

# Metha<sup>®</sup> Short Hip Stem System

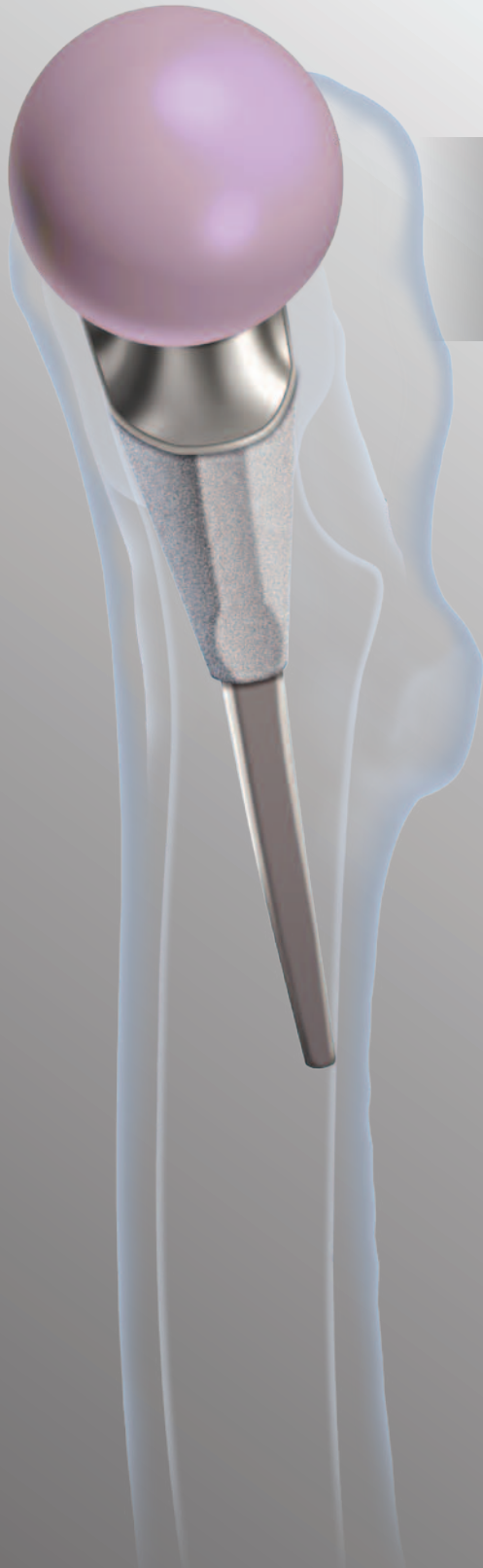
Accuracy That Stands Alone



Aesculap Orthopaedics

**AESCULAP**<sup>®</sup>  
Implant Systems

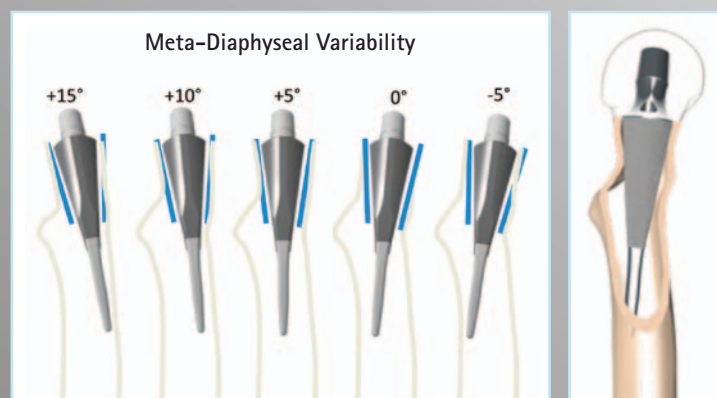
# Metha<sup>®</sup> Short Hip Stem System



## Designed For Anatomic Accuracy

The Metha<sup>®</sup> Short Hip Stem is designed for anatomic accuracy to restore natural biomechanics and ensure excellent joint stability.

- Guided by the femoral neck upon insertion, the stem anteversion and head position are designed for anatomic accuracy
- Biomechanical offset and leg length can be restored while achieving soft tissue balance around the hip joint
- The optimized position of the femoral head to the position of the cup reduces the risk of dislocation

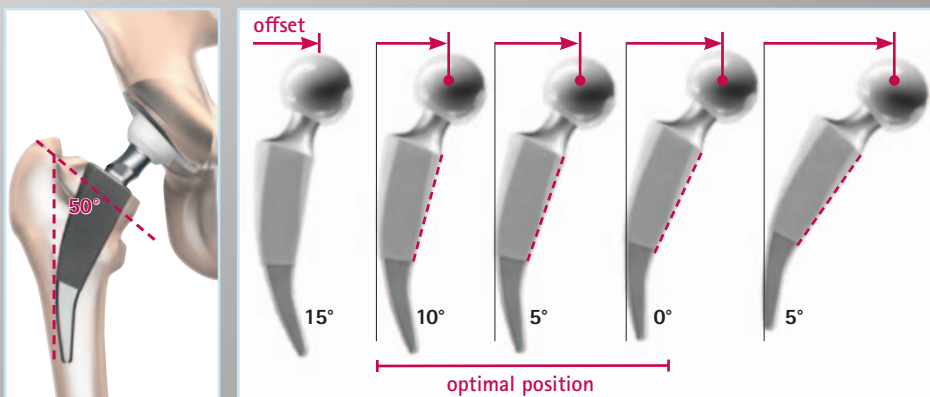


*The Metha<sup>®</sup> Short Hip Stem is positioned in the direction of each patient's femoral neck, restoring natural biomechanics and ensuring exceptional joint stability.*

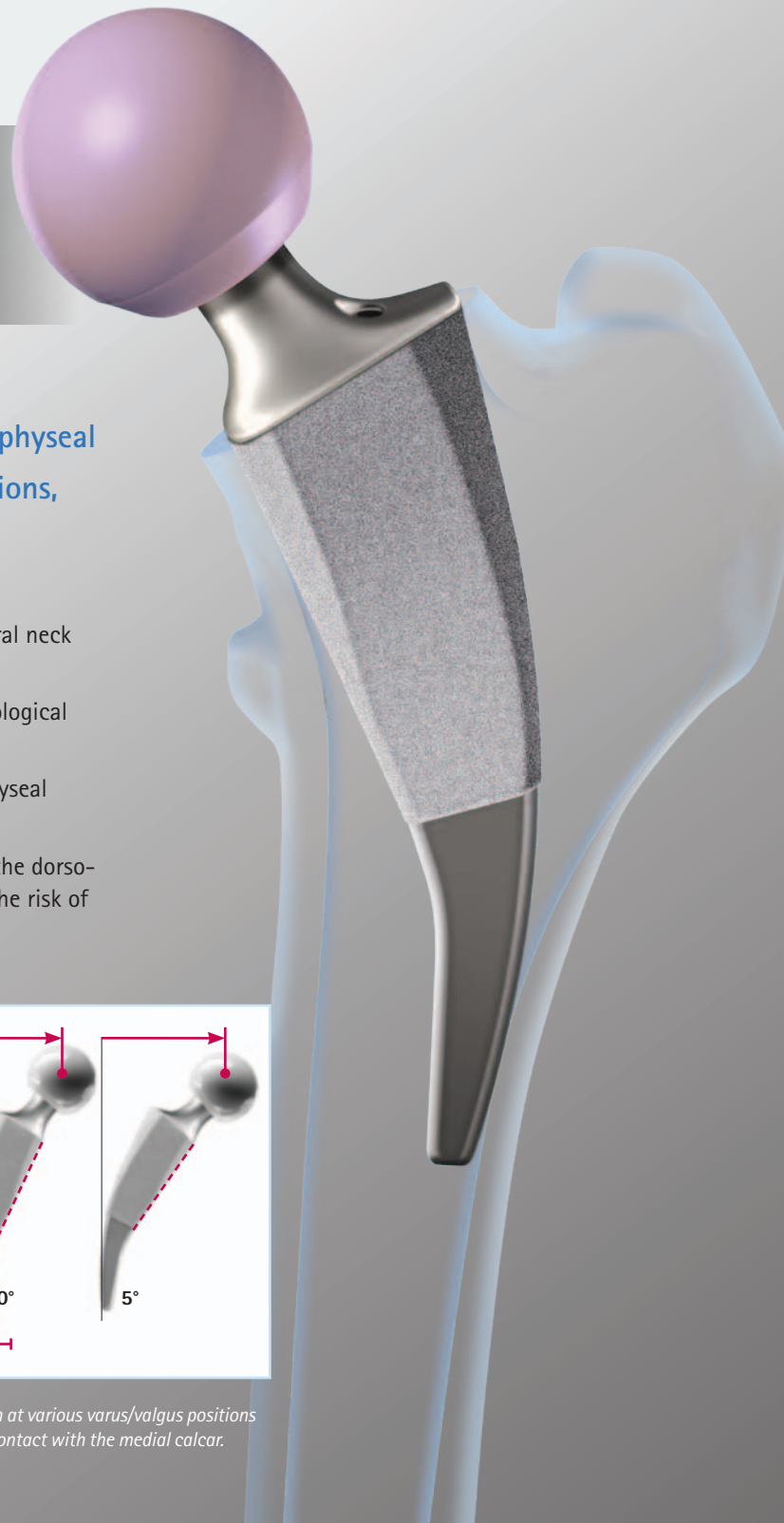
# True Metaphyseal Anchoring

The Metha<sup>®</sup> Short Hip Stem achieves true metaphyseal anchoring, re-establishing physiological conditions, for successful total hip arthroplasty.

- Fixation within the closed ring of the femoral neck and lateral neck support provides primary implant stability
- Stem placement on the medial calcar restores a more physiological strain distribution, thereby decreasing stress shielding
- A proximal-bilateral conical stem shape encourages metaphyseal load transfer and supports primary stability
- The smoothed and slightly curved distal tip is guided along the dorso-lateral cortex, preventing diaphyseal fixation and reducing the risk of thigh pain



The Metha<sup>®</sup> Short Hip Stem has one straight medial design, allowing implantation at various varus/valgus positions that adjust to individual bone morphology and ensure primary stability by close contact with the medial calcar.



# Metha<sup>®</sup> Short Hip Stem System



## Bone and soft tissue Preserving

The Metha<sup>®</sup> Short Hip Stem addresses the growing demand for bone and soft tissue preservation through a minimally invasive implantation.

Moreover, the preserved bone stock allows for an improved potential revision situation, where a standard implant can be used instead of a longer revision stem.

- Introduction through the femoral neck and high 50 degree osteotomy eliminates disruption of the greater trochanter and surrounding muscles
- Minimal lateral shoulder design conserves bone in the greater trochanter while the reduced length maintains femoral canal integrity
- Broach only technique facilitates minimal endosteal disturbance



*Metha<sup>®</sup> Short Hip Stem  
in the lateral view*



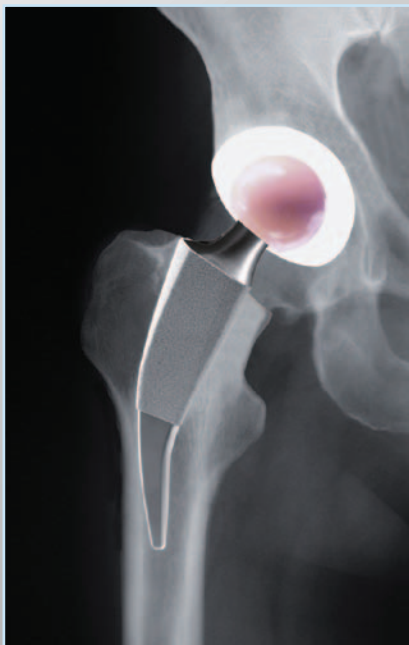
*Metha<sup>®</sup> Short Hip Stem  
in the AP view*

# Surface technology for Long-term Stability

Plasmapore® surface coating enhances the Metha® Short Hip Stem's stability.

## Built on Expertise

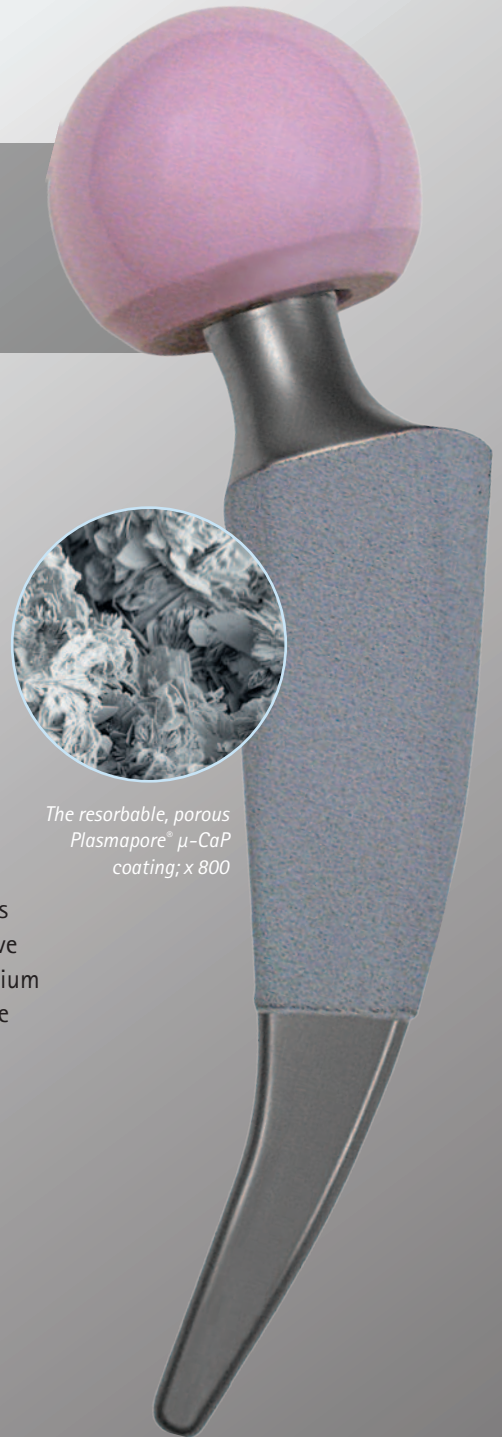
Aesculap has over 20 years of expertise in applying Plasmapore® coatings onto orthopaedic and spine implants.



*Note the radiographic increase in bone density in the medial calcar region*

## Long-Term Stability

The advanced coating technology is a combination of a Plasmapore® microporous titanium rough coating and a thin bioactive calcium phosphate surface finish. The calcium phosphate is intended to be osteoinductive while the porous Plasmapore® structure offers an optimal foundation for potential bone growth. The improved anchoring of the implant results in a more physiologic transmission of forces at the interface between bone and the implant helping to ensure reliable, long-term stability.

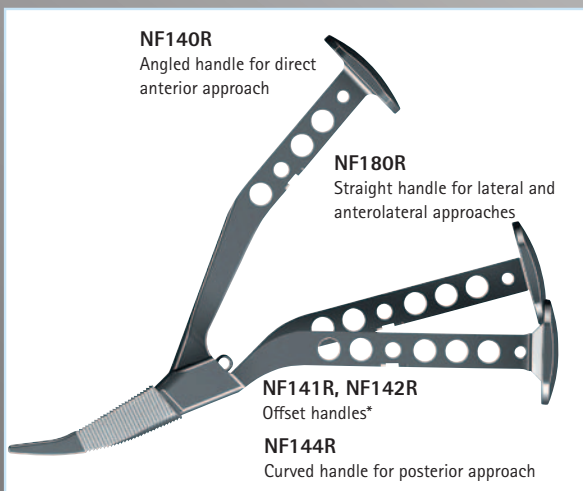
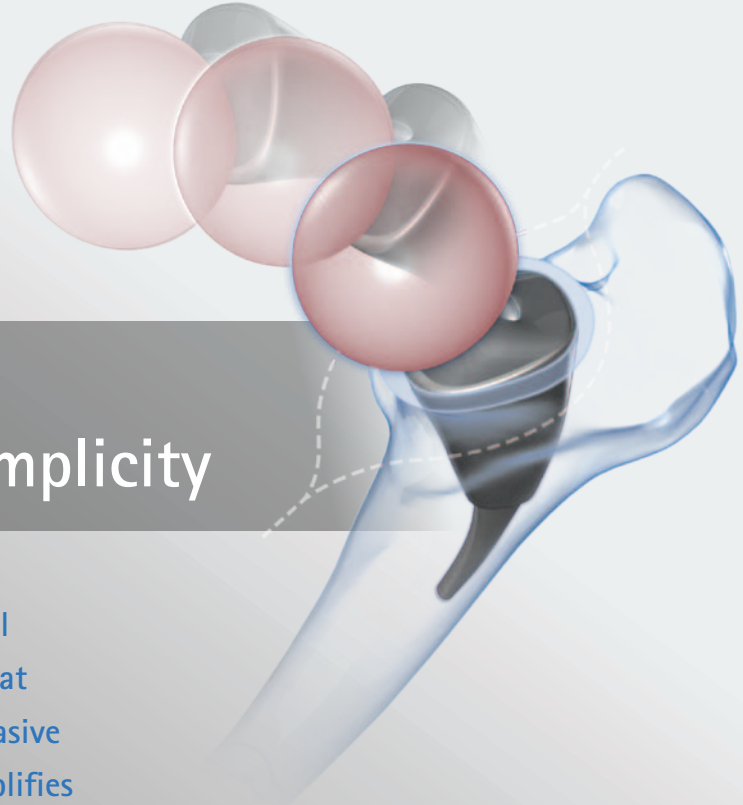


*The resorbable, porous Plasmapore®  $\mu$ -CaP coating; x 800*

# Metha<sup>®</sup> Short Hip Stem System

Accommodates preferred surgical approach with **Simplicity**

The Metha<sup>®</sup> Short Hip Stem provides surgical approach flexibility with instrumentation that accommodates both traditional and less invasive approaches. The broach-only technique simplifies the procedure for the surgeon while the two-tray system facilitates operating room efficiency.



*\*Note: NF141R for the left hip (lateral and anterolateral approaches) or right hip (posterior approach)*

*NF142R for the right hip (lateral and anterolateral approaches) or left hip (posterior approach)*

# Clinical Data

1. Mihalko, W. THA through a direct anterior approach spares muscle, expedites recovery. *Orthopedics Today*. 2011 April;31(4).



2. Lerch, M. Bone remodelling around the Metha short stem in total hip arthroplasty: a prospective dual-energy X-ray absorptiometry study. *International Orthopaedics (SICOT)*. 2011;36(3):533-538.



3. Wittenberg, R.H. et al. Five -year results of a cementless short-hip stem prosthesis. *Orthopedic Reviews* 2013;5:e4



Contact your Aesculap Sales Representative to access this clinical information.

## Indications for Use

The Metha® Hip System (uncemented, press fit fixation) is intended to replace a hip joint.

The device is intended for:

- Skeletally mature individuals undergoing primary surgery for total hip replacement
- Patients suffering from severe hip pain and disability due to rheumatoid arthritis, osteoarthritis, traumatic arthritis, polyarthritis, collagen disorders, avascular necrosis of the femoral head and nonunion of previous fractures of the femur.
- Patients with congenital hip dysplasia, protrusion acetabuli, or slipped capital femoral epiphysis
- Patients suffering from disability due to previous fusion
- Patients with acute femoral neck fractures

## Contraindications

Do not apply in the presence of:

- Joint diseases that can be treated with reconstructive surgery (e.g. displacement osteotomy)
- Acute or chronic infections near the joint or systemic infections
- Secondary diseases that could influence joint implant functionality
- Systemic diseases and metabolic disturbances
- Acute osteoporosis or osteomalacia
- Severely damaged bone structures that could prevent stable implantation of implant components
- Bone tumors in the region of implant fixation
- Bone deformities, axis misalignments, or other bone conditions that rule out the implantation of a hip joint prosthesis preserving the collum femoris
- Anticipated excessive load on the joint implant
- Dependency on pharmaceutical drugs, drug abuse, or alcoholism
- Inadequate patient compliance
- Foreign body sensitivity to the implant materials
- Skeletal immaturity
- Neuromuscular diseases impairing the affected extremity
- Prosthesis head with neck length XL in combination with short stem prosthesis sizes 0 and 1
- Prosthesis heads with neck length XXL

See Instructions for Use for complete indications, contraindications, precautions and warnings at [www.AesculapImplantSystems.com](http://www.AesculapImplantSystems.com).

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