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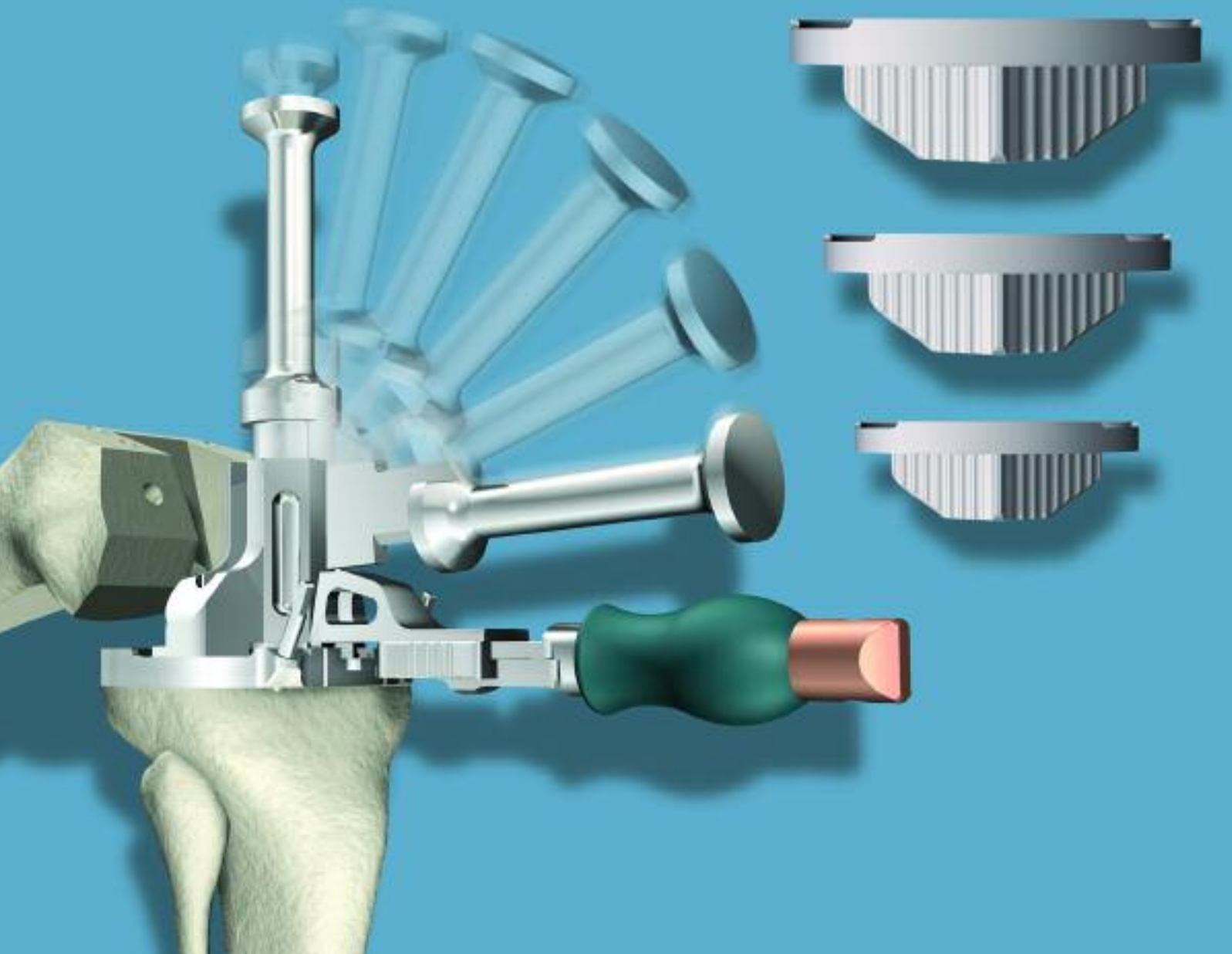
Orthopaedics

# Triathlon Knee System

## Low Profile Tibial Baseplate Surgical Protocol



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# Triathlon Knee System

## Low Profile Tibial Baseplate Surgical Protocol

*Figure 1*

For information on full component implantation, please refer to the **Triathlon Knee System MIS PR Surgical Protocol (LTMIS-ST)** or the **Triathlon AR Surgical Protocol (LSPK45)**.

### *Tibial Keel Punching*

- Position the Universal Tibial Template with appropriate rotation and pin in position. Ensure that the 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 2*

- Place the appropriate size Keel Punch 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 ensuring that it is flat against the bone.

*Figure 3*

- 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.

## Component Implantation

***Low Profile Tibial Baseplate***
***Standard: Flexion Technique, Cemented Only***

- In many cases, insertion may be performed with minimal or no subluxation of the tibia.
- Connect the Low Profile 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.
- Apply cement to both baseplate and keel.


*Figure 4*

- 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.

*Figure 5*

- 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.

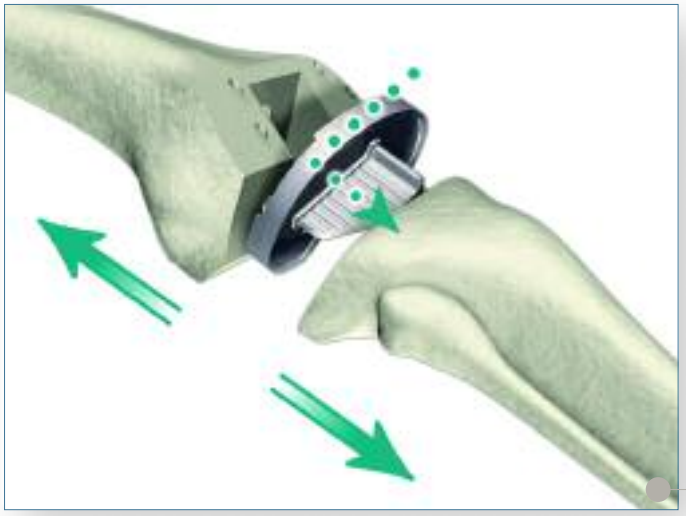

*Figure 6*

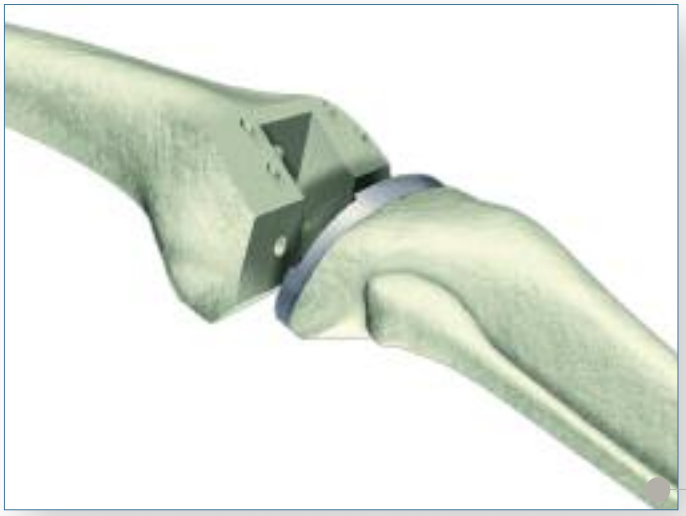

*Figure 7*

## Component Implantation

***Low Profile Tibial Baseplate***

***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.
- Apply cement to both baseplate and keel.
- 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 more fully.

# Instrument Bar

Sizes 1-3 - **6541-2-113**
Sizes 4-6 - **6541-2-146**
Sizes 7-8 - **6541-2-178**

Low Profile Keel Punch

# 1 - **5520-M-100**
# 2 - **5520-M-200**
# 3 - **5520-M-300**
# 4 - **5520-M-400**
# 5 - **5520-M-500**
# 6 - **5520-M-600**
# 7 - **5520-M-700**
# 8 - **5520-M-800**

Low Profile Tibial Baseplate

**6541-4-810**

Impaction Handle

**6541-4-811**

Femoral Impactor

**6541-4-805**

Baseplate Impactor/Extractor

Sizes 1, 2, 3 - **6541-2-713**
Sizes 4, 5, 6, 7, 8 - **6541-2-748**

Keel Punch Guide

# 1 - **6541-1-601**
# 2 - **6541-1-602**
# 3 - **6541-1-603**
# 4 - **6541-1-604**
# 5 - **6541-1-605**
# 6 - **6541-1-606**
# 7 - **6541-1-607**
# 8 - **6541-1-608**

Universal Tibial Template

*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 MIS 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.

**Indications**
- Painful, disabling joint disease of the knee resulting from degenerative arthritis, 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.

**Contraindications**
- Any active or suspected latent infection in or about the knee joint.
- 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.
- Obesity. An overweight or obese patient can produce loads on the prosthesis which can lead to failure of the fixation of the device or to failure of the device itself.
- The use of bone augments with low profile tibial baseplates are contraindicated.

**See package insert for warnings, precautions, adverse effects and other essential product information.**

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