



Taperloc® Complete Hip System

BIOMET®

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.

Taperloc® Complete Hip System

Over the past 26 years, the Taperloc® Hip stem has become the industry standard in cementless hip arthroplasty.¹ Combining this unmatched clinical success with Biomet's commitment to product innovation, the Taperloc® Complete Hip system has been introduced with design enhancements that restore leg length, stability, offset and ROM accurately and consistently.



Clinical Success of the Taperloc® Hip System

100% Survivorship

at a minimum 5 year follow-up in 49 rheumatoid patients²

100% Survivorship

at a 2–11 year follow-up in 114 patients 80 years old or older³

99.6% Survivorship

at a 12 year follow-up of 4,750 patients⁴

99% Survivorship

at a 22–26 year follow-up in 138 patients¹

99% Survivorship

at a 12 year follow-up in 115 patients⁵

98% Survivorship

at 8–13 year follow-up in 91 patients 50 years old or younger⁶

95% Survivorship

at a 10–18 year follow-up in 89 obese patients⁷

94% Survivorship

at a 10–18 year follow-up in 99 non-obese patients⁷

Taperloc® Complete Hip Stem

Polished Anterior-Posterior Neck Flats

Increase ROM by geometrically reducing the potential for impingement of the neck with the cup⁸

Rotational Stability Insertion Hole

Provides rotational stability upon implantation

Clinically Proven PPS® Coating

Allows for initial scratch-fit stability and bone fixation^{2,3,9,10}

Optimal Neck Angle

133° neck angle increases ROM and improves stability through increased soft tissue tension¹¹⁻¹³

Offset Option

Standard and high offset options reproduce various patient anatomies without lengthening the leg

Reduced Distal Transition

Enhances implant fit in femoral canals with a proximal/distal mismatch



Acetabular Options with E1® Antioxidant Technology



E1® Antioxidant Infused Liners with BIOLOX® delta Ceramic heads

- Wear rates similar to MoM¹⁴
- Oxidative stability¹⁴
- High strength¹⁴
- Large head options



E1® Active Articulation

- Large head for reduced risk of dislocation¹⁵
- Large ROM – 163° with 60 mm E1® bearings¹⁴
- Ultra-low wear – tested at suboptimal cup position (60° inclination)¹⁴
- Clinically proven cup design and PPS® coating^{9,16}

Titanium Alloy Ti-6AL-4V

Flexibility of titanium allows for stress transfer to preserve cortical density

Flat Tapered Wedge Geometry

Enhances proximal offloading and bone preservation and provides for rotational stability

Profile Options

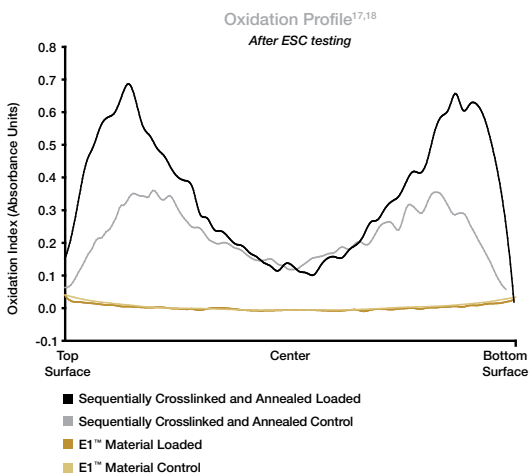
Full length stem available in full profile and reduced distal options

Taperloc® Complete Hip Stem

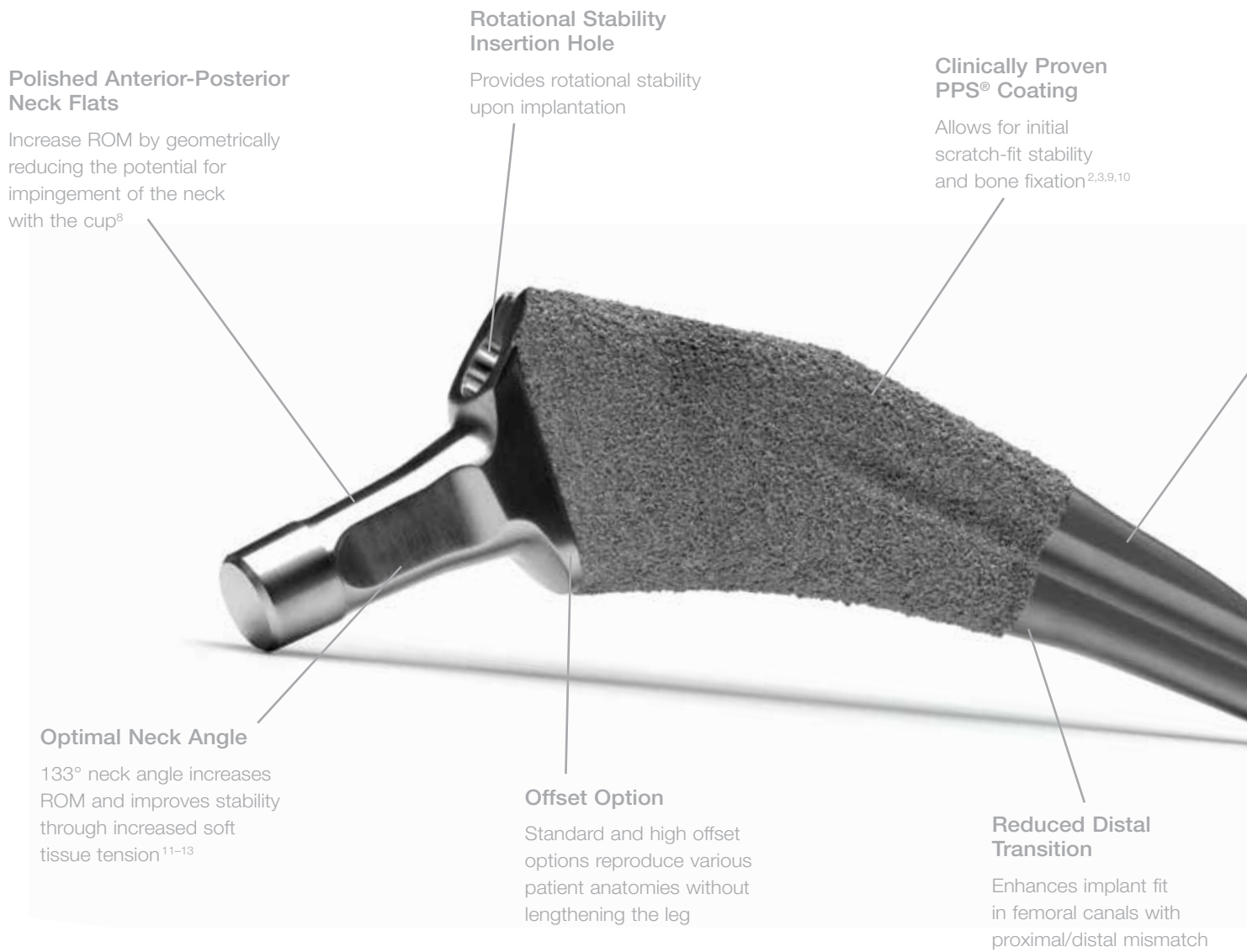
The Taperloc® Complete stem features a reduced distal geometry in which a gradual reduction of the stem substrate occurs distal to the porous coating level. The Taperloc® Complete stem's reduced distal geometry enhances the proximal fill of the implant in the metaphysis. This particular design is the optimal choice to address a proximal/distal mismatch, which is common in a Dorr Type A femur, by properly accommodating the proximal metaphysis without the need to fit a narrow distal femoral geometry. This design enhancement is based on the traditional Taperloc® Reduced Distal stem which has been clinically successfully for over 16 years.⁵



The Taperloc® Complete stem design accurately addresses proximal/distal mismatch as seen in the x-ray above.

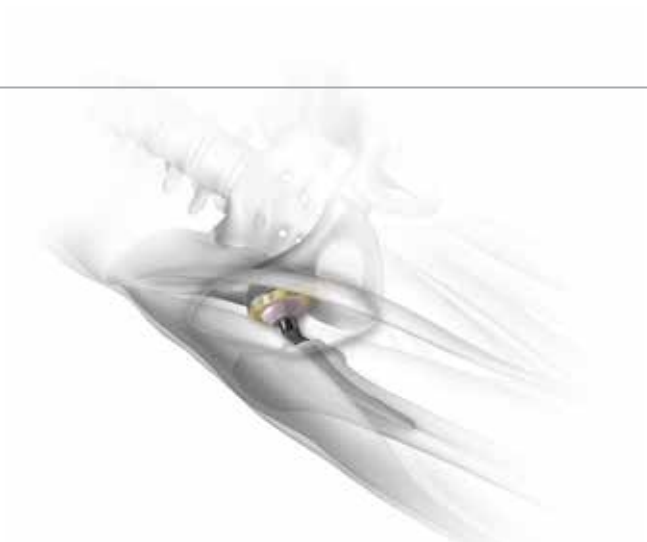


Taperloc® Complete Microplasty® Hip Stem



Surgeon Education Opportunities

The Anterior Supine Intramuscular (ASI) approach has shown many patient benefits¹⁹⁻²¹ whether utilizing a specialized fracture or standard operating table. Biomet offers a number of resources for surgeons to explore the ASI approach in the manner that best suits surgeon and hospital needs.



Titanium Alloy Ti-6AL-4V

Flexibility of titanium allows for stress transfer to preserve cortical density

Flat Tapered Wedge Geometry

Enhances proximal offloading and bone preservation and provides for rotational stability

Reduced Length

Stem length reduced 35 mm to preserve soft tissues and bony structures and better accommodate minimally invasive approaches

Taperloc® Complete Microplasty® Stem

The Taperloc® Complete Microplasty® stem is built upon the strong clinical heritage of the Taperloc® stem and incorporates the same design enhancements as the Taperloc® Complete full length stem. This stem option has been shortened 35 mm from the standard length stem to better address minimally invasive techniques, provide an alternative to femoral resurfacing and offer a unique solution in cases where a bone conserving prosthesis is desirable.



ASI Hip Instructional Courses

- One-day course with standard OR and ASI specific tables
- Led by experienced ASI faculty
- Didactic and hands-on cadaveric training

Surgeon Visitation Program

- One-on-one experience with ASI surgeon
- Observe live surgery
- Discuss implant design and rationale

For more information on these opportunities, please visit biometosa.com.

Taperloc® Complete XR 123° Hip Stem*

Polished Anterior-Posterior Neck Flats

Increase ROM by geometrically reducing the potential for impingement of the neck with the cup¹

Rotational Stability Insertion Hole

Provides rotational stability upon implantation

Clinically Proven PPS® Coating

Allows for initial scratch-fit stability and bone fixation⁹⁻¹¹

123° Neck Angle

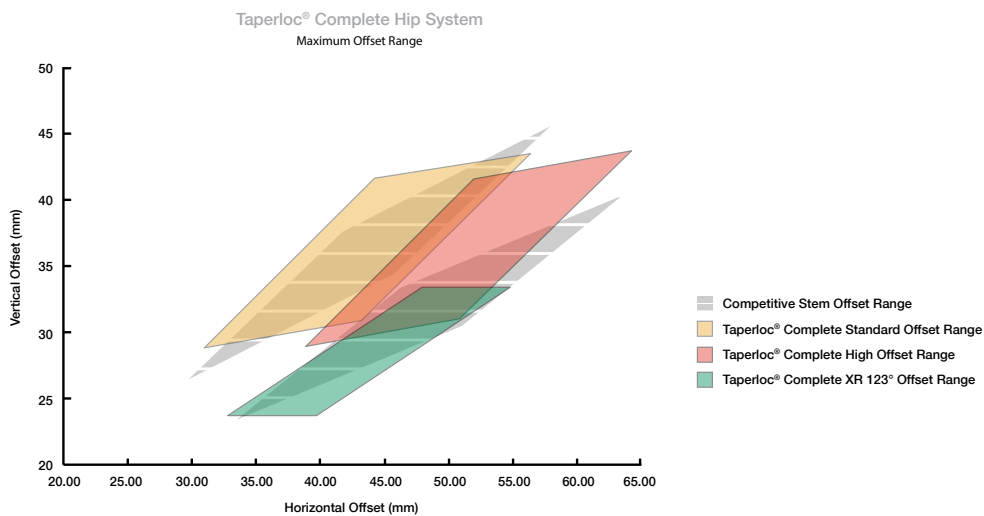
Addresses varus anatomies or coxa vara femoral types by providing additional horizontal offset and low vertical offset for increased soft tissue tension

Reduced Distal Transition

Enhances implant fit in femoral canals with proximal/distal mismatch



With the introduction of the Taperloc® Complete XR 123° stem option, the Taperloc® Complete system can accommodate a larger range of offsets to better restore patient biomechanics. The adjacent chart shows the additional offsets achieved with the Taperloc® Complete compared to a competitive system.



*Not for sale in Canada.

Titanium Alloy Ti-6AL-4V

Flexibility of titanium allows for stress transfer to preserve cortical density

Flat Tapered Wedge Geometry

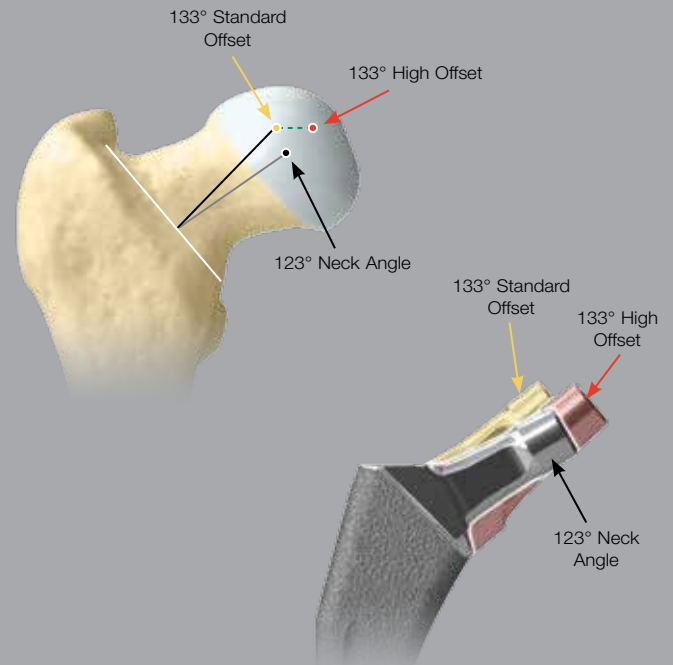
Enhances proximal offloading and bone preservation and provides for rotational stability

Profile Options

Available in Full Length
Reduced Distal and
Microplasty® stem options

Taperloc® Complete XR 123° Stem

The Taperloc® Complete XR 123° stem option has the same stem geometry as the Taperloc® Complete Full length and Microplasty® stems, but provides a 123° degree neck angle and a shortened neck length by 2 mm. These unique design features help to address femurs with a more varus neck by allowing for additional offset to properly restore hip biomechanics and soft tissue tensioning.



References

1. McLaughlin, J.R. and Lee, K.R. Survivorship at 22 to 26 Years Reported with Uncemented Tapered Total Hip Stem. *Orthopedics Today*. 30(1): 1, 2010.
2. Rothman, R. *et al.* Cementless Femoral Fixation in the Rheumatoid Patient Undergoing Total Hip Arthroplasty: Minimum 5 Year Results. *Journal of Arthroplasty*. 16(4): 415–21, 2001.
3. Keisu, K.S. *et al.* Primary Cementless Total Hip Arthroplasty in Octogenarians: Two to Eleven Year Follow-up. *Journal of Bone and Joint Surgery*. 83: 359, 2001.
4. Hozack, W. Ten Year Experience with a Wedge Fit Stem. Crucial Decisions in Total Joint Replacement and Sports Medicine. Presentation. Bermuda, 1999.
5. McLaughlin, J.R. and Lee, K.R. Cementless Total hip Replacement Using Second-generation Components. *Journal of Bone and Joint Surgery (British)*. 92(12): 1636–41, 2010.
6. McLaughlin, J.R. and Lee, K.R. The Outcome of Total Hip Arthroplasty in Young Patients. 8- to 13-Year Results Using an Uncemented Stem. *Clinical Orthopaedics and Related Research*. 373: 153–63, 2000.
7. McLaughlin, J.R. and Lee, K.R. The Outcome of Total Hip Replacement in Obese and Non-obese Patients at 10- to 18-Years. *Journal of Bone and Joint Surgery (British)*. 1286–92, 2006.
8. Davey J.R., Femoral Offset. http://orthonet.on.ca/emerging_trends/notes/Fe=moral%20Offset.htm (accessed February 15, 2010).
9. McLaughlin, J. *et al.* Total Hip Arthroplasty with an Uncemented Tapered Femoral Component. *Journal of Bone and Joint Surgery*. 6(90):1290–6, 2008.
10. Rothman, R. *et al.* Immediate Weight Bearing after Uncemented Total Hip Arthroplasty. *Clinical Orthopaedics and Related Research*. 349: 156–62, 1998.
11. Bourne R.B. and Rorabeck C.H. Soft Tissue Balancing: The Hip. *Journal of Arthroplasty*. 17(4):17–22, 2002
12. Charnley J. Low Friction Principle. Charnley J. Low Friction Arthroplasty of the Hip. New York: Springer-Verlag. 3–15, 1979.
13. McGrory B.J. *et al.* Effect of Femoral Offset on Range of Motion and Abductor Muscle Strength after Total Hip Arthroplasty. *Journal of Bone and Joint Surgery (British)*. 17(4): 865–9, 1995.
14. Data on File at Biomet. Bench test results not necessarily indicative of clinical performance.
15. Beaulé, *et al.* Jumbo Femoral Head for the Treatment of Recurrent Dislocation Following Total Hip Replacement. *Journal of Bone and Joint Surgery*. 84A(2): 256–63, 2002.
16. Multi-Center Study. Data on file at Biomet.
17. Data on file at Biomet. Bench test results not necessarily indicative of clinical performance.
18. Nabar, S. *et al.* Comparison of Second Generation Highly Crosslinked Polyethylenes Under Adverse Aging Conditions. ORS 2008. Poster No. 1684.
19. Kennon R. *et al.* Anterior Approach for Total Hip Arthroplasty: Beyond the Minimally Invasive Technique. *Journal of Bone and Joint Surgery*. 86(2): 91–7, 2004.
20. Nakata, K. *et al.* A Clinical Comparative Study of the Direct Anterior With Mini-Posterior Approach. *Journal of Arthroplasty*. 24(5): 698–704, 2009.
21. Bal, B.S. *et al.* Early Complications of Primary Total Hip Replacement Performed with a Two-Incision Minimally Invasive Technique. *Journal of Bone and Joint Surgery*. 87(11): 2432–8, 2005.

BILOX[®]*delta* is a trademark of CeramTec AG.

All trademarks herein are the property of Biomet, Inc. or its subsidiaries unless otherwise indicated.

This material is intended for the Biomet Sales force and physicians only and is NOT intended for patient distribution. It is not to be redistributed, duplicated or disclosed without the express written consent of Biomet.

For product information, including indications, contraindications, warnings, precautions and potential adverse effects, see the package insert and Biomet's website.



One Surgeon. One Patient.®

©2013 Biomet Orthopedics • Form No. BMET0128.2 • REV011513

Responsible Manufacturer
Biomet, Inc.
P.O. Box 587
56 E. Bell Drive
Warsaw, Indiana 46581-0587
USA

www.biomet.com

European Representative
Biomet UK, Ltd.
Waterton Industrial Estate
Bridgend, South Wales
CF31 3XA
UK

www.biometeurope.com