


# ESOP<sup>®</sup> HA CÔNE 12/14

METAPHYSIS IMPLANTS	RIGHT		LEFT	
	SIZE	REFERENCE	SIZE	REFERENCE
	5	233631	5	233641
	7,5	233632	7,5	233642
	10	233633	10	233643
	11,25	233634	11,25	233644
	12,5	233635	12,5	233645
	13,75	233636	13,75	233646
	15	233637	15	233647
	16,25	233638	16,25	233648
	17,5	233639	17,5	233649
	20	233640	20	233650

DIAPHYSIS IMPLANTS	SIZES AND REFERENCES		SIZES AND REFERENCES	
	SIZE	REFERENCE	SIZE	REFERENCE
	9	201117	13	201121
	10	201118	14	203605
	11	201119	15	203606
	12	201120		

HEADS CÔNE 12/14	STAINLESS STEEL			ALUMINA	Co Cr	
	Ø 22,2	Ø 28	Ø 32	Ø 28	Ø 22,2	Ø 28
Short neck		231391	231386	234131		240862
Medium neck	231402	231392	231387	234132	240858	240863
Long neck	231403	231393	231388	234133	240859	240864
Extra-long neck +7 mm		231394				240865
Extra-long neck +10 mm		231395				240866

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# ESOP<sup>®</sup> HA

## A PERSONALIZED HIP PROSTHESIS



Two-Parts Modular Stem  
www.esop-hip.com



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quality for health

# ESOP<sup>®</sup> HA

## TWO-PARTS MODULAR STEM

The most striking feature of the ESOP<sup>®</sup> HA femoral stem is its original modular construction.

The ESOP<sup>®</sup> HA stem was designed to ensure :

- a perfect metaphysis fit and,
- a correct centering of the diaphysis implant.

For these reasons, the prosthesis was designed in two distinct parts so that the surgeon may select and assemble the stem, matching it to the shape of the femur, in the best conditions.



### The Metaphysis

Designed to provide the most extensive support possible for the metaphysis bone,

- it is clearly tulip shaped
- the horizontal section, both internally and externally, is rounded
- both right and left prostheses are available

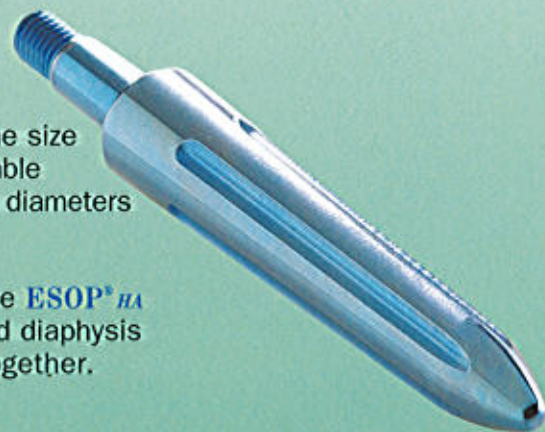
It ensures an optimal filling of the metaphysis bone.

The range of 10 left and 10 right sizes enables a choice of the most suitable implant to match the size of the metaphysis.

### The Diaphysis

The ESOP<sup>®</sup> HA is selected for the size of the femoral stem. It is available in 7 sizes which are different in diameters and in lengths.

Before final implantation of the ESOP<sup>®</sup> HA prosthesis, the metaphysis and diaphysis parts are securely screwed together.



## A VALID ANSWER

Since 1991, being modularized, ESOP<sup>®</sup> HA provides a better match of the prosthesis to the shape of the bone.

A statistical study based on 600 ESOP<sup>®</sup> HA prostheses showed that in more than 65% of cases the surgeon had taken advantage of the alternatives offered by the modular system, and used a diaphysis part of a different size, larger or smaller, than the distal section of the metaphysis part.

### Convincing Findings

Clinical follow-up shows a complete absence of pain in the thigh. The X-ray examination after 10 years shows neither hyperostose of the diaphysis nor changes in the bone.



### Metaphysis Fitting

Thanks to the bone preparation technique used, the positioning of the ESOP<sup>®</sup> HA stem in the planned axis is right away stable and lasting.

The seating in the metaphysis bone is exceptionally solid and reliable, ensuring a well-balanced transfer of the pressure on the bone.

The final anchoring of the implant by secondary fixing is enhanced by :

- the quality of the primary seating achieved
- the effects of the surface texture (textured and horizontal striations)
- the hydroxyapatite (HAP) coating, on the metaphysis part

### Diaphyseal Guidance

Implanted in a diameter that is 1 mm smaller than the femoral stem, the ESOP<sup>®</sup> HA diaphysis part ensures :

- guidance and centering of the femoral prosthesis
  - correct positioning in the femoral axis which avoids any conflict with the femoral walls
- On purpose, the diaphysis part is smooth and not HAP coated.



Metaphysis rasp and trial diaphysis part.

Assembly using the tightening device.

# ESOP<sup>®</sup> HA

## MAIN STEPS OF THE SURGICAL TECHNIQUE\*

### 1. Sizing the endo-femoral stem

After cutting the femoral neck, a box chisel is used to prepare the site for the endo-femoral palpators.

The size of the diaphysis stem is determined using successive palpators of increasing size.

Once the size is determined, without further reaming, the right diaphysis part can be selected.

The chosen size, which will also be the size of the definitive diaphysis implant, will be one size smaller than the last palpator used.



### 2. Metaphysis Preparation

This preparation is achieved by using successively increasing metaphysis rasps. The metaphysis implant selected is that which will most satisfactorily fill the metaphysis.

To obtain a metaphysis preparation which will allow the correct positioning of the femoral stem at the best possible angle, the various metaphysis rasps should be used with the trial diaphysis part which has been determined at the sizing stage.

With the same aim, the trial diaphysis stems are extended by palpators equipped with a guidance ball.



### 3. Implanting the Femoral Stem

After having selected the correct neck length, the final metaphysis and diaphysis implants are securely screwed together using the tightening device.

The personalized hip prosthesis thus assembled is positioned by gentle and steady hammering, until the implant is locked.

A detailed surgical protocol and the necessary ancillary tools are available for the surgeon's use.



\* A detailed operating technique is available from the distributor of the ESOP<sup>®</sup> Stem.

# ESOP<sup>®</sup><sub>HA</sub>

## A PERSONALIZED HIP PROSTHESIS

ESOP<sup>®</sup><sub>HA</sub> provides the possibility of 70 different combinations of metaphysis and diaphysis for the best appropriate fit of the stem according to the morphology of the patient.



### *Material Used :*

#### **Femoral stem :**

- Titanium alloy TA6V ELI
- Conforms to ISO 5832/3 - ASTM F136
- Hydroxyapatite coating on the metaphysis implant.

#### **Femoral Head :**

- **Alumina ceramic**
- Conforms to NF, ISO 13356
- **Stainless steel**
- Conforms to ISO 5832/1.

**Results  
and  
bibliography  
see web site  
[www.esop-hip.com](http://www.esop-hip.com)**