Arcos® One-piece Femoral Revision System

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The fully porous, distal fixation philosophy of the Arcos® One-piece Femoral Revision System offers three cylindrical, forged titanium stem options with a unique size range to address a wide range of femora, including patients of small stature.

Built upon the clinical success of the Arcos Modular System launched in 2010[1], the Arcos One-piece System shares many of the same popular traits such as: stem geometry, intuitive instrumentation and a simple surgical technique. This system is designed to address the distinct needs of individual patients, while simplifying surgical workflow and reducing instrumentation burden.

The Importance of Surface Structure in Distal Fixating Implant Design

The implant surface area is the only aspect of a prosthesis to touch patient bone. The efficacy of the surface structure is an important contributing factor to the long-term stability of the implant.[2,3] This is a critical factor in difficult primary and revision hip arthroplasty when bone quality is unfavorable in the proximal region and a fully porous, distal fixating prosthesis is desired.

Zimmer Biomet's PPS® (Porous Plasma Spray) coating was introduced in 1981 and continues to achieve clinically proven success,[4-11] providing the following key benefits:

- **Creates a mechanical interlock with the substrate, resulting in nearly a two-fold increase in fatigue strength when compared with sintered surface coatings.[12]**
- **Provides initial implant stability through a scratch-fit fixation obtained by enhanced surface roughness.**
- **Maximizes short and long-term ingrowth through random, non-interconnected pores and pore size distribution. Creates a barrier to migrating debris particles, reducing the likelihood of osteolysis.[13]**

The Arcos One-piece Broach Body Stem

The Arcos One-piece broach body stem is designed to provide rotational stability and proximal offloading to address complex primary and simple revision (Type I and II femoral defects) Total Hip Arthroplasty (THA).

1. **Polished Bullet-shaped Distal Tip –** Provides a gradual separation from cortex for reduction in distal stresses
2. **Stem Design and Length Options –** Available in 175 and 210 mm stem lengths
3. **Forged Titanium Alloy (Ti-6Al-4V) Substrate –** Flexibility of titanium allows for stress transfer to preserve cortical density[14,15]
4. **Reduced Medial Geometry –** Designed to minimize impaction force on proximal bone during bone preparation and implantation
5. **Proximal Collar –** Designed to control stem seating depth (available in 175 mm length stem)
6. **Dual Distal Relief –** Improves surgical efficiency by providing easier insertion into canal and eliminating the need for left and right specific femoral implant options (only available in 210 mm length stem)
7. **Distal Fixation –** Fully cylindrical distal geometry provides initial fixation distally for the highest level of cortical bone-to-implant contact
8. **Clinically Proven PPS Coating –** Allows for initial scratch-fit stability and long-term biological fixation[16,17]
9. **Offset Options –** Standard and high offset options reproduce various patient anatomies without lengthening the leg

Exceeding Expectations

Exceeding patient expectations, advancing medical treatment and meeting healthcare system economical restraints continue to be the focus of the orthopedic industry. Zimmer Biomet partners with healthcare professionals and Group Purchasing Organizations (GPOs) to look for new ways to meet and exceed these requirements.

The Arcos One-piece Femoral Revision System offers technologically advanced implant designs paired with reduced instrumentation and a streamlined implant range to keep cost at a minimum without sacrificing quality of care.

The Arcos One-piece Calcar Replacing Stem

The Arcos One-piece calcar replacing femoral stem is designed for cases that involve deficiencies in the medial calcar, where proximal femoral support is desired. This design maintains the same features of the broach body stem, with the addition of a calcar shelf to address Type IIIa femoral defects. A Type IIIa femoral defect is defined as a violation of the proximal femur above the lesser trochanter. The calcar shelf level and vertical height was designed to address this defect by placing the calcar shelf level at +0 mm.

Note: Utilize the Arcos Modular Femoral Revision System for deficiencies in the medial calcar greater than a Type IIIa defect.

Calcar Shelf – designed to control stem seating depth

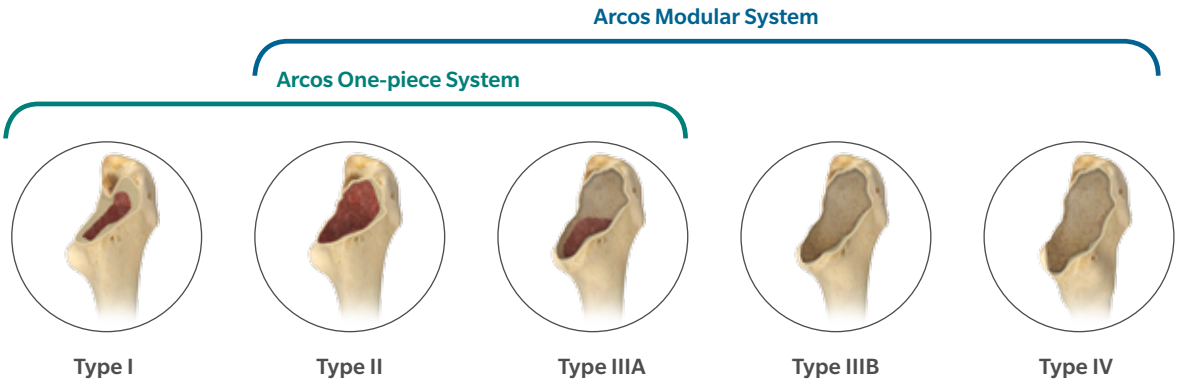
Providing a Secure Fit

To address the anatomic bow in the femoral canal, the Arcos One-piece 210 mm stem option has been designed with a dual distal relief. This unique feature simulates a traditional three degree bowed implant to avoid distal impingement and provide a secure fit in the femoral curvature. In addition, the need for a left and right specific implant is alleviated to reduce inventory burden.

Simplify the Complex

The Arcos One-piece System is part of the broader Arcos platform, designed to simplify hip arthroplasty from difficult primary through complex revision cases. A wide range of extensive femoral defects may be addressed with the additional implant and auxiliary fixation options of the Arcos modular system. This combined platform of one-piece and modular options, facilitates multiple surgical techniques and allows surgeons and OR staff to personalize both the implant and its corresponding instruments in a way that addresses patient and practice needs.

Paprosky Femoral Defect Classification



Unmatched Clinical Heritage

Zimmer Biomet's unmatched clinical heritage is the foundation of our world-class hip portfolio. By integrating our extensive clinical experience with modern technological advancements, individual patient needs are addressed and new possibilities discovered.

100% Survivorship at **1.5 years** – **Arcos** Modular Femoral Revision System[1]

100% Survivorship at **2 years** – **G7®** PPS Shell[18]

98% Survivorship at **10 years** – **Mallory-Head®** Calcar Revision System[19]

98% Survivorship at **15 years** – **RingLoc®** Acetabular System[20]

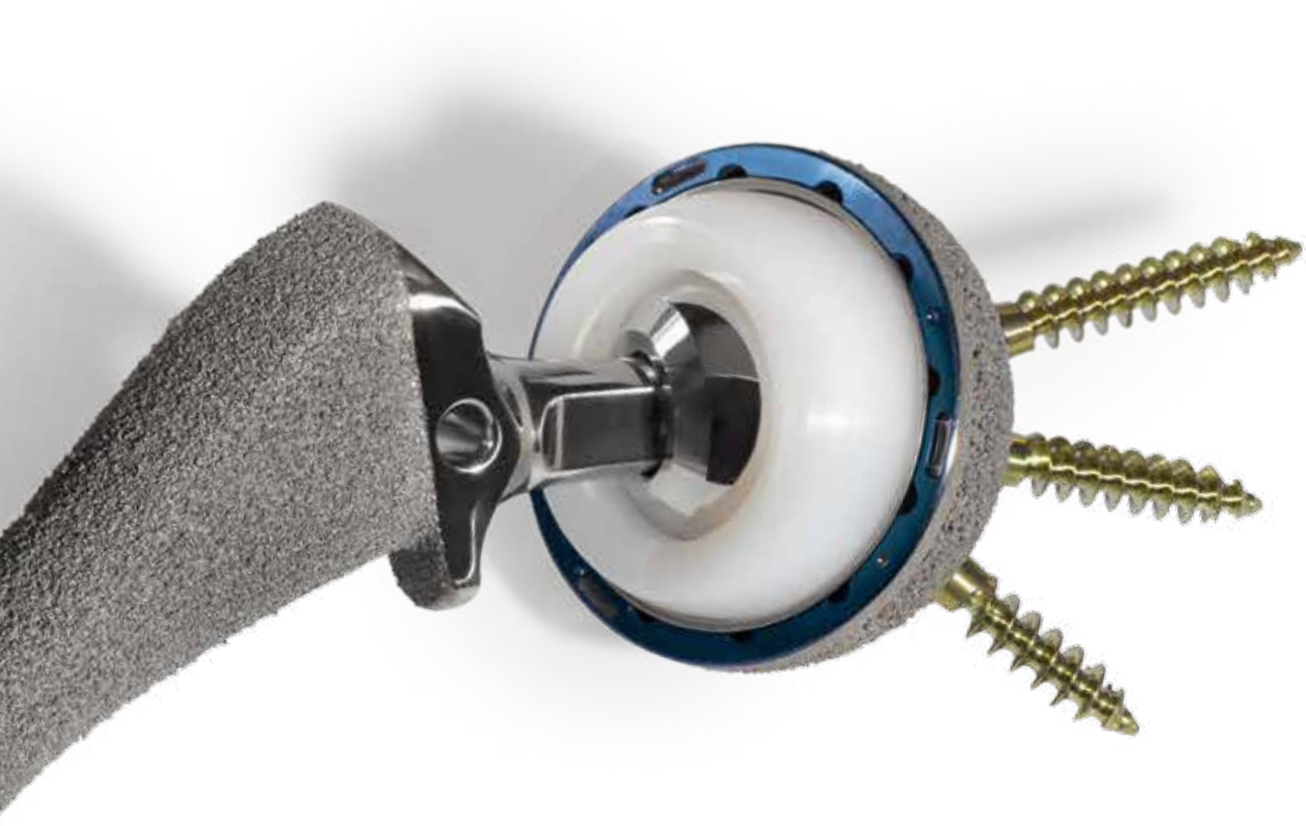
98% Survivorship at **5 years** – **Exceed™** ABT Acetabular System[21*]

98% Survivorship at **5 years** – **E1®** Antioxidant Infused Technology[22]

99% Survivorship at **5 years** – **ArComXL®** Polyethylene[22]

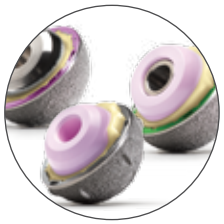
99% Survivorship at **26 years** – **PPS** Porous Plasma Spray Coating[23]

97% Survivorship at **9 years** – **Avantage™** Dual Mobility Acetabular System[24*]



Stability Made Simple

The G7 Acetabular System unites the latest technological advances in shell, fixation and bearing options designed to establish a stable joint in Total Hip Arthroplasty. Along with its streamlined instrumentation platform, surgeons and hospitals have the ability to address the distinct needs of individual patients.



Simplicity.

This multi-bearing system provides more liner and sizing options to help resist dislocation than any other acetabular system on the market today.[25–28]

Efficiency.

The G7 instrumentation platform, along with its unique proprietary color-coding system, is designed to streamline the delivery system.

Performance.

Through a proprietary manufacturing process, OsseoTi® Porous Metal Technology directly mimics human cancellous bone, enabling surgeons to benefit from a highly porous material without compromising head to shell ratio.

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*Not available for sale in the United States.

For product information, including indications, contraindications, warnings, precautions, potential adverse events, see package insert and www.zimmerbiomet.com

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