finity™ FEMORAL SYSTEM

ONE PLATFORM. INFINITE POSSIBILITIES.



Brochure

Joint | Spine | Sports Med

Medacta International

MODERN, ROUNDED, TRIPLE-TAPER DESIGN

As the latest advancement in **state-of-the-art** femoral stem design, the **Mfinity Femoral System** features a **metaphyseal-filling** stem developed to accommodate **modern femoral anatomy** and **MIS approaches**, including **Anterior Minimally Invasive Surgery (AMIS)**.

Featuring a **triple-taper** design with a **rounded trapezoidal cross-section**, Mfinity offers the most **comprehensive** and **versatile** solution to **efficiently** address **diverse patient anatomies** and **surgical requirements** with a **single system**.



Medacta International

ONE PLATFORM. INFINITE POSSIBILITIES.

COMPREHENSIVE SYSTEM

Multiple stem options to accommodate individual patient needs and surgeon preferences.

DATA-DRIVEN DESIGN

Optimized design for ideal anatomical fit, biomechanics, and minimally invasive approaches.

EFFICIENT INSTRUMENTATION

A single tray for collared and collarless stems,
adaptable to any surgical approach.



COMPREHENSIVE SYSTEM

The Mfinity system provides **unmatched flexibility**. Its **collared** and **collarless** stem options allow surgeons to adapt treatment to **each patient's needs** while respecting their **individual surgical philosophy**.

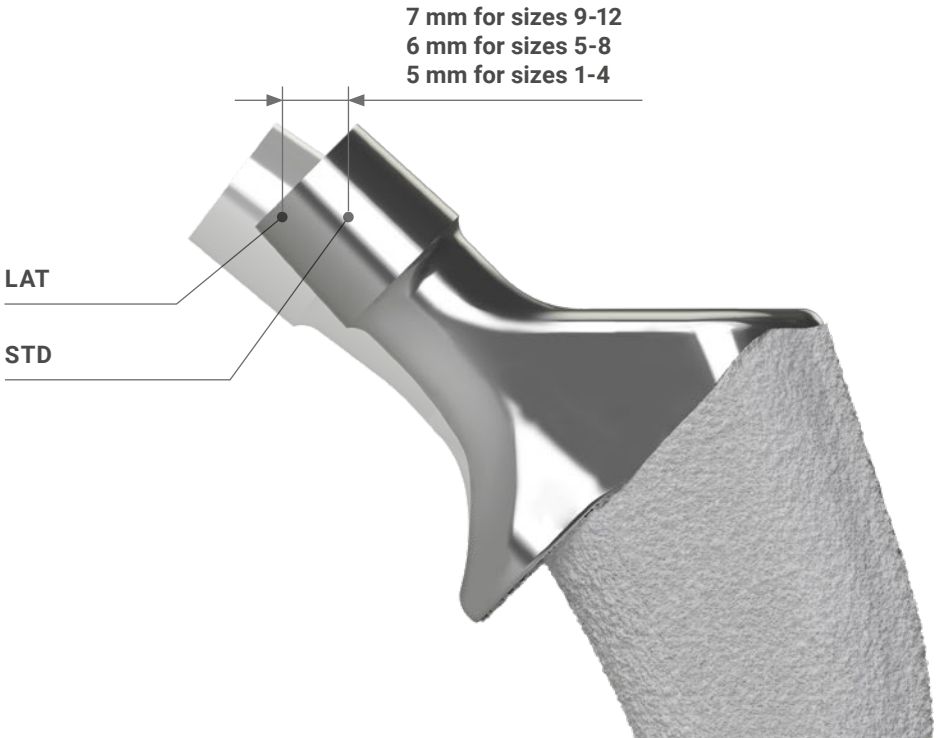
Mfinity L completes the system, offering a **longer ream & broach cementless** option optimized for surgeons who prefer this design.

EXTENSIVE STEM OPTIONS IN A WIDE RANGE OF SIZES

Mfinity features **13 standard** and **12 lateralized sizes** designed to accommodate a variety of patient anatomies. **Small growth increments** between sizes help ensure **proper fit** within the femur, while **stem length** increases progressively by 3 mm with each size.

PROGRESSIVE LATERAL OFFSET VARIATION

Mfinity stems are available in **two offset options**. To better address the **full anatomical range**, the **lateralized version** adds **progressively more offset** from smaller to bigger sizes. The **leg length** is **not affected** when changing from standard to lateralized.



ONE PLATFORM. INFINITE POSSIBILITIES.



finity™

Size range:
STD 0-12; LAT 1-12

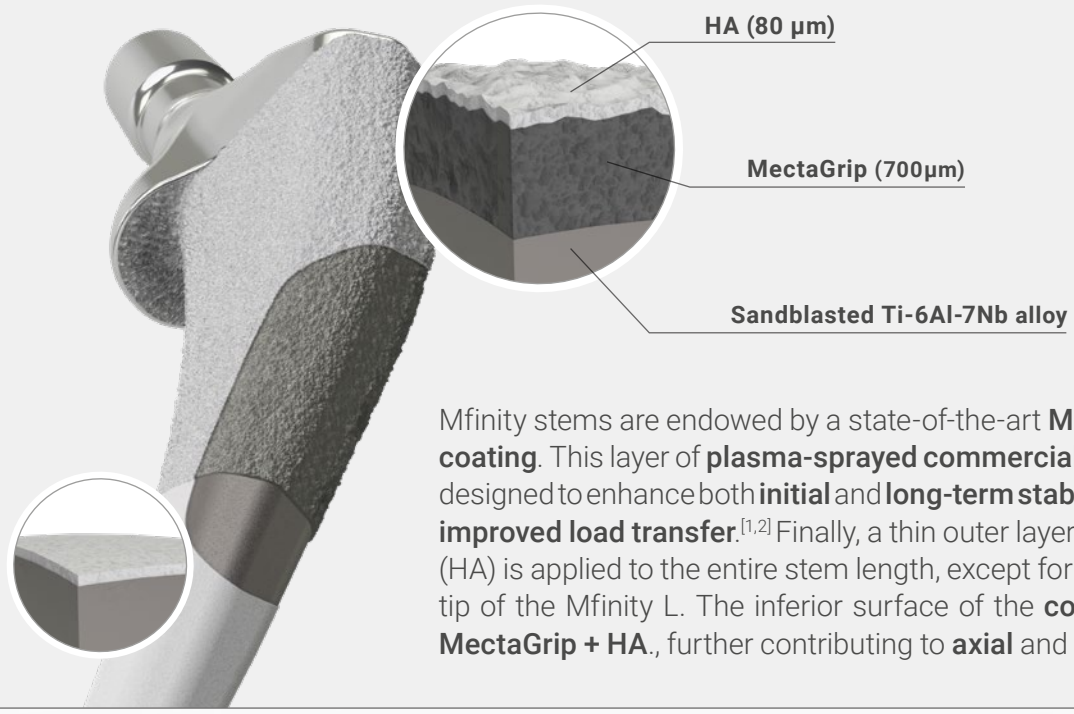


finity™ L

Size range:
STD 1-12; LAT 1-12

DATA-DRIVEN DESIGN

CLINICALLY PROVEN PROXIMAL COATING



Mfinity stems are endowed by a state-of-the-art **MectaGrip proximal coating**. This layer of **plasma-sprayed commercially pure titanium** is designed to enhance both **initial** and **long-term stability**, allowing for an **improved load transfer**.[1,2] Finally, a thin outer layer of **hydroxyapatite** (HA) is applied to the entire stem length, except for the polished distal tip of the Mfinity L. The inferior surface of the **collar** is coated with **MectaGrip + HA**., further contributing to **axial** and **torsional stability**.



REDUCED DISTAL GEOMETRY

Helps mitigate the risk of distal potting and allows for improved proximal fit. It is designed to accommodate a broad range of femur anatomies.

ONE PLATFORM. INFINITE POSSIBILITIES.

12/14 TAPER

Standard 12/14 Eurocone (5°42'30"), compatible with all Medacta femoral heads and sleeves.

MEDIAL COLLAR OPTION

A size-specific progressive collar provides proportional calcar coverage without compromising surrounding soft tissues.



FULLY POLISHED NECK

Designed to minimize liner and soft tissue debris.

TWO IMPACTOR OPTIONS

Available in straight or angled versions, with either half-moon or cross terminals.

DATA-DRIVEN DESIGN

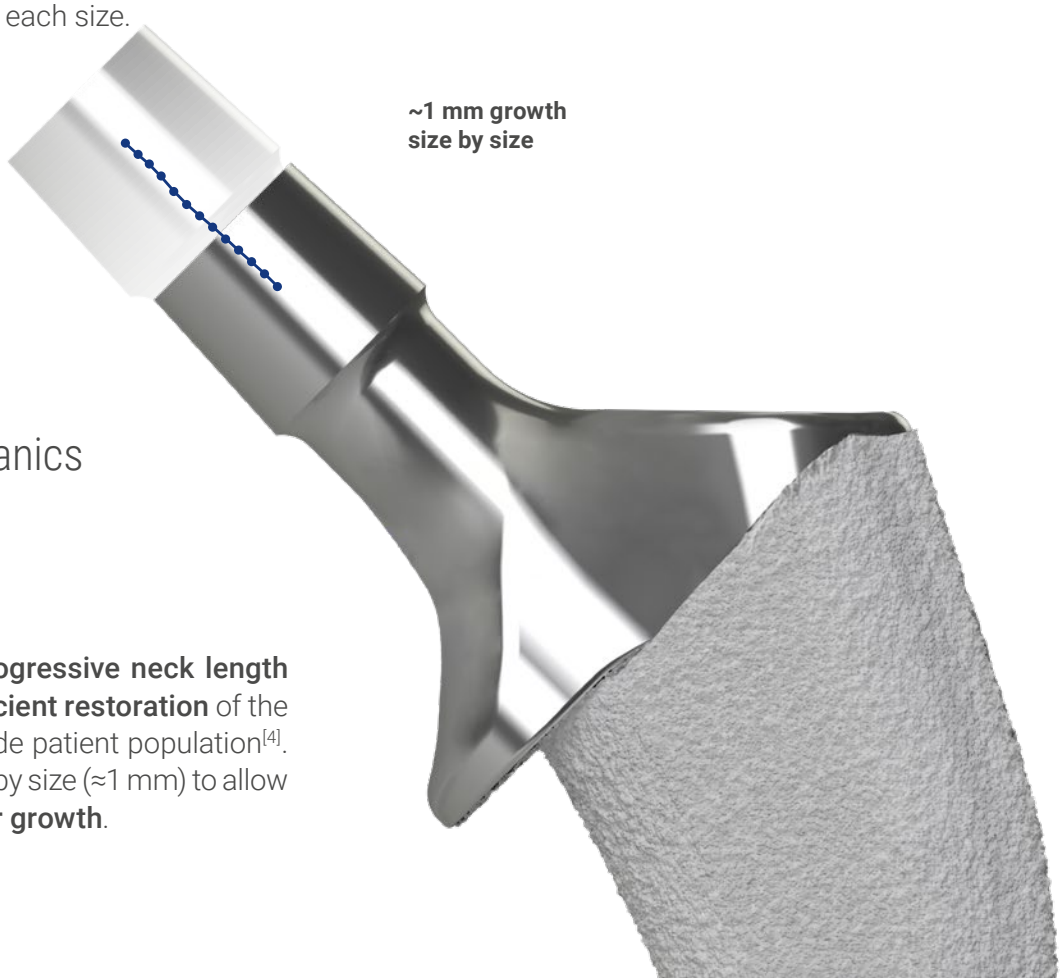
Utilizing Medacta's extensive **MyBody database**[3], which includes thousands of CT scans, **Mfinity** was **fine-tuned** to provide an optimal fit in a **wide spectrum of femurs**.

The system features **progressive neck length** and **collar variation** across stem sizes to optimize **proper restoration of hip biomechanics** and a **reduced distal geometry** to **minimize the risk of distal potting**.

Finally, the stem design was optimized to **facilitate implantation** in **minimally invasive approaches**.

PROGRESSIVE NECK LENGTH VARIATION

Mfinity features **13 standard** and **12 lateralized sizes** designed to accommodate a variety of patient anatomies. **Small growth increments** between sizes help ensure **proper fit** within the femur, while **stem length** increases progressively by 3 mm with each size.



Progressive Necks
Advanced Biomechanics

Mfinity stems feature a **progressive neck length variation** to support an **efficient restoration** of the **joint biomechanics** in a wide patient population[4]. **Neck length** increases size by size (≈1 mm) to allow for **anatomical head center growth**.

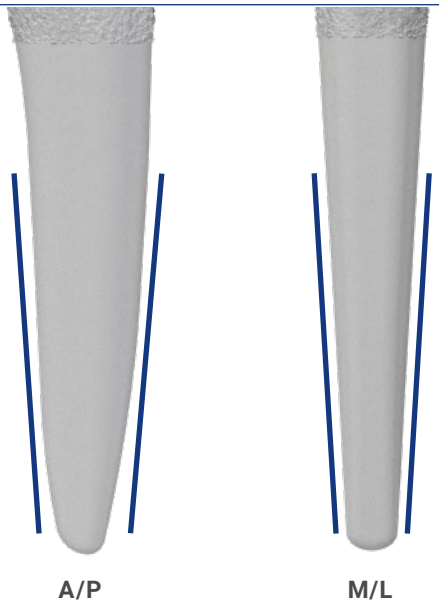
PROGRESSIVE COLLAR VARIATION

Drawing from **Medacta's experience** with collared stems, **Mfinity Collared** features a collar that **progressively increases** with stem size, supporting a **more anatomical fit** and **cortical coverage** while minimizing the risk of potential **iliopsoas impingement**[5].



REDUCED DISTAL GEOMETRY

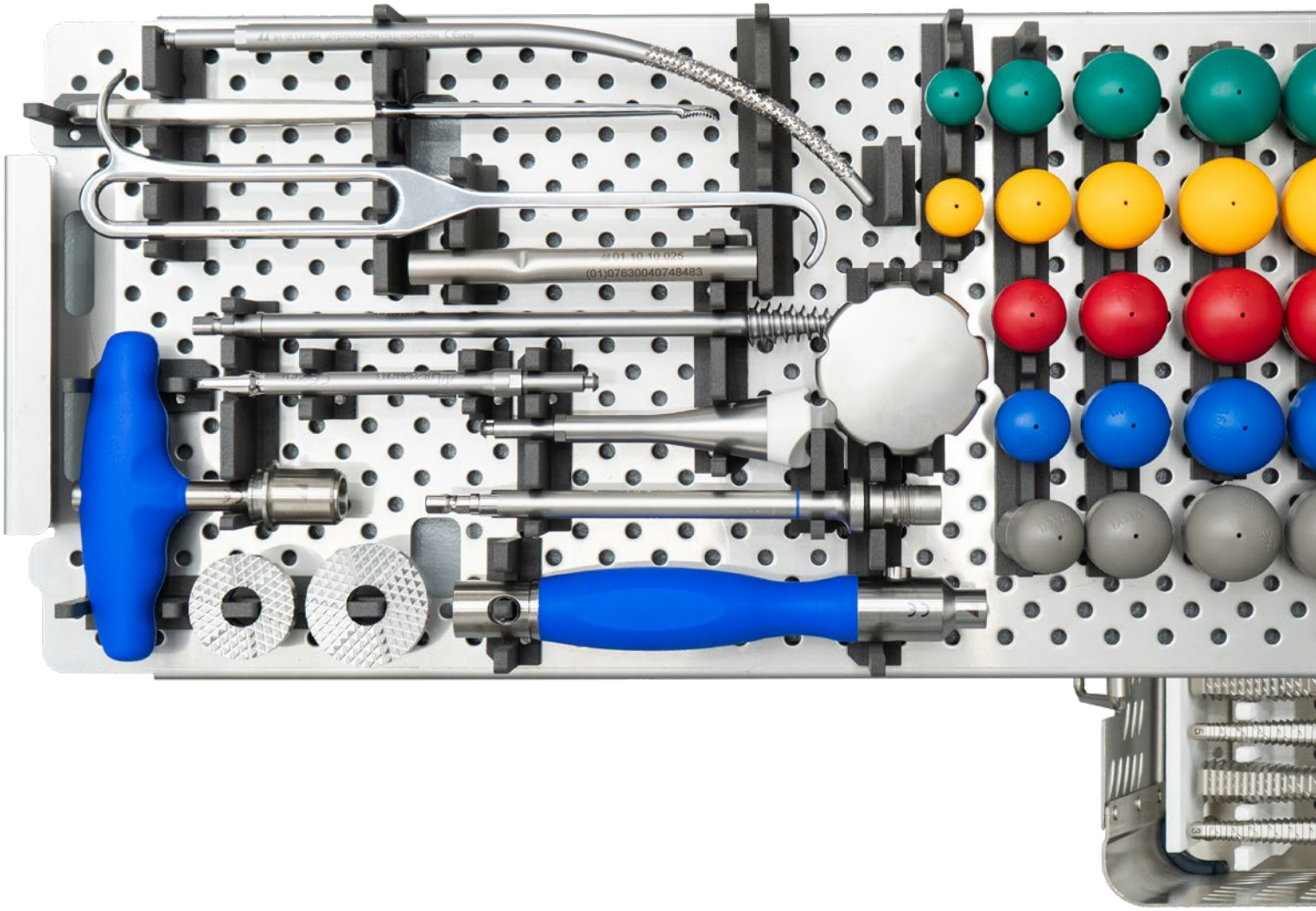
Mfinity builds on **clinically proven design concepts**, introducing a **refined distal geometry**. The **reduced distal geometry** minimizes this **risk of distal potting** while supporting improved **proximal fit** and **load transfer**, making it particularly suitable for narrow femoral anatomies, including **Dorr Type A**.



EFFICIENT INSTRUMENTATION

Mfinity's **streamlined instrumentation** allows surgeons to utilize **collared** or **collarless** hip stems with a **single tray**, optimizing instrument management in ASC or compact environments and offering cross-compatibility for **efficient intraoperative conversion**. The **Mfinity Femoral System** was designed for **universal** use across **all hip approaches**, offering surgeons a **versatile** solution.

Mfinity L has **two dedicated trays** that include **general instruments**, **broaches**, and **reamers**.



ONE PLATFORM. INFINITE POSSIBILITIES.

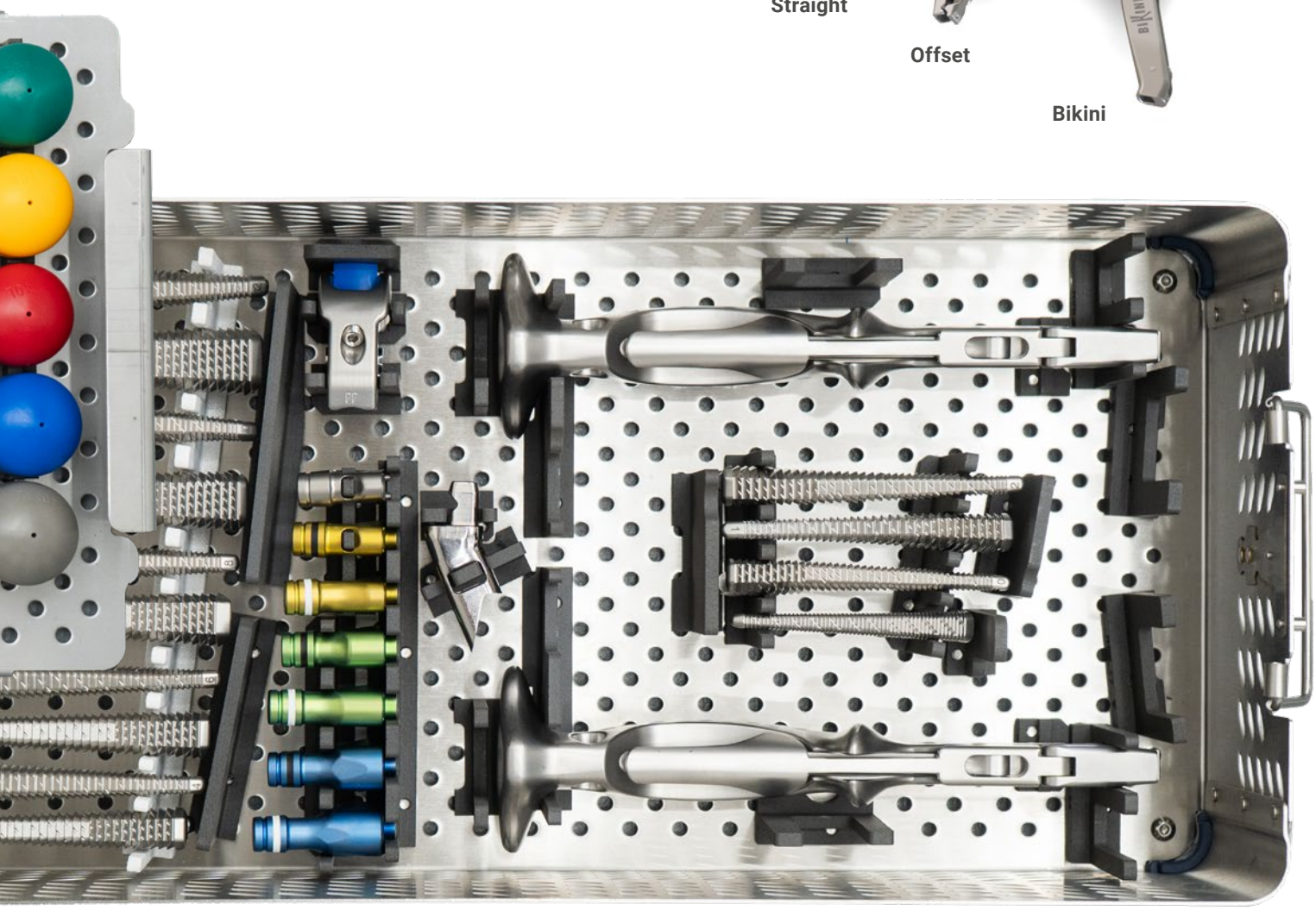
MINIMALLY INVASIVE & MODULAR INSTRUMENTS

By leveraging Medacta's expertise **AMIS approach**, Mfinity instruments have been designed for **MIS techniques** to **minimize soft tissue disruption** without compromising function. Finally, **modular instruments** help **minimize tray footprint**.

MULTIPLE OPTIONS

Several **broach handles options** are available to address **various surgical approaches**.





EFFICIENT INSTRUMENTATION

The Mfinity instrumentation features a **full-extraction broach design**, with **cutting teeth** on all four surfaces. **Tooth geometry**, **spacing** and **chip-breaker** features were developed based on **legacy devices** and refined through **workshops** and **cadaver labs**, to help support **controlled bone removal**, **accurate broach positioning** and **consistent** final stem seating. The resulting broach design has been further supported by **clinical experience**.



M/L VIEW

More effective cutting features are located where greater cortical bone removal may be required, particularly proximally and around the lateral shoulder, supporting the intended metaphyseal fit and helping maintain the intended broach path.



A/P VIEW

Toward the distal portion, the teeth become denser and less aggressive, providing a more progressive cutting action. This supports broach guidance within the canal while reducing unnecessary cortical engagement and helping achieve accurate final positioning.

USER-FRIENDLY

The compatibility between **broach sizes** and **trial neck ranges** can be confirmed by means of **color coding**. **STD** and **LAT** trial necks feature a **black** or **white stripe** on the taper.





TRIAL NECK BROACH COMPATIBILITY

STANDARD



#0 | #1 - #4 | #5 - #8 | #9 - #12

LATERALIZED



STD
LAT

#1 - #4 | #5 - #8 | #9 - #12

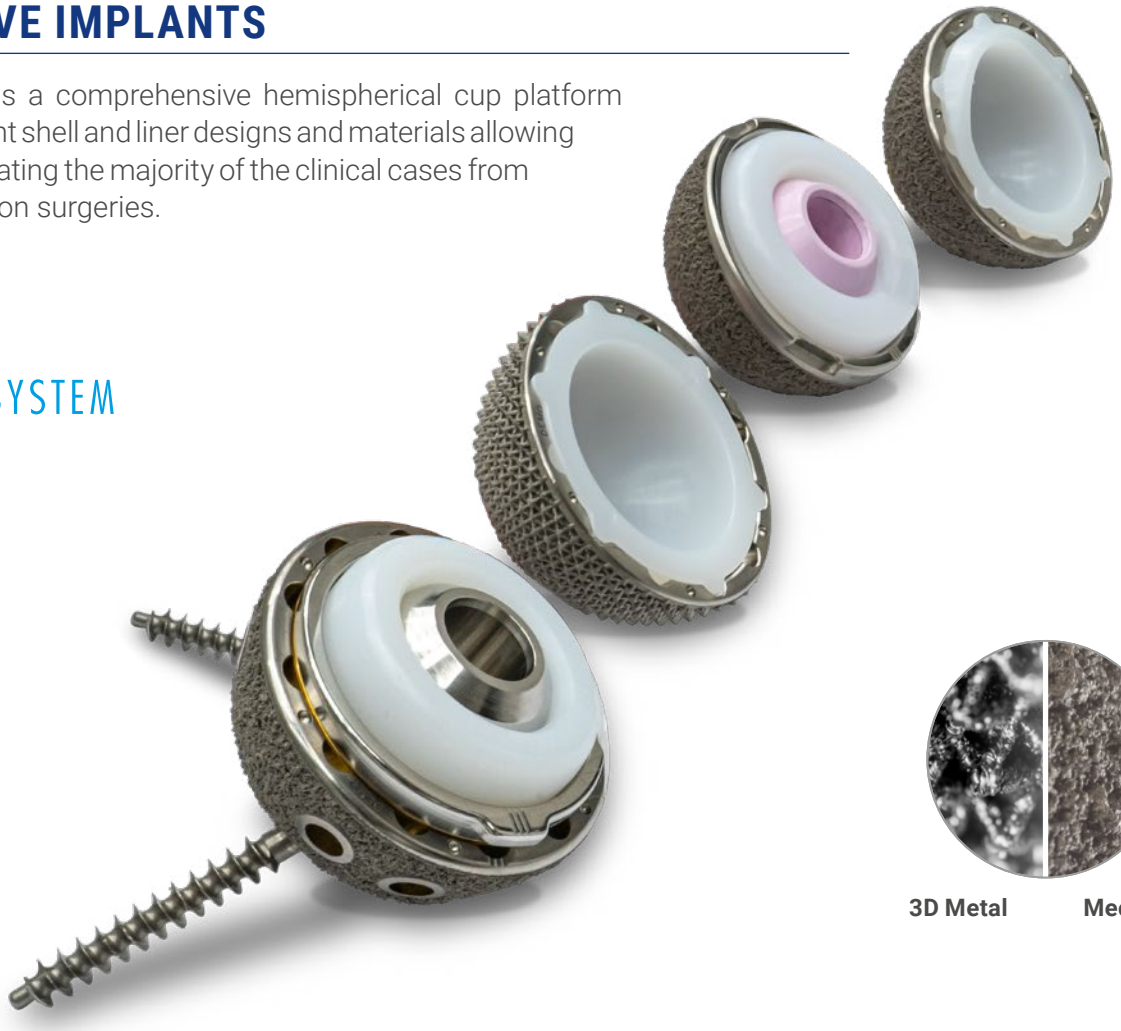
PERSONALIZED SOLUTIONS IN HIP REPLACEMENT

The **Mfinity Femoral System** represents the **latest advancement** in the Medacta Hip Implants portfolio. The Medacta offering embraces a **Personalized Medicine Vision** with a **comprehensive platform** for a **personalized care** experience with a Holistic Approach. **Innovative implants**, **surgical technique** and **technologies** bring **value** throughout the entire patient journey. Additionally, the introduction of Mfinity into your surgical practice is supported by the **M.O.R.E. Institute**, Medacta's **unique** and **global education platform**.

INNOVATIVE IMPLANTS

Mpact System is a comprehensive hemispherical cup platform featuring different shell and liner designs and materials allowing for efficiently treating the majority of the clinical cases from primary to revision surgeries.

Mpact® SYSTEM



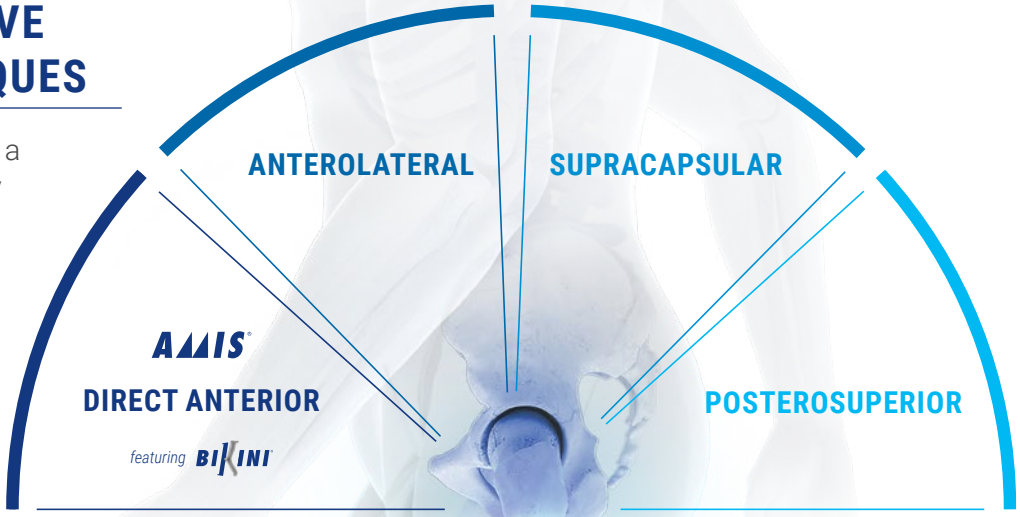
3D Metal **MectaGrip**

Medacta International

ONE PLATFORM. INFINITE POSSIBILITIES.

MINIMALLY INVASIVE SURGICAL TECHNIQUES

The MIS Platform offers a complete range of minimally invasive hip replacement approaches, from anterior to posterior, enabling faster recovery and improving functional outcomes.



PERSONALIZED TECHNOLOGIES

MyHip offers a suite of intuitive digital solutions that integrates 3D pre-operative planning with advanced analytical features, intra-operative guidance and verification tools.



MyHip® PLANNER

MyHip® VERIFIER

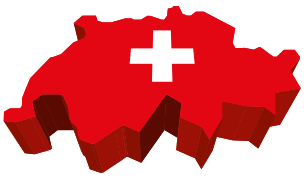




Direct wireless image transfer from C-Arm

REFERENCES

[1] *Walsh WR et al, Bone ongrowth and mechanical fixation of implants in cortical and cancellous bone. Journal of Orthopaedic Surgery and Research (2020) 15:177. https://josr-online.biomedcentral.com/track/pdf/10.1186/s13018-020-01696-5 Comparison of titanium coatings for cementless fixation in an ovine model – Medacta M.O.R.E. Journal White Papaer (October 2019) – Pr. Walsh study.* ***[2]*** *Viamont-Guerra, M.-R. et al. (2022) "Effect of femoral stem surface coating on clinical and radiographic outcomes of cementless primary total hip arthroplasty: A patient-matched retrospective study," International Orthopaedics, 47(1), pp. 165–174. Available at: https://doi.org/10.1007/s00264-022-05629-1.* ***[3]*** *Data on file Medacta.* ***[4]*** *J. Eijkenboom, P. Tomaszewski, D. Janssen, N. Verdonschot. Short Medacta Stem Pre-clinical assessment of bone remodeling and in growth potential - a finite element analysis.* ***[5]*** *Qiu, J. et al. Risk factors for iliopsoas impingement after total hip arthroplasty using a collared femoral prosthesis. Journal of Orthopaedic Surgery and Research (2020) 15:267. https://doi.org/10.1186/s13018-020-01787-3.*



REDEFINING BETTER
IN ORTHOPAEDICS
AND SPINE SURGERY

MEDACTA.COM

Medacta
International

Medacta International SA
Strada Regina, 34 - 6874 Castel San Pietro - Switzerland
Phone +41 91 696 60 60 - Fax +41 91 696 60 66
info@medacta.ch

Find your local dealer at: medacta.com/locations

All trademarks and registered trademarks are the property of their respective owners.
This document is intended for the US market.
For all indications, contraindications, warnings, precautions, and potential adverse effects of the product presented, see the instructions for use or contact your local representative. For additional product information, visit www.medacta.com.

Mfinity Femoral System
Brochure

ref: 99.68.11US
rev. 02

Last update: September 2026