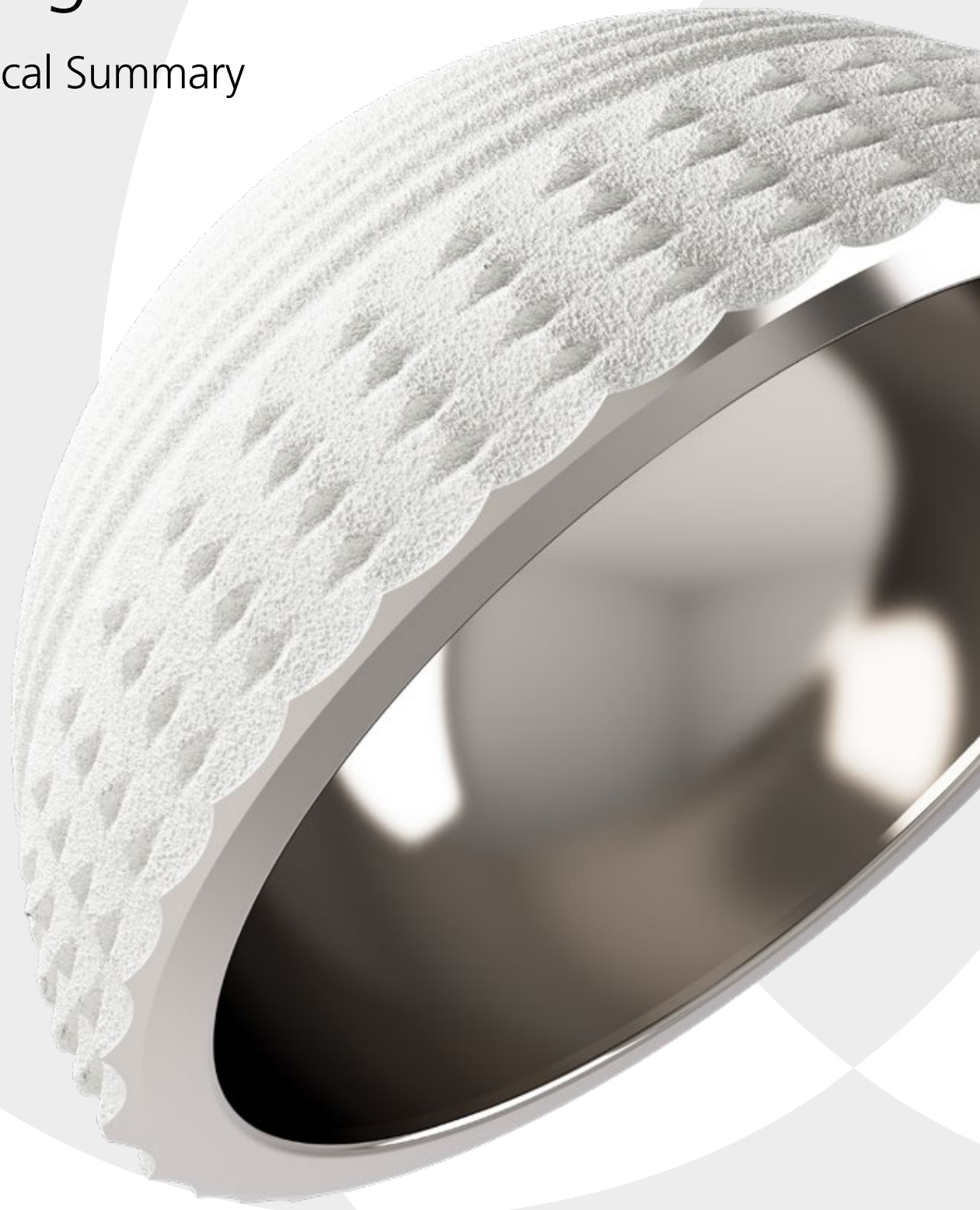
Dual Mobility

Long-Term Data

Clinical Summary



DePuy Synthes

PART OF THE Johnson & Johnson FAMILY OF COMPANIES

Dual Mobility

Long-Term Data

Ten-Year Clinical and Radiological Outcomes of 100 Total Hip Arthroplasty Cases with a Modern Cementless Dual Mobility Cup

Laurenden L, Philippot R, Boyer B, Neri T, Farizon F. Surgical Technology International. 2018 Apr; 32: 985[1]

A single-centre prospective study of 100 consecutive primary THAs using the press-fit Sunfit TH® Dual Mobility Cup and a cementless straight stem.

93 patients (43 females, 50 males) with a mean age of 71.81 years (range: 40-94 years). 4 patients were lost to follow-up and 19 died with their implants still in place. The mean follow-up was 10.03 years.

Mean Harris Hip score significantly improved from 56 ± 15.2 pre-operatively to 93 ± 8.4 ($p<0.001$) and the mean Postel Merle d'Aubigné score significantly improved from 11.8 ± 2.1 pre-operatively to 17 ± 1.6 post-operatively ($p<0.001$).

There were no cases of cup aseptic loosening, dislocation or intra-prosthetic dislocation.

This study reports 100% survivorship rates at 10 years follow-up with revision of the cup for aseptic loosening considered as the endpoint.

Low rate of dislocation of dual-mobility cups in primary total hip arthroplasty.

Combes A, Migaud H, Girard J, Duhamel A, Fessy MH. Clin Orthop Relat Res. 2013 Dec;471(12):3891-900.[2]

A multi-centre study collected data from 15 centres covering 2480 primary THRs using Dual Mobility cups, implanted between 1998 and 2003. This series featured 1491 Novae cups.

The mean age was 69 (range, 19-94 years) and the mean follow up was 7 years (0.17-11 years). There were 15 dislocations (0.6%), with 2 recurring (0.08%) and only one requiring revision (0.04%). There were an additional 7 intra-prosthetic dislocations (0.28%) all of which required revision.

The ten-year survivorship with revision of the cup for any cause as the endpoint was 93%.

BI-MENTUM™

DUAL MOBILITY SYSTEM

Currently available evidence indicates that a dual mobility implant is becoming a leading treatment option to address instability for complex primary total hip replacement.[2,5-6]

To further enhance the DePuy Synthes portfolio, a strategic co-operation and supply agreement has been formed with Société d'Etude, de Recherche et de Fabrication (SERF) to exclusively launch the SERF NOVAE® Dual Mobility System under the brand name BI-MENTUM™ Dual Mobility System.

SERF is the original developer of the dual mobility implant with nearly 40 years of clinical experience.[7]

Novae Dual Mobility cups - 40 years of optimization[7]

1979

Novae-1

Tripod Fixation

1998

Novae

Liner Optimization

1999

Novae E

Hemispherical cup + 3 mm cylindrical rim

2000

Novae Sunfit

Pressfit only fixation with Alumina & Hydroxyapetite coating

2007

Novae TH

Circumferential Macrostructure & Titanium + Hyrdoxyapetite Coating

serf

2019

BI-MENTUM

Dual Mobility System

Identical Press-fit design, features and coating as Novae TH

BI-MENTUM™

DUAL MOBILITY SYSTEM

Dual Mobility

Long-Term Data

A comparative and retrospective study of three hundred and twenty primary Charnley type hip replacements with a minimum follow up of ten years to assess whether a dual mobility cup has a decreased dislocation risk.

Caton JH, Prudhon JL, Ferreira A, Aslanian T, Verdier R. Int Orthop. 2014 Jun;38(6):1125-9.[3]

Retrospective comparative study of 215 metal backed polyethylene cups vs 105 Dual Mobility cups used with a Charnley-style cemented stem.

There were 26 dislocations (12.9%) in the standard group, 21 of these were recurrent and required revision.

In the Dual Mobility group there was 1 dislocation which was treated conservatively and did not reoccur. The difference was statistically significant. (p=0.0018).

The overall cup revision rate was 12.9% in the standard group and 2.1% in the Dual Mobility group (p=0.054).

Dislocation following total hip arthroplasty using dual mobility acetabular components: a systematic review

De Martino I, D'Apolito R, Soranoglou VG, Poultsides LA, Sculco PK, Sculco TP. Bone Joint J. 2017 Jan;99-B(ASuppl1):18-24.[4]

A systematic review found 59 articles covering 17908 THAs using Dual Mobility cups.

- 12844 of these cases were in Primary THA.
- The mean age at surgery was 68.8 years (SD 9.7).
- The mean follow up was 6.8 years (SD 5.1).
- The mean dislocation rate was 0.9% (SD 1.9) and the mean intra-prosthetic dislocation was 0.7% (SD 1.4).

References

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2. Combes A, Migaud H, Girard J, Duhamel A, Fessy MH. Low rate of dislocation of dual-mobility cups in primary total hip arthroplasty. Clin Orthop Relat Res. 2013 Dec;471(12):3891-900.
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137114-200415 JULY 2020

175589-210501 May 2021 AU