Primary Trabecular Metal™ Knee
Trabecular Metal Material

- 20 years of clinical results
- 350 peer reviewed papers, posters, and abstracts documenting its effectiveness in a variety of applications\(^1\)
- Well over 2 Million Trabecular Metal Material devices implanted

Trabecular Metal Material is a porous biomaterial made from elemental Tantalum with structural, functional, and physiological properties similar to cancellous bone\(^2\).\(^4\)

Made from Elemental Tantalum:

- Commercially pure
- Element 73
- Biocompatible\(^5\)
- Corrosion resistant

Trabecular structure up to 80 percent porous with a 100 percent open-interconnected cell structure designed to support bony in-growth and vascularization.\(^4\)

- High coefficient of friction against bone. Coefficient of Friction = .98
- 440 micron average pore inner diameter for bone ingrowth and vascularization

Trabecular Metal Implants appear to maintain the tibial bone mineral density in a parallel fashion to the nonoperative limb and better than historical controls.\(^5\)
Persona® TM Femur

- 2 mm increments
- Fits standard and narrow
- Designed for maximum porous coverage – 25% increase vs. NexGen Knee

NexGen TM Patella

- Direct compression molded polyethylene
- No locking mechanism needed
- Polyethylene material with an excellent track record
- At seven years and 115 knees, no revisions for aseptic loosening were reported
NexGen® TM Monoblock Tibia

- Polyethylene direct compression molded interface eliminates potential for backside wear
- Modulus of Trabecular Metal/polyethylene construct similar to bone
- First implanted in June 1999....18 years!
- 100% survivorship at seven years postop with revision for aseptic loosening in 1143 knees

NexGen TM Modular Tibia

- Compatible with NexGen CR-Flex or LPS-Flex Fixed Bearings
- Conventional and Prolong® Polyethylene Bearings available
- First Implanted in 2007....10 years!
- 100% survivorship at two year follow-up for loosening on 47 patients

<table>
<thead>
<tr>
<th>Elastic Modulus (GPa)</th>
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<tbody>
<tr>
<td>Trabecular Bone</td>
</tr>
<tr>
<td>Subchondral Bone</td>
</tr>
<tr>
<td>Trabecular Metal</td>
</tr>
<tr>
<td>Cortical Bone</td>
</tr>
<tr>
<td>Titanium Alloy</td>
</tr>
<tr>
<td>Cobalt-Chromium</td>
</tr>
<tr>
<td>.01(GPa)</td>
</tr>
<tr>
<td>2(GPa)</td>
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<tr>
<td>3(GPa)</td>
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<tr>
<td>15(GPa)</td>
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<tr>
<td>110(GPa)</td>
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<tr>
<td>210(GPa)</td>
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References


*Applies to monolithic TM

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