PERSONALIZING
THE FUTURE OF ORTHOPEDICS.

Zimmer Biomet’s Personalized Solutions Team is focused on creating a comprehensive, technology-based portfolio aimed at providing better patient outcomes without sacrificing customer economics.

Within our current range of products and services, we offer:

- Patient Specific Guides (PSI*, ZPSI (internal), and Signature™* Personalized Guides)
- iASSIST® Knee System
- Optical Navigation System
- eLIBRA® Dynamic Balancing System
- VERASENSE™ Sensor-Assisted TKA

* A collaborative partnership with Materialise, N.V.
Zimmer Biomet’s Personalized Guide Systems provide interactive, 3D preoperative planning software and intraoperative guides that assist surgeons in the precise positioning of knee implants.

- Patient imaging is used to generate a 3D virtual model for an unobstructed view of critical anatomic landmarks.
- Interactive, 3D virtual surgeon planning enhances visualization of patient anatomy and implant position.
- Virtual planning attributes are embodied in patient specific, 3D printed guides.
- The use of interactive planning and patient specific guides streamline the surgical workflow.
- Technology is a significant driver for patients to undergo total joint replacement surgery.¹
- Studies have demonstrated better accuracy and clinical outcomes through the use of Patient Specific Guides.²⁻⁶
The iASSIST System provides a compact, electronic guidance system designed to help surgeons align and validate bony resections in real-time within the surgical field.

- Works with traditional instruments for minimal workflow disruption.
- Intraoperative validation of resections in the surgical field without the use of additional imaging equipment.
- Guidance technologies have shown a 25% lower revision rate due to loosening or lysis at 8 years.\(^7\)
- Radiological outcomes have shown that the iASSIST System’s validation feature increases precision and accuracy compared to conventional instruments.\(^8\)
- iASSIST provides 88% good or excellent patient satisfaction.\(^9\)
OPTICAL GUIDANCE

VISIBLY ACCURATE

The Optical Guidance System provides enhanced tracking visibility for intraoperative positioning and validation of resections and assessment of limb alignment.

• Due to the placement of reflective discs in an angular arrangement on the NavitracKER® Reference Marker Device, the range of visibility compared to spheres increases from 127 degrees to 135 degrees.

• Reflective discs offer better visibility compared to spheres that adapt to various intraoperative constraints (size, patient draping, anesthesia equipment, etc.).

• Robust functionality offering can accurately accommodate everything from straightforward to complex cases.

• Full set of customizable functionalities to create an expedited, surgeon-specific workflow.

• Guidance technologies have shown a 25% lower revision rate due to loosening or lysis at 8 years.7
eLIBRA Dynamic Knee Balancing System® (DKBS)

OBJECTIVELY BALANCED

eLIBRA Dynamic Knee Balancing System electronically measures soft tissue force and provides objective, real-time feedback for personalized femoral component rotation.

- Quantifiable evaluation of flexion gap balance with the patella reduced prior to committing to femoral component rotation.  
- Dynamic instruments with objective feedback eliminate the subjectivity of gap balancing with traditional instruments.
VERASENSE™ Sensor-Assisted TKA is a disposable sensor that wirelessly transmits quantitative data from a patient’s knee to an intraoperative monitor, enabling a surgeon to customize implant positioning and achieve proper soft tissue balance in real-time.

- A single use disposable sensor replacement of standard TKA poly trial
- Helps establish proper TKA: Soft tissue balance and implant position
- Intelligent instrument: Embedded with proprietary micro-processor
- Sensors and wireless communication technology
- Supports evidence-based outcomes, joint registry objectives and physician quality reporting system (PQRS) initiatives
References


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7. de Steiger R. The Outcome of Computer Navigation for Primary Knee Replacement. AOA. 2013.


9. Goh et al., Accelerometer-Based Navigation is as Accurate as Optical Computer Navigation in Restoring the Joint Line and Mechanical Axis After Total Knee Arthroplasty, JOA 31 (2016) 92-97