

# Primary Trabecular Metal™ Knee

Brochure



ZIMMER BIOMET  
Your progress. Our promise.®

# Trabecular Metal Material

- 20 years of clinical results
- 350 peer reviewed papers, posters, and abstracts documenting its effectiveness in a variety of applications<sup>1</sup>
- 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.<sup>2-4</sup>

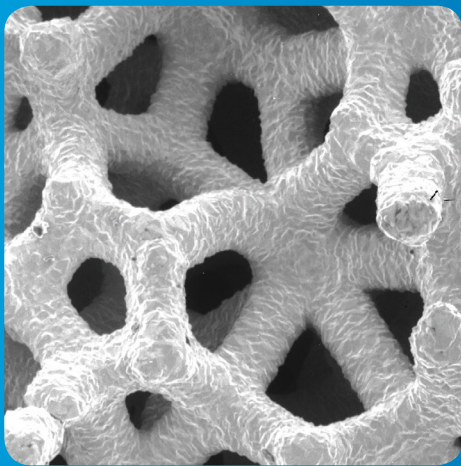
Made from Elemental Tantalum:

- Commercially pure
- Element 73
- Biocompatible<sup>5</sup>
- Corrosion resistant

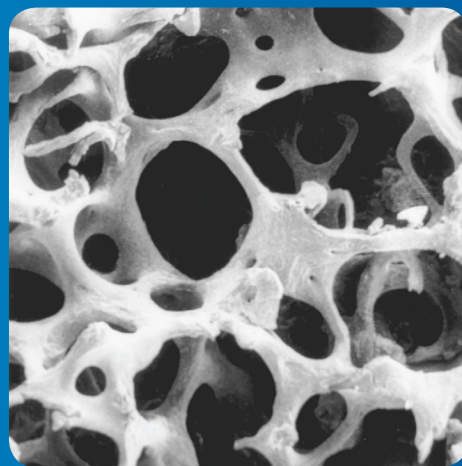
Trabecular structure up to 80 percent porous with a 100 percent open-interconnected cell structure designed to support bony in-growth and vascularization.<sup>4</sup>

- 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.<sup>6</sup>



**Trabecular Metal Material**



**Human Bone Cell**

## Persona<sup>®</sup> TM Femur



- 2 mm increments
- Fits standard and narrow
- Designed for maximum porous coverage – 25% increase vs. NexGen Knee<sup>10</sup>

## 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<sup>7</sup>



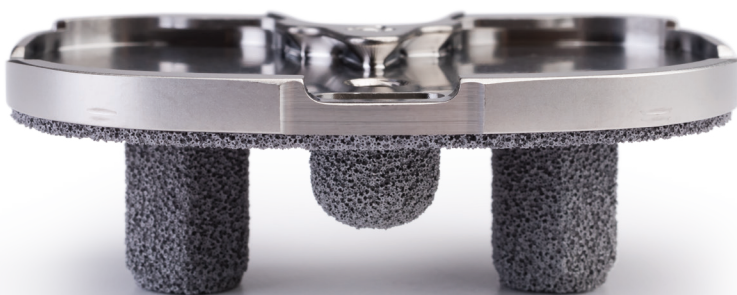


# NexGen<sup>®</sup> TM Monoblock Tibia



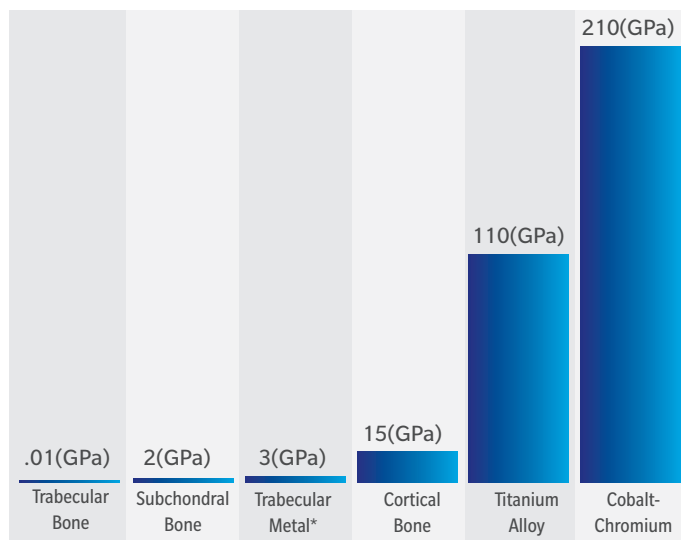
- Polyethylene direct compression molded interface eliminates potential for backside wear
- Modulus of Trabecular Metal/polyethylene construct similar to bone
- First implanted in June 1999....18 years!
- 100% survivorship at seven years postop with revision for aseptic loosening in 1143 knees<sup>8</sup>

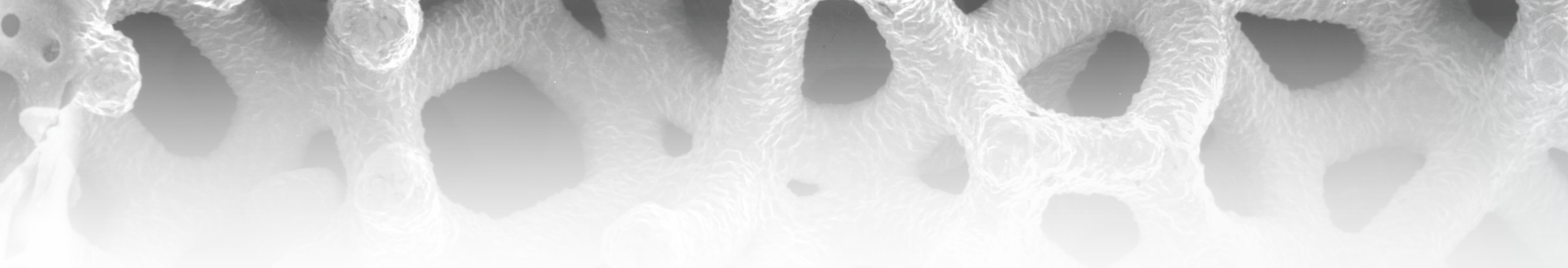
# NexGen TM Modular Tibia



- Compatible with NexGen CR-Flex or LPS-Flex Fixed Bearings
- Conventional and Prolong<sup>®</sup> Polyethylene Bearings available
- First Implanted in 2007....10 years!
- 100% survivorship at two year follow-up for loosening on 47 patients<sup>9</sup>

Elastic Modulus (GPa)





Persona CR Femur



Persona PS Femur



Persona CR Femur



Persona PS Femur



NexGen CR  
Monoblock Tibia



NexGen LPS  
Monoblock Tibia



NexGen CR-Flex  
Bearing



NexGen LPS-Flex  
Bearing



NexGen Modular Tibia



NexGen TM Patella



Primary TM CR  
Monoblock  
Construct



Primary TM PS  
Monoblock  
Construct



Primary TM CR  
Modular  
Construct



Primary TM PS  
Modular  
Construct

## References

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\*Applies to monolithic TM

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