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S H E I K H **Bipolar cup**

SHEIKH bipolar cup is designed to prevent serious bone destruction consequent and used as a treatment for femoral neck fractures. UHMWPE cup has a beveled margin to avoid neck cup impingement in internal and external rotation in gait cycle and physiological cyclic loading. Sheikh bipolar prosthesis in sitting and squatting movement provides patient with normal range of motion at hip.

Bipolar Cup is made up of 4 components:

- 1 - **Stainless Steel Bipolar shell (LVM 316 alloy-ISO 5832-1)**
- 2 - **Cross-linked UHMWPE Bipolar cup**
- 3 - **Cross-linked UHMWPE Ring (ISO 5834-2)**
- 4 - **Stainless Steel Wire (LVM 316 alloy - ISO 5832-1).**



Bipolar Cup is available in 10 sizes (Ø 40 to 58 mm) with the ability to use with cementless and cemented stem. This cup can be used with femoral head only in Ø 28 diameter with 5 neck sizes (S, M, L, XL, XXL).

Indications

- Femoral neck and trochanteric fractures of the proximal femur.
- Osteonecrosis of the femoral head.
- Revision procedures where other devices or treatments for these indications have failed.

Standard test

ASTM F 1820 Standard Test Method for Determining the Forces for Disassembly of Modular Acetabular Devices.



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The CCD angle for the stem is common at 135° for standard offset. Sheikh total hip replacement prosthesis has trapezoidal cross-sectional proximal stem design. Trapezoidal cross-section shape of stem causes to better torsional stability in femoral bone and has major effect on the stress distribution in physiological load in gait cycle and sits to stand task than other various proximal femoral stem shapes.

Titanium alloy cementless stem is fully HA coated. The HA coating has an average thickness of 100 µm and is applied by a plasma spraying process.

Cementless acetabular cup has a central hole in the base of the shell that is used for shell insertion. This base hole has a slot to enhance torsional manipulation of the shell during insertion.

Components And Materials Standard

Cementless stem

Titanium alloy cementless femoral stem in accordance with ISO 5832-3 and 12/14 taper, available in 8 sizes (9 to 16) and fully HA coated.

Screw (Ti6Al4V) in accordance with ISO 5832-3.

Stainless steel femoral head with 12/14 taper, available in external diameters of 32 and 36 mm in 4 neck sizes (S, M, L, XL) (ISO 5832-1).

Titanium alloy cementless acetabular cup available in 9 sizes (48 to 64). The shell is HA coated (thickness: 155 µm) and available in 3-hole configuration (ISO 5832-3).

The logic liner in UHMWPE GUR 1020 grade available in 4 sizes (48 to 64) (ISO 5834-2).

Cemented stem

Stainless steel cemented femoral stem in accordance with ISO 5832-1 and 12/14 taper, available in 9 sizes (8 to 16).

Stainless steel femoral head with 12/14 taper, available in external diameters of 32 and 36 mm in 4 neck sizes (S, M, L, XL) (ISO 5832-1).

Cemented acetabular cup in UHMWPE GUR 1020 grade available in 9 sizes (44 to 60) (ISO 5834-2).