

A close-up photograph of a knee joint prosthesis. The image shows the intricate mechanical components, including a dark grey femoral component with a textured surface and a white tibial component. The femoral component has a complex, curved shape with a central groove. The tibial component is white and has a smooth surface. The background is white, highlighting the metallic and plastic parts of the implant.

Proven performance meets
continuous innovation

 **smith&nephew**
GENESIS[®] II
Total Knee System

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GENESIS[◇] II Total Knee System

GENESIS II is a comprehensive total knee system that matches the system to surgeon preference with an extensive offering of implant and instrumentation options, including a proven, user friendly MIS system. Launched in 1996, the GENESIS II Total Knee System was ahead of its time in addressing key clinical issues, such as patellar tracking, wear reduction, and bone conservation. However, as the system continues to evolve with new instrument and implant options, it truly is the best of both worlds – a TKR line with a proven track record AND an updated system offering.



The GENESIS[◇] II Femoral Component

Bone conserving

Posterior-stabilized component takes less bone than competitive systems¹

Decreased fiddle factor

GENESIS II takes the guesswork out of external rotation by balancing the flexion/extension space by using asymmetric posterior condyles. Added benefits are centralized patella tracking in deep flexion and femorotibial congruency throughout range of motion²



Flexion friendly

Tightly radiused posterior condyles allow for deeper flexion without the risk of edge loading or excessive collateral ligament tension



Better patella tracking

Lateralized trochlear groove with S-curve at base funnels patellar toward the midline for better patella tracking in deep flexion

Wear reduction

GENESIS II non-porous femoral components are available in OXINIUM[◇] Oxidized Zirconium, the only advanced bearing for TKR. OXINIUM material has been shown to reduce wear up to 89% over CoCr³ in lab testing



Midline

GENESIS[◇] II Tibial Baseplates

Better tibial coverage

Asymmetric shape matches the anatomy of the tibia⁴, eliminating the need for undersizing, which can lead to posterior medial wear, or oversizing/baseplate overhang



Modularity and backside wear reduction

No need to get locked in a (mono) block. Modular baseplates have proven locking mechanism with anterior and posterior dovetail to reduce micromotion; highly polished baseplate decreases backside wear



Standard Baseplate

Natural alignment

Medialized stem aligns with center of canal



MIS Baseplate

MIS-Specific

For MIS procedures or difficult exposures, the MIS Baseplate allows for less soft tissue strain and works with CR and PS components

GENESIS[◇] II Tibial Inserts and Patellae

Flexion up to 155°

PS High Flex and CR Deep Flex safely support flexion up to 155°



CR Deep Flex Insert



PS High Flex Insert

Wear reduction

GENESIS II polyethylene is machine-compression-molded and sterilized using a non-degrading sterilization method to reduce the possibility of oxidation in vivo

Extensive options

GENESIS II tibial insert options include CR, CR Deep Flex, PS, PS High Flex, and Dished for more A-P stability. Patellar implant choices include round and oval resurfacing and biconvex patellae



Oval Resurfacing Patella



Biconvex Patella



Round Resurfacing Patella

GENESIS[◇] II Instrumentation

Surgeon Preference

Surgeon choice of large or small block instrument sets. Femoral Instrumentation available in Anterior Cut First or Distal Cut First. Tibial instrumentation available in extra or intra-medullary. Patellar preparation can be accomplished with a resection guide, reamer, large reamer or freehand.



DCF Valgus Alignment Guide

Improved Visualization

Low-profile, tissue-friendly cutting blocks work with both standard and MIS exposures



AP Cutting Block

Intraoperative Flexibility

Distal Cut First Sizing Guide allows for anterior or posterior referencing within Distal Cut First system for exact femoral component placement

Intraoperative Ease

Conversion to posterior-stabilized component in one step



DCF Sizing Guide

References

- ¹ Haas, S.D.; Nelson, C.L.; Laskin, R.S. Posterior Stabilized Arthroplasty: An Assessment of Bone Resection. *The Knee* 7 (2000) 25-29
- ² Kaper, BP; Woolfrey, M; Bourne, RB: The Effect of Built-In External Rotation on Patellofemoral Tracking in the GENESIS II Total Knee Arthroplasty. *J Arthroplasty* 15: 964-969, December 2000.
- ³ Hunter, G; Long, M.: Abrasive Wear of Oxidized Zr-2.5Nb, CoCrMo, and Ti-6Al-4v against Bone Cement. 6th World Biomaterials Cong. Trans., Society for Biomaterials, 2000, p. 835.
- ⁴ Westich, GH; Laskin, RS; Haas, SB; Sculco, TD: Resection Specimen Analysis of Tibial Coverage in Total Knee Arthroplasty. *Clinical Orthopaedics and Related Research*, #309, December 1994.

Orthopaedics

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