Our simple approach to proven performance
ZUK Unicompartmental Knee
Simply innovative

- Extended posterior condyle
- Angled femoral pegs
- 2 optimally positioned pegs
- Round-on-flat articulation
- Anatomic shape
- 3 points of tibial fixation
Durable fixation
The ZUK design is based largely upon its predecessor M/G, a product that has been used clinically since 1998. Both M/G and ZUK show excellent long-term tibial fixation clinical follow-up.1,2,3,4,5,7

2 optimally positioned femoral pegs
• Femoral Peg location changes by size for optimal fixation

Angled femoral pegs
• Angled femoral pegs are designed to enhance femoral fixation by providing resistance to loosening forces during flexion up to 118°

3 points of tibial fixation
• 2 hour-glass pegs and the rotational fin are intended to guard against shear and rotational forces

Natural kinematics
The ZUK Uni Knee is designed to replicate the kinematics of the natural knee with normal axial rotation and posterior femoral rollback.4

Extended posterior condyle
• Is designed to accommodate high flexion up to 155°

Round-on-flat articulation
• Unconstrained design intended to allow soft tissues to dictate motion of the knee

• Round-on-flat articulation design intended to allow +/- 8° varus/valgus tilt without edge loading

Orange outline indicates the M/G Uni
Patient matching
Anatomically shaped tibial and femoral components are designed to provide maximum bone coverage.

Universal compatibility
• Optimal sizing designed to match patient anatomy
• 42 possible sizing combinations

Comprehensive sizing
• 7 femoral sizes and 6 tibial sizes
• Size specific articular surfaces offered in 1mm thickness increments

Size A
40mm

Size B
42.5mm

Size C
45mm

Size D
48mm

Size E
51.5mm

Size F
55.5mm

Size G
60mm

Size 1
8mm

Size 2
9mm

Size 3
10mm

Size 4
11mm

Size 5
12mm

Size 6
14mm

Size 1
23mm x 41mm

Size 2
25mm x 44mm

Size 3
27mm x 47mm

Size 4
29mm x 50mm

Size 5
31mm x 53mm

Size 6
33mm x 56mm
Simply versatile

Lateral and bi-compartmental clinical solutions
Freedom to perform medial, lateral and bi-compartmental procedures.

Lateral

- A study on the use in the lateral compartment showed no revisions at 12 years.5,8,9

Bi-compartmental

- 35 different sizing combinations to accommodate varying patient anatomies
- Independently oriented components allow precise alignment and rotation

Reproducible instrumentation options
Reproducible instrumentation and technique flow is designed to reduce the learning curve associated with UKAs

3 instrument options same great implant
- Reproducible spacer block, extramedullary, and intramedullary instrumentation options allow surgeons to customize their surgical procedure
- The spacer block technique simplifies the balancing process by linking the tibial and femoral cuts

Enhance precision with robotics
- The ZUK Uni Knee is compatible with Smith & Nephew’s NAVIO Surgical System, which is designed to improve precision and efficiency

Patello-femoral arthroplasty

ZUK Unicompartmental High Flex Knee

Patient specific instruments
- The ZUK implants can be implanted via Materialise’s PSI blocks
The ZUK Uni Knee System is based on the established implant design of the M/G Unicompartmental Knee System.


Table KP11: 10 Most Used Tibial Prostheses in Primary Unicompartmental Knee Replacement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegretto Uni</td>
<td>1366</td>
<td>ZUK</td>
<td>514</td>
<td>ZUK</td>
<td>490</td>
<td>ZUK</td>
<td>576</td>
<td>ZUK</td>
<td>660</td>
</tr>
<tr>
<td>Preservation Fixed</td>
<td>373</td>
<td>Oxford</td>
<td>371</td>
<td>Unix</td>
<td>208</td>
<td>Unix</td>
<td>167</td>
<td>Unix</td>
<td>128</td>
</tr>
<tr>
<td>M/G</td>
<td>353</td>
<td>Oxford</td>
<td>291</td>
<td>Unix</td>
<td>90</td>
<td>Repicci II</td>
<td>67</td>
<td>Repicci II</td>
<td>92</td>
</tr>
<tr>
<td>Allegretto Uni</td>
<td>336</td>
<td>Sigma HP</td>
<td>108</td>
<td>Repicci II</td>
<td>96</td>
<td>Sigma HP</td>
<td>21</td>
<td>Journey Deuce</td>
<td>52</td>
</tr>
<tr>
<td>Freedom PKR/Active</td>
<td>321</td>
<td>Sigma HP</td>
<td>75</td>
<td>Freedom PKR/Active</td>
<td>69</td>
<td>Sigma HP</td>
<td>67</td>
<td>Repicci II</td>
<td>50</td>
</tr>
<tr>
<td>Genesis</td>
<td>275</td>
<td>Journey Deuce</td>
<td>72</td>
<td>Journey Deuce</td>
<td>64</td>
<td>Journey Deuce</td>
<td>63</td>
<td>Journey Deuce</td>
<td>45</td>
</tr>
<tr>
<td>Uni-Model Sled</td>
<td>260</td>
<td>Journey Deuce</td>
<td>71</td>
<td>Journey Deuce</td>
<td>64</td>
<td>Journey Deuce</td>
<td>63</td>
<td>Journey Deuce</td>
<td>45</td>
</tr>
<tr>
<td>GRU</td>
<td>121</td>
<td>Journey Deuce</td>
<td>69</td>
<td>Journey Deuce</td>
<td>55</td>
<td>GRU</td>
<td>37</td>
<td>Endo-Model Sled</td>
<td>33</td>
</tr>
<tr>
<td>Freedom PKR/Active</td>
<td>101</td>
<td>Journey Deuce</td>
<td>61</td>
<td>Genesis</td>
<td>46</td>
<td>Journey Deuce</td>
<td>36</td>
<td>BalanSys Uni Fixed</td>
<td>28</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4109</td>
<td>Journey Deuce</td>
<td>2410</td>
<td>100.0%</td>
<td>2144</td>
<td>100.0%</td>
<td>2131</td>
<td>100.0%</td>
<td>2229</td>
</tr>
</tbody>
</table>

Table KP14: Cumulative Percent Revision of Primary Unicompartmental Knee Replacement by Prosthesis Type

<table>
<thead>
<tr>
<th>Uni Femoral</th>
<th>Uni Tibial</th>
<th>N Revised</th>
<th>N Total</th>
<th>1Yr</th>
<th>3Yrs</th>
<th>5Yrs</th>
<th>7Yrs</th>
<th>10Yrs</th>
<th>14Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegretto Uni</td>
<td>Allegretto Uni</td>
<td>283</td>
<td>2034</td>
<td>3.2</td>
<td>2,5</td>
<td>4,0</td>
<td>5,8</td>
<td>4,9</td>
<td>6,9</td>
</tr>
<tr>
<td>BalanSys Uni Fixed</td>
<td>BalanSys Uni Fixed</td>
<td>17</td>
<td>352</td>
<td>1.8</td>
<td>0,8</td>
<td>4,0</td>
<td>2,0</td>
<td>1,5</td>
<td>5,3</td>
</tr>
<tr>
<td>Endo-Model Sled</td>
<td>Endo-Model Sled</td>
<td>127</td>
<td>1553</td>
<td>1.1</td>
<td>0,6</td>
<td>1,9</td>
<td>4,8</td>
<td>3,7</td>
<td>6,3</td>
</tr>
<tr>
<td>Freedom PKR/Active</td>
<td>Freedom PKR/Active</td>
<td>224</td>
<td>1456</td>
<td>1.7</td>
<td>1,1</td>
<td>2,5</td>
<td>7,4</td>
<td>6,1</td>
<td>8,9</td>
</tr>
<tr>
<td>GRU</td>
<td>GRU</td>
<td>204</td>
<td>1991</td>
<td>1.4</td>
<td>0,9</td>
<td>2,0</td>
<td>4,5</td>
<td>3,7</td>
<td>5,5</td>
</tr>
<tr>
<td>Genesis</td>
<td>Genesis</td>
<td>277</td>
<td>1864</td>
<td>2.7</td>
<td>2,0</td>
<td>5,3</td>
<td>8,3</td>
<td>7,1</td>
<td>9,6</td>
</tr>
<tr>
<td>Journey Deuce</td>
<td>Journey Deuce</td>
<td>14</td>
<td>222</td>
<td>0.9</td>
<td>0,2</td>
<td>3,7</td>
<td>6,7</td>
<td>3,8</td>
<td>11,6</td>
</tr>
<tr>
<td>Journey Deuce</td>
<td>Journey Deuce</td>
<td>70</td>
<td>201</td>
<td>2.5</td>
<td>0,9</td>
<td>6,5</td>
<td>5,3</td>
<td>2,0</td>
<td>12,4</td>
</tr>
<tr>
<td>M/G</td>
<td>M/G</td>
<td>228</td>
<td>235</td>
<td>1.6</td>
<td>1,1</td>
<td>2,2</td>
<td>4,1</td>
<td>3,4</td>
<td>5,1</td>
</tr>
<tr>
<td>Oxford</td>
<td>Oxford</td>
<td>9</td>
<td>656</td>
<td>2.1</td>
<td>2,4</td>
<td>6,7</td>
<td>6,2</td>
<td>5,0</td>
<td>8,2</td>
</tr>
<tr>
<td>Oxford</td>
<td>Oxford</td>
<td>115</td>
<td>2483</td>
<td>3.1</td>
<td>2,5</td>
<td>4,0</td>
<td>5,2</td>
<td>4,2</td>
<td>6,3</td>
</tr>
<tr>
<td>Oxford</td>
<td>Oxford</td>
<td>1558</td>
<td>12003</td>
<td>3.0</td>
<td>2,7</td>
<td>4,0</td>
<td>5,2</td>
<td>2,9</td>
<td>6,3</td>
</tr>
<tr>
<td>Preservation Fixed</td>
<td>Preservation Fixed</td>
<td>330</td>
<td>2318</td>
<td>2.4</td>
<td>1,9</td>
<td>3,1</td>
<td>7,1</td>
<td>6,1</td>
<td>8,2</td>
</tr>
<tr>
<td>Preservation Mobile</td>
<td>Preservation Mobile</td>
<td>117</td>
<td>400</td>
<td>5.3</td>
<td>3,5</td>
<td>7,9</td>
<td>15,5</td>
<td>12,3</td>
<td>19,5</td>
</tr>
<tr>
<td>Repicci II</td>
<td>Repicci II</td>
<td>461</td>
<td>2990</td>
<td>1.6</td>
<td>1,2</td>
<td>2,2</td>
<td>5,3</td>
<td>3,8</td>
<td>5,4</td>
</tr>
<tr>
<td>Sigma HP</td>
<td>Sigma HP</td>
<td>19</td>
<td>571</td>
<td>1.2</td>
<td>3,6</td>
<td>9,5</td>
<td>3,6</td>
<td>3,1</td>
<td>3,9</td>
</tr>
<tr>
<td>Uniglide</td>
<td>Uniglide</td>
<td>117</td>
<td>737</td>
<td>4,9</td>
<td>3,6</td>
<td>6,6</td>
<td>10,9</td>
<td>8,8</td>
<td>13,4</td>
</tr>
<tr>
<td>Unix</td>
<td>Unix</td>
<td>335</td>
<td>3682</td>
<td>2.4</td>
<td>2,0</td>
<td>3,0</td>
<td>5,4</td>
<td>4,7</td>
<td>6,2</td>
</tr>
<tr>
<td>ZUK</td>
<td>ZUK</td>
<td>177</td>
<td>4494</td>
<td>1.4</td>
<td>1,1</td>
<td>1,8</td>
<td>3,7</td>
<td>3,1</td>
<td>4,3</td>
</tr>
<tr>
<td>Other (30)</td>
<td>Other (30)</td>
<td>255</td>
<td>1809</td>
<td>3.6</td>
<td>2,8</td>
<td>6,6</td>
<td>8,6</td>
<td>7,3</td>
<td>10,0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>TOTAL</td>
<td>4874</td>
<td>43534</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Only combinations with over 200 procedures have been listed.

Table KP15: Cumulative Percent Revision of Primary Unicompartmental Knee Replacement (Primary Diagnosis OA)

<table>
<thead>
<tr>
<th>Knee Class</th>
<th>N Revised</th>
<th>N Total</th>
<th>1Yr</th>
<th>3Yrs</th>
<th>5Yrs</th>
<th>7Yrs</th>
<th>10Yrs</th>
<th>14Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unicompartmental</td>
<td>4816</td>
<td>43087</td>
<td>2.2</td>
<td>2,1</td>
<td>2,4</td>
<td>5,8</td>
<td>5,6</td>
<td>6,1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4816</td>
<td>43087</td>
<td>2.2</td>
<td>2,1</td>
<td>2,4</td>
<td>5,8</td>
<td>5,6</td>
<td>6,1</td>
</tr>
</tbody>
</table>
Clinical outcomes of ZUK

<table>
<thead>
<tr>
<th>Study (Year)</th>
<th>Sample size (Knees)</th>
<th>Mean Pre-Op KSS Clinical Score</th>
<th>Mean Post-Op KSS Clinical Score</th>
<th>Mean Pre-Op KSS Function Score</th>
<th>Mean Post-Op KSS Function Score</th>
<th>Mean Pre-Op Range of Motion (Degrees)</th>
<th>Mean Post-Op Range of Motion (Degrees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pooled Weighted Means</td>
<td>6.3 (338)</td>
<td>48.8</td>
<td>93.2</td>
<td>51.0</td>
<td>89.0</td>
<td>113.1</td>
<td>126.6</td>
</tr>
<tr>
<td>Biswas et al., 2013&lt;sup&gt;11&lt;/sup&gt;</td>
<td>85</td>
<td>49.0</td>
<td>95.1</td>
<td>NR</td>
<td>NR</td>
<td>120.0</td>
<td>124.0</td>
</tr>
<tr>
<td>Geller et al., 2011&lt;sup&gt;10&lt;/sup&gt;</td>
<td>30</td>
<td>45.9</td>
<td>88.7</td>
<td>47.4</td>
<td>83.9</td>
<td>110.9</td>
<td>123.6</td>
</tr>
<tr>
<td>Mochizuki et al., 2014&lt;sup&gt;13&lt;/sup&gt;</td>
<td>17</td>
<td>55.6</td>
<td>93.0</td>
<td>42.6</td>
<td>89.1</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Takayama et al., 2015&lt;sup&gt;14&lt;/sup&gt;</td>
<td>30</td>
<td>47.4</td>
<td>92.4</td>
<td>47.5</td>
<td>92.2</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Thienpoint et al., 2014&lt;sup&gt;15&lt;/sup&gt;</td>
<td>51</td>
<td>NR</td>
<td>NR</td>
<td>58.0</td>
<td>90.0</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Vasso et al., 2015&lt;sup&gt;12&lt;/sup&gt;</td>
<td>125</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
</tr>
</tbody>
</table>

Abbreviations: NR = Not Reported
References:

1. Galante et al. The Progression of Patellofemoral Arthrosis after Medial Unicompartmental Replacement: CORR 2004
3. Galante et al. Results of Unicompartmental Knee Arthroplasty at a Minimum of Ten Years of Follow-up. JBJS 2005

Supporting healthcare professionals for over 150 years

For detailed product information, including indications for use, contraindications, effects, precautions and warnings, please consult the product’s Instructions for Use (IFU) prior to use.

Contact your Smith & Nephew representative or visit us at www.smith-nephew.com