

# Personalized solutions for any surgical challenge.



## Optical Navigation

**ORTHOsoft's** product suite enables navigation of THR, TKR, UKR & PHR with customizable profiles.



## Soft Tissue Balancing

**eLIBRA® System** achieves dynamic flexion balance through personalized femoral component rotation.

## X-Ray Templating

**Medstrat** is a cloud based templating software that facilitates surgical planning.



## Personalized Guidance System

**iASSIST®** Knee is a handheld guidance system allowing an accuracy of  $\pm 1^\circ$  for every validated cuts.<sup>5</sup>



## Patient-Specific Instrumentation

**Zimmer® PSI** for both Knee and Shoulder Arthroplasty provides 3D preoperative planning and intraoperative instrument guides which enable a surgeon to personalize the surgery for optimal implant position and fixation, tailored to the patient.

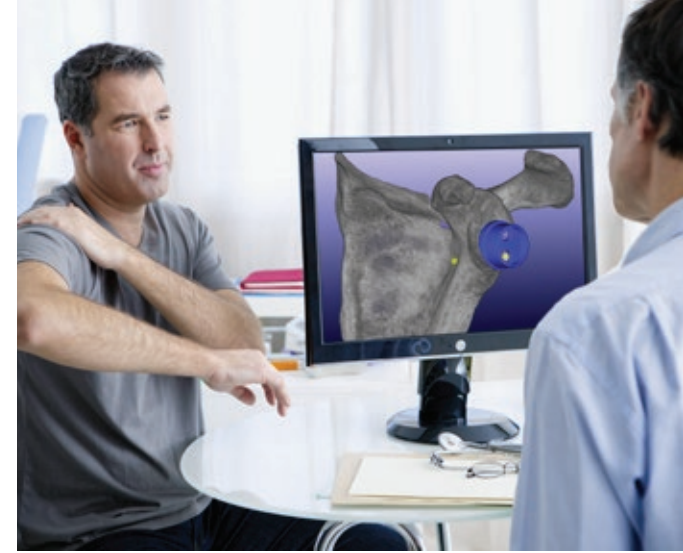


## New technology is the number one driver after worsening pain.<sup>6</sup>

### Conditions likely to make a patient undergo hip or knee surgery<sup>6</sup>

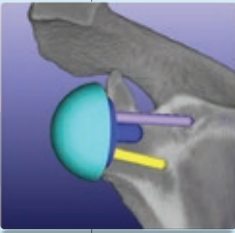
Worsening Pain/disability	70%
<b>New technologies</b>	<b>55%</b>
Increase in wealth	40%
Economic Improvement	30%
Better health insurance	27%
Greater Job security	21%
Obtain insurance	18%
Find new job	10%
Other	12%

Contact us at [cas-marketing@zimmercas.com](mailto:cas-marketing@zimmercas.com) or visit us at [www.zimmertv.com](http://www.zimmertv.com).



## Your Personalized Solutions Company



Relation Tool	Retained Hardware	Efficiency	Extreme Cases	Less Invasive	Accuracy	Intra-Op Validation
<b>ZIMMER® PATIENT SPECIFIC INSTRUMENTATION</b>						<ul style="list-style-type: none"> <li>Personalized by patient</li> <li>Pre-plan allows optimal implant positioning</li> <li>Reduction of outliers <sup>1,3</sup></li> </ul>
<b>SURGEON</b> <ul style="list-style-type: none"> <li>Allows patients to visualize their pre-op plan while understanding the logistics behind the creation of their personalized surgical guides.</li> </ul>		<ul style="list-style-type: none"> <li>Tray reduction*               <ul style="list-style-type: none"> <li>= Reduced Sterilization costs</li> <li>= Reduced Infections risks</li> <li>= Reduced OR Turnover time</li> </ul> </li> <li>Increased OR efficiencies**</li> <li>Enhanced Inventory Management</li> <li>Better prepared for outliers, macro or micro sizes</li> </ul> <p>*Number of Trays - Average of 4.3 vs. 7.5<sup>1</sup>, 1 vs. 6<sup>2</sup>            **13 min reduction<sup>2,4</sup>, at \$50/min, \$650 savings/procedure</p>	<b>SHOULDER</b> <ul style="list-style-type: none"> <li>Allows surgeons to position base plate and screws in a wide population of deformations</li> <li>Allows to visualize underlying bone quality</li> </ul>	<ul style="list-style-type: none"> <li>Avoids reaming the intramedullary canal</li> <li>Reduced blood loss <sup>4</sup></li> </ul>	<b>KNEE</b> <ul style="list-style-type: none"> <li>Based on Mechanical Axis</li> <li>Increased tibia rotation accuracy (1.4°± 1.1° for PSI vs. 16.9°±6.8° for standard inst.)<sup>3</sup></li> </ul> <b>SHOULDER</b> <ul style="list-style-type: none"> <li>Provides control of glenoid implant version and inclination</li> <li>Gives surgeon guidance on reaming angle and depth</li> <li>Enables screw placement into solid bone for bi-cortical fixation</li> </ul>	
<b>MEDSTRAT TEMPLATING SYSTEM SOFTWARE</b>						
		<ul style="list-style-type: none"> <li>Tray reduction               <ul style="list-style-type: none"> <li>= Reduced sterilization costs</li> <li>= Reduced OR Turnover</li> </ul> </li> <li>Enhanced Inventory Management</li> <li>Better prepared for outliers, macro or micro sizes</li> </ul>				
<b>iASSIST KNEE</b>						
<ul style="list-style-type: none"> <li>Intra-op validation = surgeons peace of mind</li> </ul>	<ul style="list-style-type: none"> <li>No diaphyseal bone pins</li> <li>No imaging needed</li> <li>No intra-medullary access alignment (mechanical alignment)</li> </ul>	<ul style="list-style-type: none"> <li>Time neutral = optimized results for a same surgery time</li> </ul>	<ul style="list-style-type: none"> <li>Anatomical deformity</li> <li>Wireless acquisition of mechanical alignment enables restoring mechanical axis</li> </ul>	<ul style="list-style-type: none"> <li>No pin insertions</li> <li>No canal reaming</li> </ul>		<ul style="list-style-type: none"> <li>Varus/valgus</li> <li>Flexion &amp; slope</li> </ul>
<b>ORTHOsoft OPTICAL NAVIGATION</b>						<b>HIP</b> <ul style="list-style-type: none"> <li>Cup placement</li> <li>Leg length &amp; offset</li> <li>Pelvic tilt</li> </ul> <b>KNEE</b> <ul style="list-style-type: none"> <li>Varus/valgus</li> <li>Ligament balance</li> <li>Final HKA</li> </ul>
	<ul style="list-style-type: none"> <li>No imaging needed</li> <li>No IM access needed</li> </ul>		<ul style="list-style-type: none"> <li>Anatomical deformity</li> <li>Complete assistance for all challenges of complex cases (rotation, balance, final HKA, V/V, F/E)</li> </ul>		<ul style="list-style-type: none"> <li>Suits multiple surgeons workflow to enable accurate results</li> </ul>	
<b>eLIBRA SYSTEM</b>						
		<ul style="list-style-type: none"> <li>Reduces/eliminates flexion balancing during trial reduction</li> </ul>	<ul style="list-style-type: none"> <li>Bad varus/valgus deformities</li> </ul>	<ul style="list-style-type: none"> <li>Reduced/eliminated soft tissue releases</li> </ul>	<ul style="list-style-type: none"> <li>Dynamic evaluation of soft tissue structures</li> </ul>	<ul style="list-style-type: none"> <li>Femoral rotation</li> <li>Soft tissue balancing</li> <li>Objective compartmental force data</li> </ul>

References: 1. JW Noble, Jr. MD, et al. The Value of Patient-matched Instrumentation in TKA, Journal of Arthroplasty, Vol. 27, No. 1, 2012 2. TS Watters, MD, et al. Analysis of Procedure-related Costs and proposed Benefits of Using Patient-specific Approach in TKA, Journal of Surgical Orthopaedic Advances, Vol. 20, No. 2, Summer 2011 3. Vincent Y. Ng, Lindsay Arnott, Jia Li, Ronald Hopkins, Jamie Lewis, Sean Sutphen, Lisa Nicholson, Douglas Reader, Michael A. McShane. Comparison of custom to standard TKA instrumentation with computed tomography. Knee Surgery, Sports Traumatology, Arthroscopy, 25 August 2013. DOI 10.1007/s00167-013-2632-7 4. Pietsch et al. Custom-fit minimally invasive total knee arthroplasty: effect on blood loss and early clinical outcomes. Knee Surg Sports Traumatol Arthrosc, 3 July 2012. 5. Scuderi et al. Total Knee Arthroplasty with a Novel Navigation System Within the Surgical Field, Orthop Clin N Am 45 (2014) 167–173 6. Bernstein Research, Orthopaedics: Ortho Patient Survey Highlights Economic Sensitivity of Markets. May 12, 2011. Medstrat® is a trademark of Medstrat, Inc.