

Score (cementless)/Score (cemented) Total Knee Investigation

Note: This analysis compares the Score (cless)/Score (ctd) femoral/tibial combination with all other total knee prostheses.

This combination has been identified as having a significantly higher rate of revision. For a detailed explanation of the process used by the Registry that results in identification of prostheses that have a higher than anticipated rate of revision please refer to the Prostheses with Higher than Anticipated Rates of Revision chapter of the most recent AOANJRR Annual Report, <https://aoanjrr.sahmri.com/annual-reports-2025>.

Note: Procedures using prostheses with no recorded use in 2024 are excluded from the comparator.

TABLE 1

Revision Rate of Primary Total Knee Replacement

The revision rate of the Score (cless)/Score (ctd) total knee combination is compared to all other total knee prostheses.

Table 1: Revision Rates of Primary Total Knee Replacement

Component	N Revised	N Total	Obs. Years	Revisions/100 Obs. Yrs (95% CI)
Score (cless)/Score (ctd)	128	1679	12245	1.05 (0.87, 1.24)
Other Total Knee	24579	719382	4523294	0.54 (0.54, 0.55)
TOTAL	24707	721061	4535539	0.54 (0.54, 0.55)

Note: Prostheses no longer used in 2024 are excluded from the comparator.

TABLE 2

Yearly Cumulative Percent Revision of Primary Total Knee Replacement

The yearly cumulative percent revision of the Score (class)/Score (ctd) total knee combination is compared to all other total knee prostheses.

Table 2: Yearly Cumulative Percent Revision (95% CI) of Primary Total Knee Replacement

CPR	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs
Score (class)/Score (ctd)	1.5 (1.0, 2.2)	2.9 (2.2, 3.8)	3.8 (3.0, 4.9)	4.7 (3.8, 5.8)	5.6 (4.6, 6.9)	6.6 (5.5, 7.9)	7.5 (6.2, 8.9)	8.1 (6.8, 9.7)
Other Total Knee	1.0 (1.0, 1.0)	1.8 (1.8, 1.9)	2.4 (2.4, 2.4)	2.8 (2.8, 2.8)	3.1 (3.1, 3.2)	3.5 (3.4, 3.5)	3.8 (3.7, 3.8)	4.1 (4.0, 4.1)

CPR	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs
Score (class)/Score (ctd)	8.4 (7.0, 10.0)	9.3 (7.7, 11.1)	9.7 (8.0, 11.7)					
Other Total Knee	4.4 (4.3, 4.5)	4.7 (4.7, 4.8)	5.0 (5.0, 5.1)	5.4 (5.3, 5.4)	5.7 (5.6, 5.8)	6.0 (5.9, 6.1)	6.4 (6.3, 6.5)	6.8 (6.7, 7.0)

CPR	17 Yrs	18 Yrs	19 Yrs	20 Yrs	21 Yrs	22 Yrs	23 Yrs
Score (class)/Score (ctd)							
Other Total Knee	7.2 (7.1, 7.4)	7.6 (7.4, 7.8)	7.9 (7.7, 8.0)	8.1 (7.9, 8.3)	8.3 (8.1, 8.6)	8.5 (8.2, 8.8)	8.6 (8.3, 8.9)

Note: Prostheses no longer used in 2024 are excluded from the comparator.

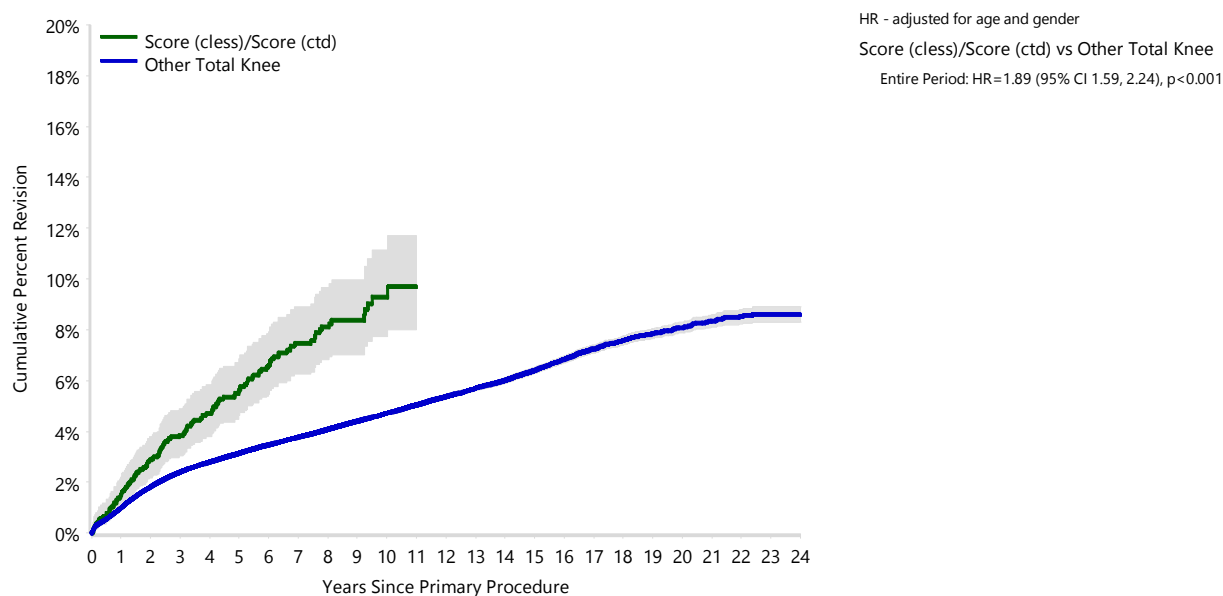
FIGURE 1

Yearly Cumulative Percent Revision of Primary Total Knee Replacement

The yearly cumulative percent revision of the Score (class)/Score (ctd) total knee combination is compared to all other total knee prostheses. In addition, hazard ratios are reported.

Hazard ratios are reported for specific time periods during which the hazard ratio is constant. This is done to enable more specific and valid comparisons of the risk of revision over time. The pattern of variation in risk has important implications with respect to the underlying reasons for any difference.

Figure 1: Cumulative Percent Revision of Primary Total Knee Replacement



Number at Risk	0 Yr	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	6 Yrs	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs
Score (class)/Score (ctd)	1679	1645	1611	1579	1496	1355	1132	984	752	488	227	85
Other Total Knee	719382	639083	560424	496613	433829	378859	325143	275496	230725	190686	154355	123783

Number at Risk	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs	19 Yrs	20 Yrs	21 Yrs	22 Yrs	23 Yrs
Score (class)/Score (ctd)	18	9	5	4	3	1	0	0	0	0	0	0
Other Total Knee	97970	75212	56544	41504	30000	21222	14967	10421	6807	4051	2359	1090

Note: Prostheses no longer used in 2024 are excluded from the comparator.

TABLE 3**Primary Diagnosis for Revised Primary Total Knee Replacement**

This table identifies the diagnosis of the primary procedure which was subsequently revised. This information is provided as there is a variation on outcome depending on the primary diagnosis. It is therefore important when considering the reasons for a higher than anticipated rate of revision that there is identification of the primary diagnosis. This information should be compared to the primary diagnosis for the revisions of all other total knee prostheses.

Table 3: Primary Diagnosis for Revised Primary Total Knee Replacement

Primary Diagnosis	Score (class)/Score (ctd)		Other Total Knee	
	Number	Percent	Number	Percent
Osteoarthritis	128	100.0	23762	96.7
Rheumatoid Arthritis			301	1.2
Tumour			192	0.8
Other Inflammatory Arthritis			158	0.6
Osteonecrosis			90	0.4
Fracture			50	0.2
Other			25	0.1
Chondrocalcinosis			1	0.0
TOTAL	128	100.0	24579	100.0

Note: Prostheses no longer used in 2024 are excluded from the comparator.

TABLE 4

Reasons for Revision

This is reported in two ways: a percentage of primary procedures revised and as a percentage of all revision procedures.

% Primaries Revised: This shows the proportional contribution of each revision diagnosis as a percentage of the total number of primary procedures. This percentage can be used to approximate the risk of being revised for that diagnosis. Differing percentages between groups, with the same distribution of follow up time, may identify problems of concern.

% Revisions: The number of revisions for each diagnosis is expressed as a percentage of the total number of revisions. This shows the distribution of reasons for revision within a group but cannot be used as a comparison between groups.

Table 4: Primary Total Knee Replacement - Reason for Revision (Follow-up Limited to 17.4 Years)

Revision Diagnosis	Score (class)/Score (ctd)			Other Total Knee		
	Number	% Primaries Revised	% Revisions	Number	% Primaries Revised	% Revisions
Infection	26	1.5	20.3	7052	1.0	28.8
Loosening	37	2.2	28.9	5183	0.7	21.2
Instability	17	1.0	13.3	2514	0.3	10.3
Patella Erosion	3	0.2	2.3	1799	0.3	7.4
Pain	15	0.9	11.7	1739	0.2	7.1
Patellofemoral Pain				1478	0.2	6.0
Arthrofibrosis	4	0.2	3.1	1043	0.1	4.3
Fracture	13	0.8	10.2	988	0.1	4.0
Malalignment	2	0.1	1.6	486	0.1	2.0
Wear Tibial Insert				318	0.0	1.3
Lysis	3	0.2	2.3	258	0.0	1.1
Incorrect Sizing	1	0.1	0.8	209	0.0	0.9
Implant Breakage Tibial Insert				203	0.0	0.8
Patella Maltracking				175	0.0	0.7
Bearing Dislocation				141	0.0	0.6
Implant Breakage Patella	1	0.1	0.8	130	0.0	0.5
Metal Related Pathology	1	0.1	0.8	100	0.0	0.4
Prosthesis Dislocation				70	0.0	0.3
Synovitis				59	0.0	0.2
Osteonecrosis				46	0.0	0.2
Implant Breakage Femoral				43	0.0	0.2
Wear Patella	1	0.1	0.8	42	0.0	0.2
Implant Breakage Tibial				34	0.0	0.1
Tumour				30	0.0	0.1
Heterotopic Bone				14	0.0	0.1
Progression Of Disease				8	0.0	0.0
Wear Tibial				6	0.0	0.0
Incorrect Side				1	0.0	0.0
Patella Dislocation				1	0.0	0.0
Wear Femoral				1	0.0	0.0
Other	4	0.2	3.1	291	0.0	1.2
N Revision	128	7.6	100.0	24462	3.4	100.0
N Primary	1679			719382		

Note: This table is restricted to revisions within 17.4 years for all groups to allow a time-matched comparison of revisions.

Note: Prostheses no longer used in 2024 are excluded from the comparator.

FIGURE 2**Cumulative Incidence Revision Diagnosis of Primary Total Knee Replacement**

This figure details the cumulative incidence of the most common reasons for revision. The five most common reasons for revision are included as long as each of these reasons account for more than 10 procedures or at least 5% of all revisions for the Score (class)/Score (ctd) total knee combination. A comparative graph is provided of the cumulative incidence for the same reasons for revisions for all other total knee prostheses.

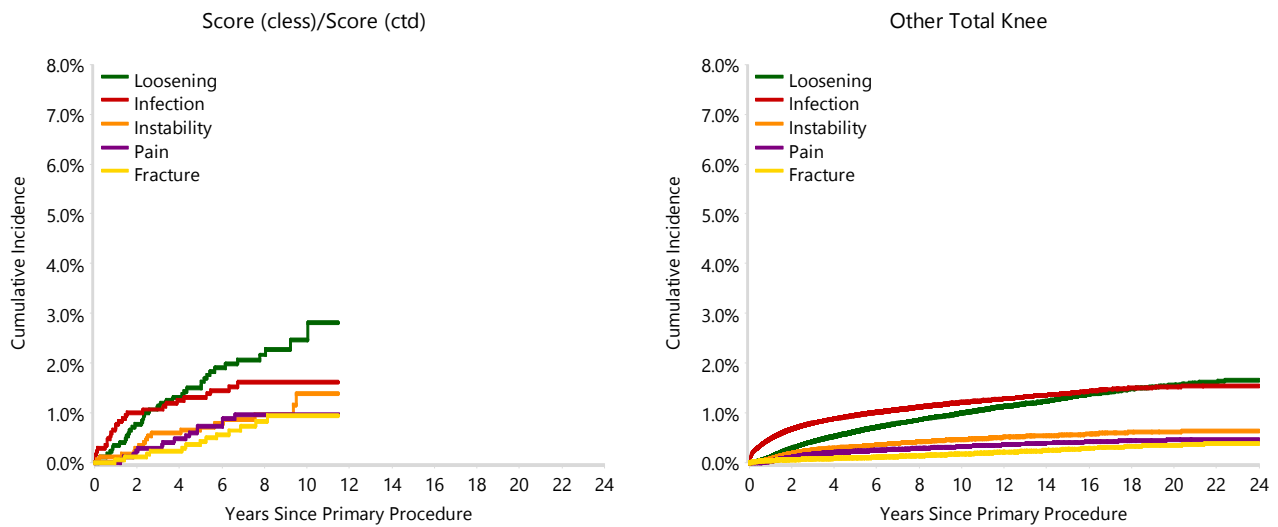
Figure 2: Cumulative Incidence Revision Diagnosis for Primary Total Knee Replacement

TABLE 5

Type of Revision Performed for Primary Total Knee Replacement

This analysis identifies the components used in the revision of the Score (class)/Score (ctd) total knee combination and compares it to the components used in the revision of all other total knee prostheses.

The reason this analysis is undertaken is to identify whether there is one or more components which are being replaced that differ from the components replaced for revisions of all other total knee prostheses i.e. is there a difference in the type of revision undertaken for the Score (class)/Score (ctd) total knee combination compared to all other total knee prostheses.

Table 5: Primary Total Knee Replacement - Type of Revision (Follow-up Limited to 17.4 Years)

Type of Revision	Score (class)/Score (ctd)		Other Total Knee	
	Number	Percent	Number	Percent
TKR (Tibial/Femoral)	82	64.1	5773	23.6
Tibial Component	1	0.8	1799	7.4
Femoral Component	8	6.3	1175	4.8
Cement Spacer	4	3.1	1076	4.4
Removal of Prostheses			124	0.5
Total Femoral	1	0.8	21	0.1
Reinsertion of Components			7	0.0
N Major	96	75.0	9975	40.8
Insert Only	16	12.5	7638	31.2
Patella Only	14	10.9	4139	16.9
Insert/Patella	2	1.6	2638	10.8
Minor Components			63	0.3
Cement Only			9	0.0
N Minor	32	25.0	14487	59.2
TOTAL	128	100.0	24462	100.0

Note: This table is restricted to revisions within 17.4 years for all groups to allow a time-matched comparison of revisions.

Note: Prostheses no longer used in 2024 are excluded from the comparator.

TABLE 6**Revision Rates of Score (class)/Score (ctd) Primary Total Knee Replacement by Fixation**

This analysis is provided as some prostheses have more than one fixation option. Additionally there are prostheses where an alternative to the recommended approach to fixation was used e.g. a cementless prosthesis that has been cemented or vice-versa.

Table 6: Revised Number of Score (class)/Score (ctd) Primary Total Knee Replacement by Fixation

Fixation	N Revised	N Total
Cemented	0	14
Cementless	0	2
Hybrid (Tibial Cemented)	128	1663
TOTAL	128	1679

TABLE 7**Revision Rates of Score (class)/Score (ctd) Primary Total Knee Replacement by Bearing Surface**

This analysis is provided as some prostheses are combined with a variety of bearing surfaces. All bearing surfaces used with this combination are listed.

Table 7: Revised Number of Score (class)/Score (ctd) Primary Total Knee Replacement by Bearing Surface

Bearing Surface	N Revised	N Total
Non XLPE	128	1679
TOTAL	128	1679

TABLE 8**Revision Rates of Score (class)/Score (ctd) Primary Total Knee Replacement by Bearing Mobility**

This analysis is provided as some prostheses are combined with a variety of bearing mobilities. All bearing mobilities used with this combination are listed.

Table 8: Revised Number of Score (class)/Score (ctd) Primary Total Knee Replacement by Bearing Mobility

Bearing Mobility	N Revised	N Total
Rotating	128	1679
TOTAL	128	1679

TABLE 9**Revision Rates of Score (class)/Score (ctd) Primary Total Knee Replacement by Stability**

This analysis is provided as some prostheses are combined with a variety of stabilities. All stabilities used with this combination are listed.

Table 9: Revised Number of Score (class)/Score (ctd) Primary Total Knee Replacement by Stability

Stability	N Revised	N Total
Minimally Stabilised	128	1679
TOTAL	128	1679

TABLE 10

Revision Rates of Primary Total Knee Replacement by State

This enables a state by state variation to be identified for the Score (cless)/Score (ctd) total knee combination and provides the comparative data for each of the states for all other total knee prostheses.

The purpose of this analysis is to determine if the higher than anticipated rate of revision has widespread distribution between states. If there is widespread distribution then the reason for the higher than anticipated rate of revision is unlikely to be surgeon specific. If the prosthesis has been used in only a small number of states it is not possible to distinguish if the higher than anticipated rate of revision is related to the prosthesis, surgeon, technique or patient.

Table 10: Revised Number of Primary Total Knee Replacement by State

Component	State	N Revised	N Total
Score (cless)/Score (ctd)	NSW	8	189
	QLD	0	26
	WA	25	599
	SA	95	865
Other Total Knee	NSW	6826	236115
	VIC	5457	148735
	QLD	5317	152532
	WA	3234	84559
	SA	2791	65679
	TAS	390	13242
	ACT/NT	564	18520
TOTAL		24707	721061

Note: Prostheses no longer used in 2024 are excluded from the comparator.

TABLE 11**Number of Revisions of Score (class)/Score (ctd) Primary Total Knee Replacement by Year of Implant**

This analysis details the number of prostheses reported each year to the Registry for the Score (class)/Score (ctd) total knee combination. It also provides the subsequent number of revisions of the primaries reported in that year.

Primary procedures performed in later years have had less follow up time therefore the number revised is expected to be less than the number revised in earlier years. For example, a primary procedure performed in 2024 has a maximum of one year to be revised, whereas a primary procedure performed in 2022 has a maximum of three years to be revised.

Table 11: Number of Revisions of Score (class)/Score (ctd) Primary Total Knee Replacement by Year of Implant

Year of Implant	Number Revised	Total Number
2004	1	3
2007	0	3
2008	0	3
2009	0	3
2011	0	5
2012	3	15
2013	5	90
2014	18	181
2015	24	324
2016	28	300
2017	34	267
2018	5	122
2019	7	205
2020	2	114
2021	1	44
TOTAL	128	1679

TABLE 12

Revision Rates of Score (cless)/Score (ctd) Primary Total Knee Replacement by Catalogue Number Range

Many prostheses have a number of catalogue ranges. The catalogue range is specific to particular design features; more than one catalogue range usually indicates a minor difference in design in a particular Score (cless)/Score (ctd) prosthesis.

This analysis has been undertaken to determine if the revision rate varies according to the catalogue number range.

Model	Catalogue Range	Catalogue Description	Cement	Material	Coating
Femoral					
Score	10200101-10200117	COCR MIN STAB. HA PEGGED STIPPLED SURFACE FEMORAL COMPONENT	NO	METAL	HA COATED
Tibial					
Score	10200501-10200507	COCR POLISHED TIBIAL BASEPLATE	YES		

Table 12: Revised Number of Score (cless)/Score (ctd) Primary Total Knee Replacement by Catalogue Number Range

Femoral Range	Tibial Range	N Revised	N Total
10200101-10200117	10200501-10200507	128	1679
TOTAL		128	1679