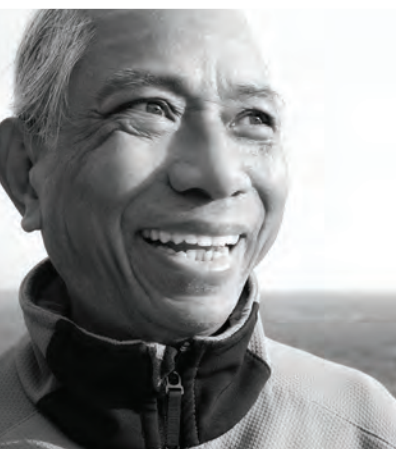


# Persona<sup>®</sup>

PARTIAL KNEE









# DID YOU KNOW AT LEAST 20% OF KNEE REPLACEMENTS SHOULD BE PARTIALS?<sup>1</sup>

Research shows that surgeons utilizing Partial Knee Arthroplasty (PKA) for at least 20% of their annual knee arthroplasties experienced a significant decrease in their revision rate.<sup>1</sup> One study indicated that almost 50% of knee arthroplasty patients are candidates for PKA.<sup>2</sup>

In fact, a study by Badawy, M. *et al.* found a lower risk of revision in hospitals performing more than 40 PKAs per year compared to those performing under 10 PKAs per year.<sup>3</sup>

A randomized, controlled study also showed that significantly more PKA patients would choose to have their operation again, compared to TKA patients.<sup>4</sup>

**Other benefits** of PKA vs TKA include **retention of the ACL**, which is reported to result in improved proprioception<sup>5,6</sup>, better range of motion<sup>7,8</sup>, procedural savings<sup>2</sup>, **shorter hospital stays**<sup>9</sup> and a **lower risk of postoperative complications**<sup>10</sup>.





# THE NEXT ERA OF PERSONALIZATION IN FIXED BEARING PARTIAL KNEE DESIGN

Zimmer Biomet is the leading company in partial knee arthroplasty<sup>11</sup> with over 40 years of experience, offering a comprehensive range of anatomic and innovative PKA solutions.

Building on a clinically proven legacy,<sup>12,13</sup> the Persona Partial Knee is the next era in personalization in fixed bearing partial knee design providing:

- Compartment-specific shapes based off the Persona® Total Knee, which has the finest sizing increments available<sup>14</sup>
- Precise, efficient instrumentation
- An ergonomic spacer block technique with fewer steps\*

## Replicating Nature's Anatomy

Persona Partial Knee surgeon developers and engineers studied the morphology of thousands of bones, representing a diverse global population, including use of ZiBRA™ virtual resection technology.

## Personalized Implants, Designed for Optimal Fit and Function

Unlike some other fixed bearing PKRs, the Persona Partial Knee offers a range of sizes with:

- Improved sizing options mirroring the native tibia\*
- Better shape matching increases tibial coverage aimed at preventing subsidence
- Improved patella flange geometry designed to reduce soft tissue irritation and contact with the patella

## Clinically Proven Legacy<sup>12,13</sup>

The Persona Partial knee carries forward design elements of the Miller Galante Uni. Foran, JR. *et al.*<sup>12</sup> reported a 98% survivorship of the Miller Galante Unis at 10 years and 90% at 20 years.

In a study by Berger, RA. *et al.* thirty-nine Miller Galante Uni knees (80%) had an excellent result, six (12%) had a good result, and four (8%) had a fair result.<sup>13</sup>





# PRECISE. PERSONALIZED. PROVEN.

## Precise Femoral Component

- Consistent AP growth and shape throughout 8 femoral sizing options
- Femoral insertion notches designed for precise control of femoral component implantation
- Compartment specific shape

## Personalized Tibial Component<sup>12,13</sup>

- Improved cortical rim coverage minimizes tibial strain
- 2 Peg and Keel fixation that has a proven<sup>12,13</sup> track record going back to the Zimmer M/G Uni\*
- 7 anatomic tibial profiles

## Proven Bearing Technology:

### Vivacit-E® Vitamin-E HXPE\*\*

- Vivacit-E Polyethylene is actively stabilized with Vitamin-E to help protect against oxidation and maintain wear resistance and strength throughout the life of the implant
- This proprietary material is designed to meet the demands of today's fixed bearing partial knee patients
- Vivacit-E HXPE has been shown to have exceptional oxidative stability,<sup>16</sup> ultra-low wear,<sup>14</sup> and enhanced strength<sup>17-19</sup>
- 8, 9, 10, 11, 12 and 14 mm thicknesses are available to address various patient anatomies
- Anterior and posterior locking tabs facilitate a secure fit with the tibial tray



## Precise, Efficient Technique

Precise and efficient instrumentation facilitates accurate alignment and under-correction of the leg with an ergonomic spacer block technique and fewer steps\*.

### Tibial Resection Guide

- Vertical saw minimizes potential for overresection of the posterior cortex, lowering the risk of tibial plateau fracture
- Tibial resection guides attach to the Persona EM tibial resection tube body

### Femoral Finishing Guide

- Persona Partial PK Handle eases insertion
- Extended saw slots allow controlled posterior and chamfer resections
- Three fixation screws anteriorly on the guide add stability allowing resections to be made without removing screws

### Anatomic Tibial Sizer

- Facilitates efficient sizing of the tibial component
- Visibility windows allow for one up and one down sizing
- Posterior hook provides an anatomic reference point to ensure precise sizing

### Modern Cementing Technique (MCT)<sup>20-24</sup>

- MCT Knee is a concept that addresses the risk of de-bonding and thus loosening of the implant<sup>20-24</sup>
- The crucial factors are to secure a strong bond and optimal interfaces between implant-cement and cement-bone
- Zimmer Biomet offers solutions supporting early bone cement application on tibial component, vacuum mixing to reduce porosity and increase fatigue life, delivery and pressurization









# INTERACTIVE TRAINING

## **Persona Partial Knee Advanced Instructional Courses**

These courses provide the opportunity to learn more about the indications for the Persona Partial Knee and to practice the surgical technique, featuring efficient spacerblock instrumentation.

## **Surgeon-to-Surgeon (S2S) Visitation**

Zimmer Biomet provides educational opportunities for health care professionals of any level, conducted at an approved Persona Partial Knee visitation facility. The visitation will include a discussion about the surgical steps, design rationale, system benefits, and the process for implant and instrument assembly. Surgeons will also be able to better visualize the surgical flow, having spent time with Zimmer Biomet faculty viewing live surgery.





## References

- \* The M/G trademark is owned by Smith & Nephew
1. Liddle *et al.* Optimal usage of unicompartmental knee arthroplasty A STUDY OF 41 986 CASES FROM THE NATIONAL JOINT REGISTRY FOR ENGLAND AND WALES. *Bone Joint J* 2015;97-B:1506–11.
  2. Willis-Owen CA, *et al.* Unicondylar knee arthroplasty in the UK National Health Service: An analysis of candidacy, outcome and cost efficacy. *Knee*. 2009 Dec;16(6):473–8.
  3. Badawy, M *et al.* Higher revision risk for unicompartmental knee arthroplasty in low-volume hospitals Data from 5,791 cases in the Norwegian Arthroplasty Register. *Acta Orthopaedica* 2014; 85 (4): 342–347.
  4. Beard D, Price A, Davies L, *et al.* A Multicentre Randomised Study Comparing Total or Partial Knee Replacement – One Year Results of The Topkat Trial. BASK. Liverpool, UK 2016.
  5. Pritchett, JW. Patients Prefer A Bicruciate-Retaining or the Medial Pivot Total Knee Prosthesis. *Journal of Arthroplasty*. Vol. 26 No. 2 2011.
  6. Katayama, M. *et al.* Proprioception and Performance After Anterior Cruciate Ligament Rupture. *International Orthopaedics (SICOT)*
  7. Amin A, *et al.* Unicompartmental or Total Knee Replacement? A Direct Comparative Study of Survivorship and Clinical Outcome at Five Years. *JBJS Br*. 2006; 88-B; Suppl 1, 100.
  8. Jones, GG, *et al.* Gait comparison of unicompartmental and total knee arthroplasties with healthy controls. *Bone Joint J* 2016;(10 SupplB):16–21.
  9. Lombardi, A. *et al.* Is Recovery Faster for Mobile-bearing Unicompartmental than Total Knee Arthroplasty? *Clinical Orthopaedics and Related Research*. 467:1450-57. 2009.
  10. Brown, NM, *et al.* Total Knee Arthroplasty Has Higher Postoperative Morbidity Than Unicompartmental Knee Arthroplasty: A Multicenter Analysis. *The Journal of Arthroplasty*. (2012).
  11. Data on file at Zimmer Biomet. Based on Market Analysis and Registry Data, gathered September 2017.
  12. Foran, JR. *et al.* Long-term Survivorship and Failure Modes of Unicompartmental Knee Arthroplasty. *Clin Orthop Relat Res*. 2013 Jan; 471(1): 102–108.
  13. Berger, RA. *et al.* Results of unicompartmental knee arthroplasty at a minimum of ten years of follow-up. *J Bone Joint Surg Am*. 2005 May;87(5):999-1006.
  14. Data on file at Zimmer Biomet. Zimmer ZRR\_WA\_2409\_11.
  15. Zimmer ZRR\_WA\_2409\_11.
  16. Zimmer ZRR\_WA\_2537\_12.
  17. Zimmer TM1140.98.
  18. Zimmer ZRR\_WA\_2403\_11.
  19. Zimmer ZRR\_WA\_2551\_12.
  20. Shepard, M. F., *et al.* Influence of Cement Technique on the Interface Strength of Femoral Components. *Orthopaedics and Related Research*, December, 2000,381:26-35.
  21. Keller, John C., *et al.* Factors affecting surgical alloy/ bone cement interface adhesion. *Journal of Biomedical Materials Research*, 1980, vol. 14,639-651.
  22. Kavanaugh A, *et al.* Factors Influencing the Initial Strength of the Tibial Tray-Cement Interface Bond. *Bone Joint J* 2013 vol. 95-B no. SUPP 3498.
  23. Cawley DT, *et al.* Cementing Techniques for the Tibial Component in Primary Total Knee Replacement. *Bone Joint J* 2013;95-B:295–300.
  24. Miller MA, *et al.* Loss of Cement-bone Interlock in Retrieved Tibial Components from Total Knee Arthroplasties. *Clinical Orthopaedics and Related Research*. January 2014, 472:304-313.

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