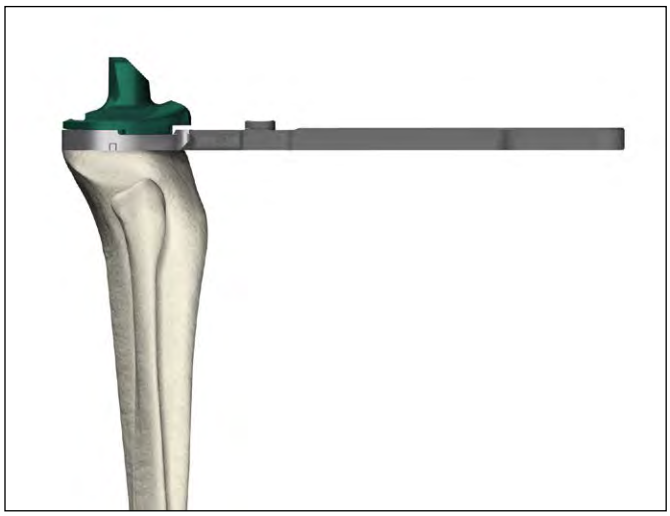

Figure 18

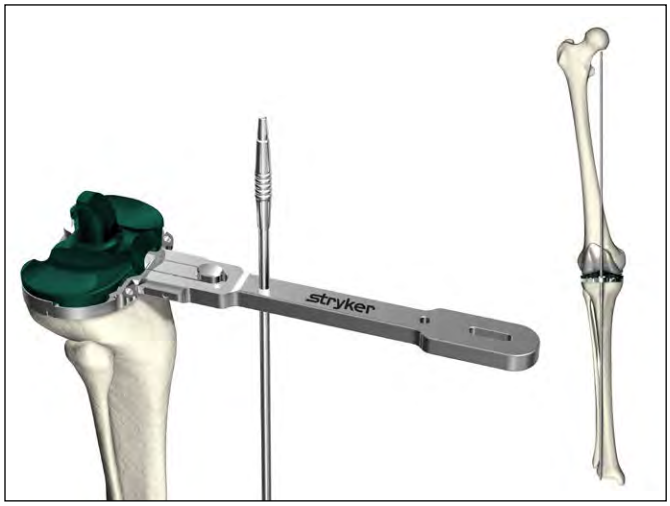

Figure 19

Please refer to the Triathlon® Spacer Blocks Surgical protocol addendum (TRIATH-SP-28) for instruction for gap assessment and balancing.

Tibial component sizing

The Tibial Alignment Handle, Tibial Template and Tibial Insert Trial are used to size the tibia, perform a trial reduction and assess overall component fit, ligament stability and joint range of motion.

Place the PS or CR Femoral Trial on the femur.

Draw the tibia anteriorly. Assemble a Tibial Template, Alignment Handle and a Tibial Insert Trial.

Place the assembly on the resected tibial plateau, and choose the size that best addresses rotation and coverage. **(Figure 18)**

Perform a trial reduction to assess overall component fit, ligament stability and joint range of motion.

Note: to increase ease of insertion of Tibial Insert Trial:

1. Ensure all excess debris (bone and soft tissue) is cleared from the Tibial Template.
2. Begin Insert Trial assembly with knee in flexion and manually push Insert Trial into place as knee is extended.

Note: If Headed Nails are placed in the anterior-vertical pin-holes (applicable only to sizes 3, 4, 5, 6, 7 and 8) of the Tibial Template, ensure that the Tibial Insert Trial is inserted posterior to the Headed Nails.

Note: Lightly impact the Tibial Insert Trial if required. In the event that excessive resistance is encountered during insertion of the Tibial Insert Trial, remove, reposition and reinsert the Tibial Insert Trial. Ensure all excess debris (bone and soft tissue) is cleared from the Tibial Template.

After trial reduction, the Tibial Insert Trial can be removed by hand or with the aid of a blunt instrument.

Overall leg alignment may be assessed by inserting Universal Alignment Rods into any of the two holes in the handle. The rods should be parallel to the mechanical axis of the leg in both the coronal (A/P) and sagittal (M/L) views. **(Figure 19)**

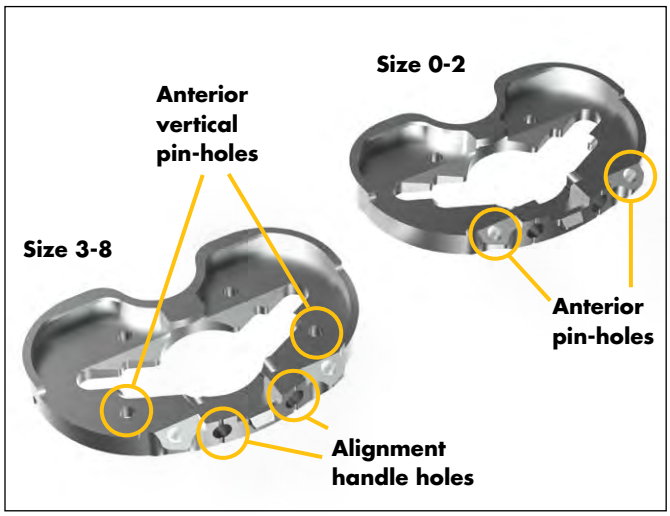

Figure 20

Once alignment and tibial component orientation is determined, the Tibial Template has multiple pin-holes that can be used to secure the template in the desired position. **(Figure 20)**

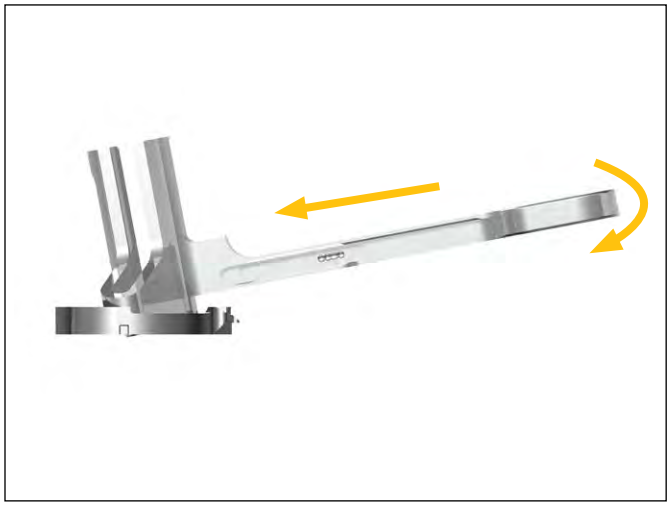

Figure 21

Tibial keel punching

Pin the Tibial Template to the tibial plateau using Headed Nails or Headless Pins.

Assemble the Keel Punch Guide to the Tibial Template by inserting at a slight angle to the top of the Tibial Template (into the locating tab toward the posterior portion of the Tibial Template). Allow the Keel Punch Guide to sit flat on the Tibial Template and push the slider forward on the handle to lock the Keel Punch Guide to the Tibial Template. **(Figures 21-22)**

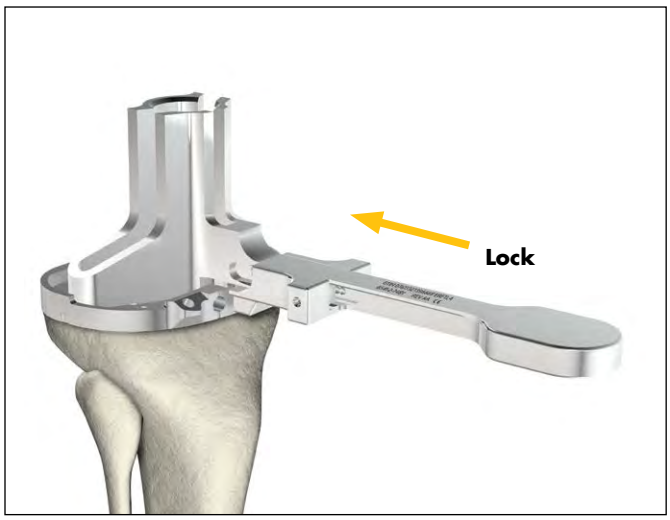

Figure 22

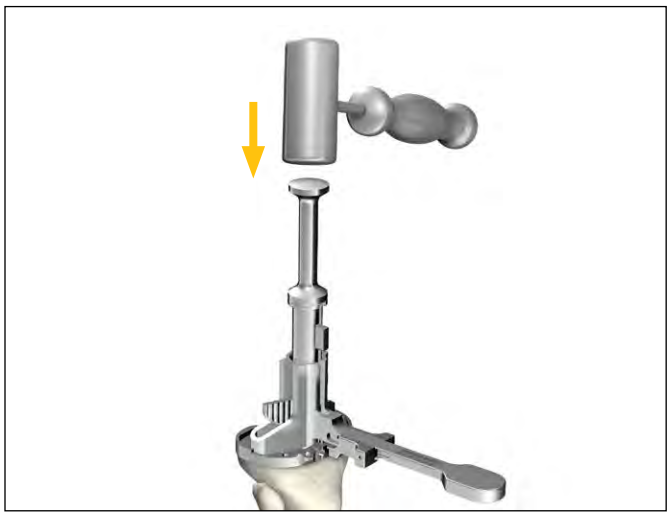

Figure 23

Place the appropriate Keel Punch into the Keel Punch Guide. Use a mallet to impact the Keel Punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide. **(Figure 23)**

Note: In rare cases with sclerotic bone, the use of a saw prior to the Keel Punch may be advisable. Do not use excessive impaction force.

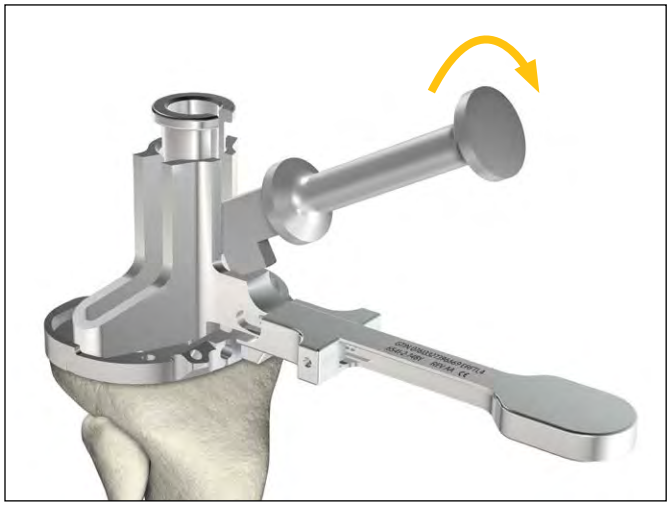

Figure 24

To extract the Keel Punch, lift up the Keel Punch handle and push down on the Keel Punch Guide to cantilever the Keel Punch out of the tibia as shown in **Figure 24**.

Remove the Headed Nails with the Headed Pin Impactor/Extractor (or Headless Pins with the Headless Pin Extractor or Pin Puller) and remove the Tibial Template.

Catalog

Catalog no.	Description	Quantity in tray
Triathlon Pro Miscellaneous Instruments tray contents		
6541-9-106	Triathlon Pro Miscellaneous Instruments Tray	1
6541-4-602	Alignment Rod	2
6541-4-300	Headed Pin Impactor/Extractor	1
6541-4-810	Impaction Handle	1
6541-4-807	Femoral Impactor/Extractor	1
6541-4-801	Universal Driver	1
6541-4-805	Baseplate Impactor	1
6541-4-806	Universal Alignment Handle	1
6541-7-806	4:1 Impactor/Extractor	1
6541-4-710	Osteophyte Removal Tool	1
6541-4-813	Tibial Insert Impactor	1
6541-4-812	Tibial Baseplate Impactor	1
6541-4-811	Femoral Impactor	1
6633-7-605	Pin Puller	1
6541-4-804	Headless Pin Extractor	Option in place of 6633-7-605
6541-9-006	Miscellaneous Caddy	1
6541-4-003A	Fluted Pin	4
6541-4-515	Headed Nails 1 1/2"	2
6541-4-575	Headed Nails 3/4"	2
6541-4-518	1/8" Peg Drill	1
6541-4-525	1/4" Peg Drill	1
6541-4-809	Pin Driver	1
		Total quantity 27

Catalog no.	Description	Quantity in tray
Triathlon Pro 4:1 & Spacer Blocks tray contents		
6541-9-107	Triathlon Pro 4:1 & Spacer Blocks Tray	1
6541-1-701E	Size #1 4-in-1 Cutting Block Captured	1
6541-1-702E	Size #2 4-in-1 Cutting Block Captured	1
6541-1-703E	Size #3 4-in-1 Cutting Block Captured	1
6541-1-704E	Size #4 4-in-1 Cutting Block Captured	1
6541-1-705E	Size #5 4-in-1 Cutting Block Captured	1
6541-1-706E	Size #6 4-in-1 Cutting Block Captured	1
6541-1-707E	Size #7 4-in-1 Cutting Block Captured	1
6541-1-708E	Size #8 4-in-1 Cutting Block Captured	1
6541-5-701	#1 MIS 4:1 Cutting Block	Option in place of 6541-1-701E
6541-5-702	#2 MIS 4:1 Cutting Block	Option in place of 6541-1-702E
6541-5-703	#3 MIS 4:1 Cutting Block	Option in place of 6541-1-703E
6541-5-704	#4 MIS 4:1 Cutting Block	Option in place of 6541-1-704E
6541-5-705	#5 MIS 4:1 Cutting Block	Option in place of 6541-1-705E
6541-5-706	#6 MIS 4:1 Cutting Block	Option in place of 6541-1-706E
6541-5-707	#7 MIS 4:1 Cutting Block	Option in place of 6541-1-707E
6541-5-708	#8 MIS 4:1 Cutting Block	Option in place of 6541-1-708E
6541-5-806	MIS 4:1 Modular Capture	Optional
6541-1-609Y	Triathlon Spacer Block (9/10mm)	1
6541-1-611Y	Triathlon Spacer Block (11/12mm)	1
6541-1-614Y	Triathlon Spacer Block Shim (14mm)	1
6541-1-616Y	Triathlon Spacer Block Shim (16mm)	1
6541-1-619Y	Triathlon Spacer Block Shim (19mm)	1
6541-1-622Y	Triathlon Spacer Block Shim (22mm)	1
		Total quantity 15

Catalog no.	Description	Quantity in tray
Triathlon Primary & Express Femoral Preparation tray contents		
6541-9-112	Triathlon Primary/Express Femoral Preparation Tray	1
6541-7-807	Femoral Trial Extractor	1
6541-4-800	T-Handle	1
6541-4-810	Impaction Handle	1
6541-4-825	Slip Torque Handle	Option in place of 6541-4-810
6541-4-516E	Triathlon Flex IM Rod	Option in place of 6541-4-516
6541-4-516	Triathlon Rigid IM Rod	1
6541-4-400	Blade Runner	1
6541-4-802	1/8" Hex Drive	1
7650-1033	IM Drill 3/8"	Option in place of 6541-4-538
6541-4-538*	IM Drill 3/8"	1
6541-1-721	Distal Resection Guide	1
6541-1-723	Distal Resection Guide Capture	1
6541-1-603	Femoral Sizer	1
6541-1-605	Femoral Stylus	1
6541-1-657	Femoral Alignment Guide	1
6541-1-600	Adjustment Block	1
6541-1-805	4:1 Strike Plate	1 - Optional
6541-4-808	Modular Handles (x2)	2 - Optional
		Total quantity 17

***Note:** 6541-4-538 IM Drill 3/8″ drill has a larger diameter at the connecting end that can enlarge the drill hole when the drill is inserted deepen into the bone.

Catalog no.	Description	Quantity in tray
Triathlon MIS Femoral Preparation tray contents		
6541-9-116	Triathlon MIS Femoral Preparation Tray	1
6541-7-807	Femoral Trial Extractor	1
6541-4-800	T-Handle	1
6541-4-825	Slip Torque Handle	1
6541-4-516E	Triathlon Flex IM Rod	1
6541-4-516	Triathlon Rigid IM Rod	Option in place of 6541-4-516E
6541-4-400	Blade Runner	1
6541-4-802	1/8" Hex Drive	1
7650-1033	IM Drill 3/8"	Option in place of 6541-4-538
6541-4-538	IM Drill 3/8"	1
6541-5-721	MIS Distal Resection Guide LT	1
6541-5-722	MIS Distal Resection Guide RT	1
6541-5-723	MIS Distal Resection Guide Capture	1
6541-5-500	MIS Femoral Sizer	1
6541-5-510	MIS Femoral Stylus	1
6541-5-508	MIS AP Sizer Body LT	1
6541-5-509	MIS AP Sizer Body RT	1
6541-5-629	MIS Femoral Alignment Guide	1
6541-5-601	MIS Adjustment Block	1
6541-5-610	MIS Femoral Navigation Stylus	1
6541-7-811	MIS Femoral Flexion Impactor	1
6541-7-812	Tibial Protector Plate SM	1
6541-7-813	Tibial Protector Plate MED	1
6541-7-814	Tibial Protector Plate LG	1
6541-7-815	Patella Protector Plate S/M	1
6541-7-816	Patella Protector Plate M/L	1
		Total quantity 24

Catalog no.	Description	Quantity in tray
Triathlon Pro Tibial Preparation tray contents		
6541-9-109	Triathlon Pro Tibial Preparation Tray	1
6541-2-609	Triathlon Ankle Clamp	1
6541-2-610	Triathlon Tibial Alignment Distal Assembly	1
6541-2-614Y	Triathlon Pro Tibial Alignment Proximal Rod w/out Proximal Spike	1
6541-2-613Y	Triathlon Pro Tibial Alignment Proximal Rod w/ Proximal Spikes	Option in place of 6541-2-614Y
6541-2-600	Triathlon Tibial Alignment IM Jig	Option in place of 6541-2-614Y
6541-4-516	Triathlon Rigid IM Rod	Option needed for IM Tibia Prep
6541-2-705	Tibial Adjustment Housing - 3° Slope	1
6541-2-704	Tibial Adjustment Housing - 0° Slope	1
6541-2-429Y	Triathlon Pro Tibial Stylus	1
6541-2-702Y	Triathlon Pro Tibial Resection Guide Captured RT	1
6541-2-703Y	Triathlon Pro Tibial Resection Guide Captured LT	1
6541-2-700Y	Triathlon Pro Tibial Resection Guide Uncaptured RT	Option in place of 6541-2-702Y
6541-2-701Y	Triathlon Pro Tibial Resection Guide Uncaptured LT	Option in place of 6541-2-703Y
6541-2-700	Triathlon Exp Tibial Resection Guide RT	Option in place of 6541-2-702Y
6541-2-701	Triathlon Exp Tibial Resection Guide LT	Option in place of 6541-2-703Y
6541-2-710Y	Triathlon Exp Tibial Resection Guide Captured RT	Option in place of 6541-2-702Y
6541-2-711Y	Triathlon Exp Tibial Resection Guide Captured LT	Option in place of 6541-2-703Y
6541-6-700	MIS Tibial Cutting Guide RT	Option in place of 6541-2-702Y
6541-6-701	MIS Tibial Cutting Guide LT	Option in place of 6541-2-703Y
6543-4-517	Tibial Boss Reamer	1
6541-2-013Y	Triathlon Keel Punch #0-3	1
6541-2-046	Triathlon Keel Punch #4-6	1
6541-2-078	Triathlon Keel Punch #7-8	1
6541-6-013Y	Triathlon Cementless Keel Punch #1-3	Option in place of 6541-2-013Y Triathlon Keel Punch #0-3
6541-6-046	Triathlon Cementless Keel Punch #4-6	Option in place of 6541-2-046
6541-6-078	Triathlon Cementless Keel Punch #7-8	Option in place of 6541-2-078
6541-2-713Y	Triathlon Pro Keel Punch Guide #0-3	1
6541-2-748Y	Triathlon Pro Keel Punch Guide #4-8	1
6541-2-807Y	Triathlon Pro Tibial Alignment Handle	1
6541-2-600Y	Triathlon Pro Tibial Template #0	Option in place of 6541-2-608Y
6541-2-601Y	Triathlon Pro Tibial Template #1	1
6541-2-602Y	Triathlon Pro Tibial Template #2	1
6541-2-603Y	Triathlon Pro Tibial Template #3	1
6541-2-604Y	Triathlon Pro Tibial Template #4	1
6541-2-605Y	Triathlon Pro Tibial Template #5	1
6541-2-606Y	Triathlon Pro Tibial Template #6	1
6541-2-607Y	Triathlon Pro Tibial Template #7	1
6541-2-608Y	Triathlon Pro Tibial Template #8	1
		Total quantity 24

Tibial Resection Guides	Tibia Proximal Rods	
	Proximal Rod w/Spikes 6541-2-613Y	**Proximal Rod w/o Spikes 6541-2-614Y**
Triathlon Pro Tibial Resection Guide Uncaptured: 6541-2-700Y, 6541-2-701Y Captured: 6541-2-702Y, 6541-2-703Y	No	✓
Triathlon Express Tibial Resection Guide Uncaptured: 6541-2-700, 6541-2-701 Captured: 6541-2-710Y, 6541-2-710Y	✓	✓
MIS Tibial Cutting Guides Uncaptured: 6541-6-700, 6541-6-701	No	✓

Catalog no.	Description	Quantity in tray
Triathlon Primary/Express/MIS Tibial Preparation tray contents		
6541-9-113	Triathlon Primary/Express/MIS Tibial Preparation Tray	1
6541-2-609	Triathlon Ankle Clamp	1
6541-2-610	Triathlon Tibial Alignment Distal Assembly	1
6541-2-611	Triathlon Tibial Alignment Proximal Rod w/ Proximal Spikes	1
6541-2-611E	Triathlon Tibial Alignment Proximal Rod w/out Proximal Spikes	Option in place of 6541-2-611
6541-6-611	Triathlon MIS Tibial Alignment Proximal Rod	Option in place of 6541-2-611
6541-2-600	Triathlon Tibial Alignment IM Jig	Option in place of 6541-2-611
6541-4-516	Triathlon Rigid IM Rod	Option needed for IM Tibia Prep
6541-2-705	Tibial Adjustment Housing - 3° Slope	1
6541-2-704	Tibial Adjustment Housing - 0° Slope	1
6541-2-429	Tibial Stylus	1
6541-2-700	Tibial Resection Guide RT	1
6541-2-701	Tibial Resection Guide LT	1
6541-2-710Y	Triathlon Exp Tibial Resection Guide Captured RT	Option in place of 6541-2-700
6541-2-711Y	Triathlon Exp Tibial Resection Guide Captured LT	Option in place of 6541-2-701
6541-6-700	MIS Tibial Cutting Guide RT	Option in place of 6541-2-700
6541-6-701	MIS Tibial Cutting Guide LT	Option in place of 6541-2-701
6541-2-013	Triathlon Keel Punch #1-3	1
6541-2-046	Triathlon Keel Punch #4-6	1
6541-2-078	Triathlon Keel Punch #7-8	1
6541-2-713	Triathlon Keel Punch Guide #1-3	1
6541-2-748	Triathlon Keel Punch Guide #4-8	1
6541-2-807	Triathlon Tibial Alignment Handle	1
6541-2-601	Triathlon Tibial Template #1	1
6541-2-602	Triathlon Tibial Template #2	1
6541-2-603	Triathlon Tibial Template #3	1
6541-2-604	Triathlon Tibial Template #4	1
6541-2-605	Triathlon Tibial Template #5	1
6541-2-606	Triathlon Tibial Template #6	1
6541-2-607	Triathlon Tibial Template #7	1
6541-2-608	Triathlon Tibial Template #8	1
6543-4-517	Tibial Boss Reamer	1
		Total quantity 24

Catalog no.	Description	Quantity in tray
Triathlon Pro Preparation Tray contents		
6541-9-110	Triathlon Pro Patella Preparation Tray	1
6633-7-744	Patella Clamp	1
6633-7-736	Patella Resection Guide - Slotted	1
7650-1454	Patella Caliper	1
6541-3-800E	Patella Cement Cap	1
6633-7-738	Patella Stylus	1
6541-3-522	Metal Backed Patella Drill	1
6541-3-524	All-Poly Patella Drill w/ Stop	1
6541-9-010	Patella Caddy	1
5550-T-278	Triathlon Patella Trials (Symmetric) - 27 x 8mm	1
5550-T-298	Triathlon Patella Trials (Symmetric) - 29 x 8mm	1
5550-T-319	Triathlon Patella Trials (Symmetric) - 31 x 9mm	1
5550-T-339	Triathlon Patella Trials (Symmetric) - 33 x 9mm	1
5550-T-360	Triathlon Patella Trials (Symmetric) - 36 x 10mm	1
5550-T-391	Triathlon Patella Trials (Symmetric) - 39 x 11mm	1
5551-T-299	Triathlon Patella Trials (Asymmetric) - 29 x 33 x 9mm	1
5551-T-320	Triathlon Patella Trials (Asymmetric) - 32 x 36 x 10mm	1
5551-T-350	Triathlon Patella Trials (Asymmetric) - 35 x 39 x 10mm	1
5551-T-381	Triathlon Patella Trials (Asymmetric) - 38 x 42 x 11mm	1
5551-T-401	Triathlon Patella Trials (Asymmetric) - 40 x 44 x 11mm	1
6541-3-627E	Symmetric Patella Drill Template - 27mm	1
6541-3-629E	Symmetric Patella Drill Template - 29mm	1
6541-3-631E	Symmetric Patella Drill Template - 31mm	1
6541-3-633E	Symmetric Patella Drill Template - 33mm	1
6541-3-636E	Symmetric Patella Drill Template - 36mm	1
6541-3-639E	Symmetric Patella Drill Template - 39mm	1
6541-3-617E	Asymmetric Patella Drill Template - 29mm	1
6541-3-618E	Asymmetric Patella Drill Template - 32mm	1
6541-3-619E	Asymmetric Patella Drill Template - 35mm	1
6541-3-620E	Asymmetric Patella Drill Template - 38mm	1
6541-3-621E	Asymmetric Patella Drill Template - 40mm	1
		Total quantity 31

Catalog no.	Description	Quantity in tray
Triathlon Primary/MIS Patella Preparation tray contents		
6541-9-114	Triathlon Primary/MIS Patella Preparation Tray	1
6541-3-600	Patella Clamp	1
6541-3-702	SM Patella Clamp Jaw RT	1
6541-3-703	SM Patella Clamp Jaw LT	1
6541-3-704	LG Patella Clamp Jaw RT	1
6541-3-705	LG Patella Clamp Jaw LT	1
6541-3-602	Patella Caliper	1
6541-3-800	Patella Cement Cap	1
6541-3-601	Patella Stylus	1
6541-3-522	Metal Backed Patella Drill	1
6541-3-524	All-Poly Patella Drill w/ Stop	1
6541-3-801	Patella Clamp Base	1
6541-9-014	Patella Primary/MIS Caddy	1
5550-T-278	Triathlon Patella Trials (Symmetric) - 27x8mm	1
5550-T-298	Triathlon Patella Trials (Symmetric) - 29x8mm	1
5550-T-319	Triathlon Patella Trials (Symmetric) - 31x9mm	1
5550-T-339	Triathlon Patella Trials (Symmetric) - 33x9mm	1
5550-T-360	Triathlon Patella Trials (Symmetric) - 36x10mm	1
5550-T-391	Triathlon Patella Trials (Symmetric) - 39x11mm	1
5551-T-299	Triathlon Patella Trials (Asymmetric) - 29x33x9mm	1
5551-T-320	Triathlon Patella Trials (Asymmetric) - 32x36x10mm	1
5551-T-350	Triathlon Patella Trials (Asymmetric) - 35x39x10mm	1
5551-T-381	Triathlon Patella Trials (Asymmetric) - 38x42x11mm	1
5551-T-401	Triathlon Patella Trials (Asymmetric) - 40x44x11mm	1
6541-3-627	Symmetric Patella Drill Template - 27mm	1
6541-3-629	Symmetric Patella Drill Template - 29mm	1
6541-3-631	Symmetric Patella Drill Template - 31mm	1
6541-3-633	Symmetric Patella Drill Template - 33mm	1
6541-3-636	Symmetric Patella Drill Template - 36mm	1
6541-3-639	Symmetric Patella Drill Template - 39mm	1
6541-3-617	Asymmetric Patella Drill Template - 29mm	1
6541-3-618	Asymmetric Patella Drill Template - 32mm	1
6541-3-619	Asymmetric Patella Drill Template - 35mm	1
6541-3-620	Asymmetric Patella Drill Template - 38mm	1
6541-3-621	Asymmetric Patella Drill Template - 40mm	1
		Total quantity 35

Catalog no.	Description	Quantity in tray
PS Box Cutting Guides (5515) Cross Over Tray		
6541-9-115	5515 PS Box Cutting Guides Tray	1
6541-1-711	Triathlon #1 PS Box Cutting Guide	1
6541-1-712	Triathlon #2 PS Box Cutting Guide	1
6541-1-713	Triathlon #3 PS Box Cutting Guide	1
6541-1-714	Triathlon #4 PS Box Cutting Guide	1
6541-1-715	Triathlon #5 PS Box Cutting Guide	1
6541-1-716	Triathlon #6 PS Box Cutting Guide	1
6541-1-717	Triathlon #7 PS Box Cutting Guide	1
6541-1-718	Triathlon #8 PS Box Cutting Guide	1
6541-5-212	Sizes 1-2 Triathlon PS Femoral Finishing Punch	1
6541-5-234	Sizes 3-4 Triathlon PS Femoral Finishing Punch	1
6541-5-256	Sizes 5-6 Triathlon PS Femoral Finishing Punch	1
6541-5-278	Sizes 7-8 Triathlon PS Femoral Finishing Punch	1
6541-5-711	Triathlon MIS #1 PS Box Cutting Guide	Option in place of 6541-1-711
6541-5-712	Triathlon MIS #2 PS Box Cutting Guide	Option in place of 6541-1-712
6541-5-713	Triathlon MIS #3 PS Box Cutting Guide	Option in place of 6541-1-713
6541-5-714	Triathlon MIS #4 PS Box Cutting Guide	Option in place of 6541-1-714
6541-5-715	Triathlon MIS #5 PS Box Cutting Guide	Option in place of 6541-1-715
6541-5-716	Triathlon MIS #6 PS Box Cutting Guide	Option in place of 6541-1-716
6541-5-717	Triathlon MIS #7 PS Box Cutting Guide	Option in place of 6541-1-717
6541-5-718	Triathlon MIS #8 PS Box Cutting Guide	Option in place of 6541-1-718
6541-4-709	Box Chisel	1
6541-5-814	Sizes 1-4 Triathlon PS Femoral Box Trial/Protector	1
6541-5-858	Sizes 5-8 Triathlon PS Femoral Box Trial/Protector	1
		Total quantity 16
5511 PS Femoral Trials Left Cross Over Tray		
6541-9-117	5511 PS Femoral Trials Left Tray	1
5511-T-101	Triathlon PS Femoral Trial #1 LT	1
5511-T-201	Triathlon PS Femoral Trial #2 LT	1
5511-T-301	Triathlon PS Femoral Trial #3 LT	1
5511-T-401	Triathlon PS Femoral Trial #4 LT	1
5511-T-501	Triathlon PS Femoral Trial #5 LT	1
5511-T-601	Triathlon PS Femoral Trial #6 LT	1
5511-T-701	Triathlon PS Femoral Trial #7 LT	1
5511-T-801	Triathlon PS Femoral Trial #8 LT	1
		Total quantity 9
5511 PS Femoral Trials Right Cross Over Tray		
6541-9-118	5511 PS Femoral Trials Right Tray	1
5511-T-102	Triathlon PS Femoral Trial #1 RT	1
5511-T-202	Triathlon PS Femoral Trial #2 RT	1
5511-T-302	Triathlon PS Femoral Trial #3 RT	1
5511-T-402	Triathlon PS Femoral Trial #4 RT	1
5511-T-502	Triathlon PS Femoral Trial #5 RT	1
5511-T-602	Triathlon PS Femoral Trial #6 RT	1
5511-T-702	Triathlon PS Femoral Trial #7 RT	1
5511-T-802	Triathlon PS Femoral Trial #8 RT	1
		Total quantity 9

Catalog no.	Description	Quantity in tray
Triathlon Pro Femoral Trials Left Tray		
6541-9-103	Triathlon Pro CR Femoral Trials Left Tray	1
5510-T-101	Triathlon CR Femoral Trial #1 LT	1
5510-T-201	Triathlon CR Femoral Trial #2 LT	1
5510-T-301	Triathlon CR Femoral Trial #3 LT	1
5510-T-401	Triathlon CR Femoral Trial #4 LT	1
5510-T-501	Triathlon CR Femoral Trial #5 LT	1
5510-T-601	Triathlon CR Femoral Trial #6 LT	1
5510-T-701	Triathlon CR Femoral Trial #7 LT	1
5510-T-801	Triathlon CR Femoral Trial #8 LT	1
		Total quantity 9
Triathlon Pro CR Femoral Trials Right Tray		
6541-9-104	Triathlon Pro CR Femoral Trials Right Tray	1
5510-T-102	Triathlon CR Femoral Trial #1 RT	1
5510-T-202	Triathlon CR Femoral Trial #2 RT	1
5510-T-302	Triathlon CR Femoral Trial #3 RT	1
5510-T-402	Triathlon CR Femoral Trial #4 RT	1
5510-T-502	Triathlon CR Femoral Trial #5 RT	1
5510-T-602	Triathlon CR Femoral Trial #6 RT	1
5510-T-702	Triathlon CR Femoral Trial #7 RT	1
5510-T-802	Triathlon CR Femoral Trial #8 RT	1
		Total quantity 9

Catalog no.	Description	Quantity in tray
Triathlon Pro CR Insert Trials Size 1-8 tray contents		
6541-9-100	Triathlon Pro CR Insert Trials Tray (Size 1-8)	1
5530-T-109Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 9mm	1
5530-T-110Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 10mm	1
5530-T-111Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 11mm	1
5530-T-112Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 12mm	1
5530-T-114Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 14mm	1
5530-T-116Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 16mm	1
5530-T-119Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 19mm	1
5530-T-209Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 9mm	1
5530-T-210Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 10mm	1
5530-T-211Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 11mm	1
5530-T-212Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 12mm	1
5530-T-214Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 14mm	1
5530-T-216Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 16mm	1
5530-T-219Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 19mm	1
5530-T-309Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 9mm	1
5530-T-310Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 10mm	1
5530-T-311Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 11mm	1
5530-T-312Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 12mm	1
5530-T-314Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 14mm	1
5530-T-316Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 16mm	1
5530-T-319Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 19mm	1
5530-T-409Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 9mm	1
5530-T-410Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 10mm	1
5530-T-411Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 11mm	1
5530-T-412Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 12mm	1
5530-T-414Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 14mm	1
5530-T-416Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 16mm	1
5530-T-419Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 19mm	1
5530-T-509Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 9mm	1
5530-T-510Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 10mm	1
5530-T-511Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 11mm	1
5530-T-512Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 12mm	1
5530-T-514Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 14mm	1
5530-T-516Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 16mm	1
5530-T-519Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 19mm	1
5530-T-609Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 9mm	1

Catalog no.	Description	Quantity in tray
Triathlon Pro CR Insert Trials Size 1-8 tray contents (continued)		
5530-T-610Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 10mm	1
5530-T-611Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 11mm	1
5530-T-612Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 12mm	1
5530-T-614Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 14mm	1
5530-T-616Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 16mm	1
5530-T-619Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 19mm	1
5530-T-709Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 9mm	1
5530-T-710Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 10mm	1
5530-T-711Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 11mm	1
5530-T-712Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 12mm	1
5530-T-714Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 14mm	1
5530-T-716Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 16mm	1
5530-T-719Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 19mm	1
5530-T-809Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 9mm	1
5530-T-810Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 10mm	1
5530-T-811Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 11mm	1
5530-T-812Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 12mm	1
5530-T-814Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 14mm	1
5530-T-816Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 16mm	1
5530-T-819Y	Triathlon Solid CR Tibial Insert Trial Size 8 - 19mm	1
		Total quantity 57

Note: 5530-T-X13Y (X=1-8) trials are available and compatible with the Triathlon Knee System

Catalog no.	Description	Quantity in tray
Triathlon Pro CS Insert Trials Size 1-8 tray contents		
6541-9-101	Triathlon Pro CS Insert Trials Tray (Size 1-8)	1
5531-T-109Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 9mm	1
5531-T-110Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 10mm	1
5531-T-111Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 11mm	1
5531-T-112Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 12mm	1
5531-T-114Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 14mm	1
5531-T-116Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 16mm	1
5531-T-119Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 19mm	1
5531-T-122Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 22mm	1
5531-T-209Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 9mm	1
5531-T-210Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 10mm	1
5531-T-211Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 11mm	1
5531-T-212Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 12mm	1
5531-T-214Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 14mm	1
5531-T-216Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 16mm	1
5531-T-219Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 19mm	1
5531-T-222Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 22mm	1
5531-T-309Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 9mm	1
5531-T-310Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 10mm	1
5531-T-311Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 11mm	1
5531-T-312Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 12mm	1
5531-T-314Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 14mm	1
5531-T-316Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 16mm	1
5531-T-319Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 19mm	1
5531-T-322Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 22mm	1
5531-T-409Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 9mm	1
5531-T-410Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 10mm	1
5531-T-411Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 11mm	1
5531-T-412Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 12mm	1
5531-T-414Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 14mm	1
5531-T-416Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 16mm	1
5531-T-419Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 19mm	1
5531-T-422Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 22mm	1
5531-T-509Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 9mm	1
5531-T-510Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 10mm	1
5531-T-511Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 11mm	1
5531-T-512Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 12mm	1

Catalog no.	Description	Quantity in tray
Triathlon Pro CS Insert Trials Size 1-8 tray contents (continued)		
5531-T-514Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 14mm	1
5531-T-516Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 16mm	1
5531-T-519Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 19mm	1
5531-T-522Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 22mm	1
5531-T-609Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 9mm	1
5531-T-610Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 10mm	1
5531-T-611Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 11mm	1
5531-T-612Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 12mm	1
5531-T-614Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 14mm	1
5531-T-616Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 16mm	1
5531-T-619Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 19mm	1
5531-T-622Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 22mm	1
5531-T-709Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 9mm	1
5531-T-710Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 10mm	1
5531-T-711Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 11mm	1
5531-T-712Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 12mm	1
5531-T-714Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 14mm	1
5531-T-716Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 16mm	1
5531-T-719Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 19mm	1
5531-T-722Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 22mm	1
5531-T-809Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 9mm	1
5531-T-810Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 10mm	1
5531-T-811Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 11mm	1
5531-T-812Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 12mm	1
5531-T-814Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 14mm	1
5531-T-816Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 16mm	1
5531-T-819Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 19mm	1
5531-T-822Y	Triathlon Solid CS Tibial Insert Trial Size 8 - 22mm	1
		Total quantity 65

Note: 5531-T-X13Y (X=1-8) trials are available and compatible with the Triathlon Knee System

Catalog no.	Description	Quantity in tray
Triathlon Pro PS Insert Trials Size 0-7 tray contents		
6541-9-202	Triathlon Pro PS Insert Trials Tray (Size 0-7)	1
5532-T-009Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 9mm	1
5532-T-010Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 10mm	1
5532-T-011Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 11mm	1
5532-T-012Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 12mm	1
5532-T-014Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 14mm	1
5532-T-016Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 16mm	1
5532-T-019Y	Triathlon Solid PS Tibial Insert Trial Size 0 - 19mm	1
5532-T-109Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 9mm	1
5532-T-110Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 10mm	1
5532-T-111Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 11mm	1
5532-T-112Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 12mm	1
5532-T-114Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 14mm	1
5532-T-116Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 16mm	1
5532-T-119Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 19mm	1
5532-T-122Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 22mm	1
5532-T-209Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 9mm	1
5532-T-210Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 10mm	1
5532-T-211Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 11mm	1
5532-T-212Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 12mm	1
5532-T-214Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 14mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-219Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 19mm	1
5532-T-222Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 22mm	1
5532-T-309Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 9mm	1
5532-T-310Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 10mm	1
5532-T-311Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 11mm	1
5532-T-312Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 12mm	1
5532-T-314Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 14mm	1
5532-T-316Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 16mm	1
5532-T-319Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 19mm	1
5532-T-322Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 22mm	1
5532-T-409Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 9mm	1
5532-T-410Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 10mm	1
5532-T-411Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 11mm	1
5532-T-412Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 12mm	1
5532-T-414Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 14mm	1

Note: PS tibia insert trial can be used for both PS and PSR insert

Catalog no.	Description	Quantity in tray
Triathlon Pro PS Insert Trials Size 0-7 tray contents		
5532-T-416Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 16mm	1
5532-T-419Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 19mm	1
5532-T-422Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 22mm	1
5532-T-509Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 9mm	1
5532-T-510Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 10mm	1
5532-T-511Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 11mm	1
5532-T-512Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 12mm	1
5532-T-514Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 14mm	1
5532-T-516Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 16mm	1
5532-T-519Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 19mm	1
5532-T-522Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 22mm	1
5532-T-609Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 9mm	1
5532-T-610Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 10mm	1
5532-T-611Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 11mm	1
5532-T-612Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 12mm	1
5532-T-614Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 14mm	1
5532-T-616Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 16mm	1
5532-T-619Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 19mm	1
5532-T-622Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 22mm	1
5532-T-709Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 9mm	1
5532-T-710Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 10mm	1
5532-T-711Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 11mm	1
5532-T-712Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 12mm	1
5532-T-714Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 14mm	1
5532-T-716Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 16mm	1
5532-T-719Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 19mm	1
5532-T-722Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 22mm	1
		Total quantity 64

Note: 5532-T-X13Y (X=1-7) trials are available and compatible with the Triathlon Knee System. PS tibia insert trial can be used for both PS and PSR insert.

Catalog no.	Description	Quantity in tray
Triathlon Pro CR Insert Trials Size 0-7 tray contents		
6541-9-200	Triathlon Pro CR Insert Trials Tray (Size 0-7)	1
5530-T-009Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 9mm	1
5530-T-010Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 10mm	1
5530-T-011Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 11mm	1
5530-T-012Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 12mm	1
5530-T-014Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 14mm	1
5530-T-016Y	Triathlon Solid CR Tibial Insert Trial Size 0 - 16mm	1
5530-T-109Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 9mm	1
5530-T-110Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 10mm	1
5530-T-111Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 11mm	1
5530-T-112Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 12mm	1
5530-T-114Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 14mm	1
5530-T-116Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 16mm	1
5530-T-119Y	Triathlon Solid CR Tibial Insert Trial Size 1 - 19mm	1
5530-T-209Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 9mm	1
5530-T-210Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 10mm	1
5530-T-211Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 11mm	1
5530-T-212Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 12mm	1
5530-T-214Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 14mm	1
5530-T-216Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 16mm	1
5530-T-219Y	Triathlon Solid CR Tibial Insert Trial Size 2 - 19mm	1
5530-T-309Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 9mm	1
5530-T-310Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 10mm	1
5530-T-311Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 11mm	1
5530-T-312Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 12mm	1
5530-T-314Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 14mm	1
5530-T-316Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 16mm	1
5530-T-319Y	Triathlon Solid CR Tibial Insert Trial Size 3 - 19mm	1
5530-T-409Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 9mm	1
5530-T-410Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 10mm	1
5530-T-411Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 11mm	1
5530-T-412Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 12mm	1
5530-T-414Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 14mm	1
5530-T-416Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 16mm	1
5530-T-419Y	Triathlon Solid CR Tibial Insert Trial Size 4 - 19mm	1
5530-T-509Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 9mm	1
5530-T-510Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 10mm	1

Catalog no.	Description	Quantity in tray
Triathlon Pro CR Insert Trials Size 0-7 tray contents (continued)		
5530-T-511Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 11mm	1
5530-T-512Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 12mm	1
5530-T-514Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 14mm	1
5530-T-516Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 16mm	1
5530-T-519Y	Triathlon Solid CR Tibial Insert Trial Size 5 - 19mm	1
5530-T-609Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 9mm	1
5530-T-610Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 10mm	1
5530-T-611Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 11mm	1
5530-T-612Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 12mm	1
5530-T-614Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 14mm	1
5530-T-616Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 16mm	1
5530-T-619Y	Triathlon Solid CR Tibial Insert Trial Size 6 - 19mm	1
5530-T-709Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 9mm	1
5530-T-710Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 10mm	1
5530-T-711Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 11mm	1
5530-T-712Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 12mm	1
5530-T-714Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 14mm	1
5530-T-716Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 16mm	1
5530-T-719Y	Triathlon Solid CR Tibial Insert Trial Size 7 - 19mm	1
		Total quantity 56

Note: 5530-T-X13Y (X=0-7) trials are available and compatible with the Triathlon Knee System

Catalog no.	Description	Quantity in tray
Triathlon Pro CS Insert Trials Size 0-7 tray contents		
6541-9-201	Triathlon Pro CS Insert Trials Tray (Size 0-7)	1
5531-T-009Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 9mm	1
5531-T-010Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 10mm	1
5531-T-011Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 11mm	1
5531-T-012Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 12mm	1
5531-T-014Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 14mm	1
5531-T-016Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 16mm	1
5531-T-019Y	Triathlon Solid CS Tibial Insert Trial Size 0 - 19mm	1
5531-T-109Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 9mm	1
5531-T-110Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 10mm	1
5531-T-111Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 11mm	1
5531-T-112Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 12mm	1
5531-T-114Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 14mm	1
5531-T-116Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 16mm	1
5531-T-119Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 19mm	1
5531-T-122Y	Triathlon Solid CS Tibial Insert Trial Size 1 - 22mm	1
5531-T-209Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 9mm	1
5531-T-210Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 10mm	1
5531-T-211Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 11mm	1
5531-T-212Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 12mm	1
5531-T-214Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 14mm	1
5531-T-216Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 16mm	1
5531-T-219Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 19mm	1
5531-T-222Y	Triathlon Solid CS Tibial Insert Trial Size 2 - 22mm	1
5531-T-309Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 9mm	1
5531-T-310Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 10mm	1
5531-T-311Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 11mm	1
5531-T-312Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 12mm	1
5531-T-314Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 14mm	1
5531-T-316Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 16mm	1
5531-T-319Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 19mm	1
5531-T-322Y	Triathlon Solid CS Tibial Insert Trial Size 3 - 22mm	1
5531-T-409Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 9mm	1
5531-T-410Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 10mm	1
5531-T-411Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 11mm	1
5531-T-412Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 12mm	1
5531-T-414Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 14mm	1

Catalog no.	Description	Quantity in tray
Triathlon Pro CS Insert Trials Size 0-7 tray contents (continued)		
5531-T-416Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 16mm	1
5531-T-419Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 19mm	1
5531-T-422Y	Triathlon Solid CS Tibial Insert Trial Size 4 - 22mm	1
5531-T-509Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 9mm	1
5531-T-510Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 10mm	1
5531-T-511Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 11mm	1
5531-T-512Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 12mm	1
5531-T-514Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 14mm	1
5531-T-516Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 16mm	1
5531-T-519Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 19mm	1
5531-T-522Y	Triathlon Solid CS Tibial Insert Trial Size 5 - 22mm	1
5531-T-609Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 9mm	1
5531-T-610Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 10mm	1
5531-T-611Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 11mm	1
5531-T-612Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 12mm	1
5531-T-614Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 14mm	1
5531-T-616Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 16mm	1
5531-T-619Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 19mm	1
5531-T-622Y	Triathlon Solid CS Tibial Insert Trial Size 6 - 22mm	1
5531-T-709Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 9mm	1
5531-T-710Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 10mm	1
5531-T-711Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 11mm	1
5531-T-712Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 12mm	1
5531-T-714Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 14mm	1
5531-T-716Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 16mm	1
5531-T-719Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 19mm	1
5531-T-722Y	Triathlon Solid CS Tibial Insert Trial Size 7 - 22mm	1
		Total quantity 64

Note: 5531-T-X13Y (X=0-7) trials are available and compatible with the Triathlon Knee System

Catalog no.	Description	Quantity in kit
Triathlon Pro PS Insert Trials Size 1-8 kit contents		
6541-9-102	Triathlon Pro PS Insert Trials Tray (Size 1-8)	1
5532-T-109Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 9mm	1
5532-T-110Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 10mm	1
5532-T-111Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 11mm	1
5532-T-112Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 12mm	1
5532-T-114Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 14mm	1
5532-T-116Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 16mm	1
5532-T-119Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 19mm	1
5532-T-122Y	Triathlon Solid PS Tibial Insert Trial Size 1 - 22mm	1
5532-T-209Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 9mm	1
5532-T-210Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 10mm	1
5532-T-211Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 11mm	1
5532-T-212Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 12mm	1
5532-T-214Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 14mm	1
5532-T-216Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 16mm	1
5532-T-219Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 19mm	1
5532-T-222Y	Triathlon Solid PS Tibial Insert Trial Size 2 - 22mm	1
5532-T-309Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 9mm	1
5532-T-310Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 10mm	1
5532-T-311Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 11mm	1
5532-T-312Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 12mm	1
5532-T-314Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 14mm	1
5532-T-316Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 16mm	1
5532-T-319Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 19mm	1
5532-T-322Y	Triathlon Solid PS Tibial Insert Trial Size 3 - 22mm	1
5532-T-409Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 9mm	1
5532-T-410Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 10mm	1
5532-T-411Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 11mm	1
5532-T-412Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 12mm	1
5532-T-414Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 14mm	1
5532-T-416Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 16mm	1
5532-T-419Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 19mm	1
5532-T-422Y	Triathlon Solid PS Tibial Insert Trial Size 4 - 22mm	1
5532-T-509Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 9mm	1
5532-T-510Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 10mm	1
5532-T-511Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 11mm	1
5532-T-512Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 12mm	1

Note: PS Tibial Insert Trial can be used for both PS and PSR insert

Catalog no.	Description	Quantity in tray
Triathlon Pro CS Insert Trials Size 0-7 tray contents (continued)		
5532-T-514Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 14mm	1
5532-T-516Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 16mm	1
5532-T-519Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 19mm	1
5532-T-522Y	Triathlon Solid PS Tibial Insert Trial Size 5 - 22mm	1
5532-T-609Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 9mm	1
5532-T-610Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 10mm	1
5532-T-611Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 11mm	1
5532-T-612Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 12mm	1
5532-T-614Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 14mm	1
5532-T-616Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 16mm	1
5532-T-619Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 19mm	1
5532-T-622Y	Triathlon Solid PS Tibial Insert Trial Size 6 - 22mm	1
5532-T-709Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 9mm	1
5532-T-710Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 10mm	1
5532-T-711Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 11mm	1
5532-T-712Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 12mm	1
5532-T-714Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 14mm	1
5532-T-716Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 16mm	1
5532-T-719Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 19mm	1
5532-T-722Y	Triathlon Solid PS Tibial Insert Trial Size 7 - 22mm	1
5532-T-809Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 9mm	1
5532-T-810Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 10mm	1
5532-T-811Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 11mm	1
5532-T-812Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 12mm	1
5532-T-814Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 14mm	1
5532-T-816Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 16mm	1
5532-T-819Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 19mm	1
5532-T-822Y	Triathlon Solid PS Tibial Insert Trial Size 8 - 22mm	1
		Total quantity 65

Note: 5532-T-X13Y (X=1-8) trials are available and compatible with the Triathlon Knee System. PS Tibial Insert Trial can be used for both PS and PSR insert

Catalog no.	Description	Sizes	Quantity
Triathlon Tritanium Baseplate			
5536-B-X00	Triathlon Tritanium Baseplate	X = 0,1,2,3,4,5,6,7 and 8	1 each size

Note: Each Triathlon Tritanium Baseplate will be provided packaged together with an Impactor Pad (6541-4-901) which is required during the tibial baseplate impaction step and discarded immediately after. Tritanium Peg Drill Templates Size 0-8 are available for each corresponding sizes of the Triathlon Tritanium Baseplates. Size 0 Tritanium Peg Drill Template (6541-2-640Y) is available for Tritanium Size 0 baseplate but does not fit in a tray.

Triathlon Primary Tibial Baseplate			
5520-B-X00	Primary Tibial Baseplate - Cemented	X = 0,1,2,3,4,5,6,7 and 8	1 each size

Triathlon CR Tibial Inserts – Conventional Polyethylene and X3 part numbers

Conventional Polyethylene Inserts			
5530-P-X09	Triathlon CR Tibial Insert – Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X10	Triathlon CR Tibial Insert – Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X11	Triathlon CR Tibial Insert – Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X12	Triathlon CR Tibial Insert – Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X14	Triathlon CR Tibial Insert – Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X16	Triathlon CR Tibial Insert – Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5530-P-X19	Triathlon CR Tibial Insert – Conventional Polyethylene 19mm	X = 1,2,3,4,5,6,7 and 8	1 each size

Note: 5530-P-X13 (X=1-8) CR Tibial Inserts are available and compatible with the Triathlon Knee System

X3 Inserts			
5530-G-X09-E	Triathlon CR Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X10-E	Triathlon CR Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X11-E	Triathlon CR Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X12-E	Triathlon CR Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X14-E	Triathlon CR Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X16-E	Triathlon CR Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5530-G-X19-E	Triathlon CR Tibial Insert – X3 19mm	X = 1,2,3,4,5,6,7 and 8	1 each size

Note: 5530-G-X13-E (X=1-8) CR Tibial Inserts are available and compatible with the Triathlon Knee System

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Catalog no.	Description	Sizes	Quantity
Triathlon CS Tibial Inserts – Conventional Polyethylene and X3 part numbers			
Conventional Polyethylene Inserts			
5531-P-X09	Triathlon CS Tibial Insert – Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X10	Triathlon CS Tibial Insert – Conventional Polyethylene 10mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X11	Triathlon CS Tibial Insert – Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X12	Triathlon CS Tibial Insert – Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X14	Triathlon CS Tibial Insert – Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X16	Triathlon CS Tibial Insert – Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X19	Triathlon CS Tibial Insert – Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5531-P-X22	Triathlon CS Tibial Insert – Conventional Polyethylene 22mm	X = 1,2,3,4,5,6,7 and 8	1 each size

Note: 5531-P-X13 (X=1-8) CS Tibial Inserts are available and compatible with the Triathlon Knee System.

X3 Inserts			
5531-G-X09-E	Triathlon CS Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X10-E	Triathlon CS Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X11-E	Triathlon CS Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X12-E	Triathlon CS Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X14-E	Triathlon CS Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X16-E	Triathlon CS Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X19-E	Triathlon CS Tibial Insert – X3 19mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5531-G-X22-E	Triathlon CS Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7 and 8	1 each size

Note: 5531-G-X13-E (X=1-8) CS Tibial Inserts are available and compatible with the Triathlon Knee System

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Catalog no.	Description	Sizes	Quantity
Triathlon PS Tibial Inserts – Conventional Polyethylene and X3 Part Numbers			
Conventional Polyethylene Inserts			
5532-P-X09	Triathlon PS Tibial Insert – Conventional Polyethylene 9mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X11	Triathlon PS Tibial Insert – Conventional Polyethylene 11mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X12	Triathlon PS Tibial Insert – Conventional Polyethylene 12mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X14	Triathlon PS Tibial Insert – Conventional Polyethylene 14mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X16	Triathlon PS Tibial Insert – Conventional Polyethylene 16mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X19	Triathlon PS Tibial Insert – Conventional Polyethylene 19mm	X = 0*,1,2,3,4,5,6,7 and 8	1 each size
5532-P-X10	Triathlon PS Tibial Insert – Conventional Polyethylene 10mm	X = 1,2,3,4,5,6,7 and 8	1 each size
Note: 5532-P-X13 (X=1-8) PS Tibial Inserts are available and compatible with the Triathlon Knee System			
X3 Inserts			
5532-G-X09-E	Triathlon PS Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X10-E	Triathlon PS Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X11-E	Triathlon PS Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X12-E	Triathlon PS Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X14-E	Triathlon PS Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X16-E	Triathlon PS Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X19-E	Triathlon PS Tibial Insert – X3 19mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
5532-G-X22-E	Triathlon PS Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7 and 8	
Note: 5532-G-X13-E (X=1-8) PS Tibial Inserts are available and compatible with the Triathlon Knee System			
Triathlon PSR Tibial Inserts – X3 Part Numbers			
8532-G-X09-E	Triathlon PSR Tibial Insert – X3 9mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X10-E	Triathlon PSR Tibial Insert – X3 10mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X11-E	Triathlon PSR Tibial Insert – X3 11mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X12-E	Triathlon PSR Tibial Insert – X3 12mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X14-E	Triathlon PSR Tibial Insert – X3 14mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X16-E	Triathlon PSR Tibial Insert – X3 16mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X19-E	Triathlon PSR Tibial Insert – X3 19mm	X = 0,1,2,3,4,5,6,7 and 8	1 each size
8532-G-X22-E	Triathlon PSR Tibial Insert – X3 22mm	X = 1,2,3,4,5,6,7 and 8	1 each size

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