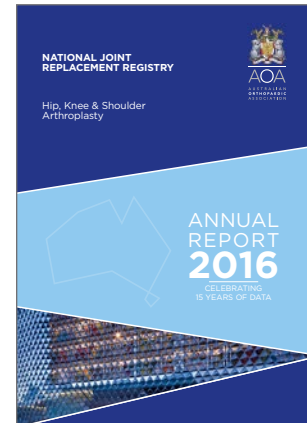


Australian Registry Results 2016

Patients <55

The Australian Orthopedic Association National Joint Replacement Registry Annual Report has been published. It contains unbiased clinical results of various primary total conventional hip replacements by bearing surface from September 1999 to December 2015.

The registry continues to include VERILAST® in the “Ceramicised Metal/XLPE” bearing surface category. Ceramicised metal is a metal that undergoes transformation to create a surface which is ceramic while leaving the core metal substrate unmodified. The Ceramicised Metal/XLPE bearing couples tracked by the registry are all manufactured by “a single company” and that company is Smith & Nephew.



Summary of the Ceramicised Metal/XLPE data

- Highest survivorship of all bearing categories at 10 years in primary procedures with cementless fixation, age <55 Years (Primary Diagnosis OA)– 96.0%
- 1735 reported primary procedures with cementless fixation, age <55 Years (Primary Diagnosis OA)

Table YH12 Cumulative Percent Revision of Primary Total Conventional Hip Replacement with Cementless Fixation in Patients Aged <55 Years by Bearing Surface (Primary Diagnosis OA)

Bearing Surface	N Revised	N Total	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs
Ceramic/Ceramic	434	12726	1.4 (1.2, 1.6)	2.4 (2.1, 2.7)	3.4 (3.0, 3.7)	4.1 (3.6, 4.5)	5.2 (4.7, 5.8)	6.6 (5.7, 7.7)
Ceramic/Non XLPE	32	372	2.4 (1.2, 4.7)	3.0 (1.6, 5.6)	3.9 (2.2, 6.9)	6.2 (3.8, 9.8)	8.7 (5.7, 13.0)	
Ceramic/XLPE	121	4127	1.7 (1.3, 2.1)	3.1 (2.5, 3.7)	3.5 (2.9, 4.3)	4.3 (3.5, 5.3)	5.1 (4.0, 6.5)	
Ceramic/Metal	3	56	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	0.0 (0.0, 0.0)	10.7 (3.2, 32.3)		
Metal/Metal	56	929	1.1 (0.6, 2.0)	2.2 (1.4, 3.3)	3.2 (2.2, 4.6)	4.0 (2.9, 5.5)	5.1 (3.8, 6.8)	
Metal/Non XLPE	84	703	0.9 (0.4, 1.9)	3.0 (2.0, 4.6)	4.2 (3.0, 6.1)	4.9 (3.5, 6.8)	7.9 (6.0, 10.3)	17.4 (13.7, 22.0)
Metal/XLPE	159	4207	1.8 (1.4, 2.2)	3.2 (2.7, 3.8)	3.8 (3.2, 4.5)	4.6 (3.9, 5.4)	5.4 (4.6, 6.5)	
Metal/Ceramic	0	3	0.0 (0.0, 0.0)					
Ceramicised Metal/Non XLPE	1	15	0.0 (0.0, 0.0)	6.7 (1.0, 38.7)	6.7 (1.0, 38.7)	6.7 (1.0, 38.7)	6.7 (1.0, 38.7)	
Ceramicised Metal/XLPE	48	1735	1.9 (1.3, 2.7)	2.7 (2.0, 3.7)	3.0 (2.2, 4.1)	3.5 (2.5, 4.7)	4.0 (2.9, 5.5)	
TOTAL	938	24873						

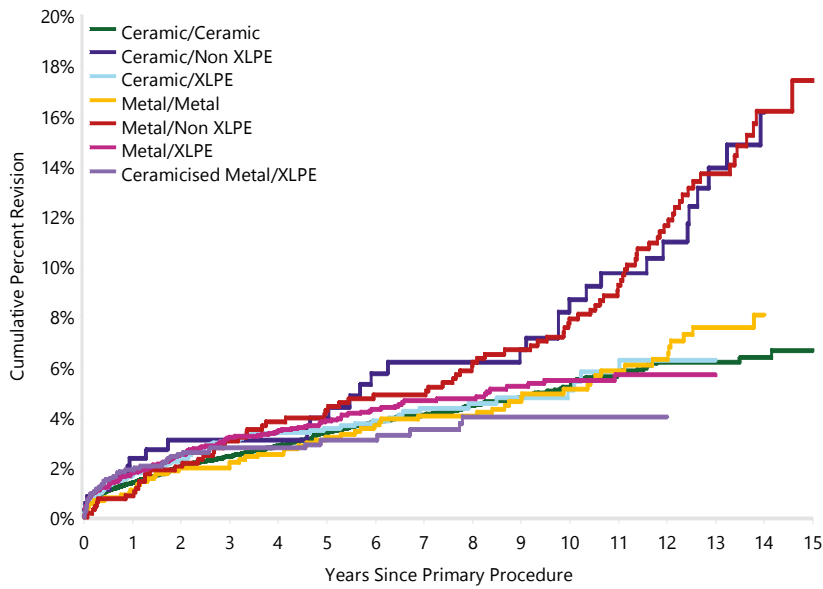
Note: All procedures using metal/metal prostheses with head size larger than 32mm have been excluded
12 procedures with unknown bearing surface have been excluded

Although the Ceramicised Metal/XLPE combination has the lowest reported cumulative percent revision at 10 years, this result should be interpreted with caution. This bearing is a single company product used with a small number of femoral stem and acetabular component combinations. This may have a confounding effect on the outcome, making it unclear if the lower rate of revision is an effect of the bearing surface or reflects the limited combination of femoral and acetabular prostheses.

Registries are a useful tool to help surgeons select prostheses that have been shown to have proven clinical results. We at Smith & Nephew hope that you find this information helpful in determining the best prostheses for you and your patients.

Data has been sourced from the Australian Orthopaedic Association National Joint Replacement Registry Annual Report. Adelaide: AOA: 2016. Tables have been reproduced in exact and complete form. For a full copy of the AOA National Joint Replacement Registry report, see <https://aoanjrr.sahmri.com/annual-reports-2016> (Last accessed 12/12/2016).

Figure YH9 Cumulative Percent Revision of Primary Total Conventional Hip Replacement with Cementless Fixation in Patients Aged <55 Years by Bearing Surface (Primary Diagnosis OA)



HR - adjusted for age and gender

Ceramic/Ceramic vs Metal/XLPE	Entire Period: HR=0.89 (0.75, 1.07),p=0.228
Ceramic/Non XLPE vs Metal/XLPE	Entire Period: HR=1.84 (1.25, 2.69),p=0.001
Ceramic/XLPE vs Metal/XLPE	Entire Period: HR=0.99 (0.78, 1.25),p=0.920
Metal/Metal vs Metal/XLPE	0 - 3Yr: HR=0.76 (0.47, 1.21),p=0.242 3Yr+: HR=1.25 (0.85, 1.82),p=0.252
Metal/Non XLPE vs Metal/XLPE	0 - 3Mth: HR=0.45 (0.14, 1.42),p=0.174 3Mth - 1.5Yr: HR=1.37 (0.72, 2.63),p=0.339 1.5Yr - 3Yr: HR=1.31 (0.63, 2.71),p=0.464 3Yr - 5.5Yr: HR=1.59 (0.85, 2.99),p=0.149 5.5Yr - 7Yr: HR=0.29 (0.04, 2.11),p=0.221 7Yr - 9Yr: HR=2.86 (1.44, 5.66),p=0.002 9Yr+: HR=4.00 (2.62, 6.10),p<0.001
Ceramicised Metal/XLPE vs Metal/XLPE	Entire Period: HR=0.84 (0.61, 1.17),p=0.301
Ceramic/XLPE vs Ceramic/Ceramic	Entire Period: HR=1.11 (0.91, 1.36),p=0.311
Ceramicised Metal/XLPE vs Ceramic/Ceramic	Entire Period: HR=0.95 (0.70, 1.27),p=0.710
Ceramicised Metal/XLPE vs Ceramic/XLPE	Entire Period: HR=0.85 (0.61, 1.19),p=0.346

Number at Risk	0 Yr	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	15 Yrs
Ceramic/Ceramic	12726	11245	8332	5785	3855	2347	86
Ceramic/Non XLPE	372	298	230	216	205	178	26
Ceramic/XLPE	4127	3228	1969	1177	667	284	2
Metal/Metal	929	914	881	841	751	539	35
Metal/Non XLPE	703	692	654	619	594	517	41
Metal/XLPE	4207	3754	2888	2091	1271	618	2
Ceramicised Metal/XLPE	1735	1431	986	594	423	216	0

Note: All procedures using metal/metal prostheses with head size larger than 32mm have been excluded
Only bearing surfaces with more than 100 procedures are included in the analysis

For more information on VERILAST® Ceramicised Metal/XLPE please contact your local Smith & Nephew representative.