G7 ACETABULAR SYSTEM

beautifully efficient.

BIOMET
SIMPLICITY, EFFICIENCY AND PERFORMANCE

The G7 System is a multi-bearing acetabular platform delivering simplicity, efficiency and performance to optimize the operating room experience. With the latest technological developments in implant and instrumentation design, it offers a wide range of acetabular shell options, clinically proven fixation, and advanced bearing technologies within a simple, elegant and highly flexible instrumentation platform.
CLINICALLY PROVEN HERITAGE
Biomet continues to expand upon its rich history of clinically successful acetabular products. The clinical experience with RingLoc and Exceed® acetabular systems, E1 Antioxidant Infused Technology and PPS coating has provided the foundation for the development of the G7 System.

98% survivorship at 15 years12 - RingLoc Acetabular System
98% survivorship at 5 years13 - Exceed ABT Acetabular System
100% survivorship at 3 years14,15 - E1 Antioxidant Infused Technology
99% survivorship at 3 years16 - ArComXL Polyethylene
99% survivorship at 26 years10,17 - PPS Porous Plasma Spray Coating*

*PPS Porous Plasma Spray Coating on Biomet Taperloc Stem
**ENGINEERED FOR ULTIMATE PERFORMANCE**

- **Patent Pending**
  - Color-Coded Shell
  - Corresponds with instrumentation and package labels to create an efficient and accurate OR environment**

- **Optimized Head to Shell Ratio**
  - Facilitates the use of a 36 mm head in a 50 mm shell

- **Polyethylene and Hard Bearing Locking Mechanisms**
  - Accommodate multiple polyethylene configuration options, including Freedom Constrained Liners, and hard bearing surfaces* for a wide spectrum of acetabular reconstructive needs

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**Push Out Strength**\(^8\)

- **Force (N)**
  - Biomet G7 E1 (10 Mrad): 2245
  - DePuy Synthes Pinnacle AltrX (7.5 Mrad): 847 (62% Lower)
  - Zimmer Continuum Longevity (10 Mrad): 2061 (8% Lower)
  - Stryker Trident X3 (10 Mrad): 1420 (36% Lower)

**Lever Out Strength**\(^8\)

- **Force (Nm)**
  - Biomet G7 E1 (10 Mrad): 50
  - DePuy Synthes Pinnacle AltrX (7.5 Mrad): 23 (53% Lower)
  - Zimmer Continuum Longevity (10 Mrad): 51 (Statistically equivalent)
  - Stryker Trident X3 (10 Mrad): 28 (43% Lower)

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* Push Out: Axial force required to dislodge a polyethylene liner from an acetabular shell
  - All tests were performed with 54 mm acetabular shells and 32 mm acetabular liners

* Lever Out: Disassembly force required to dislodge a polyethylene liner from an acetabular shell
  - All tests were performed with 54 mm acetabular shells and 32 mm acetabular liners

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* Hard bearings are not FDA cleared for sale in the US.
* Primary identification should be made using size and letter designations.
OSSEOTI POROUS METAL TECHNOLOGY

INSPIRED BY BONE

OsseoTi Porous Metal is created through the use of a proprietary additive manufacturing process, generating a porous material designed with a structure that directly mimics human cancellous bone. Clinically proven titanium (Ti6Al4V) material is used to build a fully integrated part with solid and porous regions while maintaining consistent porosity and strength to facilitate tissue ingrowth and implant stability.¹⁹ When applied to the G7 system, this enables surgeons to realize the benefits of highly porous technology without compromising head to shell ratio.

- Unique porous architecture has demonstrated excellent integration with host bone as early as 4 weeks in an animal study¹⁹*

- Porosity of approximately 69% directly mimics the structure of human cancellous bone

- Average pore size of 475 microns facilitates cell migration, vascularization and bone ingrowth¹⁹*

- Material strength between that of cancellous and cortical bone enhances biological fixation and loading of surrounding bone¹⁶,¹⁹*

* Animal studies are not necessarily indicative of clinical performance.
The G7 Acetabular System offers a wide range of bearing options, allowing each surgeon to choose what is right for each patient.

**BEARING WEAR**

5 million cycles on a hip simulator

- CoCr on ArComXL: 12.89 mm³/million cycles
- BIOLOX® delta on ArComXL: 10.04 mm³/million cycles
- CoCr on E1: 3.36 mm³/million cycles
- BIOLOX® delta on E1: 2.82 mm³/million cycles
- G7 CoC: 0.0094 mm³/million cycles

*Gamma Sterilized polyethylene test performed with 28 mm bearings. April, 2007
All other tests were performed with 62 mm acetabular shells and 44 mm bearings. Sept., 2012
ARCOMXL HIGHLY CROSSLINKED POLYETHYLENE
Low Wear, High Strength, Oxidative Stability
Utilizing a patented radiation crosslinking and free radical processing method, ArComXL polyethylene offers low wear, high strength, and oxidative stability.16

BIOLOX® delta CERAMIC LINER
Highly Biocompatible with High Fracture Resistance and Ultra Low Wear
This third generation ceramic provides increased fracture toughness and strength when compared to traditional alumina ceramic. BIOLOX® delta ceramic on ceramic articulations offer a safe and effective bearing option.22

E1 ANTIOXIDANT INFUSED TECHNOLOGY
The Protection of Vitamin E
E1 bearings are the only antioxidant infused bearings to use a proprietary diffusion process to maximize wear resistance,16 strength and oxidative resistance.

E1 FREEDOM CONSTRAINED LINER
High Constraint, Optimal Range of Motion
The Freedom Constrained liner offers both constraint and optimized range of motion. The pre-assembled constraining ring maximizes lever out force of the head and allows for easy assembly in-situ.20,21
Streamlining total hip replacement goes beyond implant design and bearing options.

Full optimization of implant and instrument delivery systems is required to improve flow and performance from implantation through processing. The G7 platform introduces a number of instrumentation advancements coupled with Biomet’s unique color-coding system in order to:

- Reduce the need for a large number of trays and instruments in the OR
- Customize instrumentation based on patient anatomy or surgeon preference
- Simplify implant and instrument selection during surgery

Easy-to-Use Inserter Handles
- Transmit tactile feedback during cup insertion
- Provide maximum control with ergonomic, comfortably-sized silicone grips
- Offer optimal overall handle balance to minimize effect on cup placement
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Unique Patient-Specific Mini Tray System
Reduces clutter in the operating room by allowing staff and surgeons to choose only the instrumentation needed

Face Plate Impactor
Liner Trial
Liner Packaging
From simple primary to complex revision arthroplasty, Biomet offers a comprehensive portfolio of total hip constructs that combine rich clinical heritage with modern technological advancements. Each of these is designed to address the distinct needs of individual patients, while simplifying surgical workflow.
G7 SHELL PORTFOLIO

G7 shells are available in limited and multi hole designs for use in both primary and revision total hip arthroplasty. Screw holes are clustered to allow for placement of screws in the strongest portion of pelvic bone. Holes are pre-plugged in limited hole shells to avoid the migration of polyethylene debris that could potentially cause osteolysis. The plugs can be removed if supplemental fixation is desired.

- **PPS and BoneMaster Limited Hole Acetabular Shell**
  - 42–68 mm (3 Hole, pre-plugged)

- **OsseoTi Limited Hole Acetabular Shell**
  - 42–52 mm (3 Hole, pre-plugged)
  - 54–68 mm (4 Hole, pre-plugged)

- **OsseoTi Multi Hole Acetabular Shell**
  - 42–80 mm
  - (number of holes increases as shell diameter increases; will not accept screw hole plugs)
One Surgeon. One Patient.

Over 1 million times per year, Biomet helps one surgeon provide personalized care to one patient.

The science and art of medical care is to provide the right solution for each individual patient. This requires clinical mastery, a human connection between the surgeon and the patient, and the right tools for each situation.

At Biomet, we strive to view our work through the eyes of one surgeon and one patient. We treat every solution we provide as if it’s meant for a family member.

Our approach to innovation creates real solutions that assist each surgeon in the delivery of durable personalized care to each patient, whether that solution requires a minimally invasive surgical technique, advanced biomaterials or a patient-matched implant.

When one surgeon connects with one patient to provide personalized care, the promise of medicine is fulfilled.