Durability
Flexibility
Clinical Heritage
Give your patient the potential to regain an active lifestyle. With the LEGION® Total Knee System you can offer a customized solution to meet your patient’s high expectations. This system is designed to empower surgeons to address diverse challenges and simplify decision-making intraoperatively.
Peace of Mind

LEGION™ Total Knee System is a comprehensive, state-of-the-art system that empowers surgeons to provide personalized joint care. The system includes simple solutions for addressing the increasingly diverse needs of your patients.

Exceptional durability

The LEGION Total Knee System offers biocompatible implant technology with unmatched wear performance. Smith & Nephew is the only company to offer VERILAST™ Technology. With the combination of OXINUM™ alloy and highly cross-linked polyethylene (XLPE), VERILAST Technology offers the full solution in knee implant materials.

System flexibility

Today’s knee implant patients present increasingly diverse scenarios. The versatility of the LEGION Total Knee System allows surgeons to simplify decision making intraoperatively and deliver personalized joint care.

Rich clinical heritage

Smith & Nephew has a rich history in the medical field dating back over 150 years. The company has produced many products that demonstrate proven performance. Built upon the world-class GENESIS® II design and its over 20 years of clinical data, the LEGION Total Knee System is carrying on the legacy.
As today’s patients seek more active lifestyles, knee implants will be expected to endure more stress without succumbing to wear. However, the functional lifetime demand of younger and active patients is 10-fold greater than the estimated functional lifetime of traditional implant bearings. VERILAST® Technology from Smith & Nephew is the only bearing technology with published results of 45 Million Cycles of in-vitro knee wear simulation testing with the LEGION® Primary Knee System. This means the replacement may provide improved wear performance. More importantly, if implanted earlier, it may restore patients to their active lifestyles.

The implants identified below were tested by their manufacturers using different testing protocols and, therefore, the results are not directly comparable.

Mean volumetric wear rates of CoCr against conventional polyethylene (CPE), CoCr against crosslinked polyethylene (XLPE) and OXINIUM against XLPE as published by the respective companies with their respective implants. Please see references for testing information.
Durability

Just as metal ions are a well described problem for many hip replacement patients, cobalt, chromium and nickel are commonly cited allergens for knee replacement patients.

Surgeons should be aware that all metal implants contain varying amounts of cobalt, chromium, and nickel. When selecting the appropriate implant, surgeons should consider the composition of each implant before use. To help with this decision, VERILAST® Technology incorporates proprietary OXINIUM® alloy. Compared to cobalt chrome, OXINIUM alloy has much less cobalt (<0.002%), chromium (<0.02%) and nickel (<0.0035%) content.

### Metal content of implants

<table>
<thead>
<tr>
<th></th>
<th>OXINUM</th>
<th>Titanium</th>
<th>Cobalt Chrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ni content % by weight</td>
<td>&lt;0.0035%</td>
<td>0.1%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

### Clinical studies

#### Prevalence of patients demonstrating metal sensitivity

- General population: 10%
- Patients with well-functioning implants: 25%
- Patients with poorly functioning implants: 60%

#### Maximum cobalt content

<table>
<thead>
<tr>
<th></th>
<th>OXINUM</th>
<th>Titanium</th>
<th>Cobalt Chrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co content % by weight</td>
<td>&lt;0.002%</td>
<td>&lt;0.01%</td>
<td>58-68%</td>
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</table>

#### Maximum chromium content

<table>
<thead>
<tr>
<th></th>
<th>OXINUM</th>
<th>Titanium</th>
<th>Cobalt Chrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cr content % by weight</td>
<td>&lt;0.02%</td>
<td>&lt;0.02%</td>
<td>27-30%</td>
</tr>
</tbody>
</table>
System Flexibility

LEGION® has the flexibility to address diverse surgical challenges and simplify decision making intraoperatively. The LEGION instrumentation gives you the ability to move from a cruciate retaining implant all the way to a hinged component.

LEGION is not only offered with updated traditional instrumentation but also with a more cost-effective and simplified approach to total knee arthroplasty. VISIONAIRE® FastPak includes VISIONAIRE Cutting Guides and size-specific disposable instruments.
Patient Flexibility

Today’s knee implant patients present increasingly diverse scenarios. Even with thorough preoperative planning some factors may not be visible until surgery is underway. You have to make decisions fast, and you need a knee system that can react quickly and work with you each step of the way.

Pathology
- Primary to Revision and Hinge
- Offsets, wedges and augments

Range of motion
- Constrained, standard and high flexion inserts

Age
- Cemented and porous options
- CoCr and VERILAST® Technology

Activity level
- CoCr and VERILAST Technology
- Standard polyethylene and highly cross-linked poly

Biocompatible implants
- OXINIUM® Oxidized Zirconium
- All-polyethylene tibial components
- Titanium tibial base plates

Anatomy
- Bone-preserving PS box
- Anatomically designed base plate
- Offset capability for optimal component position

Optimal Sizing
- Ideal sizing for male and female anatomy
- 1mm increment inserts
Rich Clinical Heritage

Proven performance, continuous innovation

Smith & Nephew has a rich history in the medical field dating back over 150 years. The company has produced many products that demonstrate proven performance. Built upon the world-class GENESIS™ II design and its over 20 years of clinical data, the LEGION™ Total Knee System is carrying on the legacy.

GENESIS II clinical results:

15 – 17 year Clinical Results¹⁵

- "Excellent" survivorship of 98.1% at a minimum follow-up of 15 years
- 89 consecutive GENESIS II knee procedures were studied
- "Minimum 15-year follow-up reports after TKA are not abundant"

GENESIS II: A Systematic Literature Review of Clinical Outcomes¹⁶

- 99.5% cumulative mean survival rate at 5 years 99.9% at 7 years; 98.8% at nine years
- Low revision rate (up to 11.9 year follow-up)
- Includes 19 studies and 2656 knees
- Mean post op Knee Society score of 90.6

LEGION and GENESIS II achieve equivalent articulation but do so via different surgical approaches to femoral external rotation.

LEGION encompasses the same design features that have demonstrated excellent long-term survivorship with GENESIS II. LEGION CR and PS knees provide the same kinematic motion and articulation as GENESIS II with the addition of updated instrumentation and a seamless total knee system able to handle all stages of knee reconstruction.¹⁷
**LEGION®** is carrying on the legacy of excellent clinical results.

**LEGION Primary Knee System - Safety and Efficacy Clinical Study**

- A ten year study spanning five sites and 138 patients.
- Two year interim results show just two revisions; one for infection and one for patella clunk.
- **LEGION Primary** demonstrated excellent clinical survivorship of 98.6%.

**Australian Orthopaedic Association National Joint Replacement Registry 2016**

LEGION PS CoCr has the lowest cumulative percent revision of all PS categorized knees with cement fixation at 5 years: 2.2%. At their longest follow-up, the cumulative percent revision of all other **LEGION** combinations is at or below the class average for primary total knee replacement (Primary Diagnosis OA).

<table>
<thead>
<tr>
<th>Femoral Component</th>
<th>Tibial Component</th>
<th>N Revised</th>
<th>N Total</th>
<th>1 Yr</th>
<th>3 Yrs</th>
<th>5 Yrs</th>
<th>7 Yrs</th>
<th>10 Yrs</th>
<th>15 Yrs</th>
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<tbody>
<tr>
<td>Legion CR</td>
<td>Genesis II</td>
<td>22</td>
<td>975</td>
<td>1.4 (0.8, 2.5)</td>
<td>2.6 (1.6, 4.0)</td>
<td>3.6 (2.3, 5.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legion Oxinium CR</td>
<td>Genesis II</td>
<td>43</td>
<td>2180</td>
<td>0.8 (0.5, 1.3)</td>
<td>2.3 (1.7, 3.1)</td>
<td>2.7 (2.0, 3.8)</td>
<td>3.3 (2.1, 5.1)</td>
<td></td>
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<tr>
<td>Legion Oxinium PS</td>
<td>Genesis II</td>
<td>183</td>
<td>7996</td>
<td>1.1 (0.9, 1.4)</td>
<td>3.2 (2.8, 3.8)</td>
<td>3.9 (3.3, 4.7)</td>
<td>4.2 (3.5, 5.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legion PS</td>
<td>Genesis II</td>
<td>51</td>
<td>3208</td>
<td>0.9 (0.6, 1.3)</td>
<td>1.9 (1.4, 2.6)</td>
<td>2.2 (1.6, 3.0)</td>
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</table>

**Table KT12**  Cumulative Percent Revision of Primary Total Knee Replacement (Primary Diagnosis OA)

<table>
<thead>
<tr>
<th>Knee Class</th>
<th>N Revised</th>
<th>N Total</th>
<th>1 Yr</th>
<th>3 Yrs</th>
<th>5 Yrs</th>
<th>7 Yrs</th>
<th>10 Yrs</th>
<th>15 Yrs</th>
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<tbody>
<tr>
<td>Total Knee</td>
<td>17213</td>
<td>482373</td>
<td>1.0 (1.0, 1.1)</td>
<td>2.7 (2.7, 2.8)</td>
<td>3.6 (3.6, 3.7)</td>
<td>4.4 (4.3, 4.4)</td>
<td>5.3 (5.2, 5.4)</td>
<td>7.3 (7.1, 7.6)</td>
</tr>
</tbody>
</table>

Today’s orthopaedic environment demands simple solutions with proven clinical history. With the durability of **VERILAST®** Technology, interoperative flexibility of both implants and instrumentation, and a rich clinical heritage, the **LEGION** Total Knee System gives surgeons peace of mind not only in the OR but with the knowledge that their patients can return to their active lifestyles.
References

7. Biomet publication, Claims for E1 Antioxidant Infused Technology
17. LEGION Primary Knee System: A Prospective, Multi-Center, Non-Randomized, Safety and Efficacy Clinical Study of the LEGION Primary Knee System for Primary Total Knee Replacement in Subjects with Degenerative Knee Disease. 10-K300-95301, 29 April 2014. Version 1.0.
19. Australian Orthopaedic Association National Joint Replacement Registry. Annual Report. Adelaide AOA; 2016 Table KT12: Cumulative Percent Revision of Primary Total Knee Replacement (Primary Diagnosis OA)