



AUSTRALIAN ORTHOPAEDIC ASSOCIATION NATIONAL JOINT REPLACEMENT REGISTRY

Automated Industry Reporting System



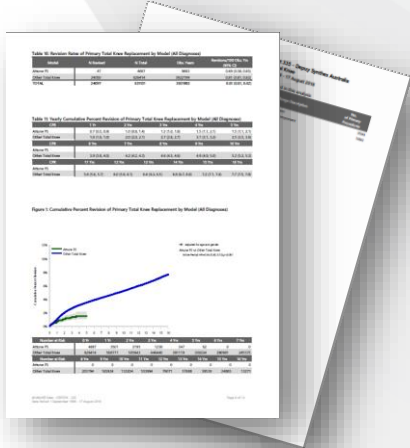
AUTOMATED INDUSTRY REPORTING SYSTEM

- **Cruciate Retaining (CR) ATTUNE® Knee**
- **Posterior Stabilized (PS) ATTUNE Knee**

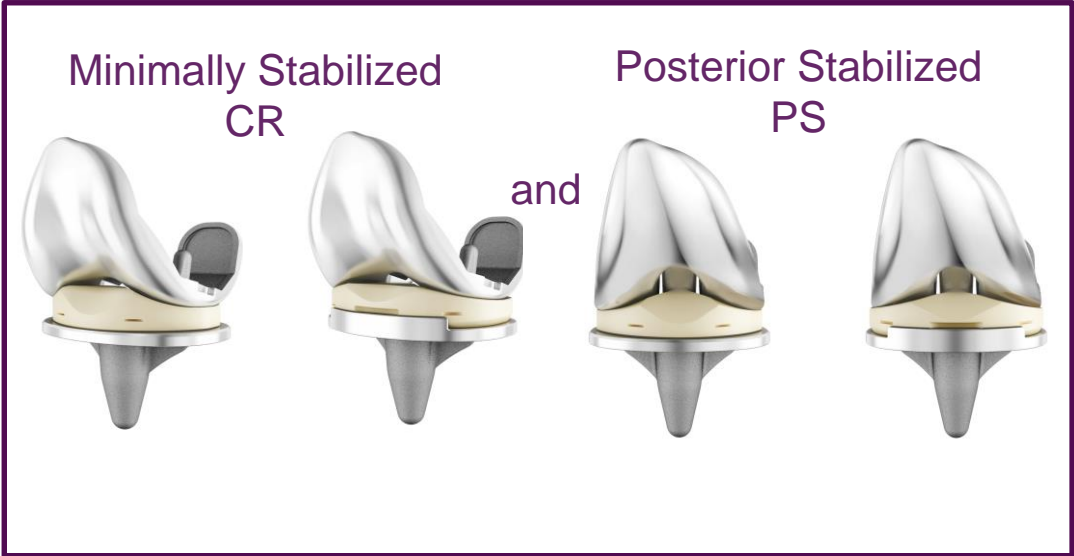


INTRODUCING A RECENTLY AVAILABLE, INDEPENDENT REPORT FROM THE AOANJRR

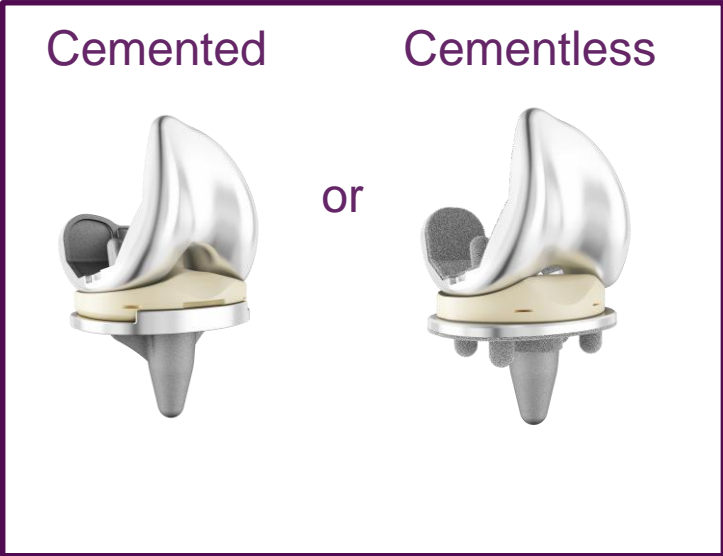
The AOANJRR publishes an annual report with outcomes data at set intervals of one, three, five-year and beyond. Additional implant survivorship data is now also available more frequently to manufacturers who subscribe to the AOANJRR's Automated Industry Report System (AIRS).



AIRS Reports are:



Reported by femoral component: Cruciate Retaining and Posterior Stabilized



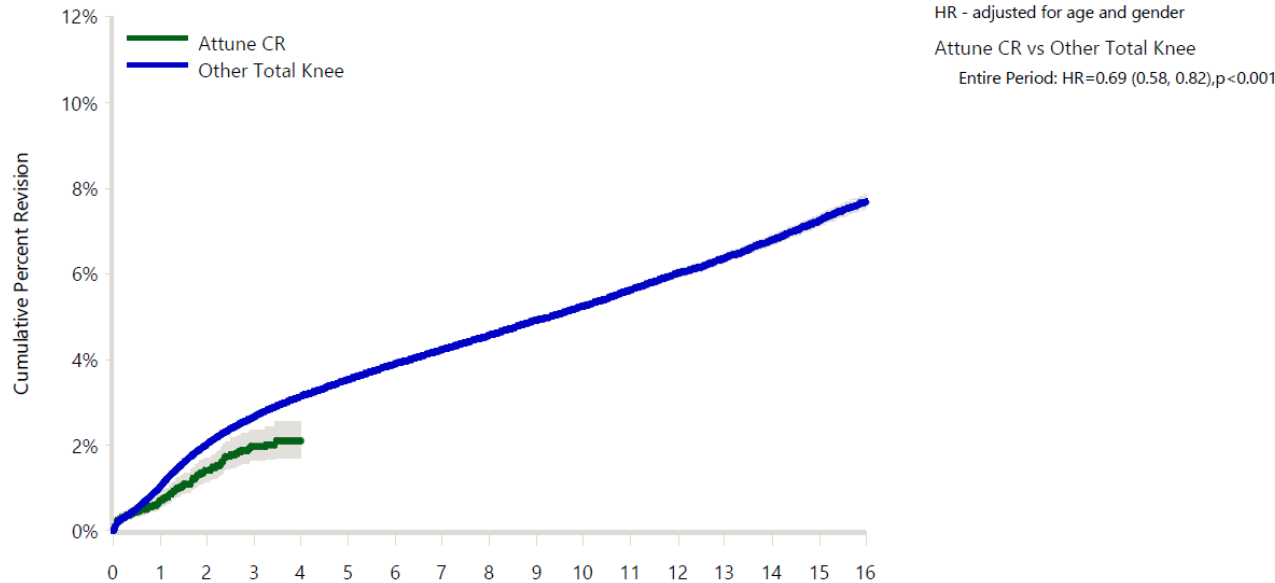
Reported by fixation: cemented or cementless

AIRS Reports

- More frequent
- More current

CR ATTUNE® KNEE IMPLANT SURVIVORSHIP

Figure 1: Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses)(AOANJRR 20AUG2018)¹



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Attune CR	10453	7664	4604	2258	333	24
Other Total Knee	620648	564608	503234	445420	391133	339272

Table 11: Yearly Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses) (AOANJRR 20AUG2018)¹

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Attune CR	0.7 (0.6, 0.9)	1.4 (1.2, 1.7)	2.0 (1.6, 2.4)	2.1 (1.7, 2.5)	
Other Total Knee	1.0 (1.0, 1.1)	2.0 (2.0, 2.1)	2.7 (2.6, 2.7)	3.1 (3.1, 3.2)	3.5 (3.5, 3.6)

This report indicates that the 10,453 cemented CR ATTUNE® Knee cumulative percent revision of 2.1% (95% CI: 1.7, 2.5%) at four years is **performing significantly better** than all other TKA in the AOANJRR (HR 0.69 (0.58, 0.82), p<0.001).¹

All other TKA in this report had a four year estimated cumulative percent revision of 3.1% (3.1, 3.2).¹ The five year cumulative percent revision for the CR ATTUNE Knee is based on a sample size of 24 patients.¹

Expressed as implant survivorship, the CR ATTUNE Knees have a 97.9% implant survivorship (97.5, 98.3), which is performing favorably to the overall class of knees of 96.9% (96.8, 96.9) implant survivorship.¹

1. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No. 334 for DePuy Synthes, ATTUNE CR/ATTUNE Total Knee, (Procedures from 1 September 1999 – 17 August 2018), Accessed 20 August 2018, AOA, Adelaide: 1-13.

CR ATTUNE KNEE TOP 5 REASONS FOR REVISION

Table 13: Yearly Cumulative Incidence Revision Diagnosis of Primary Total Knee Replacement by Model (All Diagnoses)

Model	Event	N Events	1 Yr	2 Yrs	3 Yrs	5 Yrs	10 Yrs	15 Yrs
Attune CR	Infection	60	0.5 (0.3, 0.6)	0.6 (0.5, 0.8)	0.8 (0.6, 1.0)			
	Loosening	19	0.0 (0.0, 0.1)	0.2 (0.1, 0.4)	0.3 (0.2, 0.5)			
	Instability	10	0.0 (0.0, 0.1)	0.1 (0.0, 0.2)	0.2 (0.1, 0.4)			
	Patellofemoral Pain	10	0.0 (0.0, 0.1)	0.1 (0.0, 0.2)	0.2 (0.1, 0.3)			
	Arthrofibrosis	8	0.0 (0.0, 0.1)	0.1 (0.0, 0.2)	0.1 (0.1, 0.3)			
	Other	25	0.1 (0.1, 0.2)	0.3 (0.2, 0.4)	0.4 (0.2, 0.6)			
	Deceased	90	0.4 (0.3, 0.5)	0.9 (0.7, 1.2)	1.5 (1.2, 1.9)			
	All Revision	132	0.7 (0.6, 0.9)	1.4 (1.2, 1.7)	2.0 (1.6, 2.3)			
Other Total Knee	Infection	5559	0.4 (0.4, 0.4)	0.6 (0.6, 0.6)	0.7 (0.7, 0.7)	0.9 (0.8, 0.9)	1.1 (1.1, 1.1)	1.2 (1.2, 1.3)
	Loosening	6048	0.2 (0.2, 0.2)	0.4 (0.4, 0.4)	0.6 (0.6, 0.6)	0.8 (0.8, 0.9)	1.3 (1.2, 1.3)	1.8 (1.7, 1.8)
	Instability	1885	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	0.5 (0.5, 0.5)
	Patellofemoral Pain	2408	0.1 (0.1, 0.1)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	0.5 (0.5, 0.5)	0.6 (0.6, 0.6)
	Arthrofibrosis	830	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.2)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)
	Other	7235	0.2 (0.2, 0.3)	0.5 (0.5, 0.5)	0.7 (0.7, 0.7)	1.0 (0.9, 1.0)	1.5 (1.5, 1.6)	2.1 (2.0, 2.2)
	Deceased	85428	0.7 (0.7, 0.8)	1.8 (1.7, 1.8)	3.0 (3.0, 3.1)	6.5 (6.5, 6.6)	20.0 (19.8, 20.1)	36.5 (36.2, 36.8)
	All Revision	23965	1.0 (1.0, 1.0)	2.0 (2.0, 2.0)	2.6 (2.6, 2.7)	3.5 (3.4, 3.5)	5.0 (4.9, 5.0)	6.4 (6.2, 6.5)

Based on point estimates and confidence intervals, there is less incidence of revision for loosening with the CR ATTUNE Knee than all other Total Knee at 3 years follow-up.¹

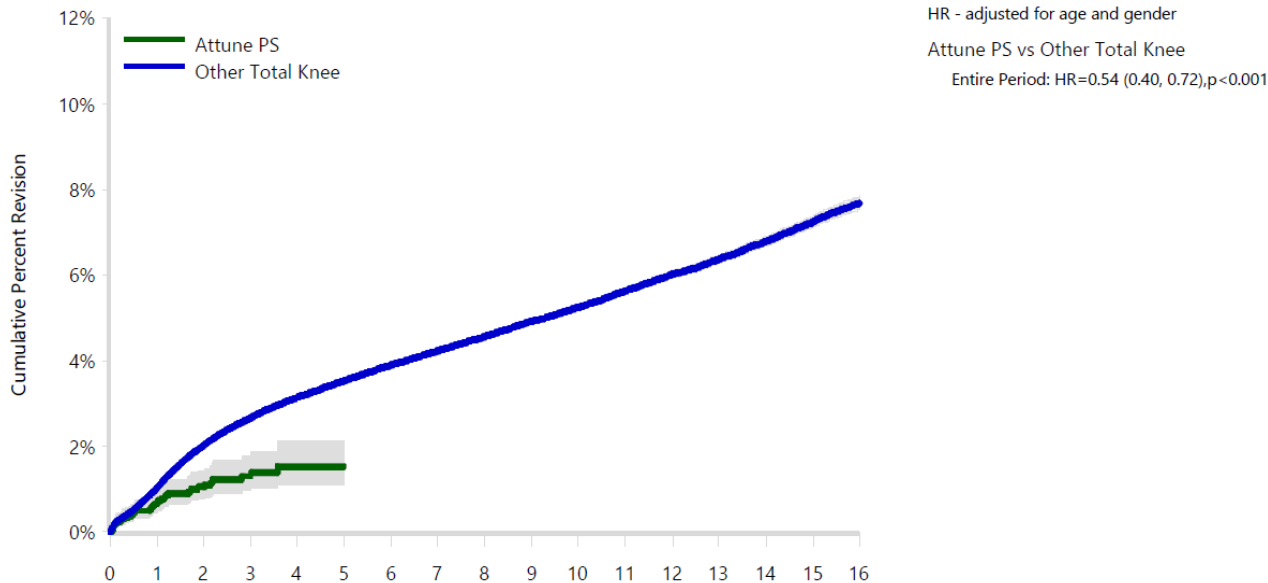
The CR ATTUNE Knee is performing in line with the class for the remaining reasons for revision in this report.¹

The five year cumulative incidence rates for the CR ATTUNE Knee is based on a sample size of 24 patients.¹ Cumulative incidence rates for the CR ATTUNE Knee are not provided due to the small sample size.

1. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No. 334 for DePuy Synthes, ATTUNE CR/ATTUNE Total Knee, (Procedures from 1 September 1999 – 17 August 2018), Accessed 20 August 2018, AOA, Adelaide: 1-13.

PS ATTUNE KNEE IMPLANT SURVIVORSHIP

Figure 1: Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses)(AOANJRR 20AUG2018)²



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Attune PS	4687	3501	2195	1238	347	62
Other Total Knee	626414	568771	505643	446440	391119	339234

Table 11: Yearly Cumulative Percent Revision of Primary Total Knee Replacement by Model (All Diagnoses) (AOANJRR 20AUG2018)²

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Attune PS	0.7 (0.5, 0.9)	1.0 (0.8, 1.4)	1.3 (1.0, 1.8)	1.5 (1.1, 2.1)	1.5 (1.1, 2.1)
Other Total Knee	1.0 (1.0, 1.0)	2.0 (2.0, 2.1)	2.7 (2.6, 2.7)	3.1 (3.1, 3.2)	3.5 (3.5, 3.6)

This report indicates that the 4,687 cemented PS ATTUNE[®] Knee with a cumulative percent revision of 1.5% at four years (95% CI: 1.1, 2.1%) is **performing significantly better** than all other TKA in the AOANJRR (HR 0.54 (0.40, 0.72), p<0.001).²

All other TKA in this report had a four year estimated cumulative percent revision of 3.1% (3.1, 3.2).² The five year cumulative percent revision for the PS ATTUNE Knee is based on a sample size of 62 patients.²

Expressed as implant survivorship, the PS ATTUNE Knees have a 98.5% implant survivorship (97.9, 98.9), which is performing favorably to the overall class of knees of 96.9% (96.8, 96.9) implant survivorship.²

2. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No. 335 for DePuy Synthes, ATTUNE PS/ATTUNE Total Knee, (Procedures from 1 September 1999 – 17 August 2018), Accessed 20 August 2018, AOA, Adelaide: 1-13.

PS ATTUNE KNEE TOP 5 REASONS FOR REVISION

Table 13: Yearly Cumulative Incidence Revision Diagnosis of Primary Total Knee Replacement by Model (All Diagnoses)

Model	Event	N Events	1 Yr	2 Yrs	3 Yrs	5 Yrs	10 Yrs	15 Yrs
Attune PS	Infection	21	0.3 (0.2, 0.5)	0.6 (0.3, 0.8)	0.6 (0.3, 0.8)	0.6 (0.3, 0.8)		
	Loosening	9	0.1 (0.0, 0.2)	0.1 (0.1, 0.3)	0.2 (0.1, 0.5)	0.5 (0.2, 0.9)		
	Instability	7	0.2 (0.1, 0.3)	0.2 (0.1, 0.4)	0.2 (0.1, 0.4)	0.2 (0.1, 0.4)		
	Arthrofibrosis	2	0.0 (0.0, 0.1)	0.1 (0.0, 0.2)	0.1 (0.0, 0.2)	0.1 (0.0, 0.2)		
	Fracture	2	0.0 (0.0, 0.2)	0.0 (0.0, 0.2)	0.0 (0.0, 0.2)	0.0 (0.0, 0.2)		
	Other	6	0.1 (0.0, 0.2)	0.1 (0.0, 0.2)	0.2 (0.1, 0.5)	0.2 (0.1, 0.5)		
	Deceased	58	0.4 (0.2, 0.6)	1.4 (1.0, 1.9)	1.8 (1.3, 2.3)	2.8 (1.8, 4.3)		
	All Revision	47	0.7 (0.4, 0.9)	1.0 (0.8, 1.4)	1.3 (0.9, 1.7)	1.5 (1.1, 2.1)		
Other Total Knee	Infection	5598	0.4 (0.4, 0.4)	0.6 (0.6, 0.6)	0.7 (0.7, 0.7)	0.9 (0.8, 0.9)	1.1 (1.1, 1.1)	1.2 (1.2, 1.3)
	Loosening	6058	0.2 (0.2, 0.2)	0.4 (0.4, 0.4)	0.6 (0.6, 0.6)	0.8 (0.8, 0.9)	1.3 (1.2, 1.3)	1.8 (1.7, 1.8)
	Instability	1888	0.1 (0.1, 0.1)	0.2 (0.1, 0.2)	0.2 (0.2, 0.2)	0.3 (0.3, 0.3)	0.4 (0.4, 0.4)	0.5 (0.5, 0.5)
	Arthrofibrosis	836	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.2)	0.2 (0.2, 0.2)	0.2 (0.2, 0.2)
	Fracture	737	0.0 (0.0, 0.0)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.1)	0.1 (0.1, 0.2)	0.2 (0.2, 0.2)
	Other	8933	0.3 (0.3, 0.3)	0.7 (0.6, 0.7)	0.9 (0.9, 1.0)	1.3 (1.2, 1.3)	1.9 (1.8, 1.9)	2.5 (2.4, 2.5)
	Deceased	85460	0.7 (0.7, 0.8)	1.8 (1.7, 1.8)	3.0 (3.0, 3.1)	6.5 (6.4, 6.6)	20.0 (19.8, 20.1)	36.5 (36.2, 36.8)
	All Revision	24050	1.0 (1.0, 1.0)	2.0 (2.0, 2.0)	2.6 (2.6, 2.7)	3.5 (3.4, 3.5)	5.0 (4.9, 5.0)	6.3 (6.2, 6.5)

Based on point estimates and confidence intervals, there is less incidence of revision for loosening with the PS ATTUNE Knee than all other Total Knee at 3 years follow-up.²

The PS ATTUNE Knee is performing in line with the class for the remaining reasons for revision in this report.²

The five year cumulative incidence rates for the PS ATTUNE Knee is based on a sample size of 62 patients.²

2. Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No. 335 for DePuy Synthes, ATTUNE PS/ATTUNE Total Knee, (Procedures from 1 September 1999 – 17 August 2018), Accessed 20 August 2018, AOA, Adelaide: 1-13.

Disclaimer -AOANJRR is confident in the accuracy of the data included in this report, at the time it was provided. However, it was generated using an automated reporting system and has not been reviewed by the AOANJRR personnel.