

Fig. E1
Thirteen-year Kaplan-Meier survival curve with all revisions for cup failure for any reason as the end point.

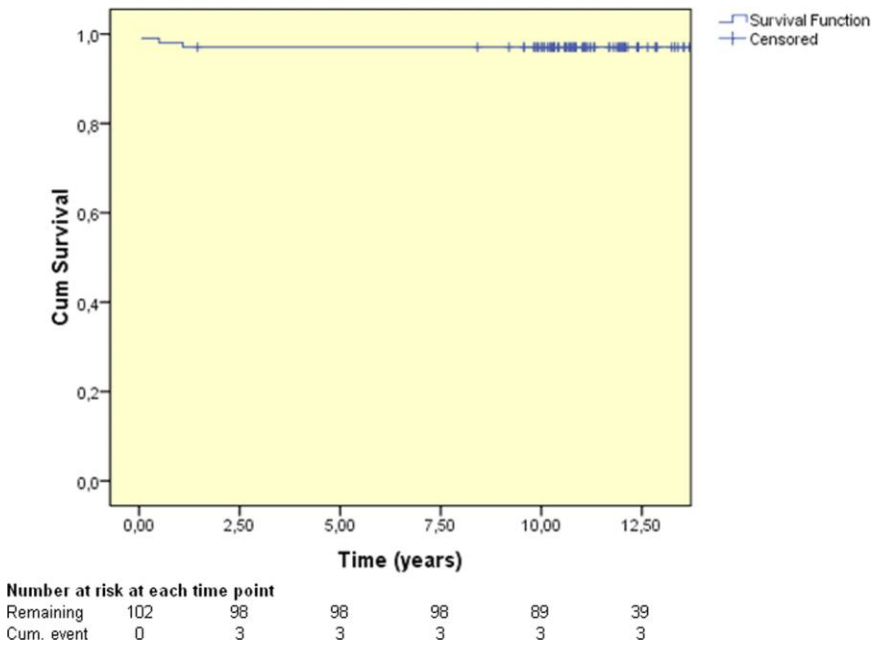


Fig. E2
Thirteen-year Kaplan-Meier survival curve with all revisions for stem failure for any reason as the end point.

TABLE E-1 Sizes of the Prosthetic Components

	No.
Head size	
28 mm	15
32 mm	87
Stem size	
7 mm	7
8 mm	10
9 mm	21
10 mm	20
11.25 mm	20
12.5 mm	17
13.75 mm	4
15 mm	3
Cup size	
48	2
50	14
52	28
54	28
56	13
58	17

TABLE E-2 Cox Regression Survival Analyses of the Effects (Depicted as Hazard Ratios) of Baseline Parameters on the Risk of Revision Due to Aseptic Loosening of the Acetabular Component

	Hazard Ratio	95% CI	P Value
Patient characteristics			
Sex (male vs. female)	1.33	0.32 to 5.49	0.58
BMI (kg/m ²)	1.12	0.94 to 1.33	0.22
Age at op. (1-yr increase)	0.95	0.88 to 1.04	0.27
Age at op. (10-yr increase)	0.62	0.27 to 1.45	0.27
Merle d'Aubigné-Postel score			
Pain	1.03	0.51 to 2.08	0.94
Motion	2.24	0.94 to 5.39	0.07
Walking	1.04	0.58 to 1.86	0.89
Total	1.14	0.84 to 1.55	0.39
Prosthesis component sizes			
Cup (mm)	0.90	0.70 to 1.17	0.44
Head size (32 vs. 28 mm)	2.32	0.28 to 19.2	0.43

TABLE E-3 Repeated-Measures Analysis of Variance of Effects of Relevant Parameters Influencing Merle d'Aubigné-Postel Score and Polyethylene Wear*

	Effect Size	95% CI	P Value
Merle d'Aubigné-Postel score			
Sex (male vs. female)	-0.66	-1.36 to 0.03	0.06
Cup component size (mm)	0.20	0.07 to 0.33	0.003
Time after surgery (yr)	0.26	0.21 to 0.32	<0.0001
Polyethylene wear			
Age at op. (per 10-yr increase)	-0.30	-0.46 to -0.13	0.001
Head component size (32 vs. 28 mm)	0.53	0.25 to 0.81	<0.0001
Cup component size (mm)	-0.03	-0.07 to 0.01	0.13
Angle of inclination (deg)	0.01	0.00 to 0.02	0.13
Angle of polyethylene wear (deg)	0.00	0.00 to 0.01	0.003
Time after surgery (yr)	0.10	0.09 to 0.11	<0.0001

*To obtain the best-fitting model, BMI, age at surgery, femoral component head size, angle of inclination, and polyethylene wear were removed from the Merle d'Aubigné-Postel score analysis and BMI, sex, and age at surgery were removed from the polyethylene wear analysis. In both analyses, associated p values were >0.50 and estimated effects on clinical scores were minimal.