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# Australian Orthopaedic Association National Joint Replacement Registry

Comparative Prostheses Performance  
Supplementary Report



ANNUAL  
REPORT  
2021

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Australian Orthopaedic Association  
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## **2021 Comparative Performance Prostheses Supplementary Report**

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The Registry greatly appreciates the participation of all joint replacement patients throughout Australia. Their contribution allows ongoing improvements in arthroplasty outcomes to be achieved.

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## Introduction

The purpose of this new supplementary report is to ensure that the Registry provides updated 10, 15 and 20 year data on the comparative performance of all prostheses including those that are no longer used.

Analyses presented in the main report are now limited to prostheses that were still used in 2020. Surgeons at the Annual Report Workshop highlighted that there was ongoing interest in the comparative performance of all devices reported to the Registry and recommended its inclusion as a supplementary report.

This report presents comparative performance information on hip and knee prostheses used for the treatment of osteoarthritis for the three different time periods irrespective of their use in 2020. Those prostheses not used in 2020 are identified with an asterix in each of the tables.

Only individual prosthesis combinations with >350 procedures are reported. To identify superiority and non-inferiority, the new benchmark standards described in the main report are used. These standards are based on the aggregate performance of devices in a class still being used in 2020.

A prosthesis combination is identified as having a superiority benchmark if the upper confidence interval is less than, or equal to, the benchmark standard. These devices are highlighted in green in the relevant tables.

A prosthesis combination is identified as having a non-inferiority benchmark if the upper confidence interval level is not more than 20% above the benchmark standard. These devices are highlighted in blue in the relevant tables.

# Ten, Fifteen and Twenty Year Outcomes Comparative Performance

## Ten Year Outcomes

### HIP REPLACEMENT

There are 95 hip prosthesis combinations listed that have been used in >350 procedures and have data to at least 10 years. These listed combinations were used in 74.8% of all primary total conventional hip replacement procedures performed for osteoarthritis.

The 10 year cumulative percent revision ranges from 2.4% to 46.4%. The benchmark standard used to assess superiority and non-inferiority performance at 10 years is 4.4%. There are 12 (12.6%) hip prosthesis combinations that qualify for a superiority benchmark (highlighted in green). An additional 10 (10.5%) prosthesis combinations qualify for a non-inferiority benchmark (highlighted in Blue) (Table CP3).

### KNEE REPLACEMENT

There are 72 knee prosthesis combinations that have been used in >350 procedures and have data to at least 10 years. The listed combinations were used in 85.9% of all primary total knee replacement procedures performed for osteoarthritis.

The 10 year cumulative percent revision ranges from 2.9% to 13.3%. The benchmark used to assess superiority and non-inferiority at 10 years is 4.8%. There are 7 (9.7%) knee prosthesis combinations that qualify for a superiority benchmark (highlighted in green). An additional 20 (27.8%) prosthesis combinations qualify for a non-inferiority benchmark highlighted in blue (Table CP2).

**Table CP1 Cumulative Percent Revision of Primary Total Conventional Hip Replacement Combinations with 10 Year Data (Primary Diagnosis OA)**

Femoral Component	Acetabular Component	N Revised	N Total	THR	Type of Revision			2 Yrs	5 Yrs	10 Yrs
					Femoral	Acetabular	Other			
ABGII	ABGII (Shell/Insert)*	83	853	18	43	15	7	1.8 (1.1, 2.9)	2.7 (1.8, 4.1)	6.6 (5.1, 8.6)
ABGII	ABGII*	322	2772	47	158	79	38	2.5 (2.0, 3.1)	4.1 (3.5, 5.0)	6.9 (6.0, 8.0)
ABGII	Trident (Shell)*	252	2439	14	157	33	48	3.4 (2.8, 4.2)	5.0 (4.2, 5.9)	8.7 (7.6, 10.0)
Accolade I	Mitch TRH* <sup>MoM</sup>	86	357	39	14	23	10	3.7 (2.1, 6.2)	10.3 (7.5, 14.0)	18.8 (15.1, 23.4)
Accolade I	Trident (Shell)*	513	8573	61	198	101	153	2.4 (2.1, 2.7)	3.8 (3.4, 4.2)	5.7 (5.2, 6.3)
Accolade I	Trident/Tritanium (Shell)*	32	696	3	13	6	10	2.0 (1.2, 3.4)	2.9 (1.9, 4.5)	5.5 (3.9, 7.9)
Adapter	Bionik* <sup>MoM</sup>	96	376	20	9	23	44	5.1 (3.3, 7.9)	15.3 (12.0, 19.5)	25.1 (20.8, 30.0)
Alloclassic	Allofit	303	5131	34	132	52	85	1.8 (1.5, 2.2)	2.9 (2.4, 3.4)	5.0 (4.4, 5.7)
Alloclassic	Durom* <sup>MoM</sup>	98	547	27	14	44	13	3.4 (2.1, 5.3)	7.4 (5.5, 10.0)	16.3 (13.3, 19.9)
Alloclassic	Fitmore*	131	1709	15	67	14	35	4.2 (3.4, 5.3)	5.6 (4.6, 6.8)	7.4 (6.2, 8.8)
Alloclassic	Metasul*	22	371	4	2	11	5	2.2 (1.1, 4.3)	3.6 (2.1, 6.1)	5.2 (3.3, 8.1)
Alloclassic	Trabecular Metal (Shell)*	49	957	5	14	5	25	2.5 (1.7, 3.7)	4.0 (2.9, 5.5)	5.2 (3.9, 6.9)
Anthology	R3	202	7018	18	61	39	84	2.2 (1.9, 2.6)	2.7 (2.3, 3.1)	3.5 (3.0, 4.1)
Anthology	Reflection (Shell)*	40	909	4	15	13	8	2.3 (1.5, 3.5)	3.0 (2.1, 4.4)	4.6 (3.3, 6.3)
Apex	Fin II*	51	924	5	11	20	15	2.3 (1.5, 3.5)	3.4 (2.4, 4.8)	5.9 (4.5, 7.8)
Avenir	Trilogy*	11	553	1	5	0	5	1.1 (0.5, 2.4)	1.3 (0.6, 2.7)	2.5 (1.3, 4.9)
C-Stem	Duraloc*	89	894	13	23	14	39	2.8 (1.9, 4.2)	3.8 (2.7, 5.3)	6.9 (5.3, 8.9)
C-Stem	Elite Plus LPW*	22	367	10	4	8	0	1.1 (0.4, 3.0)	2.7 (1.4, 5.0)	5.3 (3.3, 8.6)
C-Stem AMT	PINNACLE	98	4142	8	37	11	42	1.6 (1.2, 2.0)	2.8 (2.3, 3.6)	4.5 (3.4, 5.9)
CLS	Allofit	61	815	6	33	14	8	2.5 (1.6, 3.8)	3.9 (2.7, 5.5)	6.2 (4.7, 8.2)
CLS	Fitmore	56	924	7	23	8	18	2.5 (1.7, 3.8)	4.1 (3.0, 5.8)	5.5 (4.0, 7.5)
CORAIL	ASR* <sup>MoM</sup>	1246	2654	223	40	926	57	5.1 (4.3, 6.0)	27.5 (25.8, 29.3)	46.4 (44.4, 48.4)
CORAIL	DeltaMotion	29	1209	4	6	11	8	1.5 (0.9, 2.4)	2.0 (1.3, 3.0)	2.9 (2.0, 4.3)
CORAIL	Duraloc*	98	1267	17	43	15	23	1.6 (1.0, 2.5)	2.5 (1.8, 3.6)	5.2 (4.0, 6.7)
CORAIL	PINNACLE	1749	50782	147	649	276	677	2.1 (2.0, 2.2)	3.1 (3.0, 3.3)	5.0 (4.7, 5.2)
CORAIL	PINNACLE* <sup>MoM</sup>	117	880	17	41	20	39	2.9 (1.9, 4.2)	6.1 (4.7, 8.0)	12.2 (10.2, 14.7)
CPCS	R3	177	5663	19	52	35	71	2.4 (2.0, 2.8)	3.2 (2.7, 3.7)	4.8 (3.9, 5.8)
CPCS	Reflection (Cup)	71	791	24	3	31	13	1.5 (0.8, 2.6)	2.8 (1.8, 4.4)	8.2 (6.0, 11.0)
CPCS	Reflection (Shell)	100	2748	13	44	12	31	0.9 (0.6, 1.4)	1.7 (1.3, 2.3)	3.4 (2.7, 4.2)
CPT	Allofit	48	1491	6	21	4	17	1.1 (0.7, 1.8)	2.6 (1.8, 3.7)	5.2 (3.7, 7.2)
CPT	Continuum	125	2754	9	42	16	58	3.1 (2.6, 3.9)	4.1 (3.4, 5.0)	7.1 (5.5, 9.3)
CPT	Trabecular Metal (Shell)	92	1926	7	40	17	28	2.8 (2.1, 3.6)	4.2 (3.3, 5.3)	6.5 (5.2, 8.2)
CPT	Trilogy	354	7623	35	131	38	150	2.3 (2.0, 2.6)	3.5 (3.1, 3.9)	5.2 (4.7, 5.8)
CPT	ZCA	37	851	13	9	9	6	1.0 (0.5, 1.9)	2.3 (1.4, 3.6)	4.7 (3.3, 6.8)
Charnley	Charnley Ogee*	64	630	38	9	5	12	2.1 (1.2, 3.6)	5.1 (3.6, 7.2)	9.1 (6.9, 11.9)
Charnley	Charnley*	47	563	37	7	3	0	0.9 (0.4, 2.2)	2.2 (1.3, 3.9)	6.5 (4.6, 9.1)
Charnley	Vitalock*	42	370	8	20	3	11	2.7 (1.5, 5.0)	4.4 (2.7, 7.1)	7.9 (5.5, 11.4)
Citation	Trident (Shell)*	56	1035	3	15	15	23	1.9 (1.3, 3.0)	3.3 (2.4, 4.6)	4.4 (3.3, 5.9)
Citation	Vitalock*	48	508	4	8	18	18	1.0 (0.4, 2.4)	2.0 (1.1, 3.7)	5.2 (3.5, 7.7)
Elite Plus	Duraloc*	110	953	17	65	6	22	2.2 (1.5, 3.4)	5.1 (3.9, 6.8)	9.2 (7.4, 11.5)
Epoch	Trilogy*	46	990	1	9	9	27	2.7 (1.9, 4.0)	3.6 (2.6, 4.9)	4.5 (3.3, 6.0)
Exeter	Contemporary*	39	428	10	7	14	8	2.9 (1.6, 5.0)	4.2 (2.6, 6.6)	6.0 (4.0, 8.9)
Exeter	Vitalock*	69	1076	12	13	25	19	2.0 (1.3, 3.0)	2.3 (1.5, 3.4)	4.6 (3.4, 6.1)
Exeter V40	ABGII*	36	976	8	12	10	6	0.8 (0.4, 1.6)	1.8 (1.1, 2.9)	3.4 (2.4, 4.9)
Exeter V40	Contemporary	277	4577	70	46	129	32	2.1 (1.8, 2.6)	3.2 (2.7, 3.8)	5.6 (4.9, 6.4)
Exeter V40	Exeter Contemporary	154	2916	52	33	47	22	1.9 (1.5, 2.5)	3.0 (2.4, 3.7)	4.7 (3.9, 5.6)
Exeter V40	Exeter*	107	1526	23	16	50	18	1.3 (0.8, 2.0)	2.9 (2.1, 3.9)	4.6 (3.6, 5.9)
Exeter V40	Mallory-Head*	42	1434	7	24	4	7	0.8 (0.4, 1.4)	1.1 (0.7, 1.8)	2.4 (1.7, 3.5)
Exeter V40	PINNACLE	46	1858	2	18	11	15	1.6 (1.1, 2.2)	1.9 (1.3, 2.7)	4.2 (2.9, 6.0)



Femoral Component	Acetabular Component	N Revised	N Total	THR	Type of Revision					
					Femoral	Acetabular	Other	2 Yrs	5 Yrs	10 Yrs
Exeter V40	Trabecular Metal (Shell)	20	430	2	2	2	14	3.1 (1.8, 5.3)	4.3 (2.7, 6.8)	5.5 (3.5, 8.5)
Exeter V40	Trident (Shell)	1804	64652	253	557	244	750	1.5 (1.4, 1.6)	2.3 (2.2, 2.4)	3.6 (3.5, 3.8)
Exeter V40	Trident/Tritanium (Shell)	97	3956	8	19	23	47	1.7 (1.3, 2.2)	2.7 (2.2, 3.3)	3.9 (2.9, 5.4)
Exeter V40	Trilogy	18	517	2	5	2	9	2.3 (1.3, 4.1)	2.5 (1.5, 4.3)	3.7 (2.3, 5.9)
Exeter V40	Vitalock*	87	1795	15	24	24	24	1.4 (1.0, 2.1)	2.3 (1.7, 3.1)	3.2 (2.5, 4.2)
F2L	SPH-Blind*	61	571	10	20	15	16	3.9 (2.6, 5.8)	6.1 (4.4, 8.4)	7.6 (5.7, 10.2)
M/L Taper	Allofit	22	718	1	10	3	8	1.7 (1.0, 3.0)	2.2 (1.3, 3.7)	4.5 (2.7, 7.3)
M/L Taper	Trabecular Metal (Shell)*	15	362	1	4	3	7	1.7 (0.8, 3.7)	2.0 (0.9, 4.1)	5.3 (3.1, 9.1)
M/L Taper Kinectiv	Continuum*	85	2085	4	22	13	46	2.8 (2.2, 3.6)	3.5 (2.8, 4.4)	4.8 (3.8, 6.0)
MS 30	Allofit*	64	1539	13	19	19	13	1.3 (0.8, 2.0)	2.1 (1.5, 2.9)	3.6 (2.7, 4.8)
MS 30	Fitmore	27	715	1	7	9	10	1.0 (0.5, 2.1)	2.0 (1.1, 3.5)	3.1 (1.8, 5.0)
MS 30	Low Profile Cup*	24	603	10	3	9	2	0.5 (0.2, 1.5)	1.3 (0.6, 2.7)	2.9 (1.7, 5.0)
Mallory-Head	Mallory-Head*	193	2908	18	14	64	97	2.1 (1.6, 2.7)	3.0 (2.4, 3.7)	4.8 (4.0, 5.6)
Meridian	Vitalock*	39	354	2	2	16	19	1.4 (0.6, 3.4)	3.5 (2.0, 6.1)	6.7 (4.4, 10.0)
Natural Hip	Fitmore*	40	882	2	7	12	19	0.9 (0.5, 1.8)	2.0 (1.3, 3.2)	4.2 (3.0, 5.9)
Omnifit	Secur-Fit*	83	716	9	22	20	32	3.7 (2.5, 5.3)	6.2 (4.6, 8.2)	9.9 (7.9, 12.5)
Omnifit	Trident (Shell)	157	3816	13	39	27	78	2.2 (1.7, 2.7)	2.9 (2.4, 3.5)	3.8 (3.2, 4.5)
Polarstem	R3	320	12232	18	102	42	158	2.3 (2.0, 2.5)	3.0 (2.7, 3.4)	4.1 (3.3, 5.3)
Quadra-H	Versafitcup CC	590	15539	57	268	126	139	2.1 (1.9, 2.4)	3.3 (3.0, 3.6)	5.8 (5.2, 6.5)
S-Rom	Duraloc Option*	27	523	4	9	5	9	2.1 (1.2, 3.8)	3.3 (2.1, 5.2)	4.6 (3.1, 6.8)
S-Rom	PINNACLE	138	2489	14	77	12	35	2.8 (2.2, 3.6)	4.4 (3.6, 5.3)	5.7 (4.8, 6.7)
SL-Plus	EP-Fit Plus	121	2118	5	54	21	41	2.0 (1.4, 2.6)	3.4 (2.7, 4.3)	5.4 (4.5, 6.5)
SL-Plus	R3	89	1643	3	26	21	39	3.3 (2.5, 4.3)	4.4 (3.5, 5.5)	6.3 (5.1, 7.8)
Secur-Fit	Trident (Shell)	430	9550	24	186	79	141	2.3 (2.1, 2.7)	3.5 (3.1, 3.9)	4.6 (4.2, 5.1)
Secur-Fit Plus	Trident (Shell)	210	5755	15	54	52	89	1.5 (1.3, 1.9)	2.2 (1.9, 2.7)	3.3 (2.8, 3.8)
Spectron EF	BHR* <sup>MoM</sup>	69	430	13	0	48	8	2.6 (1.4, 4.6)	6.0 (4.1, 8.8)	15.9 (12.5, 20.0)
Spectron EF	R3	76	1992	11	11	16	38	2.4 (1.8, 3.1)	3.7 (2.9, 4.7)	5.1 (4.0, 6.5)
Spectron EF	Reflection (Cup)*	121	1404	46	12	54	9	1.3 (0.8, 2.0)	2.9 (2.2, 4.0)	7.1 (5.7, 8.8)
Spectron EF	Reflection (Shell)*	302	4646	67	97	47	91	1.5 (1.2, 1.9)	2.7 (2.3, 3.3)	5.3 (4.6, 6.1)
Stability	Duraloc*	54	374	2	10	17	25	1.3 (0.6, 3.2)	2.2 (1.1, 4.3)	8.9 (6.3, 12.5)
Summit	ASR* <sup>MoM</sup>	485	1041	16	6	437	26	3.0 (2.1, 4.2)	20.1 (17.7, 22.7)	44.5 (41.5, 47.7)
Summit	PINNACLE	150	5185	10	33	22	85	1.8 (1.5, 2.2)	2.3 (1.9, 2.8)	3.4 (2.8, 4.0)
Summit	PINNACLE* <sup>MoM</sup>	77	730	6	6	16	49	1.7 (0.9, 2.9)	3.5 (2.4, 5.1)	8.9 (7.0, 11.3)
Synergy	BHR* <sup>MoM</sup>	105	698	6	7	63	29	2.7 (1.8, 4.2)	4.8 (3.4, 6.7)	12.2 (9.9, 15.0)
Synergy	R3	139	4762	3	39	30	67	2.0 (1.7, 2.5)	2.6 (2.2, 3.2)	3.4 (2.8, 4.0)
Synergy	Reflection (Shell)	382	7474	34	82	127	139	2.0 (1.7, 2.3)	2.6 (2.3, 3.0)	3.9 (3.5, 4.4)
Synergy	Trident (Shell)*	16	438	0	4	5	7	1.2 (0.5, 2.7)	1.9 (0.9, 3.7)	3.7 (2.2, 6.2)
Taperloc	Exceed*	64	2191	6	20	23	15	1.9 (1.4, 2.6)	2.5 (1.9, 3.2)	3.8 (2.8, 5.0)
Taperloc	M2a* <sup>MoM</sup>	66	471	13	2	45	6	2.6 (1.5, 4.5)	6.9 (4.9, 9.6)	12.2 (9.5, 15.6)
Taperloc	Mallory-Head*	92	1902	9	18	30	35	2.3 (1.7, 3.1)	3.1 (2.4, 4.1)	5.1 (4.0, 6.5)
Taperloc	Recap* <sup>MoM</sup>	48	456	12	6	23	7	2.4 (1.4, 4.4)	5.6 (3.8, 8.2)	9.8 (7.3, 13.0)
Trabecular Metal	Allofit*	21	435	2	5	4	10	3.0 (1.8, 5.1)	4.4 (2.9, 6.9)	5.1 (3.4, 7.8)
Trabecular Metal	Continuum*	43	645	2	16	7	18	5.7 (4.2, 7.8)	6.5 (4.9, 8.8)	6.7 (5.0, 9.0)
Tri-Lock	DeltaMotion*	16	755	2	4	7	3	0.9 (0.4, 1.9)	1.5 (0.8, 2.6)	2.6 (1.5, 4.3)
Tri-Lock	PINNACLE	21	933	0	8	4	9	1.6 (0.9, 2.6)	2.4 (1.6, 3.8)	2.7 (1.7, 4.2)
VerSys	Trilogy*	244	4432	14	86	43	101	3.0 (2.6, 3.6)	3.9 (3.4, 4.5)	5.2 (4.6, 5.9)
<b>TOTAL</b>		<b>15395</b>	<b>319668</b>	<b>1963</b>	<b>4480</b>	<b>4223</b>	<b>4729</b>			

Note: Only prostheses with over 350 procedures have been listed

\* denotes prosthesis combinations that have not had any reported use in primary total hip procedures in 2020

**Table CP2 Cumulative Percent Revision of Primary Total Knee Replacement Combinations with 10 Year Data (Primary Diagnosis OA)**

Femoral Component	Tibial Component	N Revised	N Total	Type of Revision				2 Yrs	5 Yrs	10 Yrs
				TKR	Femoral	Tibial	Other			
AGC	AGC*	310	5028	137	5	26	142	1.7 (1.4, 2.1)	3.2 (2.8, 3.8)	4.9 (4.3, 5.6)
Active Knee	Active Knee	767	9964	218	29	42	478	2.5 (2.2, 2.8)	4.7 (4.3, 5.2)	8.2 (7.6, 8.8)
Advance	Advance	60	974	22	4	8	26	3.9 (2.9, 5.4)	5.8 (4.4, 7.5)	7.6 (5.8, 9.8)
Advance	Advance II	112	1621	45	3	13	51	3.6 (2.8, 4.6)	5.0 (4.0, 6.2)	6.8 (5.6, 8.2)
BalanSys	BalanSys	92	4001	24	5	7	56	1.3 (1.0, 1.8)	2.3 (1.8, 2.9)	4.1 (3.1, 5.3)
Buechel-Pappas	Buechel-Pappas*	51	467	16	2	2	31	4.3 (2.8, 6.6)	8.1 (5.9, 11.0)	10.8 (8.2, 14.0)
Columbus	Columbus	130	4097	33	6	7	84	2.2 (1.7, 2.8)	4.8 (3.9, 5.8)	7.7 (6.3, 9.4)
Duracon	Duracon*	1266	19828	345	31	68	822	2.1 (1.9, 2.3)	3.5 (3.2, 3.7)	5.2 (4.9, 5.5)
E.Motion	E.Motion	79	1344	23	10	4	42	4.2 (3.2, 5.4)	6.5 (5.2, 8.1)	7.2 (5.8, 8.9)
GMK Primary	GMK Primary	89	2621	30	2	12	45	2.5 (1.9, 3.2)	3.7 (3.0, 4.6)	4.6 (3.7, 5.9)
Genesis II CR	Genesis II	1092	24634	225	68	56	743	2.0 (1.8, 2.2)	3.5 (3.3, 3.8)	5.0 (4.7, 5.4)
Genesis II CR	Profix Mobile*	129	1209	54	9	8	58	2.7 (1.9, 3.8)	5.4 (4.2, 6.8)	8.8 (7.3, 10.7)
Genesis II Oxinium CR (ctd)	Genesis II	513	9553	100	28	25	360	1.9 (1.6, 2.2)	3.6 (3.2, 4.0)	6.1 (5.5, 6.7)
Genesis II Oxinium PS (ctd)	Genesis II	1230	20507	166	33	162	869	2.8 (2.6, 3.1)	5.1 (4.8, 5.4)	7.5 (7.1, 8.0)
Genesis II PS	Genesis II	856	19724	151	29	54	622	2.1 (1.9, 2.3)	3.7 (3.4, 4.0)	5.2 (4.8, 5.5)
Journey Oxinium	Journey*	334	2975	58	5	30	241	3.4 (2.8, 4.1)	6.5 (5.7, 7.5)	11.2 (10.0, 12.5)
Kinemax Plus	Kinemax Plus*	132	1815	76	3	5	48	1.8 (1.3, 2.6)	3.2 (2.4, 4.1)	4.6 (3.7, 5.8)
LCS CR	LCS	617	8323	251	24	89	253	2.5 (2.1, 2.8)	4.5 (4.0, 4.9)	6.4 (5.9, 7.0)
LCS CR	MBT	1280	32051	427	61	148	644	1.9 (1.8, 2.1)	3.4 (3.2, 3.6)	4.8 (4.6, 5.1)
LCS CR	MBT Duofix	803	15167	230	34	43	496	2.7 (2.4, 2.9)	4.1 (3.7, 4.4)	5.3 (4.9, 5.7)
LCS Duofix	MBT Duofix*	503	3606	357	27	8	111	3.7 (3.2, 4.4)	10.2 (9.2, 11.2)	13.3 (12.3, 14.5)
LCS Duofix	MBT*	135	1169	94	9	2	30	3.3 (2.4, 4.5)	8.1 (6.7, 9.9)	11.9 (10.1, 13.9)
LCS PS	MBT*	44	481	11	5	1	27	4.6 (3.1, 7.0)	6.6 (4.7, 9.3)	10.1 (7.6, 13.4)
Legion CR	Genesis II	183	6457	27	15	7	134	2.2 (1.8, 2.6)	3.6 (3.1, 4.2)	5.2 (4.0, 6.7)
Legion Oxinium CR	Genesis II	174	7231	43	16	3	112	1.7 (1.4, 2.1)	3.5 (3.0, 4.2)	4.6 (3.8, 5.4)
Legion Oxinium PS	Genesis II	574	14898	78	16	49	431	2.2 (2.0, 2.5)	4.1 (3.8, 4.5)	5.9 (5.3, 6.5)
Legion PS	Genesis II	169	5413	43	3	6	117	1.9 (1.5, 2.3)	3.2 (2.7, 3.7)	4.5 (3.7, 5.4)
MBK (Zimmer)	Nexgen*	36	448	20	1	1	14	2.3 (1.2, 4.1)	4.1 (2.6, 6.5)	6.2 (4.2, 8.9)
MRK	MRK	20	675	4	1	0	15	1.8 (1.0, 3.1)	2.5 (1.5, 4.1)	3.7 (2.3, 5.9)
Maxim	Maxim*	131	1819	38	10	6	77	2.1 (1.5, 2.8)	3.4 (2.6, 4.3)	5.2 (4.3, 6.4)
Maxim	Vanguard*	89	628	41	6	6	36	3.1 (2.0, 4.8)	5.6 (4.0, 7.7)	8.3 (6.3, 10.9)
Natural Knee Flex	Natural Knee II	145	5967	44	6	7	88	1.5 (1.2, 1.9)	2.4 (2.0, 2.8)	3.3 (2.8, 3.9)
Natural Knee II	Natural Knee II*	427	6443	189	10	59	169	1.6 (1.4, 2.0)	2.8 (2.4, 3.2)	5.0 (4.5, 5.6)
Nexgen CR	Nexgen	424	11522	136	22	31	235	1.2 (1.1, 1.5)	2.2 (1.9, 2.5)	3.1 (2.8, 3.5)
Nexgen CR	Nexgen TM CR	55	862	19	4	11	21	2.5 (1.6, 3.8)	5.6 (4.2, 7.4)	6.6 (5.1, 8.7)
Nexgen CR Flex	Nexgen	1410	58675	330	100	123	857	1.4 (1.3, 1.5)	2.3 (2.2, 2.4)	3.1 (2.9, 3.3)
Nexgen CR Flex	Nexgen TM CR	317	11937	98	21	28	170	1.3 (1.1, 1.5)	2.3 (2.0, 2.6)	3.2 (2.8, 3.6)
Nexgen LCCK	Nexgen	46	912	6	3	1	36	3.2 (2.2, 4.6)	5.2 (3.8, 7.0)	6.3 (4.6, 8.6)
Nexgen LPS	Nexgen	361	7003	94	20	33	214	2.0 (1.7, 2.3)	3.3 (2.9, 3.8)	4.9 (4.4, 5.5)
Nexgen LPS	Nexgen TM LPS	33	1436	10	3	6	14	1.0 (0.6, 1.6)	2.2 (1.5, 3.2)	2.9 (2.0, 4.2)
Nexgen LPS Flex	Nexgen	1512	37006	413	65	236	798	1.8 (1.6, 1.9)	3.2 (3.0, 3.3)	5.0 (4.8, 5.3)
Nexgen LPS Flex	Nexgen TM LPS	70	1565	34	4	6	26	2.0 (1.4, 2.8)	3.5 (2.7, 4.6)	4.7 (3.7, 6.0)
Nexgen RH	Nexgen	29	533	3	4	3	19	3.1 (1.8, 5.0)	5.3 (3.5, 8.2)	9.6 (6.4, 14.2)
Optetrak-CR	Optetrak*	51	504	20	3	4	24	3.2 (2.0, 5.2)	6.1 (4.3, 8.7)	9.3 (6.9, 12.4)
Optetrak-PS	Optetrak RBK*	84	1112	25	3	3	53	2.8 (2.0, 4.0)	5.9 (4.7, 7.6)	8.5 (6.8, 10.6)
Optetrak-PS	Optetrak*	257	2363	113	4	27	113	3.4 (2.8, 4.2)	6.3 (5.4, 7.3)	11.0 (9.7, 12.4)
PFC Sigma CR	MBT	322	6255	63	35	45	179	2.7 (2.3, 3.1)	4.0 (3.5, 4.5)	5.1 (4.6, 5.7)

Femoral Component	Tibial Component	N Revised	N Total	Type of Revision						
				TKR	Femoral	Tibial	Other	2 Yrs	5 Yrs	10 Yrs
PFC Sigma CR	MBT Duofix	155	3314	24	18	6	107	2.5 (2.0, 3.1)	3.6 (3.0, 4.4)	5.0 (4.2, 5.9)
PFC Sigma CR	PFC Sigma	849	24584	214	54	64	517	1.5 (1.4, 1.7)	2.5 (2.3, 2.7)	3.6 (3.3, 3.8)
PFC Sigma PS	MBT	343	6322	115	14	24	190	2.2 (1.9, 2.6)	3.9 (3.4, 4.4)	5.4 (4.8, 6.0)
PFC Sigma PS	MBT Duofix	173	2212	38	4	6	125	3.5 (2.8, 4.3)	6.0 (5.1, 7.2)	8.4 (7.2, 9.7)
PFC Sigma PS	PFC Sigma	361	7979	123	12	27	199	1.9 (1.7, 2.3)	3.3 (2.9, 3.7)	4.8 (4.3, 5.3)
Profix	Profix Mobile*	110	986	39	6	5	60	5.1 (3.9, 6.7)	8.2 (6.6, 10.1)	9.9 (8.1, 12.0)
Profix	Profix*	303	5370	72	13	18	200	2.3 (1.9, 2.8)	3.8 (3.3, 4.3)	5.4 (4.8, 6.1)
Profix Oxinium (ctd)	Profix*	107	1049	24	5	14	64	4.1 (3.1, 5.5)	7.0 (5.6, 8.7)	8.8 (7.2, 10.7)
RBK	RBK	534	10891	203	14	42	275	2.3 (2.1, 2.6)	3.9 (3.5, 4.3)	5.3 (4.9, 5.8)
Rocc	Rocc*	43	575	16	1	2	24	3.3 (2.1, 5.2)	5.2 (3.6, 7.3)	6.8 (5.0, 9.3)
Rotaglide Plus	Rotaglide Plus*	80	616	36	1	5	38	3.3 (2.2, 5.1)	5.8 (4.1, 8.0)	11.2 (8.8, 14.2)
Score	Score	326	5251	124	20	10	172	3.3 (2.9, 3.9)	6.3 (5.6, 7.1)	10.1 (8.9, 11.5)
Scorpio CR	Scorpio+*	196	2448	45	10	34	107	2.0 (1.5, 2.7)	4.3 (3.6, 5.2)	7.1 (6.1, 8.2)
Scorpio CR	Series 7000*	621	11561	157	27	47	390	1.8 (1.6, 2.1)	3.3 (3.0, 3.6)	5.2 (4.8, 5.6)
Scorpio NRG CR	Series 7000*	200	5070	51	14	13	122	2.1 (1.7, 2.5)	3.1 (2.7, 3.7)	4.5 (3.9, 5.3)
Scorpio NRG PS	Series 7000*	170	3931	31	8	19	112	2.0 (1.6, 2.5)	3.7 (3.1, 4.3)	4.5 (3.9, 5.3)
Scorpio PS	Scorpio*	34	524	9	0	11	14	2.1 (1.2, 3.8)	4.5 (3.0, 6.7)	6.1 (4.3, 8.6)
Scorpio PS	Scorpio+*	154	2036	43	14	10	87	2.7 (2.1, 3.5)	5.1 (4.2, 6.2)	6.7 (5.7, 8.0)
Scorpio PS	Series 7000*	352	4696	116	9	70	157	2.6 (2.1, 3.1)	4.7 (4.1, 5.3)	6.8 (6.1, 7.6)
Triathlon CR	Triathlon	2506	109011	454	106	115	1831	1.5 (1.4, 1.6)	2.5 (2.4, 2.6)	3.8 (3.6, 4.0)
Triathlon PS	Triathlon	539	12926	97	28	71	343	2.4 (2.1, 2.7)	3.9 (3.6, 4.3)	5.6 (5.1, 6.1)
Vanguard CR	Regenerex	85	1706	21	5	10	49	2.7 (2.0, 3.5)	4.1 (3.3, 5.2)	7.3 (5.6, 9.3)
Vanguard CR	Vanguard	906	26692	200	32	66	608	1.7 (1.6, 1.9)	3.0 (2.8, 3.2)	4.9 (4.5, 5.3)
Vanguard PS	Regenerex*	34	462	13	2	4	15	5.0 (3.4, 7.4)	7.2 (5.1, 10.1)	8.3 (5.9, 11.6)
Vanguard PS	Vanguard	308	5104	75	7	58	168	3.5 (3.0, 4.0)	5.3 (4.7, 6.0)	7.5 (6.6, 8.4)
<b>TOTAL</b>		<b>27032</b>	<b>638139</b>	<b>7324</b>	<b>1231</b>	<b>2272</b>	<b>16205</b>			

Note: Only prostheses with over 350 procedures have been listed

\* Denotes prosthesis combinations that have not had any reported use in primary total knee procedures in 2020

CR 'cruciate retaining' refers to minimally stabilised

## Fifteen Year Outcomes

### HIP REPLACEMENT

There are 65 hip prosthesis combinations listed that have been used in >350 procedures and have data to at least 15 years. These listed prosthesis combinations were used in 56.4% of all primary total conventional hip replacement procedures performed for osteoarthritis.

The 15 year cumulative percent revision ranges from 4.1% to 53.9%. The benchmark standard used to assess superiority and non-inferiority performance at 15 years is 6.5%. There are 8 (12.3%) hip prosthesis combinations that qualify for a superiority benchmark (highlighted in green). An additional 8 (12.3%) prosthesis combinations qualify for a non-inferiority benchmark (highlighted in Blue) (Table CP3).

### KNEE REPLACEMENT

There are 44 knee prosthesis combinations that have been used in >350 procedures and have data to at least 15 years. The listed prosthesis combinations were used in 69.0% of all primary total knee replacement procedures performed for osteoarthritis.

The 15 year cumulative percent revision ranges from 4.0% to 15.4%. The benchmark used to assess superiority and non-inferiority at 15 years is also 6.5%. There are 5 (11.4%) knee prosthesis combinations that qualify for a superiority benchmark (highlighted in green). An additional 11 (25.0%) prosthesis combinations qualify for a non-inferiority benchmark (highlighted in blue) (Table CP4).

**Table CP3 Cumulative Percent Revision of Primary Total Conventional Hip Replacement Combinations with 15 Year Data (Primary Diagnosis OA)**

Femoral Component	Acetabular Component	N Revised	N Total	Type of Revision				5 Yrs	10 Yrs	15 Yrs
				THR	Femoral	Acetabular	Other			
ABGII	ABGII (Shell/Insert)*	83	853	18	43	15	7	2.7 (1.8, 4.1)	6.6 (5.1, 8.6)	10.7 (8.5, 13.3)
ABGII	ABGII*	322	2772	47	158	79	38	4.1 (3.5, 5.0)	6.9 (6.0, 8.0)	12.0 (10.7, 13.5)
ABGII	Trident (Shell)*	252	2439	14	157	33	48	5.0 (4.2, 5.9)	8.7 (7.6, 10.0)	13.9 (12.2, 15.8)
Accolade I	Trident (Shell)*	513	8573	61	198	101	153	3.8 (3.4, 4.2)	5.7 (5.2, 6.3)	7.1 (6.5, 7.8)
Alloclassic	Allofit	303	5131	34	132	52	85	2.9 (2.4, 3.4)	5.0 (4.4, 5.7)	8.3 (7.4, 9.4)
Alloclassic	Durom* <sup>MoM</sup>	98	547	27	14	44	13	7.4 (5.5, 10.0)	16.3 (13.3, 19.9)	21.2 (17.5, 25.4)
Alloclassic	Fitmore*	131	1709	15	67	14	35	5.6 (4.6, 6.8)	7.4 (6.2, 8.8)	9.0 (7.5, 10.7)
Alloclassic	Metasul*	22	371	4	2	11	5	3.6 (2.1, 6.1)	5.2 (3.3, 8.1)	6.6 (4.4, 9.8)
Alloclassic	Trabecular Metal (Shell)*	49	957	5	14	5	25	4.0 (2.9, 5.5)	5.2 (3.9, 6.9)	6.8 (4.9, 9.4)
C-Stem	Duraloc*	89	894	13	23	14	39	3.8 (2.7, 5.3)	6.9 (5.3, 8.9)	11.9 (9.6, 14.8)
C-Stem	Elite Plus LPW*	22	367	10	4	8	0	2.7 (1.4, 5.0)	5.3 (3.3, 8.6)	8.7 (5.7, 13.3)
CLS	Allofit	61	815	6	33	14	8	3.9 (2.7, 5.5)	6.2 (4.7, 8.2)	8.9 (6.8, 11.6)
CLS	Fitmore	56	924	7	23	8	18	4.1 (3.0, 5.8)	5.5 (4.0, 7.5)	9.3 (7.0, 12.3)
CORAIL	ASR* <sup>MoM</sup>	1246	2654	223	40	926	57	27.5 (25.8, 29.3)	46.4 (44.4, 48.4)	53.9 (51.4, 56.5)
CORAIL	Duraloc*	98	1267	17	43	15	23	2.5 (1.8, 3.6)	5.2 (4.0, 6.7)	10.7 (8.6, 13.2)
CORAIL	PINNACLE	1749	50782	147	649	276	677	3.1 (3.0, 3.3)	5.0 (4.7, 5.2)	7.8 (6.8, 8.9)
CORAIL	PINNACLE* <sup>MoM</sup>	117	880	17	41	20	39	6.1 (4.7, 8.0)	12.2 (10.2, 14.7)	17.3 (13.9, 21.6)
CPCS	Reflection (Cup)	71	791	24	3	31	13	2.8 (1.8, 4.4)	8.2 (6.0, 11.0)	19.1 (15.0, 24.3)
CPCS	Reflection (Shell)	100	2748	13	44	12	31	1.7 (1.3, 2.3)	3.4 (2.7, 4.2)	6.7 (5.2, 8.5)
CPT	Trilogy	354	7623	35	131	38	150	3.5 (3.1, 3.9)	5.2 (4.7, 5.8)	6.7 (5.9, 7.6)
CPT	ZCA	37	851	13	9	9	6	2.3 (1.4, 3.6)	4.7 (3.3, 6.8)	6.5 (4.5, 9.5)
Charnley	Charnley Ogee*	64	630	38	9	5	12	5.1 (3.6, 7.2)	9.1 (6.9, 11.9)	13.5 (10.5, 17.3)
Charnley	Charnley*	47	563	37	7	3	0	2.2 (1.3, 3.9)	6.5 (4.6, 9.1)	11.0 (8.2, 14.7)
Charnley	Vitalock*	42	370	8	20	3	11	4.4 (2.7, 7.1)	7.9 (5.5, 11.4)	11.5 (8.4, 15.7)
Citation	Trident (Shell)*	56	1035	3	15	15	23	3.3 (2.4, 4.6)	4.4 (3.3, 5.9)	6.1 (4.7, 7.9)
Citation	Vitalock*	48	508	4	8	18	18	2.0 (1.1, 3.7)	5.2 (3.5, 7.7)	9.2 (6.7, 12.4)
Elite Plus	Duraloc*	110	953	17	65	6	22	5.1 (3.9, 6.8)	9.2 (7.4, 11.5)	14.9 (12.3, 18.0)
Epoch	Trilogy*	46	990	1	9	9	27	3.6 (2.6, 4.9)	4.5 (3.3, 6.0)	5.0 (3.7, 6.6)
Exeter	Contemporary*	39	428	10	7	14	8	4.2 (2.6, 6.6)	6.0 (4.0, 8.9)	12.6 (9.0, 17.3)
Exeter	Vitalock*	69	1076	12	13	25	19	2.3 (1.5, 3.4)	4.6 (3.4, 6.1)	6.8 (5.3, 8.7)
Exeter V40	ABGII*	36	976	8	12	10	6	1.8 (1.1, 2.9)	3.4 (2.4, 4.9)	4.5 (3.3, 6.3)
Exeter V40	Contemporary	277	4577	70	46	129	32	3.2 (2.7, 3.8)	5.6 (4.9, 6.4)	9.1 (7.9, 10.4)
Exeter V40	Exeter Contemporary	154	2916	52	33	47	22	3.0 (2.4, 3.7)	4.7 (3.9, 5.6)	8.0 (6.7, 9.7)
Exeter V40	Exeter*	107	1526	23	16	50	18	2.9 (2.1, 3.9)	4.6 (3.6, 5.9)	9.6 (7.8, 11.8)
Exeter V40	Mallory-Head*	42	1434	7	24	4	7	1.1 (0.7, 1.8)	2.4 (1.7, 3.5)	4.6 (3.2, 6.5)
Exeter V40	Trident (Shell)	1804	64652	253	557	244	750	2.3 (2.2, 2.4)	3.6 (3.5, 3.8)	5.4 (5.0, 5.7)
Exeter V40	Trilogy	18	517	2	5	2	9	2.5 (1.5, 4.3)	3.7 (2.3, 5.9)	4.1 (2.6, 6.6)
Exeter V40	Vitalock*	87	1795	15	24	24	24	2.3 (1.7, 3.1)	3.2 (2.5, 4.2)	5.0 (4.0, 6.3)
F2L	SPH-Blind*	61	571	10	20	15	16	6.1 (4.4, 8.4)	7.6 (5.7, 10.2)	11.5 (8.9, 14.6)
MS 30	Allofit*	64	1539	13	19	19	13	2.1 (1.5, 2.9)	3.6 (2.7, 4.8)	6.9 (5.2, 9.2)
MS 30	Fitmore	27	715	1	7	9	10	2.0 (1.1, 3.5)	3.1 (1.8, 5.0)	7.2 (4.7, 11.0)
MS 30	Low Profile Cup*	24	603	10	3	9	2	1.3 (0.6, 2.7)	2.9 (1.7, 5.0)	5.2 (3.2, 8.6)
Mallory-Head	Mallory-Head*	193	2908	18	14	64	97	3.0 (2.4, 3.7)	4.8 (4.0, 5.6)	8.5 (7.3, 9.8)
Meridian	Vitalock*	39	354	2	2	16	19	3.5 (2.0, 6.1)	6.7 (4.4, 10.0)	11.3 (8.3, 15.5)
Natural Hip	Fitmore*	40	882	2	7	12	19	2.0 (1.3, 3.2)	4.2 (3.0, 5.9)	4.9 (3.6, 6.7)
Omnifit	Secur-Fit*	83	716	9	22	20	32	6.2 (4.6, 8.2)	9.9 (7.9, 12.5)	13.1 (10.6, 16.2)
Omnifit	Trident (Shell)	157	3816	13	39	27	78	2.9 (2.4, 3.5)	3.8 (3.2, 4.5)	5.1 (4.3, 6.1)

Femoral Component	Acetabular Component	N Revised	N Total	Type of Revision				5 Yrs	10 Yrs	15 Yrs
				THR	Femoral	Acetabular	Other			
S-Rom	Duraloc Option*	27	523	4	9	5	9	3.3 (2.1, 5.2)	4.6 (3.1, 6.8)	5.0 (3.4, 7.3)
S-Rom	PINNACLE	138	2489	14	77	12	35	4.4 (3.6, 5.3)	5.7 (4.8, 6.7)	7.3 (6.0, 8.8)
SL-Plus	EP-Fit Plus	121	2118	5	54	21	41	3.4 (2.7, 4.3)	5.4 (4.5, 6.5)	6.8 (5.6, 8.1)
Secur-Fit	Trident (Shell)	430	9550	24	186	79	141	3.5 (3.1, 3.9)	4.6 (4.2, 5.1)	6.0 (5.4, 6.7)
Secur-Fit Plus	Trident (Shell)	210	5755	15	54	52	89	2.2 (1.9, 2.7)	3.3 (2.8, 3.8)	4.5 (3.9, 5.2)
Spectron EF	Reflection (Cup)*	121	1404	46	12	54	9	2.9 (2.2, 4.0)	7.1 (5.7, 8.8)	14.0 (11.6, 16.9)
Spectron EF	Reflection (Shell)*	302	4646	67	97	47	91	2.7 (2.3, 3.3)	5.3 (4.6, 6.1)	9.4 (8.3, 10.6)
Stability	Duraloc*	54	374	2	10	17	25	2.2 (1.1, 4.3)	8.9 (6.3, 12.5)	15.9 (12.1, 20.6)
Summit	ASR* <sup>MoM</sup>	485	1041	16	6	437	26	20.1 (17.7, 22.7)	44.5 (41.5, 47.7)	51.4 (48.1, 54.8)
Summit	PINNACLE	150	5185	10	33	22	85	2.3 (1.9, 2.8)	3.4 (2.8, 4.0)	4.6 (3.7, 5.7)
Summit	PINNACLE* <sup>MoM</sup>	77	730	6	6	16	49	3.5 (2.4, 5.1)	8.9 (7.0, 11.3)	11.7 (9.4, 14.6)
Synergy	BHR* <sup>MoM</sup>	105	698	6	7	63	29	4.8 (3.4, 6.7)	12.2 (9.9, 15.0)	17.8 (14.8, 21.3)
Synergy	Reflection (Shell)	382	7474	34	82	127	139	2.6 (2.3, 3.0)	3.9 (3.5, 4.4)	5.8 (5.2, 6.5)
Synergy	Trident (Shell)*	16	438	0	4	5	7	1.9 (0.9, 3.7)	3.7 (2.2, 6.2)	6.0 (3.1, 11.4)
Taperloc	M2a* <sup>MoM</sup>	66	471	13	2	45	6	6.9 (4.9, 9.6)	12.2 (9.5, 15.6)	15.0 (11.9, 18.8)
Taperloc	Mallory-Head*	92	1902	9	18	30	35	3.1 (2.4, 4.1)	5.1 (4.0, 6.5)	7.7 (6.0, 9.9)
Taperloc	Recap* <sup>MoM</sup>	48	456	12	6	23	7	5.6 (3.8, 8.2)	9.8 (7.3, 13.0)	11.6 (8.8, 15.1)
VerSys	Trilogy*	244	4432	14	86	43	101	3.9 (3.4, 4.5)	5.2 (4.6, 5.9)	6.0 (5.3, 6.8)
<b>TOTAL</b>		<b>12575</b>	<b>240684</b>	<b>1685</b>	<b>3580</b>	<b>3622</b>	<b>3688</b>			

Note: Only prostheses with over 350 procedures have been listed

\* denotes prosthesis combinations with no reported use in primary total conventional hip procedures in 2020

<sup>MoM</sup> refers to metal/metal prosthesis combinations used with head sizes larger than 32mm

**Table CP4 Cumulative Percent Revision of Primary Total Knee Replacement Combinations with 15 Year Data (Primary Diagnosis OA)**

Femoral Component	Tibial Component	N Revised	N Total	Type of Revision			5 Yrs	10 Yrs	15 Yrs	
				TKR	Femoral	Tibial				Other
AGC	AGC*	310	5028	137	5	26	142	3.2 (2.8, 3.8)	4.9 (4.3, 5.6)	7.7 (6.8, 8.7)
Active Knee	Active Knee	767	9964	218	29	42	478	4.7 (4.3, 5.2)	8.2 (7.6, 8.8)	11.9 (11.0, 12.9)
Advance	Advance II	112	1621	45	3	13	51	5.0 (4.0, 6.2)	6.8 (5.6, 8.2)	7.6 (6.3, 9.3)
BalanSys	BalanSys	92	4001	24	5	7	56	2.3 (1.8, 2.9)	4.1 (3.1, 5.3)	6.1 (3.9, 9.4)
Duracon	Duracon*	1266	19828	345	31	68	822	3.5 (3.2, 3.7)	5.2 (4.9, 5.5)	7.3 (6.9, 7.7)
Genesis II CR	Genesis II	1092	24634	225	68	56	743	3.5 (3.3, 3.8)	5.0 (4.7, 5.4)	6.2 (5.8, 6.7)
Genesis II CR	Profix Mobile*	129	1209	54	9	8	58	5.4 (4.2, 6.8)	8.8 (7.3, 10.7)	12.2 (10.3, 14.6)
Genesis II Oxinium CR (ctd)	Genesis II	513	9553	100	28	25	360	3.6 (3.2, 4.0)	6.1 (5.5, 6.7)	8.7 (7.8, 9.6)
Genesis II Oxinium PS (ctd)	Genesis II	1230	20507	166	33	162	869	5.1 (4.8, 5.4)	7.5 (7.1, 8.0)	10.2 (9.4, 11.1)
Genesis II PS	Genesis II	856	19724	151	29	54	622	3.7 (3.4, 4.0)	5.2 (4.8, 5.5)	6.6 (6.0, 7.2)
Kinemax Plus	Kinemax Plus*	132	1815	76	3	5	48	3.2 (2.4, 4.1)	4.6 (3.7, 5.8)	8.1 (6.8, 9.6)
LCS CR	LCS	617	8323	251	24	89	253	4.5 (4.0, 4.9)	6.4 (5.9, 7.0)	8.1 (7.5, 8.7)
LCS CR	MBT	1280	32051	427	61	148	644	3.4 (3.2, 3.6)	4.8 (4.6, 5.1)	6.0 (5.6, 6.4)
LCS CR	MBT Duofix	803	15167	230	34	43	496	4.1 (3.7, 4.4)	5.3 (4.9, 5.7)	7.3 (6.7, 7.9)
MBK (Zimmer)	Nexgen*	36	448	20	1	1	14	4.1 (2.6, 6.5)	6.2 (4.2, 8.9)	8.1 (5.8, 11.4)
Maxim	Maxim*	131	1819	38	10	6	77	3.4 (2.6, 4.3)	5.2 (4.3, 6.4)	8.8 (7.4, 10.6)
Maxim	Vanguard*	89	628	41	6	6	36	5.6 (4.0, 7.7)	8.3 (6.3, 10.9)	14.9 (12.0, 18.4)
Natural Knee II	Natural Knee II*	427	6443	189	10	59	169	2.8 (2.4, 3.2)	5.0 (4.5, 5.6)	9.0 (8.2, 10.0)
Nexgen CR	Nexgen	424	11522	136	22	31	235	2.2 (1.9, 2.5)	3.1 (2.8, 3.5)	4.5 (4.1, 5.0)
Nexgen CR	Nexgen TM CR	55	862	19	4	11	21	5.6 (4.2, 7.4)	6.6 (5.1, 8.7)	8.1 (6.0, 10.8)
Nexgen CR Flex	Nexgen	1410	58675	330	100	123	857	2.3 (2.2, 2.4)	3.1 (2.9, 3.3)	4.0 (3.7, 4.4)
Nexgen CR Flex	Nexgen TM CR	317	11937	98	21	28	170	2.3 (2.0, 2.6)	3.2 (2.8, 3.6)	4.3 (3.7, 5.0)
Nexgen LPS	Nexgen	361	7003	94	20	33	214	3.3 (2.9, 3.8)	4.9 (4.4, 5.5)	6.6 (5.9, 7.4)
Nexgen LPS Flex	Nexgen	1512	37006	413	65	236	798	3.2 (3.0, 3.3)	5.0 (4.8, 5.3)	6.9 (6.4, 7.3)
Optetrak-CR	Optetrak*	51	504	20	3	4	24	6.1 (4.3, 8.7)	9.3 (6.9, 12.4)	13.7 (10.2, 18.2)
Optetrak-PS	Optetrak*	257	2363	113	4	27	113	6.3 (5.4, 7.3)	11.0 (9.7, 12.4)	13.2 (11.7, 14.9)
PFC Sigma CR	MBT	322	6255	63	35	45	179	4.0 (3.5, 4.5)	5.1 (4.6, 5.7)	6.7 (5.9, 7.6)
PFC Sigma CR	MBT Duofix	155	3314	24	18	6	107	3.6 (3.0, 4.4)	5.0 (4.2, 5.9)	7.3 (6.0, 8.9)
PFC Sigma CR	PFC Sigma	849	24584	214	54	64	517	2.5 (2.3, 2.7)	3.6 (3.3, 3.8)	5.4 (5.0, 5.9)
PFC Sigma PS	MBT	343	6322	115	14	24	190	3.9 (3.4, 4.4)	5.4 (4.8, 6.0)	7.7 (6.7, 8.9)
PFC Sigma PS	MBT Duofix	173	2212	38	4	6	125	6.0 (5.1, 7.2)	8.4 (7.2, 9.7)	10.7 (8.9, 12.9)
PFC Sigma PS	PFC Sigma	361	7979	123	12	27	199	3.3 (2.9, 3.7)	4.8 (4.3, 5.3)	6.6 (5.8, 7.4)
Profix	Profix Mobile*	110	986	39	6	5	60	8.2 (6.6, 10.1)	9.9 (8.1, 12.0)	12.1 (10.0, 14.4)
Profix	Profix*	303	5370	72	13	18	200	3.8 (3.3, 4.3)	5.4 (4.8, 6.1)	6.3 (5.6, 7.1)
Profix Oxinium (ctd)	Profix*	107	1049	24	5	14	64	7.0 (5.6, 8.7)	8.8 (7.2, 10.7)	10.8 (8.9, 13.0)
RBK	RBK	534	10891	203	14	42	275	3.9 (3.5, 4.3)	5.3 (4.9, 5.8)	6.8 (6.1, 7.6)
Rocc	Rocc*	43	575	16	1	2	24	5.2 (3.6, 7.3)	6.8 (5.0, 9.3)	8.3 (6.1, 11.2)
Rotaglide Plus	Rotaglide Plus*	80	616	36	1	5	38	5.8 (4.1, 8.0)	11.2 (8.8, 14.2)	15.4 (12.4, 18.9)
Scorpio CR	Scorpio+*	196	2448	45	10	34	107	4.3 (3.6, 5.2)	7.1 (6.1, 8.2)	8.9 (7.7, 10.3)
Scorpio CR	Series 7000*	621	11561	157	27	47	390	3.3 (3.0, 3.6)	5.2 (4.8, 5.6)	7.0 (6.4, 7.6)
Scorpio PS	Scorpio*	34	524	9	0	11	14	4.5 (3.0, 6.7)	6.1 (4.3, 8.6)	7.4 (5.2, 10.4)
Scorpio PS	Scorpio+*	154	2036	43	14	10	87	5.1 (4.2, 6.2)	6.7 (5.7, 8.0)	8.5 (7.2, 9.9)
Scorpio PS	Series 7000*	352	4696	116	9	70	157	4.7 (4.1, 5.3)	6.8 (6.1, 7.6)	9.1 (8.2, 10.2)
Triathlon CR	Triathlon	2506	109011	454	106	115	1831	2.5 (2.4, 2.6)	3.8 (3.6, 4.0)	5.7 (4.8, 6.8)
<b>TOTAL</b>		<b>21512</b>	<b>513064</b>	<b>5751</b>	<b>971</b>	<b>1856</b>	<b>12934</b>			

Note: Only prostheses with over 350 procedures have been listed

\* denotes prosthesis combinations that have not had any reported use in primary total knee procedures in 2020

CR 'cruciate retaining' refers to minimally stabilised

## Twenty Year Outcomes

The Registry has information on 4 hip and 10 knee prosthesis combinations that have been used in >350 procedures for osteoarthritis and have a follow-up of at least 20 years.

### HIP REPLACEMENT

The listed prosthesis combinations have been used in 3.4% of all primary total conventional hip replacement procedures performed for osteoarthritis. The 20 year cumulative percent revision ranges from 5.4% to 14.0% (Table CP5).

### KNEE REPLACEMENT

The listed prosthesis combinations were used in 16.0% of all primary total knee replacement procedures performed for osteoarthritis. The 20 year cumulative percent revision ranges from 6.1% to 15.5% (Table CP6).

**Table CP5 Cumulative Percent Revision of Primary Total Conventional Hip Replacement Combinations with 20 Year Data (Primary Diagnosis OA)**

Femoral Component	Acetabular Component	N Revised	N Total	Type of Revision				10 Yrs	15 Yrs	20 Yrs
				THR	Femoral	Acetabular	Other			
Exeter	Vitalock*	69	1076	12	13	25	19	4.6 (3.4, 6.1)	6.8 (5.3, 8.7)	8.7 (6.8, 11.0)
Mallory-Head	Mallory-Head*	193	2908	18	14	64	97	4.8 (4.0, 5.6)	8.5 (7.3, 9.8)	13.3 (10.4, 16.9)
Secur-Fit Plus	Trident (Shell)	210	5755	15	54	52	89	3.3 (2.8, 3.8)	4.5 (3.9, 5.2)	5.4 (4.6, 6.3)
Spectron EF	Reflection (Shell)*	302	4646	67	97	47	91	5.3 (4.6, 6.1)	9.4 (8.3, 10.6)	14.0 (11.0, 17.6)
<b>TOTAL</b>		<b>774</b>	<b>14385</b>	<b>112</b>	<b>178</b>	<b>188</b>	<b>296</b>			

Note: \* denotes prosthesis combinations with no reported use in primary total conventional hip procedures in 2020

**Table CP6 Cumulative Percent Revision of Primary Total Knee Replacement Combinations with 20 Year Data (Primary Diagnosis OA)**

Femoral Component	Tibial Component	N Revised	N Total	Type of Revision				10 Yrs	15 Yrs	20 Yrs
				TKR	Femoral	Tibial	Other			
AGC	AGC*	310	5028	137	5	26	142	4.9 (4.3, 5.6)	7.7 (6.8, 8.7)	10.6 (8.8, 12.8)
Duracon	Duracon*	1266	19828	345	31	68	822	5.2 (4.9, 5.5)	7.3 (6.9, 7.7)	9.1 (8.5, 9.7)
Genesis II CR	Genesis II	1092	24634	225	68	56	743	5.0 (4.7, 5.4)	6.2 (5.8, 6.7)	7.3 (6.6, 8.2)
Genesis II CR	Profix Mobile*	129	1209	54	9	8	58	8.8 (7.3, 10.7)	12.2 (10.3, 14.6)	15.5 (12.7, 18.9)
LCS CR	LCS	617	8323	251	24	89	253	6.4 (5.9, 7.0)	8.1 (7.5, 8.7)	9.6 (8.7, 10.5)
Nexgen CR	Nexgen	424	11522	136	22	31	235	3.1 (2.8, 3.5)	4.5 (4.1, 5.0)	6.1 (5.3, 7.0)
Nexgen LPS	Nexgen	361	7003	94	20	33	214	4.9 (4.4, 5.5)	6.6 (5.9, 7.4)	7.9 (6.9, 9.0)
PFC Sigma CR	PFC Sigma	849	24584	214	54	64	517	3.6 (3.3, 3.8)	5.4 (5.0, 5.9)	6.5 (5.6, 7.6)
Profix	Profix*	303	5370	72	13	18	200	5.4 (4.8, 6.1)	6.3 (5.6, 7.1)	7.1 (6.2, 8.0)
Scorpio CR	Series 7000*	621	11561	157	27	47	390	5.2 (4.8, 5.6)	7.0 (6.4, 7.6)	7.8 (7.1, 8.6)
<b>TOTAL</b>		<b>5972</b>	<b>119062</b>	<b>1685</b>	<b>273</b>	<b>440</b>	<b>3574</b>			

Note: \* denotes prosthesis combinations with no reported use in primary total conventional knee procedures in 2020  
CR 'cruciate retaining' refers to minimally stabilised



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