

**Fig. E-1**

Fig. E-1

Radiograph, made twenty years postoperatively, showing moderate signs of stress shielding in the proximal part of the femur.

**Fig. E-2**

Fig. E-2

Radiograph, made 15.5 years postoperatively, showing one of the two instances of aseptic loosening of the femoral stem.

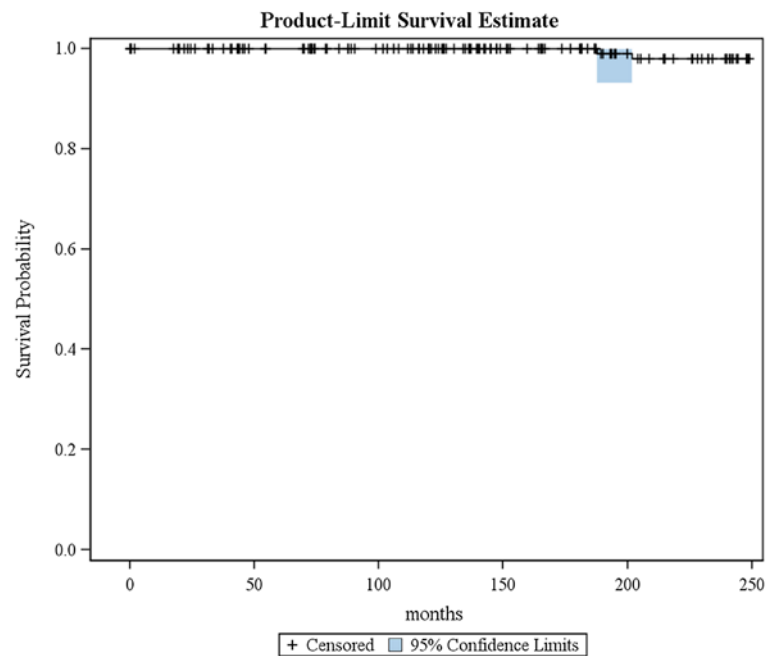
**Fig. E-3**

Fig. E-3

Kaplan-Meier survival curve for the femoral stem, with aseptic loosening as the end point.

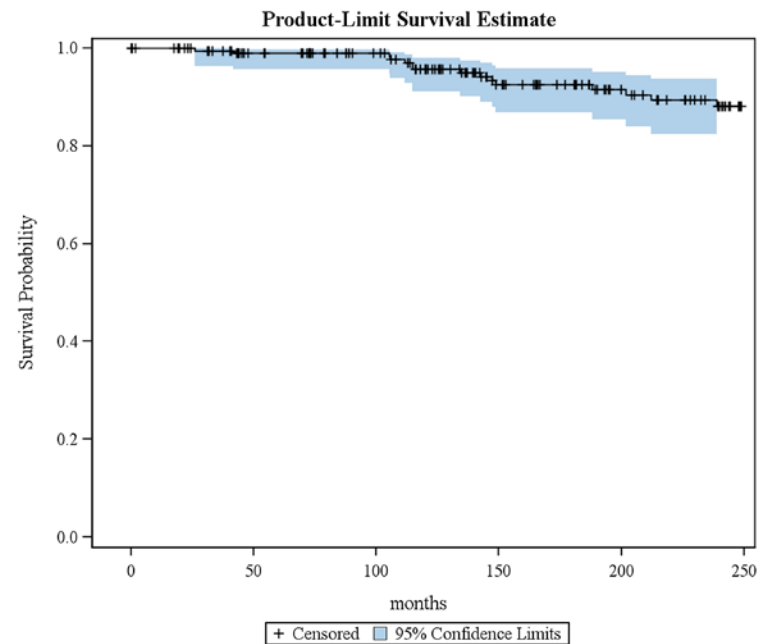
**Fig. E-4**

Fig. E-4

Kaplan-Meier survival curve for the acetabular component (excluding the polyethylene inlay), with revision for any reason as the end point.

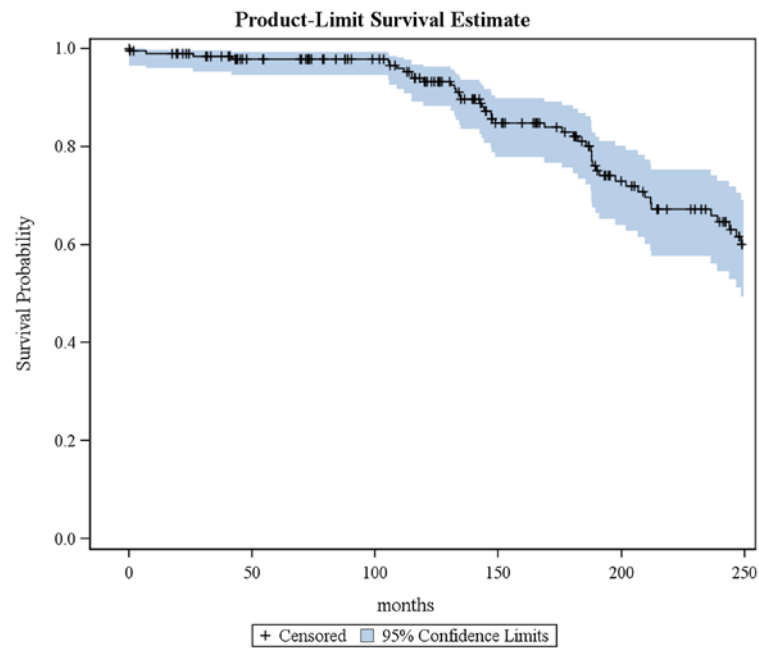


Fig. E-5

Kaplan-Meier survival curve for the stem and the acetabular component (including polyethylene liner), with revision for any reason as the end point.

TABLE E-1 Revisions in Chronological Order

Case	Sex	Age at Operation (yr)	Diagnosis	Time to Revision (yr)	Component Revised	Reason for Revision
1	F	66	Osteoarthritis	5 days	Stem	Malpositioning
2	M	49	Septic arthritis	0	None (irrigation and suction drainage)	Early infection
3	M	29	Dysplasia	2	Cup and stem	Multiple failed acetabular reconstructions
4	F	74	Osteoarthritis	3	Cup	Aseptic loosening
5	F	57	Dysplasia	8	Cup	Aseptic loosening
6	F	22	Rheumatoid arthritis	8	Cup	Aseptic loosening
7	F	49	Dysplasia	8	Cup	Breakage
8	F	66	Osteonecrosis	9	Polyethylene liner	Wear
9	M	67	Rheumatoid arthritis	9	Cup and stem	Infection
10	F	68	Osteoarthritis	9	Cup	Aseptic loosening
11	F	47	Osteoarthritis	9	Cup	Aseptic loosening
12	F	70	Osteoarthritis	9	Polyethylene liner	Wear
13	F	55	Osteoarthritis	10	Polyethylene liner	Wear
14	F	54	Osteoarthritis	10	Polyethylene liner	Wear
15	F	67	Osteoarthritis	11	Polyethylene liner	Wear
16	M	49	Osteoarthritis	11	Polyethylene liner	Wear
17	M	49	Osteoarthritis	11	Cup	Wear
18	M	60	Osteoarthritis	11	Polyethylene liner	Wear
19	M	51	Osteoarthritis	11	Cup	Aseptic loosening
20	F	55	Osteoarthritis	11	Polyethylene liner	Wear
21	M	64	Posttraumatic	12	Polyethylene liner	Wear
22	M	58	Osteoarthritis	12	Polyethylene liner	Wear
23	F	53	Dysplasia	12	Cup	Aseptic loosening
24	F	49	Dysplasia	14	Polyethylene liner	Wear
25	F	65	Osteoarthritis	14	Polyethylene liner	Wear
26	F	63	Osteoarthritis	15	Polyethylene liner	Wear
27	F	54	Osteoarthritis	15	Polyethylene liner	Wear
28	M	59	Septic arthritis	15	Polyethylene liner	Wear
29	F	62	Osteoarthritis	15	Polyethylene liner	Wear
30	F	56	Osteoarthritis	15	Polyethylene liner	Wear
31	M	50	Osteoarthritis	15	Stem	Aseptic loosening

32	F	41	Rheumatoid arthritis	15	Cup	Wear
33	F	61	Osteoarthritis	15	Polyethylene liner	Wear
34	F	59	Osteoarthritis	15	Polyethylene liner	Wear
35	F	52	Dysplasia	16	Polyethylene liner	Wear
36	M	39	Osteonecrosis	16	Cup and stem	Aseptic loosening
37	F	46	Dysplasia	17	Polyethylene liner	Wear
38	F	56	Osteoarthritis	17	Polyethylene liner	Wear
39	M	66	Osteoarthritis	17	Polyethylene liner	Wear
40	M	68	Osteoarthritis	17	Cup	Aseptic loosening
41	M	33	Posttraumatic	19	Polyethylene liner	Wear
42	F	52	Osteoarthritis	19	Cup	Wear
43	F	47	Osteoarthritis	20	Polyethylene liner	Wear
44	F	39	Ankylosis	20	Polyethylene liner	Wear
45	F	48	Dysplasia	20	Polyethylene liner	Wear