Smith+Nephew

POLARCUP◊

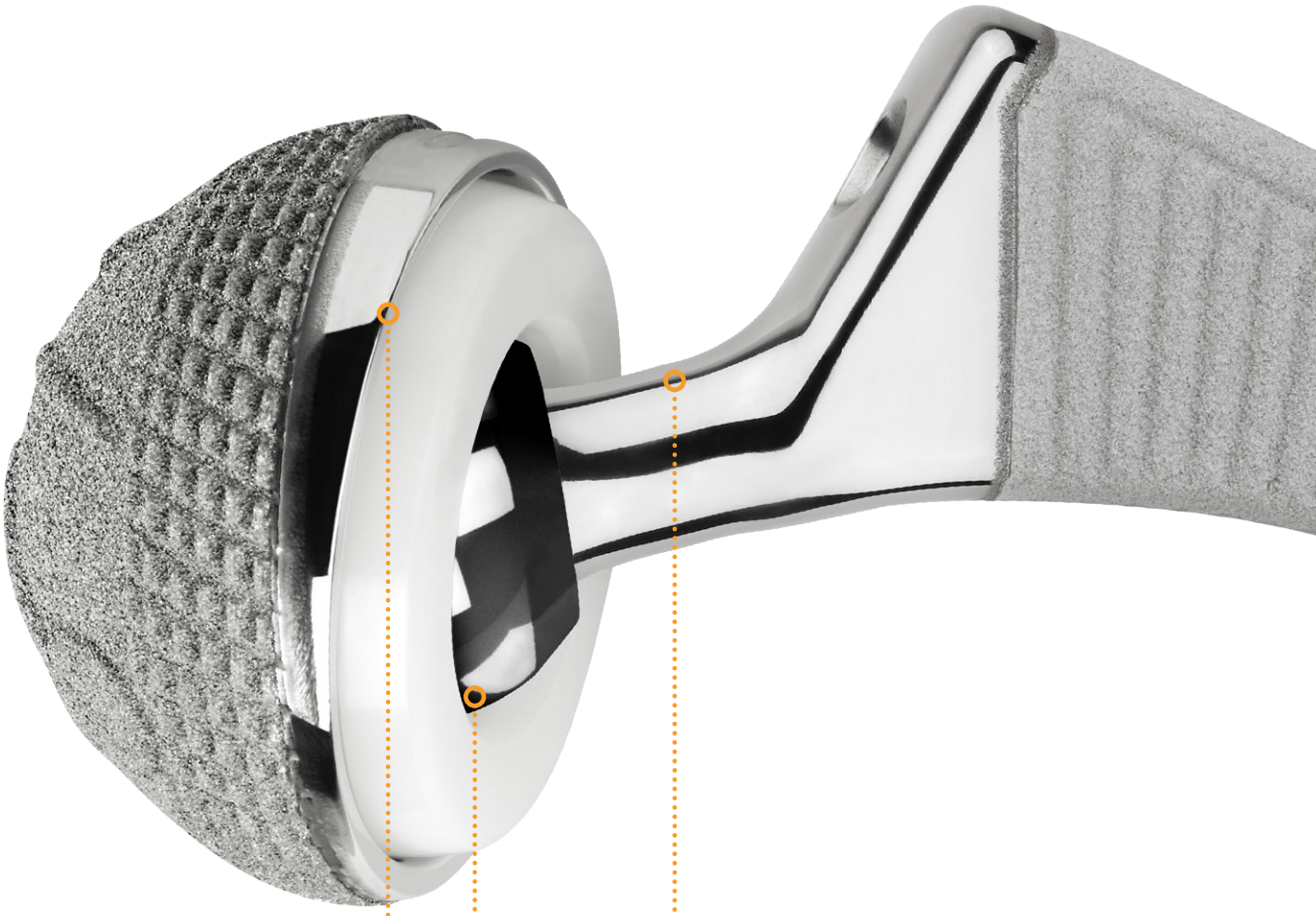
Dual Mobility System

VERILAST◊

Oxidized Zirconium with XLPE

Product Information

POLARCUP◊ Dual Mobility System



Insert / cup articulation

Ball head / insert articulation

Third articulation

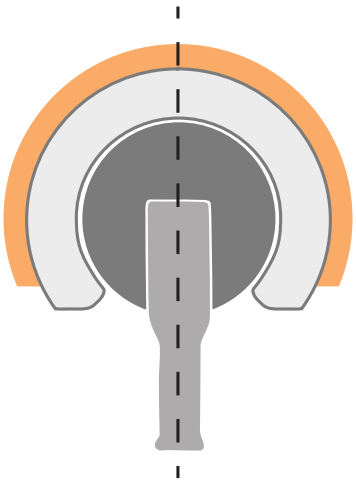
Neck / insert articulation

POLARCUP combined with a polished neck stem is highly recommended

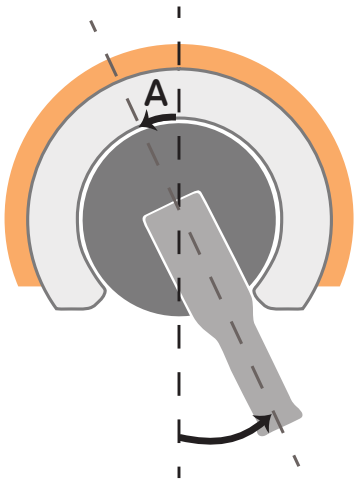
Disclaimer:

The following product information is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on POLARCUP and VERILAST, including indications for use, contraindications, and product safety information, please refer to the label and the Instructions for Use packaged with the product.

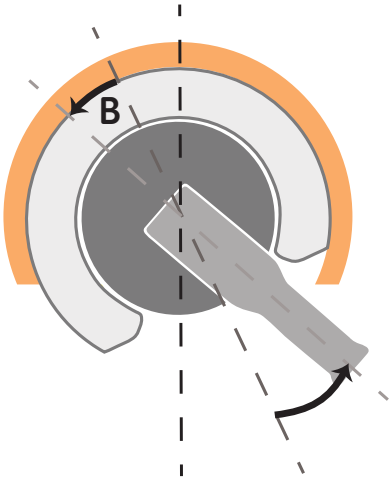
Dual Mobility Articulation



Neutral position[1]

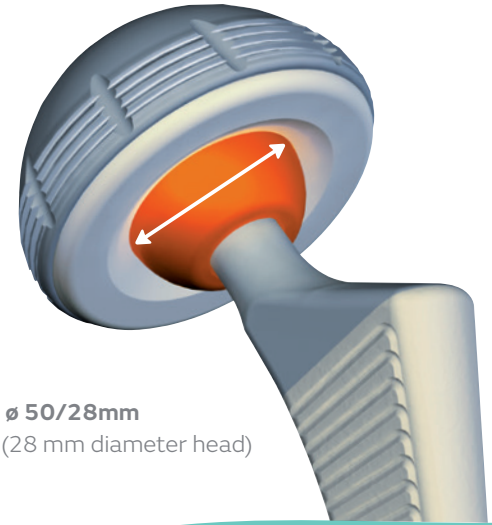


Low level activity[1]
Primary movement occurs in the ball head / insert articulation, allowing the insert to sit in its natural position

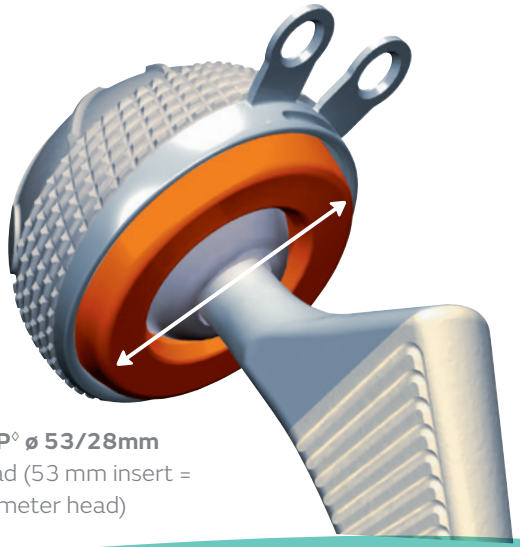


High level activity[1]
Secondary movement occurs in the insert / cup articulation

Dual Mobility prostheses increase jump distance[1,2]



Standard hip ø 50/28mm
28 mm head (28 mm diameter head)



POLARCUP[◊] **ø 53/28mm**
28 mm head (53 mm insert = 47 mm diameter head)

- The Dual Mobility insert acts as a large head intended to increase the jump distance, designed to reduce the risk of dislocation and restoring hip stability.[2-6]
- The superior-posterior 6° skirt under the equatorial rim is designed to increase jump distance by ensuring additional stability.

POLARCUP◊ performance

POLARCUP performance demonstrates excellent clinical and functional outcomes[1,7,8]

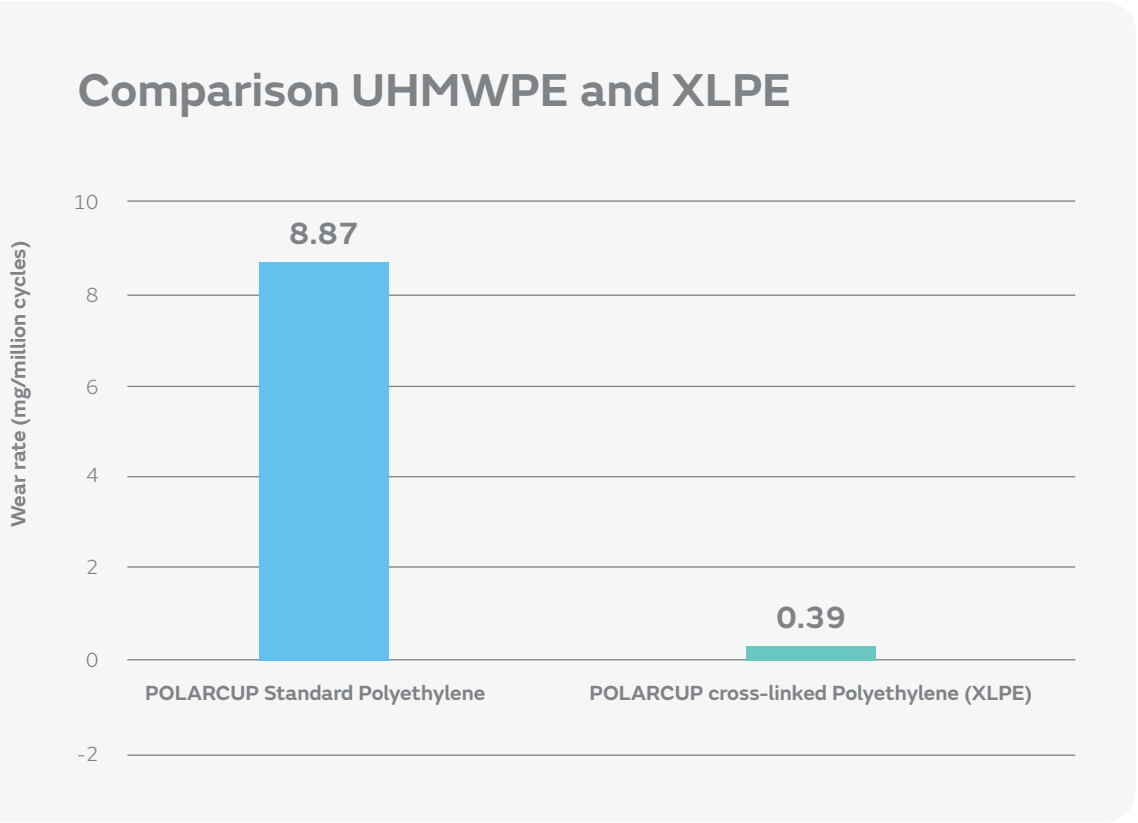
- Cementless POLARCUP 7A* ODEP Rating[7]
- Cemented POLARCUP 3A ODEP Rating[7]

POLARCUP is designed to reduce the risk of dislocation and increase joint stability[1-6]

- Dislocation rate of 0.0 and 0.7% reported[8,9]
- Increased range of motion (ROM) compared to conventional THA and constrained liners[2]

POLARCUP demonstrates low wear in vitro[10]

- Standard Polyethylene (UHMWPE) 8.87 mg/million cycles (StdDev. 0.59) after 5 million cycles
- Cross-linked Polyethylene (XLPE) 0.39 mg/million cycles (StdDev 0.41) between 2 and 5 million cycles



VERILAST◊ technology for hips

VERILAST Technology for Hips from Smith+Nephew uses the exclusive bearing combination of proprietary OXINIUM™ and highly cross-linked polyethylene, which provides superior clinical survivorship[11] and biocompatibility[12-14] without sacrificing versatility or introducing the risk of ceramic-like fracture.[15]

Wear performance

VERILAST Technology for total hip arthroplasty has been laboratory tested and shown to provide superior wear performance compared to CoCr on highly-crosslinked polyethylene, for up to 45 million cycles. With advanced materials designed to last, VERILAST Technology helps restore patients to their active lifestyles.

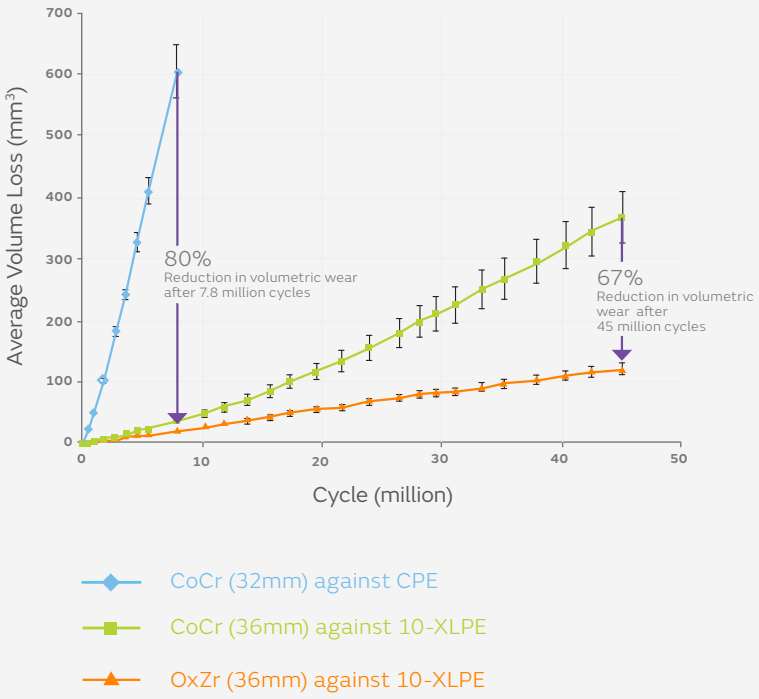
Corrosion avoidance

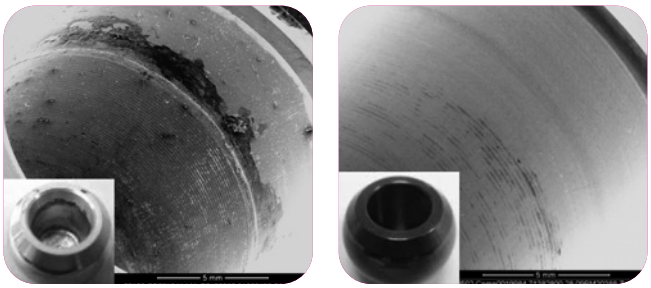
With its biocompatible properties, due to its use of oxidized zirconium, VERILAST Technology has been shown to reduce taper corrosion in total hip arthroplasty, minimizing the concern of trunnionosis.[12-13]

An article published in the HSS Journal showed that in a 22 year retrieval database, OXINIUM femoral heads are associated with decreased corrosion damage compared to CoCr femoral heads. Furthermore, chromium rich deposits which were present on some CoCr femoral heads were completely absent from OXINIUM.[13]

*Cumulative volumetric wear comparison components; XLPE groups consist of R3◊ shells and liners and the CPE group consists of REFLECTION◊ shells and liners.

Cumulative volumetric wear comparison[16*]





SEM image of worst case CoCrMo taper (at left) and worst case OxZr (at right).[13]

Product features

Low wear

All versions of the POLARCUP® have a highly polished internal surface designed to minimize wear[10]

Self-aligning implant

The self-aligning insert is designed to allow loading following the path of least resistance

Surface

The Ti-Plasma and Ti-Plasma / hydroxyapatite surfaces have a high degree of surface roughness[17]

Stability

The equatorial teeth and ribs on the cup are designed to prevent rotation and provide primary stability

Cement

The cemented POLARCUP can be used with previously implanted reinforcement cages and rings[18]

Additional fixation with Flanged POLARCUP

One cup, four combinations

The screws and pegs can be used in combination with the Ti Plasma / HA flanged POLARCUP to provide additional fixation

Flanges broken off using the flange cutter

Flanges bent over the acetabular rim without cortical screws

Flanges bent over the acetabular rim fixed with 1 or 2 cortical screws

Flanges bent over the acetabulum fixed with 1 or 2 cortical screws and 2 impacted anchoring pegs

Product overview

Ti-Plasma / HA Cementless Cup with flanges

Ti-Plasma Cementless Cup

Stainless Steel Cup for use with cement only

PE Insert

XLPE Insert

Cortical Screw (for use with the Ti-Plasma / HA flanged cup)

Peg (for use with the Ti-Plasma / HA flanged cup)

Implant Overview

Sizes mm	Ti-plasma/HA cementless cup with flanges	Ti-Plasma cementless cup	Stainless steel cemented cup	PE Insert Ø 22mm head	PE Insert Ø 28mm head	XLPE Insert Ø 22mm head	XLPE Insert Ø 28mm head
43	75100436	75100406	75100451	●		●	
45	75100437	75100407	75100452	●		●	
47	75100438	75100408	75100453		●	●	●
49	75100439	75100409	75100454		●	●	●
51	75100440	75100410	75100455		●	●	●
53	75100441	75100411	75100456		●	●	●
55	75100442	75100412	75100457		●	●	●
57	75100443	75100413	75100458		●	●	●
59	75100444	75100414	75100459		●	●	●
61	75100445	75100415	75100460		●	●	●
63	75100446	75100416	75100461		●	●	●
65	75100447	75100417			●	●	●
67	75100448	75100418			●	●	●

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