



Mechanical axis alignment

Zimmer Patient Specific Instruments are based upon the clinically proven principles of mechanical axis alignment. Alignment in total knee arthroplasty remains a crucial factor in the function and longevity of the replacement joint. Studies demonstrate that malalignment causes increased wear of the implant and premature failure of the construct.¹ Zimmer Patient Specific Instruments combine advancements in instrument technology with proven orthopaedic alignment principles to help ensure surgeon and patient success.

Revolutionary instruments with revolutionary implants

Combining Patient Specific Instruments and individualized implant options with industry-firsts such as *Gender Solutions™* Knees and High Flexion technologies, Zimmer now provides even greater solutions for your patients.

Other industry firsts include:

- MIS procedures
- *Trabecular Metal™* Technology
- *Prolong®* Highly Crosslinked Polyethylene



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1. Eckhoff, Donald. Three Dimensional Mechanics, Kinematics and Morphology of the Knee Viewed in Virtual Reality. JBJS. 2005; 87:71-80.

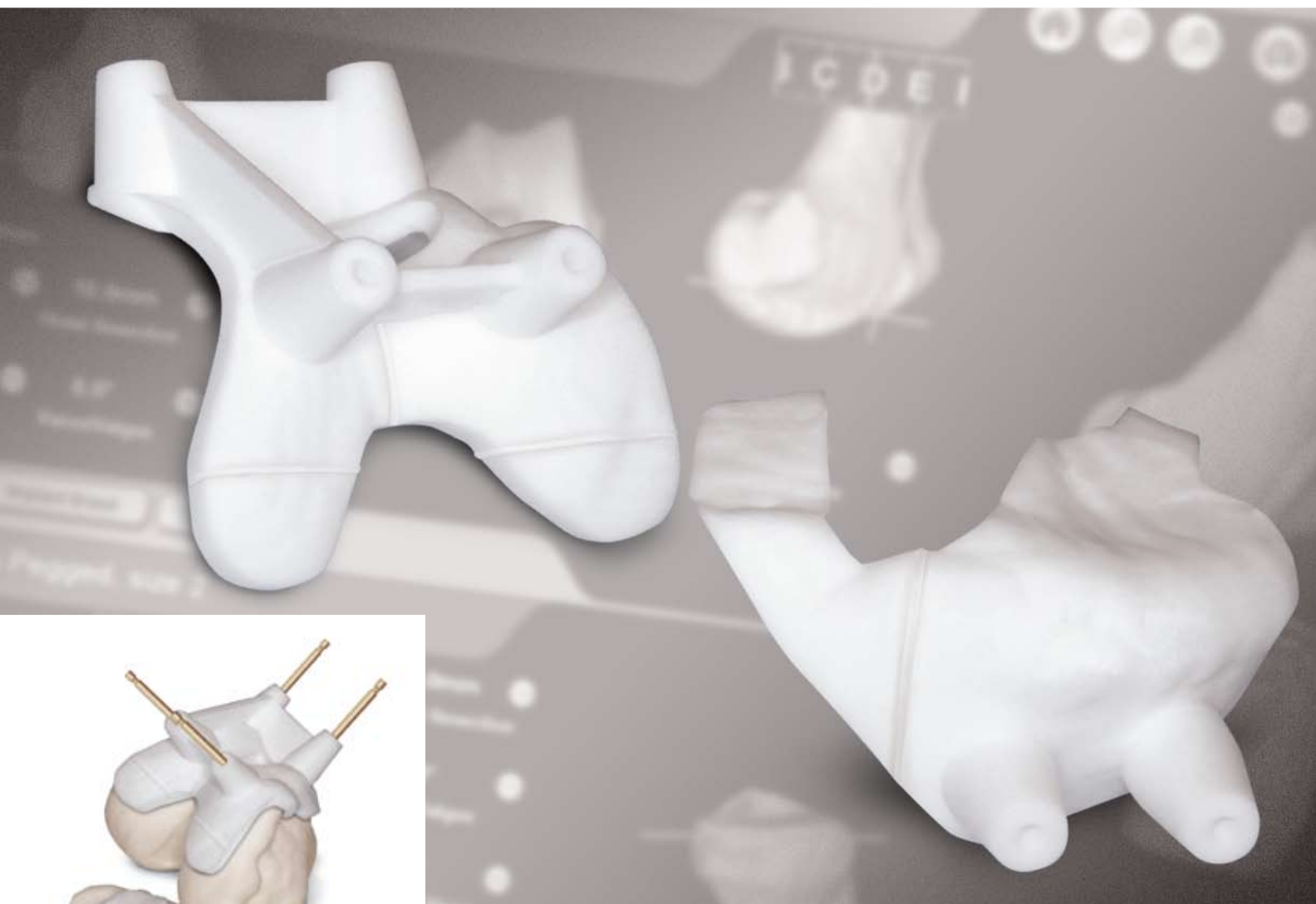
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97-5970-801-00 0912-K01 7.5ML Printed in USA ©2009 Zimmer, Inc.



Zimmer®
Patient
Specific
Instruments



The fit you can feel



The fit you can feel

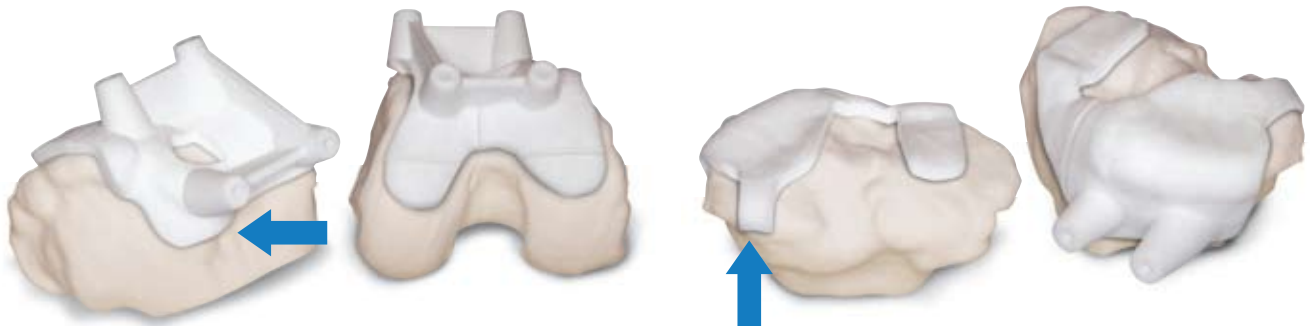
Zimmer[®] Patient Specific Instruments streamline total knee replacement surgery by ensuring accurate and reproducible guide fixation. Our proprietary stabilizing features enhance guide fixation while ensuring the end surgical result matches your preoperative plan. Based on the patient's MRI, mechanical axis-based pin guides conform precisely to the patient's anatomy. *Zimmer* Patient Specific Instruments simplify the total knee process from start to finish without compromising your surgical decision making, surgical technique, or intraoperative flexibility. *Zimmer* Patient Specific Instruments can give you the fit you can feel.



3-D modeling from MRI captures true patient anatomy.

The fit you can feel

The custom pin guides are designed with position stabilizing features and anatomical reference lines including the transepicondylar, mechanical and AP axis to verify positioning and eliminate variability of placement.



Femoral Pin Guide

Anterior ridge stabilizing mechanism on the femur guide ensures a secure fit.

Tibial Pin Guide

Posterior hook on the medial side of the tibia guide stabilizes guide and eliminates lateral rotation.



Surgeon controlled customization

The *Zimmer* Patient Specific Instruments Planner is the next generation in surgical planning. Preoperatively, the surgeon can view the patient's anatomy in its purest geometrical form to develop a customized surgical plan for each patient.

Preoperative determinations include:

- *Implant Selection*
- *Implant Size*
- *Resection Depth*
- *Femoral Rotation*
- *Varus/Valgus*
- *Flexion/Extension*
- *Posterior Slope*



Reduced instrumentation solution

Through preoperative determinations, *Zimmer* Patient Specific Instruments can facilitate a reduction in conventional instrumentation requirements. Fewer instruments can increase OR efficiencies while reducing inventory and other instrument labor costs.