Why OXINIUM® for Total Knee Arthroplasty?
Because you can't ignore the facts...

- **Unique metal composition**
  - Much lower nickel, cobalt and chromium levels compared to cobalt chrome implants

- **Proven wear performance**
  - Reduction in wear vs. cobalt chrome
  - Retrievals have less damage vs. cobalt chrome
  - Excellent clinical outcomes and high survival rates

- **Real life results**

### Unique metal composition

<table>
<thead>
<tr>
<th>Nickel content (max)</th>
<th>CoCr Alloy</th>
<th>OXINIUM ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0035</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cobalt content (max)</th>
<th>CoCr Alloy</th>
<th>OXINIUM ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.002</td>
<td>58-68</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chromium content (max)</th>
<th>CoCr Alloy</th>
<th>OXINIUM ALLOY</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02</td>
<td>27-30</td>
<td></td>
</tr>
</tbody>
</table>

Nickel, cobalt, and chromium are commonly cited allergens for knee replacement patients. Surgeons should be aware that all metal implants contain varying amounts of nickel, cobalt and chromium. When selecting the appropriate implant, surgeons should consider the composition of each implant before use. To help with this decision, Smith & Nephew offers proprietary OXINIUM alloy which has a unique metal composition for orthopedic implants. Compared to cobalt chrome, OXINIUM alloy has much lower nickel (<0.0035%), cobalt (<0.002%) and chromium (<0.02%) levels.

### Proven wear performance

VERILAST Technology (OXINIUM + XLPE) in the LEGION® Primary Knee System demonstrates superior wear performance in 45 million cycle testing.

![Comparison of volumetric wear rates](image)

Comparison of the mean volumetric wear of CoCr/CPE after simulating 5 Mc of use and VERILAST after simulating 45 Mc respectively.

VERILAST Technology is the only bearing technology with published results of 45 Million Cycles of knee in-vitro wear simulation testing with the LEGION Primary Knee System.
These facts suggest that implants made with OXINIUM Technology offer a better chance than cobalt chrome of meeting patients’ long-term needs.

References
7. Biomet publication, Claims for E1 Antioxidant Infused Technology