

AMIS  
FRIENDLY



## REDEFINING THR: THE AMIS® SYNERGY

The anterior approach, strengthened by several years of clinical experience, is the only technique which follows a path both **intermuscular and internervous** and therefore reduces considerably the risk of damaging periarticular structures such as muscles, tendons, vessels and nerves.

Medacta® International is the world leader for educating and supporting surgeons in their pursuit of Anterior Minimally Invasive Surgery (AMIS®). **Reference Centers, located throughout the world**, provide the necessary AMIS® educational experience and Medacta® offers **continuous support for surgeons**, as well as constantly improving and developing the industries most specialised instrumentation platform.

Using AMIStem you can enter Medacta® International's world of AMIS®.

Discover:

- The definitive MIS approach: AMIS®;
- Dedicated AMIS® instrumentation;
- The **AMIS® Mobile Leg Positioner**: the original orthopaedic extension table included as part of the instrumentation that makes the surgery easier and reproducible;
- The **AMIS® Education Programme** based on Medacta's proven educational methods.

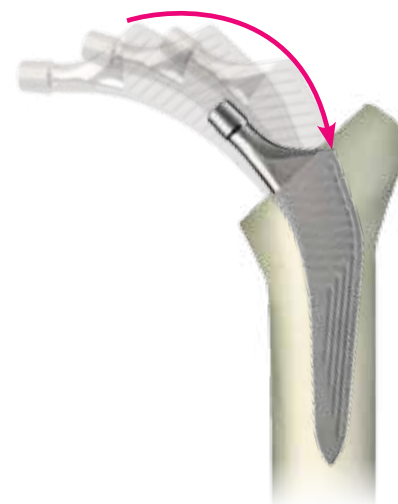
## AMIS® & AMIStem

Thanks to its unique design, AMIStem is the logical femoral stem for the AMIS® approach:

**Reduced shoulder +**

**Optimised length =**

**Easier stem introduction  
through AMIS®**



Visit us at:

[www.medacta.com](http://www.medacta.com)

### Bibliographic references:

- [1] Quadra® cementless. 3 years follow up, Dr. Moreau, 2008. Data on file: Medacta®
- [2] 20 years of Zweymüller cement free hip endoprosthesis J. Orthopädie - Jahrgang 5 Dez. 1999 - ISSN 0941-4770
- [3] Zweymüller K., 20 years of Zweymüller hip endoprosthesis Hans Huber Verlag 2002 ISBN 3-456-8343 1-4 pp 29-39
- [4] Bonnomet et al., Comportement d'un tige fémorale droite en arthroplastie totale primaire non cimentée de la hanche chez les patients de moins de 65 ans Rev de Chir Orthop 2001, 87, 802-814
- [5] Heidelberg LabReport, Orthopädische Universitätsklinik Heidelberg, 2008. Data on file: Medacta®
- [6] Orthopaedic Research Laboratory Radboud University Nijmegen Medical Centre, Experimental assessment of the stability of the Cone stem relative to the AMIStem-C, April 2010. Data on File: Medacta®
- [7] Zweymüller K., 20 years of Zweymüller hip endoprosthesis Hans Huber Verlag 2002 ISBN 3-456-8343 1-4 pp 11-25
- [8] Data on file: Medacta®
- [9] Hardy et al. Bonding of Hydroxyapatite Coated Femoral Prostheses JBJS vol 73B, No5, Sept. 1991.
- [10] Hardy et al. Aspects Radiologiques de l'Arthroplastie Fémorale Revue d'Hydroxyapatite et correspondance Histologiques Acta Orthop. Bel. Vol 59, Suppl I, 1993.
- [11] Hardy et al. Projection d'Hydroxyapatite sur Prothèses Articulaires : Progrès ou Illusion ? Acta Orthop. Bel. Vol 59, Suppl I, 1993.
- [12] Fraissinet P, Hardy D et al. Histological analysis of the boneprosthesis interface after implantation in humans of prostheses coated with hydroxyapatite. The journal of Orthop Surg. 1993; 7(3): 246-53.

## AMIStem SYSTEM

FIRST STEM SPECIFICALLY DESIGNED FOR AMIS®

*Easy stem introduction*



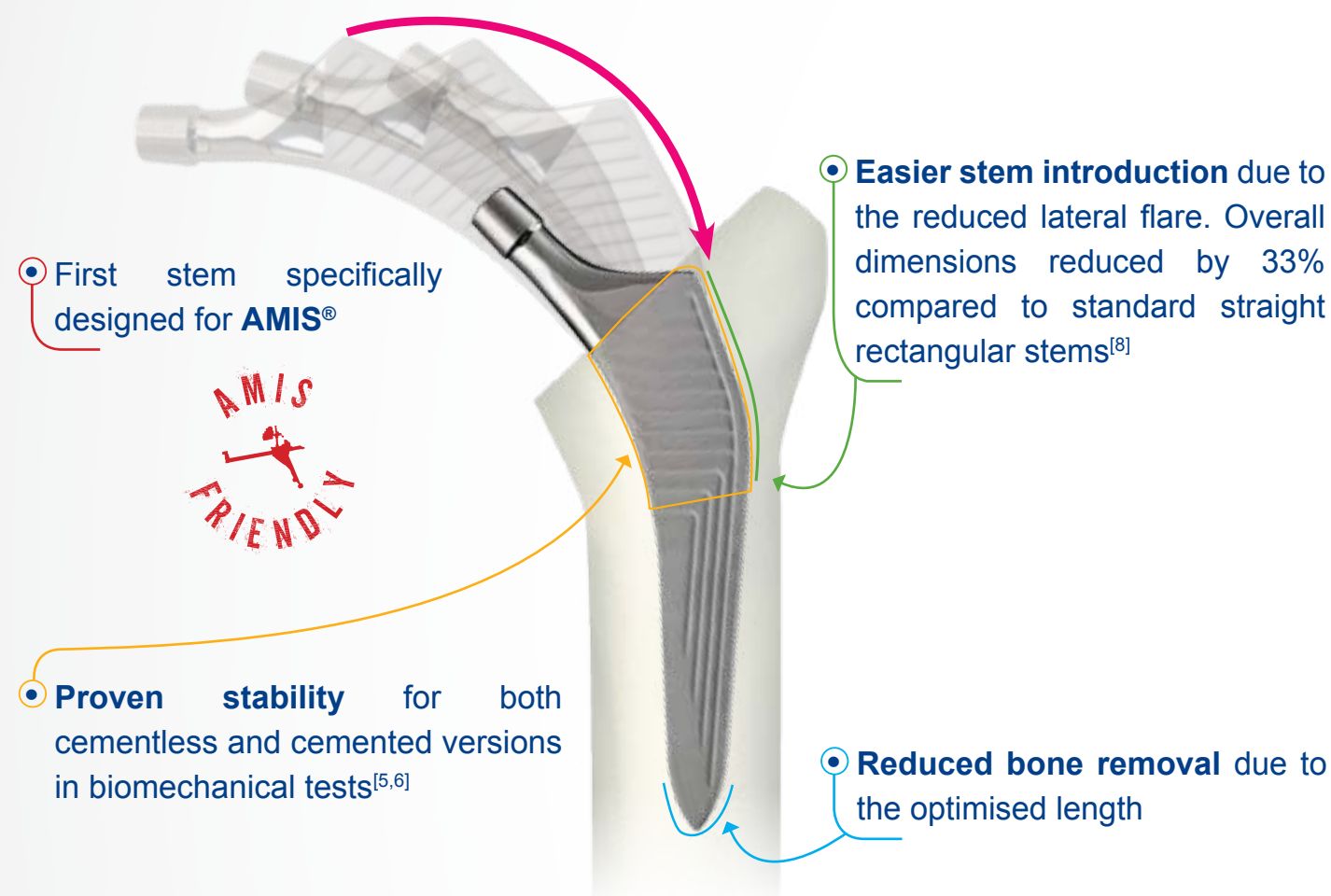
*Reduced bone removal*

THE LOGICAL EVOLUTION OF HIP STEM DESIGN

## AMIS<sup>®</sup> Stem THE LOGICAL EVOLUTION OF HIP STEM DESIGN

The AMIS<sup>®</sup> Stem has been developed to facilitate broaching and stem insertion when utilising the AMIS<sup>®</sup> approach without compromising implant stability. Based on the clinical experience of straight, rectangular, cementless hip stems,<sup>[1,2,3,4]</sup> the AMIS<sup>®</sup> Stem incorporates features which simplify the AMIS<sup>®</sup> approach.

### BONE PRESERVING, AMIS<sup>®</sup> FRIENDLY



### PRODUCT RANGE



#### AMIS<sup>®</sup> Stem-H

- 11 STANDARD sizes, from 00 to 9, with a 135° neck-shaft angle
- 9 LATERALISED sizes, from 0 to 8, with a 127° neck-shaft angle



#### AMIS<sup>®</sup> Stem-H Collared

- 11 STANDARD sizes, from 00 to 9, with a 135° neck-shaft angle
- 9 LATERALISED sizes, from 0 to 8, with a 127° neck-shaft angle



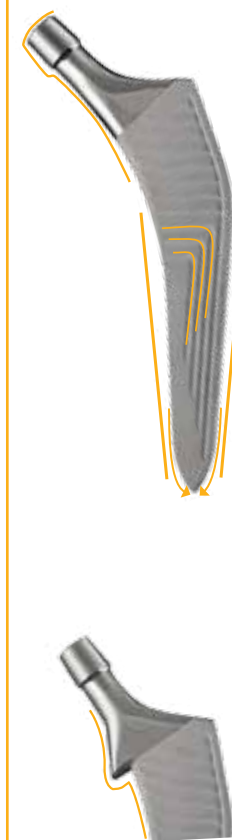
#### AMIS<sup>®</sup> Stem-C

- 9 STANDARD sizes, from 0 to 8, with a 135° neck-shaft angle
- 9 LATERALISED sizes, from 0 to 8, with a 127° neck-shaft angle

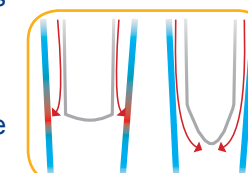
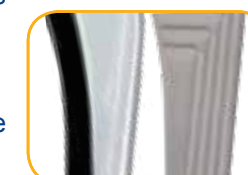


## TECHNICAL DETAILS

### Design

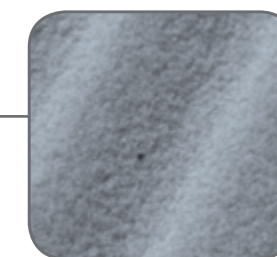


- **NECK**
  - The mirror polished surface treatment minimises soft tissue damage and liner wear, making the AMIS<sup>®</sup> Stem suitable for double mobility liners.
  - Increasing size by size to restore anatomy.
- **SHAPE**
  - The triple tapered design provides good axial and rotational stability with optimal fixation with bone.<sup>[5,7]</sup>
  - The rectangular cross-section facilitates effective stability but also promotes the preservation of bone vascularisation, since the diaphysis is not completely filled.<sup>[2,3,4]</sup>
- **SURFACE TREATMENT**
  - AMIS<sup>®</sup> Stem-H: the horizontal and vertical macrostructures increase stability and enhance the contact surface area by 10-15%.<sup>[8]</sup>
  - AMIS<sup>®</sup> Stem-C: the mirror polished surface does not cause cracks or gaps in the cement mantle.<sup>[6]</sup>
- **TIP**
  - The double tapered distal tip reduces the risk of stress peak in the diaphysis.
- **COLLARED OPTION**
  - AMIS<sup>®</sup> Stem-H Collared is an additional option to the AMIS<sup>®</sup> Stem System which is now even more flexible and able to include all patient needs and bone anatomies.
  - The collar width increases with size.
  - May assist in the prevention of subsidence in patients that present Dorr Type C bone.



### Material

- AMIS<sup>®</sup> Stem-H and AMIS<sup>®</sup> Stem-H Collared are made of Titanium-Niobium alloy in accordance with ISO 5832-11. Their surface presents a 80 µm thick Hydroxyapatite (HA) coating after a superficial sand-blasting of 4 to 7 µm roughness.
- The HA coating has chemical characteristics similar to that of human bone which stimulates the bony ongrowth.<sup>[4, 9, 10, 11, 12]</sup>
- AMIS<sup>®</sup> Stem-C is made of high nitrogen stainless steel, in accordance with ISO 5832-9 and has a mirror polished surface.



### Instrumentation

- The same tray to implant AMIS<sup>®</sup> Stem-H, AMIS<sup>®</sup> Stem-H Collared and AMIS<sup>®</sup> Stem-C.
- Both standard and lateralised trial necks fit onto the broaches for a quick and precise trial reduction.
- Offset broach handles available.
- High quality sharp broaches for precise preparation of the medullary cavity.
- Optional monoblock motorised broaches available for use with femoral stem trials.
- Dedicated **AMIS<sup>®</sup>** instrumentation.



**ONE TRAY IS ENOUGH!**